



NC Ecosystem Enhancement Program

**NUTRIENT OFFSET ACTUAL COST
PRICING METHOD
STAKEHOLDER DELIBERATION**

Final Report

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INTRODUCTION AND BACKGROUND

The North Carolina Ecosystem Enhancement Program (EEP), implements restoration projects that reduce nutrients entering the Neuse and Tar-Pamlico river basins. The Nutrient Offset Program is an option made available to developers in these river basins to help them comply with nutrient-sensitive-waters management strategies set by the Division of Water Quality (DWQ).

Since its establishment in 2001, the Nutrient Offset Program has received payments into the program and has restored riparian buffers and constructed stormwater wetland best management practices (BMPs). However, the original fees established for nutrient payments to the program were not sufficient to cover the costs of implementing restoration projects to achieve required reductions. DWQ conducted a rule-making process to revise the fees in 2005. Revised fees became effective in March 2006. Soon thereafter, the legislature rescinded the new fees, leaving the Nutrient Offset Program to operate under the original, insufficient fees.

At the same time, the General Assembly also commissioned a study to determine what the fees for the program should be, and following the study ratified Session Law 2007-438 which set the fees at their current levels. The Session Law also mandated the N.C. Department of Environment and Natural Resources (DENR) develop and implement a plan to transition the N.C. Ecosystem Enhancement Program Nutrient Offset Program from a fee-based system to a program based on the actual costs of providing nutrient credits.

EEP, in collaboration with DWQ, convened a group of key stakeholders to discuss the basic approach to setting actual-cost rates for its Nutrient Offset Program. The NC State University Natural Resources Leadership Institute (NRLI) coordinated with EEP to assemble the stakeholder group and guide its deliberations.

PURPOSE AND SCOPE

The purpose of the stakeholder deliberation process was to provide guidance to the Ecosystem Enhancement Program in transitioning from a fee-based system to an actual cost system as required by the General Assembly. The focus of stakeholder discussion and recommendations was on the pricing methodology. Topics not directly related to pricing were identified and recorded for possible future policy discussions.

The expected outcomes for stakeholders were to:

1. Share information and arrive at a common understanding of Ecosystem Enhancement Program planning and operations
2. Share information on the actual cost method proposed by EEP
3. Identify unknowns and uncertainties reflected in the proposed actual cost method
4. Strive toward an agreement on specific components of the actual cost method to be adopted by EEP including
 - a. Frequency of rate adjustments
 - b. Geographic area (cataloging unit, basin, or state) to which rates will be differentiated
 - c. Application of inflation parameters

STAKEHOLDERS, CONVENERS AND FACILITATORS

STAKEHOLDERS

Stakeholders who participated in the meetings were identified by EEP staff and by other stakeholders. EEP staff provided NRLI staff with an initial list of key individuals whom they had either worked with on issues related to the Nutrient Offset Program and/or who had attended meetings on the Nutrient Offset Program organized by state legislative staff the previous year. EEP staff prioritized the list of participants for later contact by NRLI staff for pre-deliberation interviews. During those interviews, stakeholders were asked to recommend other individuals who should participate in the deliberation process. Stakeholders initially identified by EEP and those who were identified by other stakeholders are shown in Table 1. All but one stakeholder listed in Table 1 were included in informational email postings for disseminating meeting summaries and informational presentations. Some key contacts chose not to attend stakeholder meetings. Most who did not attend assigned others to represent them. Some participants shown in Table 1 were not interviewed by NRLI staff in the pre-deliberation

assessment, but attended the meetings (either assigned by a superior to attend or were brought in later).

Table 1. Stakeholder Participants and Organizations

Name	Organization	Meetings Attended (listed by date)			
		2/4/09	3/25/09	4/8/09	6/12/09
Marty Anderson	City of Goldsboro				
Alissa Bierma	Neuse River keeper Foundation	x	x	x	x
Karen Brashear	City of Goldsboro				
Charles Brown*	Town of Cary	x	x	x	x
Derb Carter	Southern Environmental Law Center				
Anne Coan**	NC Farm Bureau Federation			x	x
Chandra Coats	Johnston County				
Elizabeth Dalton	NC Retail Merchants Association				
Glenn Dunn	Poyner and Spruill	x			
Cindy Finan	Neuse River Compliance Association				
Matt Flynn	Town of Cary				
Jamie Guerrero	Johnston County	x	x		x
Randy Guthrie	City of Goldsboro				
Jonas Hill	Pitt County			x	
John Hutton***	Wildlands, Inc.				x
Heather Jacobs Deck	Pamlico-Tar River Foundation	x	x	x	
Troy Lewis	City of Tarboro				
Lisa Martin	NC Homebuilders Association				
Grady McCallie	NC Conservation Network				
Paul Meyer	NC Assoc of County Commissioners	x			
Nancy Nixon	Nash County				
Haywood Phthisic	Johnston County	x	x	x	x
John Preyer	Restoration Systems, Inc.				
Barrett Jenkins	Restoration Systems, Inc.		x		x
Adam Riggsbee	Restoration Systems, Inc.	x	x	x	x
Joe Rudek	Environmental Defense Fund	x	x		x
Kathryn Sawyer	Amer. Council of Engineering Companies/NC				
Mike Schlegel	Triangle-J Council of Government	x	x	x	x
Paul Wiebke	City of Durham				
Sandi Wilbur*	City of Durham	x	x	x	x
Erin Wynia*	NC League of Municipalities		x	x	

*Did not participate in pre-deliberation interview

**Contacted after 3/25/09 meeting

*** Not included in informational email postings

CONVENERS

The stakeholder process was sponsored and convened by the NC Ecosystem Enhancement Program with cooperation from the Division of Water Quality. EEP and DWQ staff attended every meeting (see Table 2). They provided information to stakeholders during meetings and discussed and deliberated the issues with the other stakeholders. EEP and DWQ staff attending the stakeholder meetings are listed in Table 2. One representative from each agency was authorized by the stakeholder group to vote on issues before the group.

Table 2. EEP and DWQ Staff Attending Stakeholder Meetings

Name	Organization	Meetings Attended (listed by date)			
		2/4/09	3/25/09	4/8/09	6/12/09
Robert Brown	NC EEP	x	x	x	x
Eric Ellis	NC EEP	x	x	x	x
Bill Gilmore	NC EEP	x	x	x	x
Suzanne Klimek*	NC EEP	x	x	x	x
Kristin Miguez	NC EEP	x	x	x	x
Jim Stanfill	NC EEP	x	x	x	x
Kelly Williams	NC EEP	x	x	x	x
Susan Lockwood	NC EEP		x	x	x
David Robinson	NC EEP			x	
Bill Diuguid	NC DWQ	x	x	x	x
Rich Gannon*	NC DWQ	x	x	x	x
Eric Kulz	NC DWQ	x			
John Huisman	NC DWQ	x	x	x	x

*Authorized voting representative

FACILITATORS

Deliberations of the EEP Nutrient Offset stakeholder group were facilitated by Steve Smutko and Mary Lou Addor of the NC State University Natural Resources Leadership Institute (NRLI), under contract with EEP. The primary tasks of the facilitators were to guide the meetings to stay within the bounds agreed under the process rules. Responsibilities included managing the committee's agenda, keeping written records of meetings, helping the group stay on task and on process, and helping members find areas of agreement on issues related to pricing. The facilitators did not express their views on any substantive issues and were solely concerned with the process of the group.

PRE-DELIBERATION ASSESSMENT

Prior to convening these meetings, NRLI staff contacted key stakeholders and organizations and interviewed 22 people to gather information about their willingness to engage in discussions about the cost-based system and the issues that they see that are important to resolve (See Appendix A for the full report). Specifically, information was gathered on the following topics:

- Stakeholders' understanding of the Nutrient Offset Program
- Key issues regarding nutrient offset pricing
- Stakeholders' perspectives on the characteristics of an optimum pricing method
- Key concerns with EEP's proposed actual cost method of nutrient offset pricing
- Ideas that stakeholders have for potentially resolving these concerns that might be acceptable to all parties
- Stakeholders' perspectives of a successful outcome of these meetings
- Data or information that stakeholders need for meaningful engagement in a discussion on pricing methods
- Conditions that must be in place for their participation in stakeholder meetings (e.g., other stakeholders who should or should not be present, data that should be available, meeting location and time, etc)

The key issues that the stakeholders believed that EEP should be taking into account in restructuring their program related not only to basic accounting matters such as covering costs, but also touched on accountability and transparency of the agency, geographic equity, juxtaposition of impacts and mitigation, and competition with private mitigation banks. Based on the information we gathered through the stakeholder interviews, NRLI made the following recommendations:

CONVENE STAKEHOLDERS

Key stakeholders are willing and able to meet and discuss the nutrient offset payment program. NRLI recommend involving stakeholders who represent the following organizations or interests:

- a. Local governments, particularly those that have experience in implementing the nutrient offset payment program in the two affected river basins, urban and rural.
- b. Conservation organizations active in water quality protection.
- c. Organizations representing development interests.
- d. Firms involved in mitigation banking and developing projects for nutrient offsets.
- e. State agency staff from EEP and DWQ.

SPEND TIME ON MUTUAL EDUCATION

Although most stakeholders were generally familiar with the nutrient offset payment program, many lacked information about program specifics. Moreover, many were keenly interested in

understanding EEP's program activities. NRLI recommended that EEP provide stakeholders with a detailed listing of nutrient offset payments, nutrient offsets (in pounds of N and P), and the type, cost, and nutrient reduction outcomes of projects undertaken.

FOCUS ON THE PRIMARY PURPOSE

The purpose of this effort was to provide stakeholders an opportunity to provide guidance to EEP in transitioning the nutrient offset payment program from a fee-based system to an actual cost method. NRLI strongly recommended that the topics under discussion at the stakeholder meetings should be limited to the attainment of this goal.

CONSIDER EEP'S ROLE IN PUBLIC AND PRIVATE IMPLEMENTATION

A wide range of alternative operational structures can be developed to implement a nutrient offset trading system. Stakeholders from nonprofit organizations, local government, and private firms wanted to see private mitigation efforts continue. To the extent that it affects decisions about the establishment of a cost-based method, NRLI recommended that EEP engage stakeholders in discussions centered on choices among public and private alternatives for acquiring nutrient credits, as well as EEP's role of planning, rule-making, and oversight.

PROVIDE KEY UNKNOWNNS AND DECISION POINTS

NRLI recommend that EEP staff present the key points in their proposed actual cost method where they need feedback and information from stakeholders and to focus discussion on these.

STRIVE TOWARD COMMON UNDERSTANDING

NRLI recommended that the stakeholder process should not be structured for a consensus outcome. Rather, the process should be used to find areas of consensus on specific program parameters and document areas where agreement could not be reached, rather than focus on a consensus goal.

DECISION PROCESS

The facilitators developed a streamlined process design that provided sufficient structure for the group to gather and share information about the Nutrient Offset Program and the interests of their respective organizations and constituents, deliberate the merits of alternative proposals, and seek efficient and effective solutions. The process guidance consisted of a

description of process roles for all involved, a decision rule, ground rules for governing behavior during the meeting, and a method for handling off-agenda topics.

ROLES

- a. Stakeholders: responsible for disclosing interests, needs, actions, and issues in a timely manner and committing to the purpose of the stakeholder process. Stakeholders will be expected to represent the interests of (1) themselves, (2) organizations which they have the authority to represent, or (3) groups of constituents with similar interests.
- b. Facilitators: responsible for helping the group stays on process and on topic, promoting open and balanced discussion, and organizing information for effective use.
- c. EEP: responsible for convening the group, providing basic information about the cost-based pricing method and the nutrient offset payment program generally.
- d. DWQ: responsible for assisting with understanding content and any agency policies that pertain to the formula.

DECISION RULE

When the group presents proposals for consideration, each stakeholder (1 representative per organization) will designate his or her level of agreement using the following scale:

- Level 1: Endorsement (I like it)
- Level 2: Endorsement with a minor point of contention (basically I like it)
- Level 3: Agreement with reservations (I can live with it)
- Level 4: Stand Aside (I don't like it but I don't want to hold up the group)
- Level 5: Block (I will not support the proposal and will act outside the group to meet my interests)

The final report will show at which level individuals or groups supported the final product. The focus for each stakeholder should be on making good decisions for his or her constituency, not simply to reach agreement.

GROUND RULES

- a. Work the problem, not the person.
- b. Allow others to contribute to the discussion
- c. Follow the process
- d. One speaker at a time
- e. Off-agenda items will be noted and dealt with at the end of each meeting
- f. Take breaks as needed
- g. Turn off cell phones or place them on vibrate
- h. Test your assumptions by asking questions

PARKING LOT

Topics not considered by the group to be germane to the day's agenda will be listed on a separate flip chart under the heading "Parking Lot." Prior to adjourning each meeting, the facilitators will review parking lot items, and the group will determine how (and possibly when) each item will be handled.

STAKEHOLDER DELIBERATIONS

The stakeholders met on four occasions between February and June, 2009. In addition, a subcommittee of stakeholders, the Credit Yield Subcommittee, met on two occasions to discuss issues related to potential changes in the way that credit yields are calculated. The four stakeholder meetings are briefly summarized below. The complete summaries of the four stakeholder meetings and one Credit Yield subcommittee meeting (notes were not recorded for the 2nd subcommittee meeting) are contained in Appendix B. The outcomes of the stakeholder deliberations are contained in a following section of the report titled *Outcomes*.

MEETING 1: FEBRUARY 4, 2009

The purpose of the first meeting was to orient the stakeholders to the issues related to developing a pricing method for the Nutrient Offset Program.

PRESENTATIONS

The **facilitators** reviewed the purpose of the stakeholder group, the scope of their tasks, reviewed the decision making process and presented the results of the stakeholder assessment.

John Huisman from the Division of Water Quality Non-Point Source Planning Unit gave a presentation on the nutrient management strategies for the Tar-Pamlico and Neuse river basins. John's presentation focused on four aspects:

- 1) Why we have nutrient strategies in the first place
- 2) What the strategies are comprised of (not in intense detail)
- 3) Overview of the different components
- 4) Role of the EEP Nutrient Offset Program

Kelly Williams, Ecosystem Enhancement Program In-Lieu Fee Coordinator, presented the history and status of the EEP Nutrient Offset Program.

Suzanne Klimek, Ecosystem Enhancement Program Operations Director, reviewed the handout on Session Law 2007-438.

Jim Stanfill, Ecosystem Enhancement Program Strategic Planning Supervisor, gave a presentation on the proposed Actual Cost Method (ACM). The formula is described in the following section titled *Key Issues, Options, and Choice Criteria*. Jim's presentation covered three key points:

- a. Actual cost objectives
- b. Overview and details of the actual cost method (the ACM formula)
- c. Issues and choices in the actual cost method
 1. Frequency of adjustment
 2. Geographic application

DISCUSSION

The stakeholders identified the following issues for discussion in future meetings:

1. Full Cost - subsidizing DWQ oversight?
2. How costs are computed
3. How to address Nitrogen and Phosphorus in the Tar-Pam
4. Disposition of projects beyond maintenance period
5. How and whether to use private sales prices in cost calculation
6. A private sector non-competition rule?
7. Distance from water body of concern in the credit calculation

ITEMS REMAINING IN THE "PARKING LOT"

1. Mitigation rate assessment for Point Source (Haywood would like to explore this; forum is with DWQ - who?)
2. Geographic application of storm water rules (DWQ- form small work group that is interested in this topic?)

MEETING 2: MARCH 25, 2009

PRESENTATIONS

The **facilitators** opened the meeting with a review of purpose, scope and decision rules of the stakeholder process, followed by a brief summary of the February 4 meeting.

Suzanne Klimek, NC EEP, informed the group of information requests that EEP had received by members of the stakeholder group since the previous meeting, and shared the information with the entire group.

In response to questions raised by stakeholders at the February 4 meeting about the accounting method for the nitrogen and phosphorous offset payments in the Tar-Pamlico River Basin, **John Huisman**, NC DWQ, provided and reviewed a handout on that topic. Between the February and March meetings, staff from NC DWQ and EEP met to discuss how to account for both offset values of nitrogen and phosphorus. They proposed a model where offset needs for both nutrients are charged separately and payment is made by the developer for each nutrient in the amounts needed, rather than using a hybrid fee that covers both. Using this accounting method, the resulting payments are anticipated to be less.

Huisman noted that DWQ is interested in evaluating potential modifications to the method currently used to calculate the credit yield for nutrient reduction projects. Because changing the method of calculating credit yield will have a direct implication on the price of nutrient offsets, it was proposed that a subset of the stakeholder group participate in discussions of the subject. The following individuals signed up to participate on this subcommittee:

1. John Huisman, NC DWQ
2. Rich Gannon, NC DWQ
3. Suzanne Klimek, NC EEP
4. Adam Riggsbee, Restoration Systems
5. Alissa Bierman, Neuse River Foundation
6. Joe Rudek, Environmental Defense Fund
7. Sandi Wilbur, City of Durham
8. Jamie Guerrero, Johnston County
9. Charles Brown, Town of Cary

Jim Stanfill, NC EEP, continued his presentation on transitioning the EEP Nutrient Offset Program to an actual cost method, focusing on the application of the adjustment factor and the use of inflation indices.

DISCUSSION

With the assistance of the facilitators, the stakeholders identified their interests with respect to transitioning to an actual cost method, as well as common criteria to use when evaluating proposals and recommendations. They then proceeded to identify the set of issues germane to the actual cost method that they wanted to deal with. From that list, they proposed potential options for addressing the key issues. The lists of interests, evaluation criteria, issues and options are contained in the following section of the report titled, *Key Issues, Options, and Choice Criteria*.

MEETING 3: APRIL 8, 2009

PRESENTATIONS

The meeting was opened by the **facilitators** who again reviewed the purpose, scope and decision rules of the stakeholder process, and followed with a brief summary of the previous meeting.

Suzanne Klimek, NC EEP, brought the group up to speed on information requests that had been made by members of the stakeholder group since the previous meeting, and shared the information with the entire group.

David Robinson, NC EEP, gave a presentation on methods for making forecasts of future offsets for use in calculating actual costs. Two alternatives were presented, linear trend, and moving average.

Jim Stanfill, NC EEP, presented several scenarios applying the actual cost method at different geographic scales – program level (both Neuse and Tar Pamlico basins), river basin level, and 8-digit hydrologic catalog unit. The presentation focused on four broad issues and choices for deliberation by the stakeholder group: (1) appropriate geographic application; (2) frequency of adjustment; (3) length of adjustment period; and (4) direction of adjustment (i.e., whether negative adjustments should be applied).

DISCUSSION

Much of the discussion following Jim Stanfill's presentation focused on issues related to applying an **adjustment factor** to ensure that program expenses and receipts remain in balance. How often rates would be adjusted, and at what geographic level those adjustments would be made occupied much of the discussion time. It was pointed out that using a 3-year moving average as the basis for estimating offset payments will always result in an adjustment lag. Stakeholders were also concerned about price differences and price volatility across basins and cataloging units, depending on how the program is set up.

Another issue related to the adjustment factor that was discussed at length was the prospect of "**truing up**" in the first year of the program. That is, matching historic receipts and expenses at the program level so that the net balance is zero or close to zero when the new rate is set. EEP staff pointed out that this is possible at the program level, but not at smaller geographic scales such as basin or cataloging unit. This brought up the issue of what to do with unused credits resulting from projects that provide more nutrient mitigation than what was needed. These credits are currently treated as advance mitigation and can be purchased as offsets. One suggestion that was discussed was the option of **retiring unused credit** and "donating" it to the environment. Two alternatives were discussed related to retiring assets or credits: retiring all assets, or retiring 50 percent.

Much of the discussion on rates and rate adjustment was centered on **scale of program geography**. The geographic options discussed were program level (i.e., one rate for each nutrient, N and P), basin level (one rate for each nutrient in each of the two basins), hydrologic cataloging unit (CU), and special areas (Neuse 01, Jordan Lake watershed, Falls Lake watershed, High Rock Lake watershed). Applying rates at a small scale, such as the 8-digit CU, would result in mitigation occurring closer to the development location, which many stakeholders desired, but would require many different rates across each basin. Moreover, prices would likely need to be adjusted more frequently because fewer transactions increase the discrepancies between expenses and receipts. Whether to apply rates at the basin level or program level also engendered significant discussion. Some stakeholders voiced concern that the dearth of transactions in the Tar-Pamlico basin, coupled with the fact that two nutrients are regulated there, results in too many separate rates and too much price volatility.

Administrative expenses was also a topic of discussion, although a minor one. Some stakeholders wanted clarity on how these were calculated and whether they are sufficiently comprehensive to reflect the program's true costs.

In closing the discussion, the facilitator took a straw poll of where the group was leaning with respect to rate adjustments, retirement of assets, and geographic scale. The stakeholders crafted a proposal that combined all of these elements:

1. Reset the difference in program expenses and receipts to zero at the program level in the initial year.
2. Use a program level rate for N except in the Neuse 01 and other high cost areas that may come on line in the future (e.g., Jordan Lake watershed).
3. As transactions accumulate at the CU level in future years and receipts and revenues stabilize, begin charging rates at the CU level.

Two options were attached to this blanket proposal and separately voted on. The options and the voting results were:

- A. Retire 50 percent of unused credit or assets in the initial year and donate to the environment. **In Favor: 7; Opposed: 3**
- B. No retirement of assts. **In Favor:8; Opposed: 4**

The stakeholder group did not have time to discuss **direction of adjustment**.

MEETING 4: JUNE 12, 2009

PRESENTATIONS

The meeting was opened by the **facilitators** who again reviewed the purpose, scope and decision rules of the stakeholder process, and followed with a brief summary of the previous meeting.

Suzanne Klimek, NC EEP, presented information requests that had been made by members of the stakeholder group since the previous meeting, and shared the information with the entire group. Several stakeholders reiterated earlier concerns to EEP about providing program information. In response, Suzanne noted EEP's significant efforts to be more transparent and emphasized that most of the information requests are currently available, are published quarterly or annually in EEP's reports, and have been provided to other organizations. She noted however, that it is not always clear what information is valuable to the public in order to get ahead of the requests. An outcome of this discussion was the following action item:

Suzanne Klimek will call Adam Riggsbee to discuss the kinds of information that might be of value to the stakeholder group or others with similar interests.

John Huisman, NC DWQ, gave an update of the progress and the recommendations of the Credit Yield subcommittee. The subcommittee met twice during the interim, May 4 and June 4. Two recommendations resulted from the meeting discussions:

- a. Keep the current credit yield calculation in place for now, but use site specific drainage areas contingent upon a review of actual drainage area data for existing projects. Convene a group of technical experts to examine the buffer credit yield calculation issues with the subcommittee members as a separate process.
- b. Keep existing credit method for now and move ahead with ACM. Convene experts to sort out issue as separate process.

The Credit Yield subcommittee planned to meet at a later date and continue their discussions about the recommendations and other policy issues of interest.

Jim Stanfill, NC EEP, presented additional information on the actual cost method and outlined the following proposals for the group to consider:

Geographic Application:

1. Apply separate rates to designated areas
 - a. Neuse 01 Nitrogen Rate
2. Use a program rate for nitrogen
3. Use a program rate for phosphorus

Rate Adjustment:

1. Recalculate Rates Annually or Quarterly if:
 - a. Average cost of new projects rises >10%
 - b. Or unencumbered cash is less than future contract costs
2. Rate Adjustment Length and Amount:
 - a. Adjustment length = 4 years

- b. Use a three-year running average for forecasting average annual pounds of nutrient offsets expected to be purchased in future years when calculating the adjustment factor

Adjusting for Inflation

1. Land Costs –NCDA Agricultural Statistics -Farm Real Estate Values
2. Other Costs –USACE Civil Works Construction Cost Index

Administration Costs

1. Administrative costs per payment will be limited to 8 years

Base Cost

1. Adjust all costs to current dollars in the cost calculation formula.

Treating these proposals as assumptions in the cost model, Jim demonstrated the cost per pound of nitrogen offsets in the Neuse01 cataloging unit, Nitrogen offsets everywhere else, and phosphorous offsets in the Tar-Pamlico. As shown in the Table 3, below:

Table 3. Nutrient Offset Rates Estimated Using Proposed Calculation Parameters.

<u>Program Unit</u>	<u>Rate</u>	<u>=</u>	<u>Present Day</u>	<u>+</u>	<u>Adjustment Factor</u>
Neuse 01	\$21.75/lb	=	\$21.75/lb	+	(\$1.49)/lb
Program N	\$25.41/lb	=	\$14.69/lb	+	\$10.72/lb
Program P	\$156.08/lb	=	\$82.08/lb	+	\$74.01/lb

DISCUSSION

Following Jim’s presentation, the group discussed the **ramifications of policy changes** on the Actual Cost Method rules. Of specific interest was whether new rules governing the Falls Lake watershed would require another rule change in the Actual Cost Method. It was agreed that the ACM rules would not have to be changed, but that any new rule would reference the use of the ACM. It was also noted by EEP staff that potential changes in **credit yield** (a policy change) are automatically reflected in the actual cost rate. Project costs would reflect that change and rates would adjust accordingly.

Of particular interest and discussion by the group was the issue of **advance mitigation and retirement of assets**. EEP made clear its interest in pursuing advance mitigation so that mitigation precedes impacts. During the morning and afternoon session, Jim and other EEP staff acknowledged that the retirement of assets is an important discussion but not one EEP can move forward on at this time. Foremost, none of the current EEP projects are completed and closed out. Mitigation credits are not certified complete credits until closeout. Any retirement prior to close out would be premature and could create significant financial and mitigation compliance risk to the program. Second, EEP does not have the financial resources to consider

reducing mitigation credits for donation purposes. Third, retiring unused credits results in eliminating advanced credits which is a primary goal of the Program. Advanced credits are preferable to producing mitigation after the impact. Fourth, it is unclear whether or not the Nutrient Offset Program could legally consider donating unused mitigation credits and thus increase the cost of future applicants. EEP is required to produce mitigation at the least cost and donating certified unused credits would result in unnecessary increased costs to customers. This issue is most pronounced in low demand areas which is where the identified credits exist. Stakeholders concerned with this issue were interested in pursuing this conversation at a later point if possible – potentially at a future meeting of the credit yield subcommittee.

One stakeholder had a question about the choice of **inflation indices** being limited to land prices and construction costs. The issue was whether these two adequately reflect changes in administrative costs, and whether the Consumer Price Index might be useful here. EEP staff responded that they had investigated the use of the CPI, but that the construction cost index is more reflective of the Nutrient Offset Program, and that administrative costs are included in the ACM.

Comments were again brought up about the **scale of program geography**, i.e., one rate to cover both basins, or multiple rates to cover separate basins and cataloging units. Greenville, for example, is in two basins and three cataloging units. Different rates could have the effect of driving development in some areas and away from others.

Toward the end of the meeting, the facilitator took two polls to see where the group stood regarding the outstanding issues of geographic application of rates (geographic scale) and length of adjustment period. The results of the poll and a summary of the issues in which the stakeholders reached consensus and those items lacking consensus are contained in the section of the report titled *Outcomes*.

KEY ISSUES, OPTIONS, AND CHOICE CRITERIA

ACTUAL COST METHOD CALCULATION

Most of the discussion by the stakeholders was centered on issues related to the formula for calculating the price per pound of nutrient offsets. The formula, called the Actual Cost Method or ACM, is shown below:

$$\text{Actual Cost Rate} = \frac{\text{Actual Costs in Period } t}{\text{Total lbs Offset in Period } t} + \text{Adjustment Factor}$$

Actual Costs = Project Costs + Administration Costs

$$\text{Adjustment Factor} = \frac{\text{Actual Costs in Period } t - \text{Actual Receipts in Period } t}{\text{Future Expected lbs of Offset Purchased during Adjustment Period}}$$

CALCULATION NOTES:

- (a) *Actual Costs* are calculated using project and administrative expenses in Period *t*. Project expenses include existing projects, future projects, completed projects and terminated projects.
- (b) *Period t* is a timeframe spanning from the start of the Nutrient Offset Program forward to a time in the near future when ongoing projects are scheduled to be completed.
- (c) *Total lbs Offset* is the total amount of the given nutrient (N or P) in pounds that was actually or potentially mitigated by existing, future, completed and terminated projects in Period *t*.
- (d) The *Adjustment Factor* is the rate per pound in which the difference between *Actual Cost* *Actual Receipts* is distributed to future payments made to the Nutrient Offset Program. Rates are adjusted upward or downward based on this difference.
- (e) *Actual Receipts* are the payments collected in the Nutrient Offset Program in *Period t*.
- (f) *Future Expected lbs of Offset Purchased during Adjustment Period* is the total amount of the given nutrient (N or P) in pounds expected to be purchased in the Nutrient Offset Program during the *Adjustment Period*. This term is calculated as the average pounds purchased over the three previous years (3-year moving average) and multiplied by the *Adjustment Period*.
- (g) The *Adjustment Period* is time over which the difference between *Actual Costs* and *Actual Receipts* are distributed to future payments.
- (h) Future project costs are inflated from current expenses using selected inflation indices
- (i) Past project expenses and receipts are adjusted to current dollars.

The ACM must meet the following objectives:

- Must use actual costs of generating nutrient reduction credits.
- All costs must be accounted for in the method.
- Must be a self-sustaining financial model.
- Rates must change (upwards or downwards) as actual costs change.
- Method must be applicable at either cataloging unit (CU), basin, or program levels.
- Must be applicable to either nitrogen or phosphorus offsets.
- Must be understandable and easy to use.
- Must be predictable and equitable.

ISSUES AND CHOICES

The stakeholder group was initially presented with the following issues and choices related to the application of the Actual Cost Method:

1. Frequency of adjustment: how often rates are evaluated and adjusted, and the period over which future receipts will be apportioned to cover rate adjustments.
2. Geographic application: the geographic scale over which rates will be calculated and applied. Options include per 8-digit cataloging unit, per river basin, over the entire geographic coverage of the program, or some combination.
3. Utilizing inflation to determine actual cost of incomplete projects: the appropriate inflation index or indices to use.
4. Establishment of actual cost method in rule: how the cost method would be applied in the rule.

After the stakeholders became familiar with the ACM and shared their interests and concerns with one another, they added to the list of discussion items that they wished to address. The amended list of issues and choices is as follows:

1. Frequency of adjustment
2. Geographic application
3. Inflation method
4. Apportioning offsets for nitrogen and phosphorous on the Tar-Pamlico basin
5. Setting a floor on the adjustment factor
6. How to address the costs of indefinite maintenance
7. Percent cost increase/decrease threshold for triggering adjustment
8. How to evaluate the different types of projects in estimating future costs
9. Options in the event of accumulated credits (example: wiping the slate clean and donating overage to environment)
10. Address the least cost requirement (see hot spots)
11. Accounting for lag time from action to mitigation
12. Factor "hot spots" into geographic determination
13. Least cost mitigation
14. Generate adequate funds to do BMP projects in urban areas; move mitigation closer to source.
15. Tax implications to counties for state purchased property.
16. Loss of opportunity for farmers to reach reduction goals
17. Accurately estimating reduction for given projects.

Because of the defined limitations on the purpose and scope of the stakeholder deliberations, and short amount of time available to discuss these issues, many of these issues were redirected to the Credit Yield Subcommittee, incorporated in discussions of more comprehensive issues, or simply not addressed.

OPTIONS

The stakeholders generated potential options for the three issues that they considered most important. Discussion of these options formed the basis of most of the deliberations of the stakeholder group.

1. Inflation Adjustment Options
 - a. US ACE construction cost index
 - b. Composite index (construction, property and services)
 - c. Service index
 - d. Consumer price index
 - e. Multiple indices (construction, property and services)

2. Options for Frequency of Adjustment
 - a. Next Payment
 - b. Quarterly
 - c. Annually
 - d. Greater than annually
 - e. Percentage change trigger
 - f. Procurement quantity
 - g. Combination (change in actual costs)
 - h. Based on regulatory change

3. Options for geographic application
 - a. 8-digit cataloging unit (service area)
 - b. Basin level
 - c. Program level
 - d. Mitigate at the 8-digit but use a larger accountability region
 - e. Apply basin-level estimates to all variables except land acquisition. For land acquisition, use costs at the CU level.
 - f. *Go to EMC to change mitigation level to smaller than 8 digit cataloging unit.
 - g. *Go to EMC to change mitigation options so as to preclude mitigation hot spots and correct current hot spots.

- h. *Include a 'transport factor' to address regional delivery reduction differences.
- i. *Price out different BMP options to enable application in urban areas.
- j. *Require BMPs through the permit process.

Note: Items identified by an asterisk () are beyond the stated purpose and scope of the stakeholder process since they require action by EMC and/or legislature.*

CRITERIA FOR EVALUATING OPTIONS AND CHOICES

The stakeholder group developed two types of criteria for evaluating the options and choices for applying the Actual Cost Method. The first type of criteria are those that were deemed relevant and important by all stakeholders for evaluating options. These were:

1. Reduce price volatility and maintain price stability
2. Increase price predictability
3. Reduce administrative costs required to adjust prices
4. Keep size of adjustment to tolerable levels
5. Reduce differences between expenses and receipts
6. Keep the number of rates in use within tolerable levels
7. Keep computation complexity within tolerable levels
8. Keep regional price differentials within tolerable levels
9. Reduce the risk of under collection

The second set of criteria were the interests of individual stakeholders, those things that were most important to them and their constituents. They are not shared by all stakeholders, and in fact, could potentially be antithetical to the interests of other stakeholders. To arrive at this set of criteria, the stakeholders were asked to respond to the question: What is important to you relative to transitioning to an actual cost method? The stakeholders identified the following interests:

1. Fair and equitable system for the river basin (all jurisdictions) or statewide.
2. Clear and concise accounting.
3. ACM is clear in its functionality.
4. Predictability of rate changes in respect to cost and time
5. Notification to public regarding rate changes.
6. Use market value appropriately.
7. Costs reflect the market enabling competition
8. Minimize costs to purchases

9. Applicant gets benefit of price fluctuation
10. Get the costs right, the actual costs
11. Reflects actual costs
12. Actual costs covers all costs
13. Restoration and impact are in close proximity
14. Account for the environmental cost of creating mitigation after the impact
15. Environment benefits
16. Provide best environmental lift at lowest costs.
17. Ecological benefit of mitigation is credited (accounted for and paid one time).
18. Formula (ACM) and use of does not result in pollution or mitigation of "hot spots" due to land costs differences and how they are reflected in the formula (appropriately small geographic scope).
19. Account for the actual cost per pound of existing projects
20. Science and economics are adjusted simultaneously.
21. Actual Cost Method is in rule that allows rates to automatically adjust up and down based on actual costs.
22. Ability to adapt prices to new realities
23. Do not deviate from historical fee area if not necessary.

Discussions of the stakeholder group during the April and June meetings were centered on developing and evaluating various options for applying the ACM as proposed by EEP staff and other stakeholders. Using the joint and individual criteria to evaluate options, the stakeholders were able to align on some issues, reaching agreement on how the ACM should be applied. On other issues where their interests differed or were in conflict, they did not reach agreement. The outcomes of their deliberations are summarized in the following section.

OUTCOMES

After four meetings the stakeholders were able to find common ground on several important issues that will form the basis of the EEP Nutrient Offset Program Actual Cost Method. Stakeholders were in general agreement over accounting procedures such as the application of inflation indices and normalization of expenses and receipts to current dollars, as well as splitting pricing among both regulated nutrients in the Tar-Pamlico Basin. However stakeholders were not able to reach consensus on all issues before them. Key areas in which they could not agree related to geographic application of rates and frequency of adjustment. Disagreement on both of these issues centered on whether stakeholders preferred prices that

reflect differences in key cost drivers such as geographic location and frequency of transactions, or whether they preferred a more uniform price structure.

AREAS OF AGREEMENT:

The stakeholder group came to agreement on the following choices regarding the actual cost method:

Base Price Calculation

1. The price per pound of nutrient offset for new projects will be estimated using program cost data adjusted to current prices.

Inflation Adjustment

2. The following inflation indices will be used to forecast future costs of ongoing and future projects:
 - Land Costs – NCDA Ag. Statistics -Farm Real Estate Values
 - Other Costs – USACE Civil Works Construction Cost Index

Frequency of Adjustment

3. A three-year running average will be used for forecasting average annual pounds of nutrient offsets expected to be purchased in the future when calculating the adjustment factor.

Pricing Nitrogen and Phosphorous in the Tar-Pamlico Basin

4. In the Tar-Pamlico basin where developers have offset needs for both nitrogen and phosphorous, the Actual Cost Method should provide rates that reflect each nutrient fee rather than a hybrid fee that covers both nutrients.

ISSUES LACKING CONSENSUS

1. Frequency of Adjustment

The Frequency of Adjustment affects the number of payments used in calculating the adjustment factor. If prices are adjusted frequently, i.e., adjustments are based on few payments, then adjustments could be volatile and unpredictable. If prices are adjusted over a longer period of time, there is the risk that accumulated costs and receipts will deviate significantly in the interim resulting in large adjustments. Stakeholders were interested in making sure that the adjustment frequency would be short enough to actually recover if costs exceeded the rates, but long enough to provide some stability and predictability in the rates for the development community to plan projects. Three options for adjustment frequency were voted on. The majority of stakeholders preferred a longer adjustment frequency.

- A. Option 1: Two years **(2 votes)**

- B. Option 2: Three years **(1 vote)**
- C. Option 3: Four years **(8 votes)**

2. Geographic Application of Rates

The stakeholders were asked to weigh-in with respect to their preferences regarding the geographic application of rates. After considerable discussion of the issue, the choice was narrowed to three options. None of the three options included the application of rates for each cataloging unit, but Option 1 did include a separate rate for the Neuse01 CU. Other than the Neuse01 special rate area, the basis of the other options was either at the program level or at the basin level. The group was closely divided between applying rates uniformly at the program level or the basin level for nitrogen and phosphorous respectively.

Option 1: Program Level + Special Rate Areas (1 Vote)

Program Rate for Nitrogen

Program Rate for Phosphorous

Neuse01 Rate for Nitrogen (other special area rates can be added later)

Option 2: Program Level (5 Votes)

Program Rate for Nitrogen

Program Rate for Phosphorous

Option 3: Basin Level (6 Votes)

Neuse Basin Rate for Nitrogen

Tar-Pamlico Basin Rate for Nitrogen

Tar-Pamlico Basin Rate for Phosphorous

KEY ISSUES REMAINING

Issues directed to the Credit Yield Subcommittee after the June 12, 2009 stakeholder meeting were:

1. Retirement of assets
 - Timing
 - Uncertainty
 - Cost
2. Nutrient regulation and policy
 - Tax implications to counties for state purchased property
 - Changes in regulation
 - Accounting for time differences between permit and mitigation
 - Hot spots
 - Loss of opportunity for farmers to reach reduction goals
 - Conservation in perpetuity
 - Least cost requirement

SUMMARY AND CONCLUSIONS

Under Session Law 2007-438, the Ecosystem Enhancement Program was mandated to transition the Nutrient Offset Payment Program from a fee-based system to a cost-based program. EEP leadership elected to convene a group of stakeholders for feedback, guidance, and recommendations on the transition.

Prior to convening the group, the NCSU Natural Resources Leadership Institute gathered information on the knowledge and expectations of many of the stakeholder groups regarding the Nutrient Offset Program and provided guidance to EEP in convening and structuring meetings. The Institute recommended that EEP do the following:

1. Convene a group of stakeholders that includes representatives of local government, environmental organizations active in water quality issues in the Neuse and Tar-Pamlico, the development community, and private mitigation banks.
2. Spend time on mutual education. Although most stakeholders were generally familiar with the nutrient offset payment program, many lacked information about program specifics.
3. Focus on the primary purpose of transitioning the Nutrient Offset Payment Program to an actual cost method. There were many other distracting issues that could have easily sidetracked the process.
5. Consider EEP's role in public and private implementation. This directly relates to issues of setting prices in a competitive market.
6. Provide key unknowns and decision points where feedback was needed most. This would help direct the deliberations and enhance overall productivity of the process.
7. Strive toward common understanding, not necessarily a consensus recommendation.

EEP was successful in convening and engaging a group of stakeholder group in a detailed discussion of the issues and choices related to the transition to a new pricing method. The agency followed through with all of the recommendations contained in the assessment report with the exception of the following:

- The full contingent of potentially affected parties was not present among the stakeholder group. Stakeholders represented local government, environmental organizations, and mitigation banking firms. Invited but not in attendance were representatives of the development community, specifically the Home Builders Association and the American Council of Engineering Companies. Both organizations

received invitations and agendas for all meetings and email updates of meeting outcomes.

- There was not a dedicated discussion on how private and public mitigation efforts can coexist most effectively. The time needed to discuss the details of the Actual Cost Method did not leave room for the more generalized discussion of public-private interactions.

Regardless of these two exceptions, the stakeholder deliberation process yielded positive results for EEP. On some issues, EEP received unequivocal direction from the stakeholders on how to structure the Actual Cost Method. On those issues which the stakeholders could not agree, EEP has a better understanding of how various stakeholder groups perceive their interests and have more information going forward to help them develop their draft rule.

In response to assertions by some stakeholders that EEP was not being entirely transparent and accountable in their management of the Nutrient Offset Payment Program, EEP made a commitment to the stakeholders to make program information more easily accessible to the public. And over the course of the deliberation process, the agency freely provided information requested by stakeholders and shared that information to the rest of the group.

It will be important for EEP to maintain contact with their stakeholders as they develop their draft rule. Even though representatives of the development community did not attend the stakeholder meetings, EEP should continue to maintain open communications with those groups and elicit their feedback in the development of the rule.

APPENDIX A: STAKEHOLDER ASSESSMENT REPORT

L. Steven Smutko

Mary Lou Addor

NC State University Natural Resources Leadership Institute

January 2009

BACKGROUND AND OBJECTIVES

Session Law 2007-438 mandates that the N.C. Department of Environment and Natural Resources (DENR) develop and implement a plan to transition the N.C. Ecosystem Enhancement Program (EEP) Nutrient Offset Program from a fee-based system to a program based on the actual costs of providing nutrient credits. EEP, in collaboration with the NC Division of Water Quality, has committed to convening a group of key stakeholders to discuss the basic approach to setting actual-cost rates for its Nutrient Offset Program. The NC State University Natural Resources Leadership Institute has taken on the task of coordinating with EEP to assemble the stakeholder group and guide its deliberations.

Prior to convening these meetings, NCSU contacted key stakeholders and organizations and interviewed 22 people to gather information about their willingness to engage in discussions about the cost-based system, and the issues that they see that are important to resolve.

Specifically, we gathered information from prospective stakeholders on the following topics:

- Stakeholders' understanding of the Nutrient Offset Program
- Key issues regarding nutrient offset pricing
- Stakeholders' perspectives on the characteristics of an optimum pricing method
- Key concerns with EEP's proposed actual cost method of nutrient offset pricing
- Ideas that stakeholders have for potentially resolving these concerns that might be acceptable to all parties
- Stakeholders' perspectives of a successful outcome of these meetings

- Data or information that stakeholders need for meaningful engagement in a discussion on pricing methods
- Conditions that must be in place for their participation in stakeholder meetings (e.g., other stakeholders who should or should not be present, data that should be available, meeting location and time, etc).

STAKEHOLDERS INTERVIEWED

Alissa Bierma, Neuse River Foundation

Derb Carter, SELC

Chandra Coats, Jamey Guerrero, and Haywood Phthisic, Johnston County

Glenn Dunn, Poyner & Spruill

Cindy Finan, Neuse R. Compliance Assoc

Matt Flynn, Town of Cary

Jonas Hill, Pitt County

Heather Jacobs, Pamlico-Tar River Foundation

Troy Lewis, City of Tarboro

Lisa Martin, NC Home Builders Association

Grady McCallie, NC Conservation Network

Paul Meyer, NC Association of County Commissioners

Nancy Nixon, Nash County

Adam Riggsbee, George Howard, John Preyer, and Barrett Jenkins, Restoration Systems, Inc

Joe Rudek, Environmental Defense Fund

Mike Schlegel, Triangle-J Council of Governments

Paul Wiebke, City of Durham

SUMMARY OF INTERVIEWS

Knowledge of Nutrient Offset Payment Program

Our first line of questioning was meant to determine stakeholders' familiarity with the nutrient offset payment program, and EEP's efforts to establish an actual cost method of pricing. All of the stakeholders we interviewed were knowledgeable about the Nutrient Offset Program, but less than one-half were sufficiently aware of the proposed actual cost method to provide detailed comments.

Key Issues Related to Establishing a Nutrient Offset Pricing System

We asked stakeholders what they consider to be the most important issues related to establishing a nutrient offset pricing system. Responses were grouped into several contextual categories: accountability and transparency, matching payments to projects, covering costs, containing costs, buffers vs. retrofits, geographic equity, juxtaposition of impacts and mitigation, alternative approaches,

Accountability and Transparency

The most commonly stated issue regarding the Nutrient Offset Program was that of agency accountability. Nearly everyone we interviewed, without prompting, declared that EEP should be more forthcoming with information about where and how offset payments are being used. Many stakeholders view the current system of offset payments to be too far removed from actual reductions in nutrients. They make the point that the nexus between payments received by EEP and projects being put on the ground is not clear. Says one stakeholder, "...their design, bid, build program causes [EEP] to focus on the outputs rather than the outcomes".

Stakeholders want to know that nutrient reduction payments are being spent on restoration projects with a commensurate reduction in nutrient loading. Said another stakeholder, "There are currently permit obligations in the pipeline, and the perception is that there is no

accounting for these projects, nor any display of work accomplished.” Without adequate transparency, it is doubtful that stakeholders will trust whatever rate is eventually adopted.

Covering Costs

Most stakeholders we interviewed were very clear that nutrient offset payments must cover the full costs of mitigation required under state permits. Most believed that the costs to mitigate development should not be subsidized by payments from the state general fund. It was clearly stated by many interviewees that the program should be self-sustaining and that development should pay for itself. Moreover, many underscored the basic principle that payments received must result in commensurate reductions.

Buffers vs. Stormwater BMPs

While the stakeholders we interviewed were nearly unanimous in their belief that the program must cover its costs, many raised the issue whether offset payments should be used only for buffer restoration, or if stormwater BMPs will be factored into the formula. More than one stakeholder we interviewed made the case that stormwater BMPs, rather than buffers, are the preferred method of reducing nutrient loading. Said one stakeholder *“I would like to see the highest level of nutrient reductions. Projects that treat stormwater runoff have a high probability of reducing nutrients and it is easier to document the results”*.

However, other stakeholders were concerned that the fees could become outrageously expensive if retrofits and BMPs are the primary mechanisms for providing nutrient credits. The word “reasonable” was used by more than one interviewee when discussing costs, and their stated interest was that EEP needs to be more efficient in its planning and operations.

The issue was succinctly summed up by one stakeholder this way, *“It will be difficult to charge a price for BMPs. [EEP’s] primary method for mitigation is to plant buffers, which is cheap. There will be a hard argument from [some stakeholders] if they are pricing offsets relative to BMPs but only putting in buffers. They’ll be stuck just putting in buffers because people won’t tolerate*

paying for stormwater BMPs. It will be politically difficult to charge a high enough price for BMPs.”

Equity

A few local government stakeholders brought up the issue of geographic equity with respect to nutrient offset payments. One respondent made the point that geographic differentiation of nutrient offsets put them at a disadvantage for community economic development opportunities relative to their neighbors. Another made the point that land is being bought up in rural counties to offset the rapidly growing areas. The result is that lands in conservation uses diminishes its value and results in loss of property tax revenue. Said one respondent, *“If you are in the [same] basin, then you should have to obey the same rules.”*

Another equity issue brought up by a stakeholder was the perception of differentiation between NCDOT projects and the private sector. Said the interviewee, *“[There] seem to be two banks, one that funds NCDOT projects on an actual cost basis, and one for the private sector that uses a different fee structure.”*

Geographic Application of Credits

Several stakeholders brought up the issue of the geographic concurrence of impacts and their associated mitigation projects. Because the costs of achieving nutrient reductions vary from watershed to watershed, many stakeholders felt that keeping projects in the same watershed was desirable. Reported one stakeholder, *“I see a lot of value in applying nutrient offset projects as close to the nutrient conditions that limit the localized impacts. Ideally this is a small watershed as possible. It makes sense to place it in the same 8-digit watershed.”* On the other hand, some respondents felt that forcing mitigation projects to be conducted in rapidly growing watersheds will drive up the costs of nutrient credits.

Alternative Approaches

Many of the stakeholders we talked to, most notably those in the conservation community, expressed a concern that the link between impacts and mitigation in EEP's Nutrient Offset Program is not sufficiently direct. Many were supportive of alternative approaches to securing nutrient offsets such as private mitigation banks and local government mitigation programs as a desirable alternative. The most advantageous attribute of private banks cited by stakeholders is that the mitigation is conducted prior to the offset transaction. There is no time lag between payment and action. Reported one stakeholder, *"Mitigation banks seem to work because the obligation is already paid for up front. They have to actually produce the credit."* Said another, *"There is value in private mitigation banks, because the credits are created before they're sold. From the standpoint of temporal impacts, they are good for that, especially in comparison to EEP's track record."* Moreover, cited one stakeholder, the profit incentive will drive firms and individuals to create conservation measures.

Others indicated that private banks can be more responsive to changing conditions and that market signals are needed to ensure accurate pricing. As one stakeholder put it, *"The current system is cumbersome to reflect any changes in the price. You need to be flexible and responsive when circumstances change. You need the competition of the market to come into play to make it worthwhile for those involved."* Other benefits of private banks voiced by stakeholders were the potential for keeping a lid on prices if there were sufficient competition in the market, and the creation of "green jobs."

While there was significant support for the concept of private mitigation banking by stakeholders from conservation organizations, it was not unqualified. Some conservation interviewees indicated a concern that standards and safeguards could be compromised in order for banks to compete. Some local government stakeholders expressed a concern that new regulations requiring them to seek private alternatives will cost them time and money. Local governments see benefits in EEP's role as a central clearinghouse for servicing in-lieu payments. It reduces their transaction costs.

Others we spoke with were more direct in their belief in free-market solutions. Said one, *“EEP should examine a policy option of not setting a price, but having a price set by the market. If there is a private option available, then the state does not need to provide government produced pounds of nitrogen. The state should not compete with the private sector.”*

Another alternative approach, brought up by local government stakeholders, is to credit actions by local governments for nutrient offsets. Said one local government stakeholder, *“What the EEP does – constructed wetlands, etc. – are not as beneficial as what a town could offer. A town could purchase conservation easements, do stormwater retrofit projects, and extend buffers to get credit.”*

Point Sources and Nutrient Offsets

We interviewed three stakeholders who represent the interests of municipal point-source dischargers. They each conveyed a concern that offsets would be very expensive for them and their clients. Moreover, they don't believe that the rates that have been established for point sources are accurate with respect to the actual nitrogen output by the dischargers. They also site an equity issue in the way that credits are calculated for point-source and nonpoint-source dischargers. Said one interviewee, *“Nonpoint sources only need to ‘claim’ reduction through a theoretical process. We should be able to earn credits via trading with nonpoint sources.”*

They were in agreement that other options should be available to them, specifically nutrient trading in the Neuse basin. Moreover, they would like to see credits granted for municipal actions taken to reduce nutrient loading, such as purchase of conservation easements, stormwater retrofit projects, and enlargement of regulatory buffers in municipal jurisdictions.

Pricing Mechanism Characteristics Desired by Stakeholders

We asked stakeholders, *“If you were to devise a method for pricing nutrient offsets, what would be the key characteristics that you would want to see included or reflected in such a pricing program?”* The most commonly mentioned characteristics focused on five aspects: accuracy, transparency/ accountability, equity/consistency, spatial relevancy, and timing. Other characteristics identified by interviewees included timing of implementation, cost effectiveness, flexibility, and ease of implementation, and free-market basis.

In a second question, we asked them to provide suggestions for how the issues or concerns they identified could be resolved in a way that would be acceptable to all parties. Many of the responses to this question were identical or closely related to the previous question. One key suggestion that was added here was the idea of establishing a comprehensive mitigation plan. We have combined the responses to these this question with the earlier question in the discussion below.

Full and Accurate Accounting

The most common response to the question of characteristics of a pricing system desired by stakeholders was that the nutrient offset fee must accurately reflect the full cost of mitigation. Many interviewees emphasized the importance of finding a way to reflect the variation in land values in the two basins. Others mentioned the need to fully realize the costs of program administration in the offset fee. Said one respondent, *“Whatever pricing EEP uses, it must use full cost accounting for its administrative costs. A percentage fee is not reflective of true costs. Full cost accounting should reflect all costs that could be considered a state subsidy of the mitigation price – labor, rent, health care, state retirement, salary etc.”* Said another, *“Survey the mitigation banks in the area to determine the market-based price, and then add their administrative cost to that.”*

Another cost consideration mentioned by more than one interviewee was maintenance cost. Some expressed the concern that without an accurate accounting of future maintenance,

projects would become less effective over time. Reported one interviewee, *“I have concerns about ‘least-cost’ alternatives. There are some BMPs that require considerable maintenance to keep in place. Lease cost alternatives may not be effective.”*

Some interviewees expressed the importance of accurately reflecting inflation and other future costs into the fee system. Said one stakeholder, *“There is a time problem with inflation. You need to increase or automatically adjust the fee up or down periodically depending on current economic climate. Otherwise EEP will need to go back to rule making to adjust the cost every few years.”*

One stakeholder suggested using the full delivery program as the preferred method for accounting for the full cost of mitigation. Reports the stakeholder, *“Using an exclusively full deliver method makes a lot of sense and allows mitigation bankers to compete with other providers, but doesn’t make them the only game in town. So it allows competition while also spurring innovation. The advantage of full delivery is that it is true cost. Any other method is theoretical.”*

Transparent and Accountable

Many stakeholders made a point to include characteristics of transparency and accountability in their view of a desirable nutrient offset fee system. Many expressed the importance of clarity in pricing. They believe that EEP must show a clear connection between the proposed fee, the nutrient offset methods that will be used, and the commensurate cost per pound of nutrient abatement. Another mentioned the need to follow through on projects, citing a project that was initiated three years prior, but not maintained. Some expressed the need to make the fee components easy to communicate and explain. Said one stakeholder, *“Whatever price they set, it must be justified, and documented.”* Said another, *“Be transparent. Enable people to trace the money. That way stakeholders will have more confidence in how this program is being administered.”*

Equitable and Consistent

Several stakeholders stressed the importance of ensuring that whatever pricing mechanism is adopted, that communities are treated equitably across the basin. Several mentioned the terms “systematic approach”, “predictable” and “certainty” when describing a desired fee system. Others were concerned that artificial disparities could be established if the fee system is not equitable. Said one local government stakeholder, *“It should apply to everybody in the basin or nobody in the basin. DWQ needs to step forward in the legislature to make this happen.”*

Spatially Relevant

The need to tie costs to location was apparent in many of the responses we received. Many stated the importance of linking the mitigation site as close as possible to the development action requiring offsets, and that the fee should reflect this nexus. As one stakeholder put it, *“costs should reflect geographic reality.”* Hence, offset payments for projects in the upper Neuse basin may be higher than for those in the lower Neuse for example. The concept of spatial relevance also has equity implications. As one stakeholder reported, *“Is it really ok to run the pollution through the downstream system until we buy the offset? If the upper head waters are [being developed] but the cleanup is happening in Kinston or Havelock, this brings up an equity issue. Export your junk and keep your dollars. It is not just a cost of the clean up but also land loss to economic development.”*

A couple of strategies were proposed to deal with spatial differences. One was to identify potential mitigation projects within the cataloging unit (8-digit or 14-digit), and if no project is available in a particular unit, then set the price based on implementation costs in a similar, but not less expensive unit. Another suggestion was to zone each river basin and apply uniform fees within each zone.

Some local government stakeholders suggested that offset payments could be used to fund projects within the local jurisdictions that development is occurring. Said one stakeholder, *“we should be able to use the funds generated in [our town] to be used for future projects in [our town]. Although I say that, I understand how difficult that could be system-wide.”*

Short Time Horizon

Several stakeholders identified timing of implementation as an important characteristic of a pricing mechanism. In this regard, payments and projects need to be close in time. Many stated that the ideal would be that the mitigation precedes any payments. Said one stakeholder, *“Make the in-lieu programs produce the credit before engaging in the offset. Just like mitigation bankers are required to do. This makes the process transparent.”*

Cost Effective

Several stakeholders accentuated the need for any fee structure to reflect a cost-effective program. Cost effectiveness was expressed as both ‘cost conscious’ and ‘effective.’ Those expressing the need for being cost conscious were mostly concerned about keeping fees ‘reasonable.’ One method for doing so is to make the program less management dependent. Others expressed the need to ensure that the most nutrients are being abated per dollar spent, and were not so much concerned total cost. In their opinion, offset payments should fund projects that are proven to be effective.

Market Based

Several stakeholders, from both the private, for-profit sector and non-profit conservation organizations, would like to see EEP look to private markets in establishing a pricing method. Said one stakeholder, *“Get the pricing structure out of the political process. Have it be market based prices so it fluctuates with the market to take advantage of the market.”* And another,

“EEP’s ‘full delivery’ program is a good model. It drives the price down because the private sector competes to get the projects. It simplified the process. EEP knows what they are buying – they are purchasing credits.”

More than one interviewee was thinking about a potential role for EEP in a market based system. One suggestion was for EEP to develop the framework for private sale of nutrient credits, organize the trading and provide oversight.

One stakeholder talked about a system where several private firms as well as EEP provided offset credits. In such a system, a developer can *“go down the phonebook, contact mitigation banks and ask, ‘how much are you going charge?’*. *EEP can be on the list to call for buffers. Then the buyer can determine who he/she wants to purchase from.”*

Comprehensive Mitigation Plan

A few stakeholders discussed the idea of establishing a comprehensive mitigation plan of sorts. EEP would take the role of coordinating and overseeing that mitigation offset is performed in an area that can have the most benefit.

Other Desired Characteristics

Other characteristics of a nutrient offset payment program deemed desirable by stakeholders were ease of implantation, transparency, and flexibility. Local government stakeholders want a program that is easy to implement and explain to developers they work with. Moreover, they don’t want to be saddled with the responsibility of justifying whatever fee is set. Said one local government stakeholder, *“Whatever EEP decides to do, we need assistance in providing information to the development community. It shouldn’t be our role to explain why. Need better outreach by EEP in the affected watersheds.”*

Local government stakeholders voiced a desire for added flexibility in how the nutrient offset payment program is implemented. They see opportunities for mitigation beyond traditional EEP restoration projects. For example, according to one local government interviewee, *“EEP and a municipality can approach a project where the municipality purchases the conservation easement or some other discharge reduction scheme, rather than just having to pay money to EEP to develop the offsets. This could be a win-win for everyone. One of the problems that EEP is facing is finding places for projects within the offset needs to happen.”* Implementation flexibility was also cited as desirable by the point-source discharge interests. One stakeholder noted that there are options available for them to create their own projects and bank assets for themselves if given the flexibility to do so.

Other ideas included building incentives into the program to entice private landowner participation, banking an excess of credits to achieve actual restoration rather than maintenance of the status quo, and incorporating a factor to account for atmospheric deposition of nitrogen. Regarding offsets payments for point sources, one stakeholder brought up the idea of placing a premium on uncertainty. Because point sources know exactly how much they are discharging, their offset payments should be reduced since there is no need for any ‘fudge factor’ in calculating the offset.

Concerns about Proposed Cost-Based Method

We asked stakeholders about their concerns with EEP’s proposed actual cost method of nutrient offset pricing as recommended by RTI International in a study they conducted in 2007. About half of those we interviewed were not sufficiently informed of the proposed cost-based method to comment on it. Those who were familiar with the study had only general remarks.

Among the comments provided, one stakeholder noted that unless new practices are put into place by EEP, the proposed cost method will not provide the accountability that is needed.

Information about how and where the mitigation will occur on any given project should be provided up front, before payment is made. So although the amount is tied to a specific formula, the payment is not tied to any site or obligation.

Another questioned whether RTI's cost calculations were based on sufficient data. *"Did RTI actually review enough projects to determine the actual mitigation outcomes? Do we really know the cost of avoiding nutrient pollution? It has to be a long term study because projects don't always succeed. You need to monitor the success of the projects for several years."*

Another interviewee remarked that the focus of the proposed method *"seems to be on internal costs, which is only part of the story. The source of the loading should be paying for the restoration of these credits."* One other respondent remarked about the lack of a *"shadow cost of future maintenance to deal with future floods or other climatic events. Need to cover a failed BMP."*

Data and Information Needs

We asked stakeholders about data or information that they would like to see provided by EEP or others that would help stakeholders in a discussion on pricing methods. Everyone we interviewed had ideas about data needs. The most common data need cited by those we interviewed was a **detailed accounting of EEP nutrient offset projects to date**. Stakeholders reported that they wanted to know the following about these projects:

- The **budget** for the past few years to see how the money was being spent.
- **Description of projects** broken down by 14-digit HUC and the actual cost of their 'in the ground' projects to date. Projects should be identified by type, i.e., BMPs, buffers, etc, and procurement method – full delivery, design-bid-build.
- *How **costs differ regionally**. Whether the price is a reflection of the region from which it came, or the price of implementation in the location where the BMP is placed.*
- **Number of pounds** paid for, and the number reduced

- **Total obligation to date** – how much has been completed and how much remains
- **Maps** showing location of development projects and completed restoration projects

Other information that stakeholders requested from EEP includes:

- The **background** of how we got to where we are now. Why we are in a deficit.
- The **amount of the deficit** and plans for making up the shortfall.
- How much **land is available for restoration?**
- Provide an explanation of **how credits are estimated** and in particular the acres affected.
- **Nutrient reduction efficiencies.** Which mitigation methods work better under which conditions?
- Identify **where loading is occurring** and where future restoration projects should be located.
- **EEPs experience in setting prices in other markets** – wetlands and stream restoration.
- EEP should describe how many times they asked for a fee increase and the number of times the EMC granted them a fee increase.
- **Information about other effective in-lieu pricing programs** or otherwise successful government led pricing programs. Specifically, EEP should highlight what they will borrow from these examples when setting the actual cost.
- Sharing a summary of work, discussions and research to date on **the technical aspects of nutrient reduction of various types of projects.** Need to understand the efficiencies of different practices. Sharing how those numbers were derived.
- **EEP should provide an in-depth explanation of its proposed cost method.** They should use all past projects as examples of how it will work, so the stakeholders can get an idea of what the “actual cost” would be if the calculations were performed today. They also need to explain how the time component is used in the pricing formula, showing how variations in this variable alter the actual cost.

Some stakeholders were also interested in information that can be provided by other stakeholders. Specific data inquiries include:

- Costs for the private mitigation bankers. How much money are they spending for each pound of nitrogen reduction?
- How do mitigation bankers determine credits?
- How will the private banking program be run?
- We don't have an appreciation for what developers pay for their offsets. It would be helpful to put into perspective for people what large developers would pay and what a municipal wastewater treatment plant would pay.

Successful Outcomes of a Stakeholder Meeting

Our last two questions were focused on the whether stakeholders would participate in a stakeholder forum to discuss EEP's proposed nutrient offset pricing program, and what they would consider to be a successful outcome for them or their organization.

Nearly all stakeholders we interviewed indicated that they, or someone from their organization, would participate in a stakeholder forum scheduled for February 4, 2009. Such a forum, to be successful for all participants, would result in:

- A rational pricing program. We need to find a way to structure the program so that the price paid in reflects the costs of the project on the ground. We need to have confidence that the mitigation program is actually reducing nutrients.
- A transparent process free politics that results in a net reduction in nutrients, protects the environment, and pays for itself.
- A formula that everyone can agree on or live with, and that would last awhile.
- A pricing program that results in a more effective program overall, a reduction in lag time, and that ensures quality projects are in place
- A rule that goes into effect that will take into account the true cost of the offset program

- A pricing scheme that is reflective of true costs that doesn't gouge the development community and pays for effective BMPs.
- A pricing scheme that deals with urban growth and does not adversely affect the rural counties
- A pricing scheme that treats communities equally in the same watershed
- Answering the key policy question – do you charge the full cost or not?
- Getting a better explanation of the things discussed here and better explanation about the current operations
- Clarity
- There is some commitment to an objective method as opposed to some 'black box' method.
- A program that results in money being spent in the same hydro unit being impacted.
- A program that would allow point-source and nonpoint source trading.
- Develop a methodology that is agreed upon for calculating the success of the different types of projects.
- Meeting EEP's September deadline.
- There is some change to way the system is run now
- That the Nutrient Offset Program goes away and lets the developers mitigate on their own
- A greater understanding by all stakeholders about how EEP is run and gets things done.
- Something that everyone can live with.
- An agreement before the rule making process
- Some kind of proposal that all can accept in as short amount of time as possible.
- People are willing share information and try to reach agreement. That there is an effort by all parties to make this work.
- That diverse parties have the opportunity to participate. Proponents and opponents sit down at the table together.

RECOMMENDATIONS

Convene Stakeholders

Based on responses to our interviews, key stakeholders are willing and able to meet and discuss the nutrient offset payment program. We recommend that EEP follow through on its commitment to convene a group of stakeholders to discuss its proposed actual cost method and gather feedback on critical issues related to the payment program.

We recommend involving stakeholders who represent the following organizations or interests:

1. Local governments, particularly those that have experience in implementing the nutrient offset payment program. Participation should reflect various regions of the two affected river basins, urban and rural.
2. Conservation organizations that are active in water quality protection. These include the Neuse River Foundation, the Tar-Pamlico River Foundation, Environmental Defense Fund, the NC Conservation Network, and the Southern Environmental Law Center.
3. Organizations representing development interests. The key organization here is the NC Home Builders Association.
4. Firms involved in mitigation banking and developing projects for nutrient offsets.
5. State agency staff from EEP and DWQ.

Spend Time on Mutual Education

It was clear from our interviews that, although most stakeholders are generally familiar with the nutrient offset payment program, many lack information about program specifics. Moreover, many are keenly interested in understanding EEP's program activities. Across the board, those we interviewed wanted an accounting of how EEP has applied offset payments in the two basins. EEP should be prepared to present a detailed listing of nutrient offset payments, nutrient offsets (in pounds of N and P), and the type, cost, and nutrient reduction outcomes of projects undertaken. It is suggested that EEP present the results of Section 2 of

the RTI International report with updates to 2008. Stakeholders also need to become familiar with the proposed costs-based method that EEP is proposing. A presentation summarizing RTI's report would be helpful.

Focus on the Primary Purpose

The purpose of this effort is to provide stakeholders an opportunity to provide guidance to EEP in transitioning the nutrient offset payment program from a fee-based system to an actual cost method. The topics under discussion at the stakeholder meetings should be limited to the attainment of this goal. Discussion of related issues, while important, may be counter-productive to achieving this purpose. Peripheral issues that stakeholders consider to be important should be documented during the meetings and placed in a "parking lot." Time should be devoted toward the end of the meeting(s) to identify the proper venues and procedures for addressing these issues.

Consider EEP's Role in Public and Private Implementation

There are a wide range of alternative operational structures that could be developed to implement a nutrient offset trading system. The appropriate question for stakeholders to consider is what process models are the most effective model for operating North Carolina's nutrient trading bank. Stakeholders from nonprofit organizations, local government, and private firms want to see private mitigation efforts continue. To the extent that it affects decisions about the establishment of a cost-based method, EEP should engage stakeholders in a discussion of how private and public mitigation efforts can coexist most effectively. Discussion on this topic will be most productive if it centers on choices among public and private alternatives for acquiring nutrient credits, as well as EEP's role of planning, rule-making, and oversight.

Provide Key Unknowns and Decision Points

EEP staff should present the key points in their proposed actual cost method where they need feedback and information from stakeholders. For example, should the new fee contain a 'deficit premium' to recoup dollars never collected under below-cost rate structures? What should be the frequency of rate adjustments? What is the appropriate geographic basis to differentiate rates?

Strive Toward Common Understanding

An outcome of the stakeholder process should be to seek areas where consensus can be reached on specific program parameters. On issues where no consensus can be achieved, EEP should document them and present its best case to the Environmental Review Committee and the Environmental Management Commission.

APPENDIX B: MEETING SUMMARIES

DRAFT MEETING SUMMARY

EEP / DWQ Nutrient Offset Payment Program Transitioning to an Actual Cost-Based Pricing Method

February 4, 2009
Yates Mill Historic County Park
Raleigh, NC

1. [Welcome and Introduction](#)
2. [Purpose and Scope](#)
3. [Agenda Review](#)
4. [Process Review](#)
 - a. Roles
 - i. Stakeholders
 - ii. Facilitators
 - iii. EEP
 - iv. DWQ
 - b. Decision Rule
 - c. Ground Rules
 - d. Parking Lot
5. [Report on the Situation Assessment](#)
6. [Nutrient Management Strategies & the Role of EEP Nutrient Offsets](#)
7. [EEP Nutrient Offset Program: History and Status](#)
8. [Review of the Session Law 2007-438](#)
9. [Presentation and Discussion: Transitioning the EEP Nutrient Offset Program to an Actual Cost Method](#)
10. [Closing Summary and What's Next](#)

Reports and presentations are accessible via the NRLI website at:
<http://www.ncsu.edu/nrli/decision-making/projects/index.php>

List of Participants:

Name	Affiliation
Robert Brown	NC Ecosystem Enhancement Program
John Huisman	DWQ
Eric Ellis	NC Ecosystem Enhancement Program
Kristin Miguez	NC Ecosystem Enhancement Program
Suzanne Klimek	NC Ecosystem Enhancement Program
Charles Brown	Town of Cary
Kelly Williams	NC Ecosystem Enhancement Program
Haywood Phthisic	Johnston County
Eric Kulz	NC Division of Water Quality
Adam Riggsbee	Restoration Systems, Inc.
Sandi Wilbur	City of Durham
Jamie Guerrero	Johnston County
Bill Diuguid	NC Division of Water Quality
Joe Rudek	Environmental Defense Fund
Jim Stanfill	NC Ecosystem Enhancement Program
Mike Schlegel	Triangle-J Council of Government
Heather Jacobs Deck	Pamlico-Tar River Foundation
Mary Lou Addor	NCSU Natural Resources Leadership Institute
Steve Smutko	NCSU Natural Resources Leadership Institute
Bill Gilmore	NC Ecosystem Enhancement Program
Alissa Bierman	Neuse River keeper Foundation
Paul Meyer	NC Assoc of County Commissioners
Glenn Dunn	Poyner and Spruill
Rich Gannon	NC Division of Water Quality

1. Welcome and Introduction

Mary Lou Addor, NRLI, opened the meeting with introductions

2. Purpose and Scope

Mary Lou presented the purpose and scope of the stakeholder process:

- **Purpose:** *Provide guidance to the Ecosystem Enhancement Program in transitioning from a fee-based system to an actual cost system as required by the General Assembly.*
- **Scope:** The focus of stakeholder recommendations will be on the pricing methodology.

3. Agenda Review

See cover page for list of agenda items.

4. Process Review

a. Roles

- i. Stakeholders: responsible for disclosing interests, needs, actions, and issues in a timely manner and committing to the purpose of the stakeholder process. Stakeholders will be expected to represent the interests of (1) themselves, (2) organizations which they have the authority to represent, or (3) groups of constituents with similar interests.
- ii. Facilitators: responsible for helping the group stay on process and on topic, promoting open and balanced discussion, and organizing information for effective use.
- iii. EEP: responsible for convening the group, providing basic information about the cost-based pricing method and the nutrient offset payment program generally.
- iv. DWQ: responsible for assisting with understanding content and any agency policies that pertain to the formula.

b. Decision Rule

When proposals are presented for consideration by the group, each stakeholder will designate his or her approval/disapproval using the following scale:

Level 1: Endorsement (I like it)

Level 2: Endorsement with a minor point of contention (basically I like it)

Level 3: Agreement with reservations (I can live with it)

Level 4: Stand Aside (I don't like it but I don't want to hold up the group)

Level 5: Block (I will not support the proposal and will act outside the group to meet my interests)

Discussion on Decision Rule:

- i. **Question:** Given the number of agency representatives, do they all get a vote when we make decisions?
Response and discussion:
 - a) The purpose behind using the levels of agreement is to make your choice and rationale transparent to others and give the group an opportunity to consider and work with anyone's reservations.
 - b) Anyone can weigh in on any proposal before the group. Hence, any one person or affiliation has the opportunity to ask the entire

group to reconsider its decision (in particular at a level 4 or level 5).

- c) On key decisions, the DWQ and EEP will designate one person from each agency to weigh in.
- d) The final report will show at which level individuals or groups supported the final product.
- e) The focus for each stakeholder should be on making good decisions for his or her constituency, not simply to reach agreement.

c. Ground Rules

- i. Work the problem, not the person.
- ii. Make space for others to contribute
- iii. Follow the process
- iv. One speaker at a time
- v. Park-off agenda items
- vi. Rolling breaks
- vii. Cell phones on vibrate
- viii. Test assumptions/Ask Questions

d. Parking Lot

Topics not considered by the group to be germane to the day's agenda will be listed on a separate flip chart under the heading "Parking Lot." Prior to adjourning each meeting, the facilitators will review parking lot items, and the group will determine how (and possibly when) each item will be handled.

5. Report on the Situation Assessment

Steve Smutko, NRLI, distributed and presented the EEP Nutrient Offset Pricing Method Stakeholder Report to the group. The report was generated based on interviews with the stakeholders. The purpose of the assessment was to get stakeholder perspective on the characteristics of an optimum pricing method, what they want out of an optimum pricing method and key concerns with proposed actual cost based pricing method. (See the [Nutrient Offset Payment Program Stakeholder Report](#) on the NRLI website).

- a. Comment: One stakeholder suggested contacting the Farm Bureau for feedback, and inviting a Farm Bureau representative to future meetings.

6. Nutrient Management Strategies & the Role of EEP Nutrient Offsets

John Huisman from the Division of Water Quality Non-Point Source Planning Unit gave a presentation on the nutrient management strategies for the Tar-Pamlico and Neuse river basins. (See the [Nutrient Management Strategies and Nutrient Offset Program presentation](#) on the NRLI website). John's presentation focused on four aspects:

- 1) Why we have nutrient strategies in the first place
 - 2) What the strategies are comprised of (not in intense detail)
 - 3) Overview of the different components
 - 4) Role of the EEP Nutrient Offset Program
- a. Question: When will DWQ be developing nutrient management strategies for reservoirs other than Jordan and Falls Lake?
Response: For Falls Lake, you're looking at adoption by the EMC probably 2011, High Rock Lake is beyond that horizon and anything past that is further down the road yet.
 - b. Agriculture Rule in the three river basins/some basic backgrounds on this is given
 - c. Brief discussion on the storm water rule for the Neuse, Tar Pam and Jordan Lake. The storm water rule is in place that sets export targets for new development and that new development refers to both residential and commercial. If you are disturbing more than one acre per residential development or ½ acre for commercial, then you fall subject to the Neuse and Tar Pam Storm Water Rules.
 - d. There's an export rate that you have to achieve for your development, in the Neuse its 3.6 lbs N/acre/year and in the Tar Pam its 4.0 lbs N/acre/year and 0.4 lbs P/acre/year.
 - e. Discussion of point source is raised by one stakeholder and this ends up being discussed as somewhat of a side bar, but important to the nutrient management discussion as a whole.

7. EEP Nutrient Offset Program: History and Status

Kelly Williams, Ecosystem Enhancement Program In-Lieu Fee Coordinator, gave a presentation on the EEP Nutrient Offset Program History and Status (see the [Nutrient Offset Program History and Status presentation](#) on the NRLI website).

- a. Question: How many mitigation requests does EEP handle?
Response: About five per week. To date, we have received approximately 2,000 payments since May 2001. This represents 1.3 million lbs of nitrogen in

the Neuse, 21,000 pounds of nitrogen in the Tar-Pamlico, and 1,994 pounds of phosphorous in the Tar-Pamlico.

- b. Stakeholder comment: the payment program was originally established to cover storm water retrofits, which was the reason that the fee was \$57 per pound of nitrogen.

Response: The General Assembly enacted Session Law 2006-215 to reset the fees back to \$11 and to commission a study of costs associated with nutrient reduction measures. As a result of the fees being reset, DENR decided to place implementation of nutrient offset projects on hold until the fees were set at a level that would sustain the program (project procurement has since been restarted). There was a recognition that the fees were known to be insufficient. In Session Law 07-438 the GA set the fees at \$28.35/lb for nitrogen in the Neuse. In the Tar-Pam, the fees were set to \$21.67/lb for nitrogen and \$28.62/0.1lb phosphorous. The GA also required EEP to develop a plan to transition to the Actual Cost Method.

- c. Stakeholder Comment/Question: So EEP knowingly accepted payments that were less than what it cost to provide the reduction?

Response: Payments to EEP were being authorized at the local level. EEP's authority to deny such payments that had been authorized by local government was unclear. The Department made a determination to accept payments during this period until the GA resolved the fee issue.

- d. Discussion about balances between payments and offsets:

Requirements are being met at 25 sites in the Neuse and Tar-Pamlico basins. These sites are both BMPs and riparian buffer restoration sites and represent over 1.1 million pounds of Nitrogen reduction and 11,000 lbs of phosphorus reduction for the Tar-Pamlico. EEP has met all of its nutrient offset requirements in the Tar-Pamlico basin and has some advance mitigation available to meet future requirements. In the Neuse, we have 290,000 lbs of N unmet requirements. EEP's strategy to meet those requirements includes implementation of additional restoration projects and BMPs.

- e. Discussion about credits for projects in the Tar-Pamlico River Basin:

It was noted that nutrient reduction projects in the Tar-Pamlico River Basin yielded both nitrogen and phosphorus credits. Stakeholder questioned whether this made sense because the assumption was probably that if a project is built to provide reductions for one nutrient, you are also getting reductions of the other nutrient. DWQ committed to looking into the issue before the next meeting.

8. Review of the Session Law 2007-438

Suzanne Klimek, Ecosystem Enhancement Program Operations Director, reviewed the handout on Session Law 2007-438.

- a. Counsel and others advise rule-making process for proposed actual cost method.
- b. Sunset factor: will revert to existing rule and higher fees. EEP is working with DENR's legislative liaison to revise the law so that the fees it set sunset upon the effective date of the revised rule.
- c. Stakeholder Comment: The legislative amendment should also include a deadline for when rule making should be completed.
- d. Stakeholder Comment: the "least cost alternative" provision discriminates against project in urban areas.

9. Presentation and Discussion: Transitioning the EEP Nutrient Offset Program to an Actual Cost Method

Jim Stanfill, Ecosystem Enhancement Program Strategic Planning Supervisor, gave a presentation on the proposed Actual Cost Method (see the [EEP NOP Actual Cost Method presentation](#) on the NRLI website).

Jim's presentation covered three key points:

- d. Actual cost objectives
- e. Overview and details of the actual cost method
- f. Issues and choices in the actual cost method
 1. Frequency of adjustment
 2. Geographic application

Participants responded and discussed various topics as Jim proceeded through his presentation. The following topics, questions and responses were captured from that discussion:

a. Discussion: Actual Cost and Least Cost

Because Session Law 2007-438 mandates that the nutrient offset payment program shall use the least cost alternative for providing nutrient offset credits, participants engaged in a brief discussion on the difference between actual cost and least cost:

- i. Actual cost reflects what the project costs when it is completed. It must be a self-sustaining financial model. The program is a completely fee-based program and cannot be supported with money from the general fund.
- ii. Least cost sets a limit on the type of mitigation you can undertake. Least cost means primarily we're doing riparian buffer projects.

b. Completed Projects vs. Projects In Process

Question: What is the difference between completed projects and projects in process?

Response: By definition a completed project has no future cost. Projects in process will have some type of future cost, either ongoing construction or maintenance costs.

c. DOT's In-lieu Fee Program

Question: How does DOT's in-lieu fee program relate to the nutrient offset payment program?

Response: The DOT in-lieu fee program has its own pot of money. It is completely independent of the Nutrient Offset program. Each pays for its own projects, administration, etc.

d. Donated Lands

Question: Hasn't EEP received donated lands for its projects, and doesn't this affect how you determine the actual cost of past projects?

Response: Yes, we've had some donations, but we can't assume we're going to get donated land in the future. We anticipate that we will purchase lands for our projects. Overall, donated land hasn't been much of a factor in the Nutrient Offset Program.

e. Calculation of the Adjustment Factor

The calculation of EEP's adjustment factor sparked considerable discussion, mostly related to how the correction interval enters the calculation. It was noted that the longer the correction interval, the lower the adjustment factor. Much of the discussion was focused around the following example of an adjustment factor calculation:

Assume actual costs were \$1.2 million
Actual receipts: \$900,000
Correction interval 1 year
Pounds collected per correction interval 300,000 pounds

$$\frac{(\$1,200,000 - \$900,000)}{(1 \text{ Year} * 300,000 \text{ pounds/Year})}$$

Adjustment factor = 1 dollar per pound

i. Comment: The time variable should cancel out in the adjustment factor equation. You could simplify it removing the correction interval.

Response: The "pounds per year" rate in the denominator is the delivery rate, so it must remain in the formula.

f. Frequency of Adjustment

This discussion focused on the issue of how frequently the offset price should be adjusted. Jim identified the following criteria that should be considered when making choices about the frequency of adjustment:

- Price volatility (predictability)
- Price stability
- Administrative Costs
- Size of Adjustment
- Risk of difference between expenses and receipts

The adjustment frequency will have a tremendous bearing on how we run the program. We could attempt to follow market conditions and adjust the price frequently, but this may result in considerable volatility in price (less predictability). Plus, it is more work on our end. How often is reasonable? How long does the business community want a stable price? With smaller adjustments, there is less risk of seeing a difference between receipts and actual cost. With more time between adjustment periods, we might improve the accuracy of the cost calculations by virtue of having more data available from which to make adjustments.

- i. **Question:** Have you considered using a percent change threshold to trigger the adjustment rate?
Response: That might be something we can consider
- ii. **Comment:** Think annually—project your costs a year in advance.
- iii. **Question/Comment:** How do developers deal with situations of having to make adjustments in their own pricing structures? They are certainly looking the cost of capital. Could the cost adjustment be modeled after, or follow the changing rate of loans etc? It would be useful to know how the development community cycles for stability.
- iv. **Comment:** It seems that one mitigation project can cover hundreds of payments, and that projects are not undertaken at a high rate of frequency. The frequency of adjustment should be relevant to EEP's own schedule of beginning projects.
- v. **Comment:** Consider establishing a contingency fund. Get ahead of the curve by getting projects in the ground before they are needed. A contingency fund will help you do that.

g. Discussion: Geographical Application

This discussion centered on the geographic spread of price differentials. It was noted that EEP is obligated under state law to mitigate in the same 8-digit cataloging unit where payments are made. In the past, it was simply required that EEP mitigate in the same river basin. Should the cost be calculated at a

cataloging unit level? Or should we differentiate at the river basin level, or keep the cost consistent statewide? The following issues were identified as being pertinent to a decision about geographical application of rates:

- Price volatility
- Price predictability
- Number of rates
- Complexity (Regional subsidy)
- Distribution of local costs
- Risk of under collection

Discussion ended at this point.

10. Closing Summary and What's Next

Issues for future discussion

8. Full Cost - subsidizing DWQ oversight?
9. How costs are computed
10. How to address Nitrogen and Phosphorus in the Tar-Pam
11. Disposition of projects beyond maintenance period
12. How and whether to use private sales prices in cost calculation
13. A private sector non- competition rule?
14. Distance from water body of concern in the credit calculation

Items Remaining in the "Parking Lot"

3. Mitigation rate assessment for Point Source (Haywood would like to explore this; forum is with DWQ - who?)
4. Geographic application of storm water rules (DWQ- form small work group that is interested in this topic?)

**EEP / DWQ Nutrient Offset Payment Program
Transitioning to an Actual Cost-Based Pricing Method**

March 25, 2009
Yates Mill Historic County Park
Raleigh, NC

11. [Welcome and Orientation](#)
 - a. Purpose and Scope
 - b. Agenda Review
 - c. Process Review
 - d. Feb 4 Meeting Summary Review
 - e. Introduction of Debrief Format
12. [Requests for Information from EEP](#) (Since Feb 4th meeting)
13. [Accounting for Nitrogen and Phosphorous Offsets in the Tar-Pamlico River Basin](#)
14. [Proposal to establish a subcommittee to work with DWQ on credit calculations for nutrient reduction projects](#)
15. [Continuation of Presentation on Transitioning the EEP Nutrient Offset Program to Actual Cost Method](#)
16. [Criteria for Evaluating Options](#)
17. [Identification of Issues to be Discussed](#)
18. [Potential Options for Addressing the Issues](#)
19. [Closing Summary and Next Steps](#)

[Appendix A:](#) Summary of Payments through March 4, 2009 for Impacts in the Neuse River Basin

[Appendix B:](#) NC EEP Nutrient Offset Program Project Costs for Neuse River Basin through March 4, 2009

[Appendix C:](#) Accounting for Nitrogen and Phosphorous Offset in the Tar-Pamlico River Basin

[Appendix D:](#) Jim Stanfill Presentation on Actual Cost Method

[Appendix E:](#) Summary of Payments made to EEP in the Tar-Pamlico River Basin

[Appendix F:](#) Nutrient Offset Project Costs in the Tar-Pamlico River Basin

Reports and presentations are accessible via the NRLI website at:
<http://www.ncsu.edu/nrli/decision-making/projects/index.php>

Check In

1. Participants were provided with the following handouts:
 - a. Summary of Payments to EEP in the Neuse River Basin
 - b. Nutrient Offset Program Project Costs in the Neuse River Basin
 - c. Clarifications on Accounting for N and P Offset Payments in the Tar-Pamlico River Basin
 - d. Transitioning the EEP Nutrient Offset Program to an Actual Cost Method
2. Participants who attended the March 25th meeting.

March 25, 2009 Participants	
Name	Affiliation
Bill Diuguid	NC Division of Water Quality
Rich Gannon	NC Division of Water Quality
John Huisman	NC Division of Water Quality
Kristin Miguez	NC Ecosystem Enhancement Program
Suzanne Klimek	NC Ecosystem Enhancement Program
Kelly Williams	NC Ecosystem Enhancement Program
Jim Stanfill	NC Ecosystem Enhancement Program
Robert Brown	NC Ecosystem Enhancement Program
Eric Ellis	NC Ecosystem Enhancement Program
Bill Gilmore	NC Ecosystem Enhancement Program
Susan Lockwood	NC Ecosystem Enhancement Program
Erin Wynia	NC League of Municipalities
Charles Brown	Town of Cary
Haywood Phthisic	Johnston County
Jamie Guerrero	Johnston County
Sandi Wilbur	City of Durham
Mike Schlegel	Triangle-J Council of Government
Adam Riggsbee	Restoration Systems, Inc.
Barrett Jenkins	Restoration Systems, Inc.
Joe Rudek	Environmental Defense Fund
Heather Jacobs Deck	Pamlico-Tar River Foundation
Alissa Bierman	Neuse River Keeper Foundation
Mary Lou Addor	NCSU Natural Resources Leadership Institute
Steve Smutko	NCSU Natural Resources Leadership Institute

II. Welcome, Agenda and Process Review

Steve Smutko, NRLI, opened the meeting with introductions

Agenda Review

The agenda items included:

1. Welcome, Agenda, and Process Review
 - a. Review the purpose and scope of the stakeholder process
 - b. Agenda Review for March 25th
 - c. Process Review
 - i. Roles and responsibilities (facilitators, stakeholders, EEP, DWQ)
 - ii. Decision rule
 - iii. Ground rules
 - iv. Parking lot.
2. Recap of Feb 4 Meeting
3. Inform stakeholders of information requests to EEP
4. Clarifications on Accounting for Nitrogen and Phosphorus Offset in Tar-Pam.
5. Proposal to establish a subcommittee to work with DWQ to discuss credit calculations for nutrient reduction projects.

Review of Purpose and Scope

The purpose and scope of the stakeholder meetings are to:

- **Purpose:** *Provide guidance to the Ecosystem Enhancement Program in transitioning from a fee-based system to an actual cost system as required by the General Assembly.*
- **Scope:** The focus of the stakeholder recommendations will be on the pricing methodology.

Process Review

1. Roles
 - a. Stakeholders: responsible for disclosing interests, needs, actions, and issues in a timely manner and committing to the purpose of the stakeholder process. Stakeholders will be expected to represent the interests of (1) themselves, (2) organizations which they have the authority to represent, or (3) groups of constituents with similar interests.
 - b. Facilitators: responsible for helping the group stays on process and on topic, promoting open and balanced discussion, and organizing information for effective use.
 - c. EEP: responsible for convening the group, providing basic information about the cost-based pricing method and the nutrient offset payment program generally.

- d. DWQ: responsible for assisting with understanding content and any agency policies that pertain to the formula.

2. Decision Rule

When the group presents proposals for consideration, each stakeholder (1 representative per organization) will designate his or her level of agreement using the following scale:

Level 1: Endorsement (I like it)

Level 2: Endorsement with a minor point of contention (basically I like it)

Level 3: Agreement with reservations (I can live with it)

Level 4: Stand Aside (I don't like it but I don't want to hold up the group)

Level 5: Block (I will not support the proposal and will act outside the group to meet my interests)

The final report will show at which level individuals or groups supported the final product. The focus for each stakeholder should be on making good decisions for his or her constituency, not simply to reach agreement.

3. Ground Rules

- a. Work the problem, not the person.
- b. Make space for others to contribute
- c. Follow the process
- d. One speaker at a time
- e. Park-off agenda items
- f. Rolling breaks
- g. Cell phones on vibrate
- h. Test assumptions/Ask Questions

4. Parking Lot

Topics not considered by the group to be germane to the day's agenda will be listed on a separate flip chart under the heading "Parking Lot." Prior to adjourning each meeting, the facilitators will review parking lot items, and the group will determine how (and possibly when) each item will be handled.

5. Debrief Format

In order to help the stakeholders create a shared understanding of the questions and responses that follow a presentation, the following debrief format was introduced.

- a. Questions of Clarification
- b. Reactions to what you just heard
- c. Implications for purpose of the stakeholder group
- d. Actions (recommendations)

Summary of February 4 Meeting

Steve Smutko briefly summarized the February 4 meeting and asked for comments or questions. None were given.

III. Requests for Information from EEP (Since Feb 4 meeting)

Suzanne Klimek reported that several stakeholders had requested additional information from EEP since the Feb 4th stakeholder meeting. Other stakeholders may find this information useful. Note: A week after the Feb 4th stakeholders meeting, Adam Riggsbee, Restoration Systems, Inc. requested to visit the River Bend BMP site in New Bern. Marc Recktenwald and Kristin Miquez met Adam and Barrett Jenkins on-site on March 16, 2009. Other data requests are shown below.

1. **Request 1:** Alissa Bierman requested data that went into the Actual Cost Method. Note: Data used in the Actual Cost Method was covered in Jim's presentation. Specific data inputs into the method will be provided at the next meeting when potential calculations are presented.
 - a. "Transitioning the EEP Nutrient Offset Program to an Actual Cost Method" (*Refer to Appendix E*)
2. **Request 2:** Haywood Phthisic requested information:
 - a. "Summary of payments to EEP in Neuse Basin" (*Refer to Appendix A*)
 - i. Question: Why is DWQ listed as a municipality?
Response: DWQ required a buy-down for the Lee Steam Plant (point source) so it is shown as an 'authorizing' entity.
 - ii. Comment: Pitt County should not be listed as a municipality authorizing payments for the Neuse.
Response: EEP does not have the statutory authority to accept payments from municipalities not listed. Pitt County and Greenville are listed as municipalities for the Tar-Pamlico and recognized as being able to authorize payments into the Nutrient Offset Program. Parts of their jurisdictions are in the Neuse.
 - b. "Nutrient Offset Program Project Costs" (*Refer to Appendix B*)
3. **General questions and responses:**
 - a. Question: What is the process for moving the actual cost method plan forward?

- b. Response: The plan for implementing the actual cost method will begin with the rule-making process which must be initiated by Sept 1, 2009 per the legislation. The Water Quality Committee of the EMC will review the recommendations provided by EEP which will be based on the outcome of these stakeholder discussions.

4. Actions:

- a. Requested Summary of Payments made to EEP for the Tar-Pamlico River Basin (Refer to Appendix E)
- b. Requested the Project Costs for the Tar-Pamlico River (Refer to Appendix F)

IV. Accounting for Nitrogen and Phosphorous Offsets in the Tar-Pamlico River Basin

In response to questions raised by stakeholders at the February 4th meeting, John Huisman provided and reviewed a handout that described how offsets in the Tar-Pamlico River basin have been and will be handled. Several stakeholders had questions about the accounting method for the Nitrogen and Phosphorous Offset payments in the Tar-Pamlico River Basin. Between the Feb and March meeting, NC DWQ and EEP met to discuss how to account for both offset values of Nitrogen and Phosphorus. *(Refer to Appendix C for "Clarifications on Accounting for N and P Offset Payments in the Tar-Pamlico River Basin" handout dated 3/25/09)*

For the purposes of the upcoming actual cost method rulemaking, EEP and DWQ propose that consideration be given to a model where offset needs for both nutrients are charged separately and payment is made by the developer for what is actually needed for each nutrient. Using this accounting method, the resulting payments are anticipated to be less than if accounting for both requirements with payment for one nutrient using a "hybrid" fee.

1. Questions of Clarification

- a. Question: How often are there impacts that require both N & P offsets?
Response: About 57% of projects require offsets for both N & P.
- b. Question: The handout "Clarification on Accounting for N and P Offset Payments in the Tar-Pamlico River Basin" shows additional pounds of nitrogen more than that which is needed. Why?
Response: It takes roughly 25 to 40 payments to pay for one project. These advanced credits exist because of the nature of building larger projects that produce large amounts of nutrient reductions.

- c. Question: What is the ratio of Nitrogen to Phosphorus needs for each applicant?
Response: There is no consistent relationship to the amount of nitrogen or phosphorus an applicant may need to offset. Thus, the ratio is highly variable.
- d. Question: Could we require offsets within an 8-digit area and calculate the average cost on a basin wide scale?
Response: With the Cape Fear and other areas possibly becoming subject to nutrient rules, using the phrase mitigation area with respect to the ACM makes the best sense. But you could have the requirement for projects be one scale and the ACM calculation be another.
- e. Question: Would we want to keep the fee as a hybrid joint fee for Nitrogen and Phosphorus because other impacts such as wildlife habitat could be accounted for?
Response: Nutrient Offset projects can only yield nutrient credits. Therefore, there can be no additional benefits.

2. Reactions to information presented

- a. Comment: Would like to see the current payment program "true up" before entering into a new payment system. If there is a surplus of receipts, would like to see this go to the environment.
Response: All of the project costs are not realized. Some of the current receipts are paying for previous shortfalls. In addition, when costs exceeded receipts, EEP stopped production since EEP was not in a position to pay for the projects. We need to use historical costs to calculate future costs and thus will need to incorporate a correction factor.
- b. Comment: From the historical information presented, it appears that more than half of the developers required both N & P in Tar-Pamlico River Basin.
- c. Comment: It would be easier to make the offset calculations based on acres than it is on pounds.
- d. Comment: Developers should only pay for the piece they need.

- e. Comment: Do not let the adjustment factor be a negative value. Place the surplus into a contingency fund. The contingency fund would serve as a "rainy day" fund.
- f. Comment: Suggested changes in credit yield by DWQ could result in confusion and difficulty in assessing the factors in the Actual Cost Method.
Response: We have thought a lot about and considered using a "regulatory coefficient". As we all know, regulations can and do change all the time. We have to produce something that will work through all of these possible changes.
- g. Comment: The time period by which to adjust the fee with the ACM could be set by a percent change in receipts and costs.
- h. Comment: Require offset at an 8-digit area and calculate average cost at a River Basin area.
- i. Comment: Inflation could be either combined or multiple indices at work. In particular land Acquisition was thought to be the most disparaging.

3. Implications for purposes of the stakeholder group

- a. Difficult to assimilate all the information to make a recommendation
- b. Potential for "donating" the existing surplus to the environment
- c. Nitrogen and Phosphorous credits are tied together and there are benefits from separating them.
- d. Determine what the potential is to include other environmental credits that can be sold if credits remain stacked. (Comment: Other attributes in the watershed like wildlife habitat credits may be linked geographically
- e. but are not linked in process. The Nutrient Offset Program is required to be a stand along program).
- f. There will be a different cost in the Neuse v. Tar-Pam. The Nitrogen rate in the Neuse will be 2x the Tar-Pam.
- g. Most projects need both Nitrogen and Phosphorous in the Tar-Pam so it makes sense to account for both.
- h. If you do not split, then propose the surplus goes to the environment.

4. Actions (recommendations)

- a. Communicate with affected stakeholders (EEP meet with HBA and others in advance of rule-making)
- b. Consider a proposal to use "buffer equivalents" (applicable to buffer projects only).

V. Proposal to establish a subcommittee to work with DWQ on credit calculations for nutrient reduction projects.

NC DWQ noted that they are interested in evaluating potential modifications to the method currently used to calculate the credit yield for nutrient reduction projects. It was proposed that a small group be formed to discuss the subject. Stakeholders were asked to sign up for the discussion if there were interested. John Huisman will coordinate with NRLI to schedule the first subcommittee meeting.

The following individuals signed up to participate in this subcommittee:

- | | |
|-------------------|-------------------|
| 1. John Huisman | 6. Joe Rudek |
| 2. Rich Gannon | 7. Sandi Wilbur |
| 3. Suzanne Klimek | 8. Jamie Guerrero |
| 4. Adam Riggsbee | 9. Charles Brown |
| 5. Alissa Bierman | |

VI. Continuation of Presentation on Transitioning the EEP Nutrient Offset Program to Actual Cost Method (ACM)

(Refer to Appendix D for "Transitioning the EEP Nutrient Offset Program to an Actual Cost Method" PowerPoint dated 3/25/09)

Jim Stanfill provided an abbreviated review of the actual cost method discussion points from the Feb 4th meeting. He introduced 9 objectives of the ACM. He highlighted several of those objectives including:

1. The NC Legislature is requiring the use of actual costs to determine payments for the Nutrient Offset Program.
2. All costs must be accounted for in the ACM.
3. No state appropriations for the program are received.
4. Program must be understandable and data readily available for affected parties.

Some observations about the ACM:

1. All costs (projects and admin) are known with the exception of projects in process.
2. Adjustment Factor is very sensitive (may need to manage for the risks somewhere in between).
3. Question of how often costs are adjusted is essential: Adjustment Factor

could be determined by running the model every month.

4. Applying the ACM to a very small geographic area could lead to unusual results. Small areas would require small project and receive relatively small numbers of payments. Thus, each project added would have a substantial effect on the ACM rate. This consequence could lead to political pressure to not implement more expensive projects (even when environmentally preferable) or to intentionally implement less expensive projects (that are not environmentally preferred) because this could lead to an immediate increase or decrease in the ACM rate.

Jim identified some issues related to the use of applying alternative inflation indices to the actual cost formula. He identified four types of indices:

1. Property inflation indices
2. Services inflation indices
3. Construction inflation indices
4. Consumer price index

Jim stated that EEP is currently using the US Army Corps of Engineers Civil Works Construction Cost Index. He provided an illustration of how an inflation adjustment factor is needed for estimating the cost of future contracts, emphasizing the effect that procurement type has on calculation of actual cost.

Jim presented two key issues related to the estimation of future costs:

2. Challenges of estimating future contract costs when no historic contract data exist in a given geographic area;
3. Challenges of using historic data when regulatory change occurs, such as changes in credit yield calculations.

VII. Criteria for Evaluating Options

Stakeholders were asked to respond to the question: *What is important to you relative to transitioning to an actual cost method?*

Responses to this question represent key interests held by individual stakeholders. Each stakeholder will evaluate proposals and recommendations made by the group with respect to how well his/her interests are met.

The stakeholders identified the following interest statements:

1. Fair and equitable system for the river basin (all jurisdictions) or statewide.
2. Clear and concise accounting.
3. ACM is clear in its functionality.
4. Predictability of rate changes in respect to cost and time

5. Notification to public regarding rate changes.
6. Use market value appropriately.
7. Costs reflect the market enabling competition
8. Minimize costs to purchases
9. Applicant gets benefit of price fluctuation
10. Get the costs right, the actual costs
11. Reflects actual costs
12. Actual costs covers all costs
13. Restoration and impact are in close proximity
14. Account for the environmental cost of creating mitigation after the impact
15. Environment benefits
16. Provide best environmental lift at lowest costs.
17. Ecological benefit of mitigation is credited (accounted for and paid one time).
18. Formula (ACM) and use of does not result in pollution or mitigation of "hot spots" due to land costs differences and how they are reflected in the formula (appropriately small geographic scope).
19. Account for the actual cost per pound of existing projects
20. Science and economics are adjusted simultaneously.
21. Actual Cost Method is in rule that allows rates to automatically adjust up and down based on actual costs.
22. Ability to adapt prices to new realities
23. Do not deviate from historical fee area is not necessary.

Other Criteria Identified

Criteria that are common to the stakeholder group that will be used to evaluate proposals and recommendations are listed below.

Frequency of Adjustment

1. Reduce price volatility (increase predictability)
2. Increase or maintain price stability
3. Reduce administrative costs required to adjust prices
4. Keep size of adjustment to tolerable levels
5. Reduce differences between expenses and receipts to

Geographic Application

1. Reduce price volatility
2. Enhance or maintain price predictability
3. Keep the number of rates in use within tolerable levels

4. Keep computation complexity within tolerable levels
5. Keep regional price differentials within tolerable levels
6. Reduce the risk of under collection

VIII. Identification of Issues to be Discussed

The stakeholders identified the following issues to be discussed in preparation for the next meeting.

2. Frequency of adjustment
3. Geographic application
4. Inflation method (adjustment) for future costs
5. Nitrogen and phosphorous on the Tar-Pamlico
6. Floor on the adjustment factor
7. How to address cost of indefinite maintenance
8. Percent cost increase/decrease threshold for triggering adjustment
9. How to evaluate the different types of projects in estimating future costs
10. Options in the event of accumulated credits (example: wiping the slate clean and donating overage to environment)
11. Address the least cost requirement (see hot spots)
12. Accounting for lag time from action to mitigation
13. Factor "hot spots" into geographic determination

IX. Potential Options For Addressing the Issues

1. Options for Frequency of Adjustment

- a. Next Payment
- b. Quarterly
- c. Annually
- d. Greater than annually
- e. Percentage change trigger
- f. Procurement quantity
- g. Combination (change in actual costs)
- h. Based on regulatory change

2. Options for Geographic Application

- a. 8 digit cataloging unit (service area)
- b. Basin level
- c. State

- d. Mitigate at the 8-digit but use a larger accountability region
- e. Apply basin-level estimates to all variables except land acquisition. For land acquisition, use costs at the CU level.
- f. *Go to EMC to change mitigation level to smaller than 8 digit cataloging unit.
- g. *Go to EMC to change mitigation options so as to preclude mitigation hot spots and correct current hot spots.
- h. *Include a 'transport factor' to address regional delivery reduction differences.
- i. *Price out different BMP options to enable application in urban areas.
- j. *Require BMPs through the permit process.

Note: Items identified by an asterisk () are beyond the stated purpose and scope of the stakeholder process since they require action by EMC and/or legislature.*

3. Inflation Adjustment Options

- a. US ACE construction cost index
- b. Composite index (construction, property and services)
- c. Multiple indices (construction, property and services)

X. Closing Summary and Next Steps

The following action items were identified during the meeting. It is anticipated follow through will occur in preparation for the April 8 meeting.

Actions:

1. EEP will provide a summary of payments made to EEP for the Tar-Pamlico basin. Information is included as part of this meeting summary (Appendix E).
2. EEP will provide summary of offset program project costs for the Tar-Pamlico basin. Information is included as part of this meeting summary (Appendix F).

Next Agenda:

1. Focus will be on presenting various scenarios of the actual cost method at different geographic scales (statewide, river basin, and cataloging unit).
2. Participants will discuss the following issues:
 - a. Frequency of adjustment
 - b. Geographic application
 - c. Inflation method (adjustment) for future costs
 - d. Nitrogen and phosphorous on the Tar-Pamlico

- e. Floor on the adjustment factor
 - f. How to address cost of indefinite maintenance
 - g. Percent cost increase/decrease threshold for triggering adjustment
 - h. How to evaluate the different types of projects in estimating future costs
 - i. Options in the event of accumulated credits (example: wiping the slate clean and donating overage to environment)
 - j. Address the least cost requirement (see hot spots)
 - k. Accounting for lag time from action to mitigation
 - l. Factor "hot spots" into geographic determination
3. Participants will develop recommendations to EEP and DWQ for transitioning to an actual cost method.

Next meeting:

Date: Wednesday, April 8, 2009

Time: 9:00 – 3:00 (check in at 8:45)

Location: Yates Mill County Park

Appendices:

Summary of Payments through March 4, 2009 for Impacts in the Neuse River Basin (Appendix A)

Appendix A (shown below) represents the handout provided during the March 25, 2009 Stakeholder's Meeting by NC Ecosystem Enhancement Program. The information was requested by Haywood Phthisic.

Note: The Summary of payments represents all payments received including recent payments, for which EEP still has time to build projects to provide the reductions.

**NC EEP Nutrient Offset Program
Summary of Payments through March 4, 2009
for Impacts in the Neuse River Basin**

Authorizing Municipality	Pounds Offset	Total Payment Amounts
Cary	167,221.77	\$2,179,801.04
Durham	86,487.06	\$1,206,015.47
Durham County	22,558.21	\$250,554.89
DWQ *	9,783.55	\$189,979.60
Garner	125,313.86	\$1,451,193.26
Goldsboro	66,737.57	\$772,638.43
Greenville**	4,223.21	\$102,888.96
Havelock	10,327.34	\$136,843.03
Johnston County	55,566.90	\$867,405.48
Kinston	3,317.91	\$36,497.02
New Bern	28,561.84	\$399,393.04
Orange County	3,005.13	\$40,870.54
Raleigh	614,332.20	\$8,049,699.23
Smithfield	8,751.88	\$101,973.33
Wake County	32,267.94	\$426,692.58
Wayne County	16,223.54	\$180,593.52
Wilson	98,754.84	\$1,115,864.97
Grand Total	1,353,434.75	\$17,508,904.39

NOTE:

Pitt County payment was shown incorrectly and has been added to Greenville.

** Payment authorized by DWQ to EEP's Nutrient Offset Program for a point source facility located in the Neuse River Basin*

*** Payments authorized by Greenville to EEP Nutrient Offset Program for impacts located in the Neuse River Basin*

NC EEP Nutrient Offset Program Project Costs for Neuse River Basin through March 4, 2009 (Appendix B)

Appendix B (shown below) represents the handout provided during the March 25, 2009 Stakeholder's Meeting by NC Ecosystem Enhancement Program. The information was requested by Haywood Phthisic.

**NC EEP Nutrient Offset Program
Project Costs for the Neuse River Basin through March 4, 2009**

Mitigation Project Site	Mitigation Type	Municipality	County	River Basin	Subject to DWQ Storm Water Rules	Existing Project Costs	Future Contracts Cost
BMP (River Bend Site)	Wetland	River Bend	Craven	Neuse	No	\$60,975.00	
McCotter Raines	Buffer		Jones	Neuse	No	\$370,880.00	
Hargett/Tucker Farm	Buffer		Jones	Neuse	No	\$330,750.00	
Moye Farm Phase II	Buffer		Greene	Neuse	No	\$992,650.00	
Little Contentnea-Buffer	Buffer		Greene	Neuse	No	\$1,098,852.24	
Howard Farm	Buffer		Greene	Neuse	No	\$426,060.00	
Norwood Gainey Site	Buffer		Wayne	Neuse	Yes	\$359,584.84	\$32,295.00
Ballance Farm (Buffer)	Buffer		Wayne	Neuse	Yes	\$2,050,000.00	
BMP (Wayne Community College)	BMP	Goldsboro	Wayne	Neuse	Yes	\$147,272.41	
Moccasin Creek-Buffer	Buffer		Johnston	Neuse	Yes	\$906,094.93	
Little Buffalo	Buffer		Johnston	Neuse	Yes	\$594,000.00	
Whitley Site	Buffer		Johnston	Neuse	Yes	\$976,250.00	
Brogden Road	Buffer		Johnston	Neuse	Yes	\$420,000.00	
Moore Property	Buffer		Johnston	Neuse	Yes	\$208,392.10	
Big Bull Creek	Buffer		Johnston	Neuse	Yes	\$980,000.00	
BMP (Cary Barnes and Noble)	BMP	Cary	Wake	Neuse	Yes	\$75,648.00	
BMP (Town of Cary)	BMP	Cary	Wake	Neuse	Yes	\$400,950.00	\$40,923.00
						\$10,398,359.52	\$73,218.00

Accounting for Nitrogen and Phosphorous Offset in the Tar-Pamlico River Basin (Appendix C)

Appendix C (shown below) represents the handout provided during the March 25, 2009 Stakeholder's Meeting. The information below was presented by John Huisman, NC Division of Water Quality.

Clarifications on Accounting for N and P Offset Payments in the Tar-Pamlico River Basin March 25, 2009


EEP and DWQ offer the following observations on the nature of nutrient offset projects, clarifications on offset program history in the Tar-Pamlico Basin, and intent for practices here forward in watersheds that have goals for both N and P:

- A given nutrient offset project produces both N and P reductions, which can be used as offset credits that can be deducted from credit balances independently.
- A given development project may produce both N and P offset needs.
- The preempted rule 15A NCAC 2B .0240 (effective March 2006) called for calculating both costs and paying the higher total cost "to satisfy reductions for both N and P limits".
- The rule was effectively preempted without being implemented and the EEP refunded the difference between the higher rate and the \$11 rate specified in Session Law 2006-215.
- Both SL 2006-215 and SL 2007-438 were silent on how credits were to be managed when both N and P offsets were required.
- Pursuant to the Session Law, EEP managed the program for Tar-Pamlico projects with the interpretation that the mitigation requirement for which EEP was responsible was for the nutrient associated with the mitigation payment. Payment letters to the program typically identified the one nutrient associated with the mitigation payment. Nutrient mitigation projects were debited for the one nutrient associated with the payment.
- As a result of the two-nutrient accounting issue being raised and discussed at the February nutrient offset Actual Cost Method stakeholders' meeting, EEP and DWQ have met to validate the approach to be used in the Tar-Pamlico River Basin. EEP recognizes and agrees that both N and P offset values in developer submittals need to be and will be debited and tracked.
- Following the February stakeholders' meeting, EEP reviewed and compiled data for additional N and P on all development projects to date and found the following:
 - Approximately 39 development projects that have purchased offsets from EEP in the Tar-Pamlico Basin to date have involved offset requirements for both nutrients.
 - Twenty five of these projects had additional Nitrogen reduction requirements while 14 had additional Phosphorus reduction requirements.
 - These additional requirements total approximately 17,124 lb N and 510 lb P.
 - EEP's Nutrient Offset Program has installed offset projects yielding N and P credits in sufficient quantities to cover all requirements when accounting for both nutrients associated with all payments.
- The EEP Nutrient Offset Program has now deducted the full totals of both N and P (32,128 lbs and 2,869 lb respectively) offset needs from its balances and is fully compliant with reduction needs to date.
- As part of the upcoming rulemaking for the actual cost method, EEP and DWQ believe consideration should be given to a model under which developers with offset needs for both nutrients would be charged for each separately and would pay both resulting totals. The Actual Cost Method would yield

rates reflecting the single nutrient fees rather than a hybrid fee that covers both nutrients since many users of the program may only be required to buy down one nutrient.

Jim Stanfill Presentation on Actual Cost Method (Appendix D)


Appendix D (shown on the next page) is the handout provided during the March 25, 2009 Stakeholder's Meeting. The information below was presented by Jim Stanfill, NC Ecosystem Enhancement Program.



Transitioning the EEP Nutrient Offset Program to an Actual Cost Method

James B. Stanfill
Ecosystem Enhancement Program

March 25, 2009



- Review Objectives
- Overview of Actual Cost Method
- Review of Issues and Choices
- Detail View Into Calculating Actual Costs

Actual Cost Method Objectives:

- Must use actual costs of generating nutrient reduction credits.
- All costs must be accounted for in the method.
- Must be a self-sustaining financial model.

Actual Cost Method Objectives:

- Rates must change (upwards or downwards) as actual costs change.
- Method must be applicable at either Cataloging Unit (CU), Basin, or State levels.
- Must be applicable to either nitrogen or phosphorus offsets.

Actual Cost Method Objectives:

- Must be understandable and easy to use.
- Must be predictable and equitable.
- Transition Plan by September 2009.

Actual Cost Method

Simple Premise:

Actual Costs / Total Pounds = Actual Cost per pound

Draft Actual Cost Method

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$

Draft Actual Cost Method

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$

$$ActualCosts = ProjectCosts + AdministrationCosts$$

Completed Projects
Terminated Projects
Projects in Process

Staff
Supplies
Rent

Draft Actual Cost Method

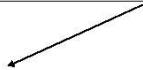
$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$



Total Pounds of Nutrients that will be offset
by Projects

Adjustment Factor

$$AdjustmentFactor = \frac{ActualCosts - ActualReceipts}{NumberofPaymentsDuringAdjustmentPeriod}$$

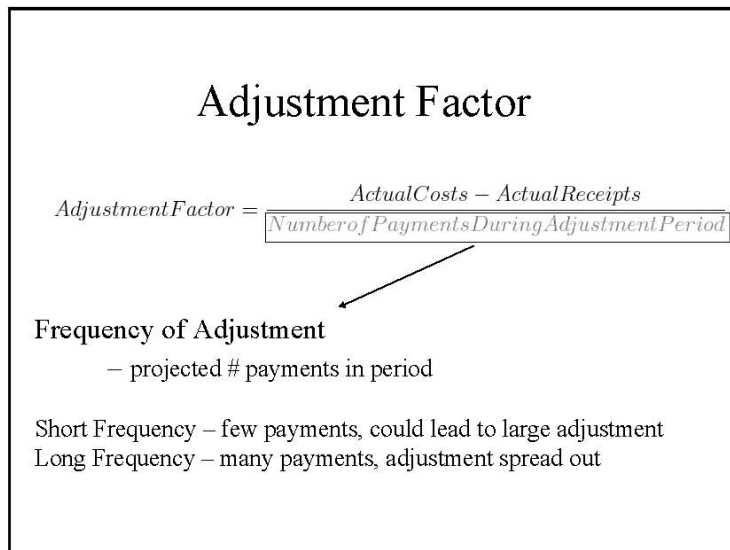
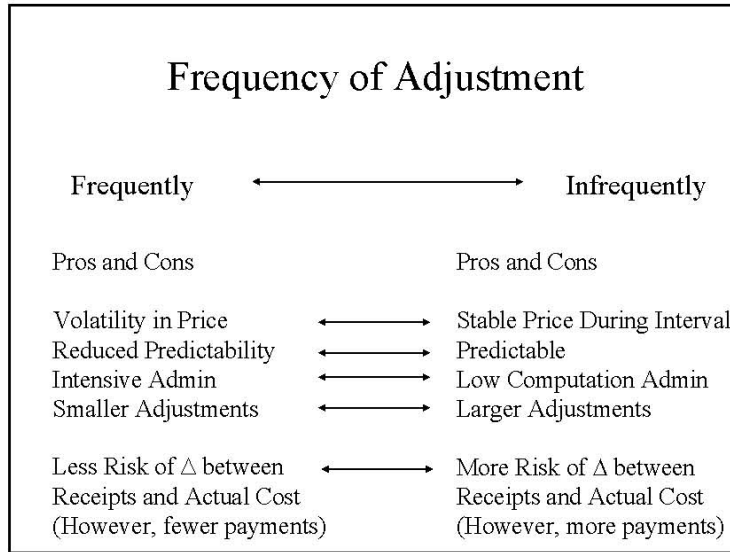


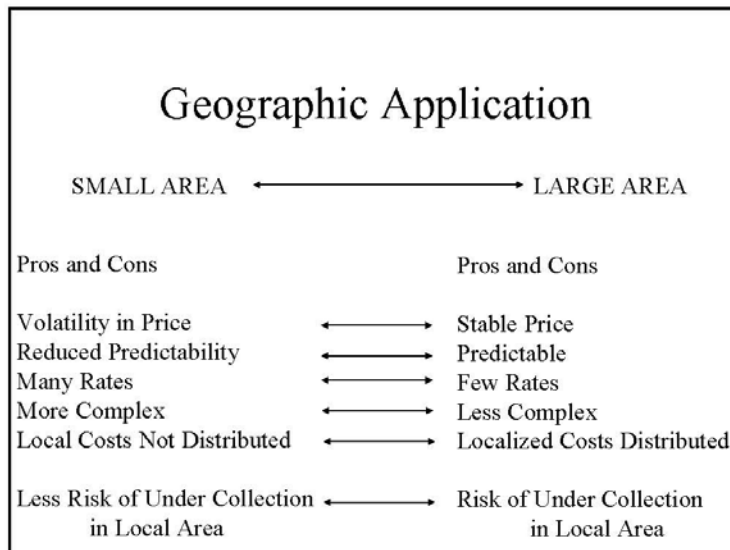
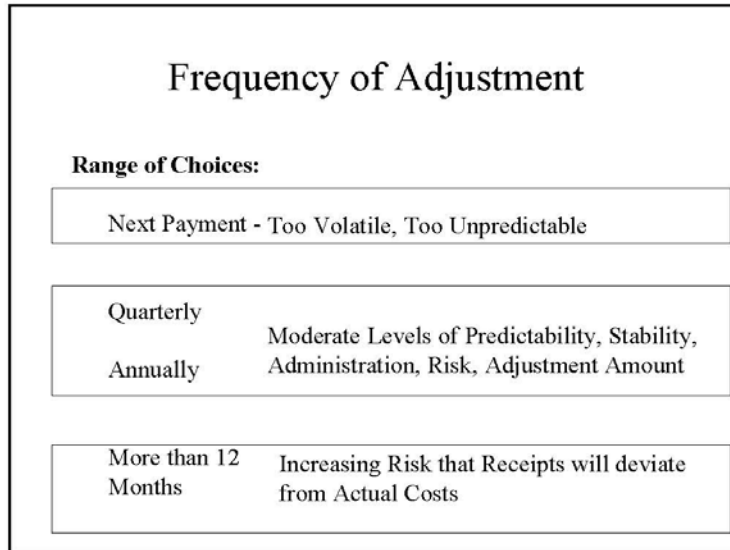
Differences Between Actual Costs and Actual Receipts are
distributed to future payments made into program
- Upward or Downward Adjustments

Review of Issues and Choices

Issues and Choices

- Frequency of Adjustment
- Geographic Application
- Utilizing Inflation to Determine Actual Cost of Projects In Process
- Establishment of Actual Cost Method in Rule





Adjustment Factor

$$\text{Adjustment Factor} = \frac{\text{Actual Costs} - \text{Actual Receipts}}{\text{Number of Payments During Adjustment Period}}$$

Geographic Service Area

- size of area also determines # payments
- small areas have few payments

Actual Cost Calculations

Draft Actual Cost Method

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$

$ActualCosts = ProjectCosts + AdministrationCosts$

ProjectCosts

- Completed Projects
- Terminated Projects
- Projects in Process

AdministrationCosts

- Staff
- Supplies
- Rent

Actual Costs for Projects In Process

- **What is a Project In Process?**
 - It is an incomplete project. There are two types:
 1. Existing Project that has additional Future Contracts to complete project
 2. Future Project that is required to be implemented but is composed entirely of Future Contracts
- **How do you estimate Future Contracts?**
 - Use actual costs associated with implementing similar contracts in past
 - Adjust costs for inflation for time when contract will be executed
 - Choice of Inflation Index

Inflation Index Choice

Various Index Choices Available:

- **Property Inflation Indices**
- **Services Inflation Indices**
- **Construction Inflation Indices**
- **Consumer Price Index**

Propose: USACE Civil Works Construction Cost Index

- **Consistent** - Same Index used in other ILF Program
- **Reasonable** - Construction costs are 60% or more of total projects costs
- **Practical** - Alternative would be to use composite or multiple indices

Determining the Cost of Projects In Process

$$ActualCosts_{Projects\ in\ Process} = PastExpenditures + \boxed{CostToComplete}$$

$$CostToComplete_{Projects} = Cost_{CostToComplete\ Existing\ Contracts} + \boxed{Cost_{Future\ Contracts}}$$

$$Cost_{Future\ Contracts} = f(Inflation) * Cost\ of\ Past\ Contracts$$

Detailed Actual Cost Calculations

Calculating Actual Costs for Projects In Process

- **Procurement Type Specific**
- **Operates at Contract level**

Existing and Future Projects

Cost of Existing Project = Existing Contracts + Future Contracts

Cost of Future Project = Cost of Future Contracts

Procurement Type Important

- 1. Design Bid Build Project**
- 2. Full Delivery Projects**
- 3. Direct Purchase Projects**
- 4. Best Management Projects**

Actual Costs by Procurement Type

(1 Construction, 1 Monitoring, and 16 Stewardship Future Contracts Estimated)

Procurement Type	Neuse	Tar Pamlico	
	N \$/lb	N \$/lb	P \$/lb
DBB	\$4.64	N/A	N/A
FD	\$12.57	\$4.76	\$73.86
BMP	\$14.30	\$64.22	\$599.41
Direct Purchase	\$12.91	\$6.39	\$99.27

Procurement Types and Contracts

Procurement Type	Contract Types							
	Acquisition	Design	Construction	Maintenance	Monitoring	Stewardship	Full Delivery	Direct Purchase
Design Bid Build	√	√	√		√	√		
Full Delivery						√	√	
Best Management	√	√	√	√				
Direct Purchase								√

Example FD Contract Costs

Full Delivery Projects	River Basin	CU	Full Delivery	Total Lbs N	Actual FD Cost/ Pound	Year of Contract	Inflation Index Value	2008 FD Costs	2008 FD Cost/ Pound
Moccasin Creek-Buffer (G)	Neuse	03020201	\$487,538.88	\$45,917.00	\$10.62	2005	\$113.96	\$555,599.31	\$12.10
Little Buffalo (G)	Neuse	03020201	\$676,922.39	\$42,052.00	\$16.10	2005	\$113.96	\$771,420.76	\$18.34
Big Bull Creek (G)	Neuse	03020201	\$1,116,807.99	\$79,559.00	\$14.04	2005	\$113.96	\$1,272,714.99	\$16.00
Brogden Road (G)	Neuse	03020201	\$479,632.00	\$34,096.00	\$14.04	2005	\$113.96	\$545,449.02	\$16.00
Whitby Site (G)	Neuse	03020201	\$1,112,534.49	\$62,510.00	\$17.80	2005	\$113.96	\$1,267,844.31	\$20.28
Little Contentnea-Buffer (G)	Neuse	03020203	\$1,252,252.00	\$123,111.00	\$10.17	2005	\$113.96	\$1,427,066.38	\$11.59
Howard Farm (G)	Neuse	03020203	\$485,537.97	\$59,783.00	\$8.12	2005	\$113.96	\$553,319.07	\$9.26
Hargett/Tucker Farm (G)	Neuse	03020204	\$443,138.04	\$36,370.00	\$12.18	2002	\$133.98	\$593,717.41	\$16.32
McCotter-Raines (G)	Neuse	03020204	\$496,905.01	\$55,464.00	\$8.96	2002	\$133.98	\$665,753.33	\$12.00
Grand Total			\$6,550,269.57	\$508,861.00	\$12.16			\$7,662,883.98	\$14.66

Other Issues

- Calculating Future Contract Costs
 - When no historic contracts exist in geographic area
- Use of Historic Data when Regulatory Change Occurs
 - If Credit Yields change, additional adjustment needed to calculate Cost / pound

Other Issues

- Calculating Number of Payments in Adjustment Period
 - Using Trend Analysis Over Several Years, or
 - Using Previous Year's Payment Data
- Smaller Geographic Application (Smaller than Basin Level)
 - Most payments made as a Basin Requirement
 - These payments/requirements would have to be assigned to CUs
 - Location of impact would not work
 - To calculate Adjustment Factor, Actual Costs of Projects used to meet requirements would have to be used
 - Smaller Geographic Application

Questions?



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**Summary of Payments made to EEP in the Tar-Pamlico River Basin
(Appendix E)**

Appendix E (shown below) represents information requested during the March 25, 2009 Stakeholder's Meeting. The information will be provided at the April 8, 2009 Stakeholder's Meeting.

Summary of Payments made to EEP in Tar-Pamlico Basin (as of 3/24/2009)

Authorizing Municipality	Nutrient Paid	Payment amount	Nutrient Pounds Paid	Associated Nutrient	Associated Nutrient pounds
Edgecombe County					
	Nitrogen	\$0.00	0.00	Phosphorus	0.00
	Phosphorus	\$14,441.65	50.46	Nitrogen	168.00
Franklin County					
	Nitrogen	\$0.00	0.00	Phosphorus	0.00
	Phosphorus	\$19,645.27	54.10	Nitrogen	543.30
Greenville					
	Nitrogen	\$93,475.85	7,715.27	Phosphorus	248.70
	Phosphorus	\$109,873.29	329.07	Nitrogen	5,762.62
Nash County					
	Nitrogen	\$0.00	0.00	Phosphorus	0.00
	Phosphorus	\$52,508.13	248.27	Nitrogen	608.70
Oxford					
	Nitrogen	\$6,099.83	554.53	Phosphorus	0.00
	Phosphorus	\$37,778.40	132.00	Nitrogen	1,500.00
Pitt County					
	Nitrogen	\$8,750.74	403.82	Phosphorus	0.00
	Phosphorus	\$180,288.49	694.45	Nitrogen	0.00
Rocky Mount					
	Nitrogen	\$90,894.90	5,861.29	Phosphorus	264.47
	Phosphorus	\$141,173.11	684.69	Nitrogen	6,306.13
Tarboro					
	Nitrogen	\$0.00	0.00	Phosphorus	0.00
	Phosphorus	\$22,618.67	72.65	Nitrogen	166.50
Washington					
	Nitrogen	\$3,929.78	181.35	Phosphorus	4.10
	Phosphorus	\$49,003.21	123.45	Nitrogen	2,069.50
Grand Total		\$830,481.32			
	Grand Total N paid		14,716.25	Total Associated P	517.26
	Grand Total P paid		2,389.15	Total Associated N	17,124.75

**Nutrient Offset Project Costs in the Tar-Pamlico River Basin
(Appendix F)**

Appendix F (shown below) represents information requested during the March 25, 2009 Stakeholder's Meeting. The information will be provided at the April 4, 2009 Stakeholder's Meeting.

**NC EEP Nutrient Offset Program
Project Cost for the Tar-Pamlico River Basin through March 4, 2009**

Site	Type	City	County	Basin	Subject to Rules	Contract Cost	Future Contracts	Buy/Sells	Total Cost
Louisburg HS	BMP	Louisburg	Franklin	Tar-Pamlico	Yes	\$12,526.00	\$95,000.00		\$107,526.00
Daniels Farm #2	Buffer		Franklin	Tar-Pamlico	Yes	0.00		\$24,654.84	\$24,654.84
Anderson Swamp	Buffer		Edgecombe	Tar-Pamlico	Yes	0.00		\$146,755.00	\$146,755.00
Manning Farm	Buffer		Edgecombe	Tar-Pamlico	Yes	148,000.00			\$148,000.00
Conetoe Creek	Buffer		Pitt	Tar-Pamlico	Yes	194,000.00			\$194,000.00
Grimesland Site (Ph.I)	Buffer		Pitt	Tar-Pamlico	Yes	0.00		\$1,572.21	\$1,572.21
Simpson Buffer	Buffer		Beaufort	Tar-Pamlico	Yes	825,660.00			\$825,660.00
Mason Farm	Buffer		Hyde	Tar-Pamlico	No	0.00		\$146,755.00	\$146,755.00
					TOTAL	\$1,180,186.00	\$95,000.00	\$319,737.05	\$1,594,923.05

**EEP / DWQ Nutrient Offset Payment Program
Transitioning to an Actual Cost-Based Pricing Method**

**Meeting Summary
April 8, 2009
Yates Mill Historic County Park
Raleigh, NC**

- I. Handouts Distributed at the Meeting
- II. Welcome & Orientation
- III. Requests for Information from EEP (Since March 25th meeting)
- IV. Continuation of Presentation: Transitioning the EEP Nutrient Offset Program to Actual Cost Method
 1. Transitioning the EEP Nutrient Offset Program to an Actual Cost Method - Actual Cost Method Scenarios (Powerpoint Presentation by Jim Stanfill)
 2. EEP Nutrient Offset Program Forecasts by CU and Basin (Powerpoint Presentation by David Robinson)
 3. Debrief Actual Cost Method Scenarios
- V. Group Discussions
 - a. Revisit the Issues, Identify new Issues as needed
 - b. Joint Criteria
 - c. Identification of Stakeholder Interests (what's important)
- VI. Proposed Recommendations
- VII. Closing Summary and Next Steps

Reports and presentations are accessible via the NRLI website at:
<http://www.ncsu.edu/nrli/decision-making/projects/index.php>

I. Meeting Handouts

1. Participants were provided with the following handouts:
 - a. April 8 Agenda
 - b. March 25 Meeting Summary
 - c. Issues and Options

- d. Transitioning the EEP Nutrient Offset Program to an Actual Cost Method: Actual Method Scenarios (Powerpoint Presentation by Stanfill)
- e. Actual Cost Data: Program Level Nitrogen, Program Level Phosphorus, River Basin Level Nitrogen-Neuse, River Basin Level Nitrogen Tar-Pam (Table Presentation by Stanfill)
- f. EEP Nutrient Offset Program Forecasts by CU and Basin (Powerpoint Presentation by David Robinson)

All handouts are available under the section labeled: April 8, 2009 at:
www.ncsu.edu/nrli/decision-making/projects/NOPPStakeholderPage.php

2. Participants who attended the April 8, 2009 meeting.

April 8, 2009 Participants	
Name	Affiliation
Bill Diuguid	NC Division of Water Quality
Rich Gannon	NC Division of Water Quality
John Huisman	NC Division of Water Quality
Kristin Miguez	NC Ecosystem Enhancement Program
David Robinson	NC Ecosystem Enhancement Program
Suzanne Klimek	NC Ecosystem Enhancement Program
Kelly Williams	NC Ecosystem Enhancement Program
Jim Stanfill	NC Ecosystem Enhancement Program
Robert Brown	NC Ecosystem Enhancement Program
Eric Ellis	NC Ecosystem Enhancement Program
Bill Gilmore	NC Ecosystem Enhancement Program
Susan Lodwood	NC Ecosystem Enhancement Program
Erin Wynia	NC League of Municipalities
Charles Brown	Town of Cary
Haywood Phthisic	LNBA/NRCA & Johnston County
Jonas Hill	Pitt County
Sandi Wilbur	City of Durham
Anne Coan	NC Farm Bureau Federation
Mike Schlegel	Triangle-J Council of Government
Adam Riggsbee	Restoration Systems, Inc.
Heather Jacobs Deck	Pamlico-Tar River Foundation
Alissa Bierman	Neuse River Keeper Foundation
Katherine Locbaum	Neuse River Keeper Foundation
Mary Lou Addor	NCSU Natural Resources Leadership Institute
Steve Smutko	NCSU Natural Resources Leadership Institute

II. Welcome and Orientation

Mary Lou Addor, NRLI, opened the meeting with introductions, provided an overview the agenda and meeting process.

Agenda Review

The agenda items included:

6. Welcome & Introductions
 - a. Review the purpose and scope of the stakeholder process
7. Review March 25th Meeting Summary for additional changes and comments
8. Agenda Review for April 8th
 - a. Presentation & Discussion: Actual Cost Method Scenarios
 - b. Discussion of Issues/Recommendations
 - c. (Lunch Break)
 - d. Contd. Discussion of Issues/Recommendations
 - e. Closing Summary & What's Next?
9. Process Review
 - a. Roles and responsibilities (facilitators, stakeholders, EEP, DWQ)
 - b. Decision rule
 - c. Ground rules
 - d. Parking lot
10. Inform stakeholders of information requests to EEP
11. Wayne Community College BMP Visit (See Kristin Miguez for additional information).

Review of Purpose and Scope

The purpose and scope of the stakeholder meetings are to:

- **Purpose:** *Provide guidance to the Ecosystem Enhancement Program in transitioning from a fee-based system to an actual cost system as required by the General Assembly.*
- **Scope:** The focus of the stakeholder recommendations will be on the pricing methodology.

Process Review

6. Roles

- a. Stakeholders: responsible for disclosing interests, needs, actions, and issues in a timely manner and committing to the purpose of the stakeholder process. Stakeholders will be expected to represent the

- interests of (1) themselves, (2) organizations which they have the authority to represent, or (3) groups of constituents with similar interests.
- b. Facilitators: responsible for helping the group stays on process and on topic, promoting open and balanced discussion, and organizing information for effective use.
 - c. EEP: responsible for convening the group, providing basic information about the cost-based pricing method and the nutrient offset payment program generally.
 - d. DWQ: responsible for assisting with understanding content and any agency policies that pertain to the formula.

7. Decision Rule

When the group presents proposals for consideration, each stakeholder (1 representative per organization) will designate his or her level of agreement using the following scale:

Level 1: Endorsement (I like it)

Level 2: Endorsement with a minor point of contention (basically I like it)

Level 3: Agreement with reservations (I can live with it)

Level 4: Stand Aside (I don't like it but I don't want to hold up the group)

Level 5: Block (I will not support the proposal and will act outside the group to meet my interests)

The final report will show at which level individuals or groups supported the final product. The focus for each stakeholder should be on making good decisions for his or her constituency, not simply to reach agreement.

8. Ground Rules

- a. Work the problem, not the person.
- b. Make space for others to contribute
- c. Follow the process
- d. One speaker at a time
- e. Park-off agenda items
- f. Rolling breaks
- g. Cell phones on vibrate
- h. Test assumptions/Ask Questions

9. Parking Lot

Topics not considered by the group to be germane to the day's agenda will be listed on a separate flip chart under the heading "Parking Lot." Prior to adjourning each meeting, the facilitators will review parking lot items, and the group will determine how (and possibly when) each item will be handled.

10. Debrief Format

In order to help the stakeholders create a shared understanding of the questions and responses that follow a presentation, the following debrief format was introduced.

- a. Questions of Clarification
- b. Reactions to what you just heard
- c. Implications for purpose of the stakeholder group
- d. Actions (recommendations)

III. Requests for Information from EEP (Since March 25th meeting)

3. **Request #1** Provide at the next Stakeholder's Meeting, two fee rates based on geographic application of the Actual Cost Method. The first rate involves using Neuse 01 actual cost data to produce a nitrogen fee, and the second scenario involves using historical cost data excluding Neuse 01 for a programmatic fee for the remaining geographic areas.
4. **Request#2:** Stakeholder requested information about the change in property values over time to be used as an inflation index for property acquisition cost related to future contracts.
5. **Request #3:** Stakeholders requested information about the effect when there is a change in advance mitigation, both on price stability and environmental impact.

IV. PRESENTATIONS - Continuation of Presentation: Transitioning the EEP Nutrient Offset Program to Actual Cost Method

All handouts are available under the section labeled: April 8, 2009 at:
www.ncsu.edu/nrli/decision-making/projects/NOPPStakeholderPage.php

1. Transitioning the EEP Nutrient Offset Program to an Actual Cost Method

The continuation of the "Transitioning the EEP Nutrient Offset Program to an Actual Cost Method" presentation, Jim Stanfill presented several alternatives scenarios. During the presentation, Jim described the results of conducting the Actual Cost Method at a program level, river basin level and a cataloging unit level (at three geographic application levels).

Issues and Choices of the ACM

Jim began by reviewing the **four broad issues and choices** of the actual cost method.

1. **Geographic Application** (Application of Rate NOT Location of Mitigation)
 - a. Program Level
 - b. Basin Level
 - c. Cataloging Unit Level
2. **Frequency of Adjustment**
3. **Length of Adjustment Period**
4. **Should Costs be Adjusted below Actual Costs**

Projects Costs

Jim provided an overview of the actual cost method formula, and reminded the participants that all of the variables of actual costs (administrative and project costs) are known with the exception of the **"project costs in process."**

The NC Legislature is requiring the use of actual costs to generate nutrient reduction credits. **There are nine objectives to the actual cost method.** (information brought forward from the March 25 presentation).

1. Must use actual costs of generating nutrient reduction credits.
2. All costs must be accounted for in the ACM.
3. Must be a self-sustaining financial model.
4. Rates must change (upwards or downwards) as actual costs change.
5. Method must be applicable at a Cataloging Unit (CU), Basin or Program Level.
6. Must be applicable to either nitrogen or phosphorus offsets.
7. Must be understandable and easy to use
8. Must be predictable and equitable
9. Transition plan by September 2009.

Question: Stakeholder: How are past costs projected into the future?

Response: Jim Stanfill: We are not basing cost data on any theoretical cost of the EEP program. We will include actual cost of:

- | | |
|----------------|--------------------|
| ○ Acquisition | ○ Monitoring Costs |
| ○ Design | ○ Stewardship |
| ○ Construction | |

These are specific projects that have a specific number of contracts. Some are complete and some are future contracts that need to be completed.

Adjustment Factor

Jim **reintroduced the Adjustment Factor** (reference handout d, p. 4 and summary of annual forecasts). This section outlines the Questions, Responses, and Comments provided during this presentation.

Comment: Concerns were expressed about the rate change and adjustment factor. Jim offered a hypothetical to address these concerns: if the base rate is \$20, and the adjustment factor is \$10, then the new fee is \$30 for that year. When you run the model again the following year, the actual costs minus actual receipts are expected to generate a smaller gap. Following the adjustment each year, the actual costs should do down.

Question: Is it the adjustment factor that will be adjusted by 25% each year?

Response: Let us hold that question for later in the presentation.

ACM Assumptions

Jim identified **several assumptions about the actual cost method scenarios** which are:

1. Adjustment Frequency: annually
2. Use 3 year running average to calculate average pounds expected to be paid per year
3. Adjustment Period - four years
4. Inflation Index: USACE Civil Works Construction Cost Index
5. Admin Costs Per Payment limited to 8 years

Jim elaborated about several aspects of the ACM assumptions: with respect to the admin costs per payment limited to 8 years, historically 8 years is the life of the project where 90% of the project costs occur.

Comment: A stakeholder expressed the concern about the 4 year adjustment period - suggesting the program will not be able to recover costs to a balance of zero (assumption that everything remains constant).

Response: Yes, that is understood, and you are correct if you assume that everything else remains constant. However, in reality, the annual difference is a moving target anyway.

Actual cost method scenario for Neuse Nitrogen at the Program Level

Jim highlighted the following key points:

1. Some of the future project costs are associated with full delivery projects and EEP cannot discuss those projects.
2. Future project costs and administration costs are adjusted for inflation.
3. With respect to actual cost of program, there are no completed projects since the oldest project is about 4 years old.
4. It is important to note that we have been estimating our costs at the program level, so the adjustments are minimal at that level. However, when you apply the cost method at smaller geographic levels, you see significant adjustments are required to make it balance from year to year.

Comment: One stakeholder commented regarding the ACM program-level results, that a bigger drop in the adjustment factor would have been expected given the initial \$11/lb and then the increase to \$28/lb.

Question: How is it that you've managed to get your costs so closely aligned to the \$11 figure for nitrogen?

Response: (Stanfill) Because during most of the time we have been running our program, we were focused on coming in at the \$11 target for the Neuse, and most of our payments were generated from that basin.

Actual cost method scenario for Neuse Nitrogen at the Basin Level

Jim pointed out that the Neuse Nitrogen Program dominates the state's nutrient program; 97% of payments are made in Neuse 01 - if you include all payments from the Basin (including the Tar-Pam nitrogen).

Actual cost method scenario for Tar-Pam Nitrogen at the Basin Level

Jim pointed out that the administration costs are proportionate to lbs.

Question: What are your base administrative costs? Do you adjust them up or down based on annual program activity, especially in zero payment years?

Response: (Stanfill) Administrative costs are adjusted for inflation (and go up or down in proportion to real costs). Staff costs remain stable over time so that the actual cost is the base cost.

Question: How do you divide administrative costs geographically (between basins or at the CU level) particularly if you don't have projects in a particular CU?

Response: (Stanfill) If there are no costs in that CU, then there is nothing to recoup, therefore, we have no administrative costs associated with that CU.

- Question:** Personnel costs seem low. Does that account for everything?
- Response:** (Stanfill) Yes. We do not have many staff assigned to the Nutrient Offset Program. We have several other programs that we run. Almost all of our projects have been full delivery or full purchase, that's why we show so few personnel costs in this particular program.
- Comment:** Concern raised by one of the stakeholders that the adjustment factor is very difficult to explain and as a result, does not meet one of the objectives of the actual cost method (i.e., easy to explain).

Actual cost method scenario for Tar-Pam Phosphorus at the Basin Level

- Comment:** It is anticipated that the development community will be concerned with the basin level Tar-Pam phosphorus

Actual cost method scenario for the CU level

Jim identified the problems running the actual cost method at the CU level. This would require increased management and additional programming. There is also a concern that there would be limited data at the CU level

Additional Questions of Clarification

- Question:** Based on the 2009 data that you're showing, can we expect that the average for the Neuse and Tar-Pamlico to be accurate?
- Response:** (Stanfill) We feel comfortable with the 3-year moving average. If we attempted to look at the data monthly, the data would show some months having more payments than others. Payments seem to be cyclical for economic reasons as well as business budgeting reasons inclusive of the construction season. Overall, a 3-year moving average reflects both suggestions from this stakeholder group as well as what we feel is most realistic.
- Comment:** There seems to be a discrepancy between the credits (denominator) in the main Actual Cost calculation and the Adjustment Factor calculation. Can you help clarify?
- Response:** (Stanfill) The credit component (denominator) in the Adjustment Factor calculation is dependent on the Future Expected Pounds, which differs due to time intervals. The credit component (denominator) in the Actual Cost calculation is based on the actual credits that nutrient projects produced.
- Comment:** Suggests keeping the Actual Cost Method Adjustment and the Adjustment Factor Denominator at a yearly interval to avoid possible confusion by stakeholders and Legislators.

Response: (Stanfill) Based on stakeholder comments thus far I feel comfortable looking at running the Actual Costs once a year with some safeguards.

Question: Are the future projects the RFP projects?

Response: (Stanfill) EEP is not allowed to discuss these projects at this time. According to the ACM, future projects consist of a projected cost based on actual cost data. There is no arbitrary data cost regarding any project data.

Question: Is there a base level that would have to be maintained for administrative costs and are those costs inflated?

Response: (Stanfill) There are fixed costs for utility rate, rent, and staff that are adjusted for the future. The ACM rate incorporates administrative costs. If the program grows (need to add 1 or more employees), then the rate will reflect the increased costs. As administrative cost increases or decreases, the ACM will capture those changes. Administration is an allocated portion of specific positions that help manage the Nutrient Offset Program.

Question: Looking at the example in your power point presentation which the Actual Cost Rate is \$34.49 for Nitrogen in the Tar-Pamlico, if you're searching for the lowest cost project, do you use the current Actual Cost Rate to determine if a project is low or high?

Response: (Stanfill) No. Legislation says we must implement the lowest cost project. The \$34.49 is the rate that we charge to offset nutrients based on the actual cost at a given point in time.

Question: Why are there more asset costs than payments?

Response: (Stanfill) There are several reasons:

1. Some payments were made at a low rate (\$11/lbs N).
2. Specific to the Cataloging Unit (CU), a cost discrepancy exists due to the low volume of payments versus project costs in that CU. That project supports mitigation for both the current payments as well as future expected payments. This is the normal expectation in low-volume payment CUs because there is a minimum projects size that must be implemented.
3. In the Tar-Pam when you implements a buffer srest., the projects yield nitrogen and phosphorus credits. However, Nitrogen and Phosphorus requirements are not being paid into the program at the same rate as the projects yield. Therefore as a consequence of meeting the mitigation

requirements, there are some unused credits that are paid for by future requirements.

- Comment:** Considers that a higher Actual Cost Rate is not necessarily bad, but actually good for the municipality and environment. The stakeholder states that developers basically have two options. One option is to pay a third party provider to offset its nutrient reductions or conduct an on-site mitigation themselves. The municipalities would prefer that developers conduct on-site mitigation as opposed to paying a third party provider for nutrient reduction in order to achieve greater environmental benefits of having the mitigation physically closer to the impacts.
- Question:** Given that the adjustment period is 4 years for nitrogen at the Tar-Pamlico River Basin Level, what is the basis of the 22,984 lbs nitrogen?
- Response:** (Stanfill) The pounds of nitrogen (22,984 lbs N) are based on a 3 year running average used to calculate the average pounds expected to be paid each year.
- Comment:** Suggests using the term "Rate Review Frequency" instead of "Adjustment Factor" and "Actual Cost Method" instead of "ACM" in order to be less confusing for everyone.
- Response:** (Stanfill) Defines that the Rate Review Frequency will represent the interval of time in which rates will be reviewed or examine to determine if the Actual Cost Rate needs adjusting.
- Comment:** Expresses concern over the inability to completely recover over a long adjustment period.
- Response:** (Stanfill) If you're assuming pounds are constant, you will never recoup your cost. However, the dollar amount that I am recouping each year is getting less.
- Comment:** Why would EEP need assets in each Cataloguing Unit?
- Response:** (Stanfill) Because Legislation requires assets in each CU.
- Question:** Does the calculation count both phosphorus and corresponding nitrogen needs?
- Response:** (Stanfill) Yes, the number is added to the ledger.
- Comment:** (Stanfill) There is a discrepancy between the cost of projects and payments received within CUs and the Tar Pam RB. This is explained by the requirement to build projects within a CU even when there are a small volume of payments. Hence there is a carrying cost to build projects in low volume receipt CUs. EEP sites are appropriately sized for cost efficiency.

Question: Currently, in the Tar-Pamlico, one pays for whichever nutrient (nitrogen or phosphorus) is greater of the two and offsets for both. Can we have one rate for both nutrients in the Tar-Pamlico and not split up for nitrogen and phosphorus?

Comment: (Stanfill) If you need 150 lbs of phosphorus and 0lbs of nitrogen, what is the buffer equivalent? Basically, you would need just over an acre of buffer to offset 150 lbs of phosphorus. Technically, you're still paying and offsetting for both phosphorus and nitrogen. Downside of paying for only one nutrient is that customers would be paying a huge rate than before. Historically speaking, approximately 58% of customers require both nitrogen and phosphorus. By paying for only for what you need

2. EEP Nutrient Offset Program Forecasts by CU and Basin

David Robison illustrated how the annual payment forecasts were derived for both the Neuse and Tar-Pam at the CU and Basin level. He presented the information in terms of trends, both linear and 3-year average. For instance, David forecasted levels of nitrogen in the Neuse based on an average of three years from 2006-2008. He explained that the 2007 data (Neuse Basin: Annual Pounds of N) may be higher and the 2008 lower in comparison because the fee was expected to go up in 2008. Hence, more payments were received in 2007.

3. Debrief of Actual Cost Method Scenarios

Mary Lou worked with the group to debrief Stanfill's morning presentation. The following debrief format was used.

1. Questions of clarification
2. Reactions
3. Implications for decision-making
4. Actions for consideration

Questions of Clarification

Question: Will EEP change its rates once the Jordan Lake and Falls Lake rules are approved?

Response: (Stanfill) Based on the Actual Cost Method, it's possible that a different rate will be offered in those particular watersheds due to the unusually high costs and specific watershed requirements imposed by regulations. Costs will certainly be affected in these watersheds comparative to other areas due to the physical and BMP constraints common in an urban environment. The rate could be geographically specific at a particular watershed level:

1. Upper Cape Fear River Basin Rate
2. Sub-basin Area Rate.

Reactions to what you just heard

The Summary of stakeholder reactions is presented followed by individual comments.

Summary:

1. ACM may have limited use in the Tar-Pamlico River Basin; may want to use as a working model for a 5-year period and then reevaluate.
2. Jordan, Falls, and High Rock: take into consideration increased land prices (much higher costs).
3. Uncomfortable with program level rate because of various situations (stakeholder did not elaborate on the various situations).
4. Tar- Pam Basin Level Nitrogen Rate of \$5.09 is very low, especially in comparison to providing costs in other locations. Could force mitigation into rural areas and away from urban.
5. Charge on CU basis could raise concerns for some given the unpredictable pricing nature. Could give rise to a number of rates and this may not be manageable.
6. Need to consider how to protect the estuary in whatever the pricing method.
7. Would like one cost at the program level.
 - a. For example, future projects at the CU level, more involve more expensive areas due to land costs and other factors. It may be more difficult adjusting the actual cost method on a regular basis given the variability in costs.
 - b. One cost at the program level might be ok if the lion's share of offsets occurs in the same area (if a large portion of offsets have not been in Neuse01 nor costs accounted for-we would not support this idea). Staff member reported that about 36% of offsets have occurred in the Neuse01.
8. For inflation rate- consider change in land acquisition costs as a additional factor along with the USACE Index
9. Rate review frequency= adjustment factor frequency (interval of time between which rates are reviewed and adjusted).
10. Truing-up: Reset enough money to have costs, if going to true-up to within \$100,000.
11. Truing-up book assets. Retire any additionally lower rate concerns. No comparisons to low rates in other areas. Concern in urban areas that developers will be forced into rural over urban areas.

Individual Comments:

- Comment:** Comments that EEP should first try using the ACM at the Program Level and then at the CU Level. Perhaps future projects could be implemented in more expensive areas, etc.
- Comment:** ACM may have limited use in the Tar-Pam. As a result, may want to consider the actual cost method as a "working model" for about 5 years. Monitor and evaluate the model, determine needed improvements, and return to the EMC to make corrections on assumptions and to include more current and historical data.
- Comment:** Suggests applying ACM at the Program Level instead of basing it on geographic areas. One of the requirements of the ACM is equity across geographic areas. For example, Greenville is located in two (Neuse and Tar-Pamlico) River Basins. One recommendation is to develop the best possible methodology at the Program Level for the time being, and then come back to EMC later as more information is available.
- Comment:** Foresees a problem in the Jordan Lake, Falls Lake and High Rock Lake watersheds. Commented that if EEP does not think it will not be in a financial hole now, then if the ACM rate is \$11 or \$15 and try's to purchase land in the Upper New Hope watershed, then EEP will financially end up in the hole really fast. We know that the Jordan Rules will be approved in the near future.
- Comment:** (Klimek) Some of the areas to be regulated in the future will have much higher land costs; therefore we need to account for the higher costs so that we do not go into a financial hole at all.
- Comment:** Not comfortable moving forward with a single statewide rate because of concern over people's reactions of having one statewide rate for the first year and then different rates for subsequent years split out by geographic area.
- Comment:** (Stanfill) Programmatically, there are enough dollars to pay for all of the programs. If we reset books, we don't need any extra money to make the one-time adjustment. In the future, everything goes to \$0, or something close to \$0, with a small adjustment.
- Question:** Would that meet all of the requirements?
- Response:** (Stanfill) Within \$100,000, there is enough money to pay for all projects. Then the adjustment would be \$0. There is enough money for offsets for all projects, everything paid for, true-up on the financial side and offset.

- Comment:** Stakeholder suggests that EEP start from scratch, clear the books and eliminate the advance credits from the program. Once you clear the books, you will have to wait until you have enough dollars to build new projects.
- Response:** (Stanfill) EEP has a time requirement imposed by DWQ to comply with new requirements.
- Concerns:** Mentions if actual cost results in low rates, then developers would be discouraged from implementing on-site mitigation. In addition, there is a concern urban impacts could be mitigated in rural areas.
- Response:** (Stanfill) The rule requests that we provide a fee based on actual cost. This does not alter the requirement of mitigation at the CU level.
- Comment:** A one-time adjustment might be more simple politically.
- Response:** (Stanfill) EEP agrees that a one-time adjustment can occur due to the Nutrient Program's fund's solvency at a program level. This would also be a simpler approach.
- Comment:** Prefers that the Rate of Review and the Period for the Rate Change to both be one year rather than the one year and four years respectively.
- Comment:** From the data and number of projects, it makes sense to have one cost, statewide, even if you mitigate at a CU Level or lower level to address the issues Durham has expressed. Even if projects become more expensive, you can adjust each year to account for the rise in cost. This is okay because you're adjusting on a regular basis with yearly cost spread statewide. The real problem is the variability of cost when you get down to the Basin Level, particularly at the CU Level, when there are extreme differences in rates.
- Response:** My reaction is that one Program Level fee is okay as long as the lions' share of offsets is in one area. It's not okay to set the rate as low as ACM is calculating it to be right now. A large portion of EEP's projects are located in the Neuse 01, but in some instances in Neuse 01, the cost of land was not included since the land was donated. I would be okay with the rate provided donated land costs are accounted for. I would fight it really hard without including compensation for land costs in the future.
- Comment:** (K. Williams) The most recent trend shows that approximately 91% of the payments are in the Neuse 01; with an overall figure of 85% since the program began.
- Question:** What is a statewide rate?

Comment: (Facilitator) Instructs everyone to use the phrase, "Program Level" rather than "Statewide", since the program is administered only in two river basins.

Comment: Regarding the inflation rate: Construction cost is a large component, however I think there is a real need for an inflation rate for land in order to reflect changes in land acquisition costs.

Implications for Decision-Making- Adjustment Factor

Several members of the stakeholder committee conveyed their concerns about the adjustment factor. As a result, they began to brainstorm ideas about the appropriate use of the adjustment factor. Three proposals were developed. Two proposals excluded the use of the adjustment factor, suggesting that program costs should be covered under the current accounting method and zeroed out before the actual cost method was used.

Proposal 1: - using an adjustment factor

- First: rate adjustment using program level data
- Subsequent years use adjustment spilt out by basin
- Number of years open for discussion- may be less than four proposed in the earlier assumptions.
- 1 year/1year same with options/triggers for adjustment

Proposal 2: - not using an adjustment factor/reset

- Reset
- Cover all costs now and start with a blank slate or close to \$100k - give or take a little.

Proposal 3: - not using an adjustment factor/reset

- Reset (true up the books)
- Retire additional assets on the books

The group requested to table the brainstorm session on the adjustment factor and adjourn for lunch before resuming this and other discussions scheduled for the afternoon.

IV. Group Discussions: Issues, Criteria, Interests, & Options

Issues

Steve Smutko began the afternoon session by introducing the handout, *"EEP/DWQ Nutrient Offset Payment Program Transitioning to an Actual Cost-Based Pricing*

Method – Issues and Options” to help frame the afternoon portion of the meeting. The objective was twofold: 1) to ensure all of the issues were captured at the March 25 meeting and add any new issues from the April 8 meeting; and 2) to acquire group support on these issues.

Issues generated at the March 25 meeting:

- b. Frequency of Adjustment
 - i. Placement of a "floor" on the adjustment factor
 - ii. Percent cost increase/decrease threshold for triggering adjustment
- c. Geographic Application
- d. Inflation Method (Adjustment) for Future Costs
- e. Addressing costs of indefinite maintenance (i.e. stewardship expenses)
- f. How to evaluate the different types of projects in estimating future cost
- g. If there is a surplus, wipe slant clean and donate overage to environment
- h. Address least cost requirement (see hot spots)
- i. Accounting for lag time from action to mitigation
- j. Factor "hot spots" into geographic determination.

Issues added by stakeholders at the April 8 meeting:

- k. Least cost mitigation
- l. Generate adequate funds to do BMP projects in urban areas; move mitigation closer to source.
- m. Tax implications to counties for state purchased property.
- n. Loss of opportunity for farmers to reach reduction goals
- o. Accurately estimating reduction for given projects.

Joint Criteria

Smutko reviewed the list of joint criteria. These are criteria that everyone will use to evaluate options and proposals. Each person may weigh each criterion differently, but it is agreed by the group that all criteria are valid.

Geographic Application

- a. Reduce price volatility (over time)
- b. Enhance/maintain price predictability
- c. Keep the number of rates in use to a tolerable level
- d. Keep computation complexity to tolerable level
- e. Keep regional price differentials within tolerable levels.
- f. Reduce risk of under collection

Frequency of Adjustment

- a. Reduce Price volatility/ enhance predictability
- b. Increase and maintain price stability
- c. Reduce administrative costs
- d. Keep size of adjustment to tolerable level

- e. Reduce differences between expenses and receipts

Interval Considerations

- a. frequency of letting projects
- b. more time=better data=better accuracy
- c. use a % trigger
- d. think annually - project your costs a year in advance

Identification of Stakeholder Interests (what's important)

The stakeholders generated a list of interests at the March 25 meeting and this list was carried forward into the April 8 meeting summary. These interests will be used by individual stakeholders as criteria to evaluate options and proposals. They are not jointly agreed on by all stakeholders, and in fact, some interests are antithetical to other interests.

- 24. Fair and equitable system for the river basin (all jurisdictions) or statewide.
- 25. Clear and concise accounting.
- 26. ACM is clear in its functionality.
- 27. Predictability of rate changes in respect to cost and time
- 28. Notification to public regarding rate changes.
- 29. Use market value appropriately.
- 30. Costs reflect the market enabling competition
- 31. Minimize costs to purchases
- 32. Applicant gets benefit of price fluctuation
- 33. Get the costs right, the actual costs
- 34. Reflects actual costs
- 35. Actual costs covers all costs
- 36. Restoration and impact are in close proximity
- 37. Account for the environmental cost of creating mitigation after the impact
- 38. Environment benefits
- 39. Provide best environmental lift at lowest costs.
- 40. Ecological benefit of mitigation is credited (accounted for and paid one time.
- 41. Formula (ACM) and use of does not result in pollution or mitigation of "hot spots" due to land costs differences and how they are reflected in the formula (appropriately small geographic scope).
- 42. Account for the actual cost per pound of existing projects
- 43. Science and economics are adjusted simultaneously.
- 44. Actual Cost Method is in rule that allows rates to automatically adjust up and down based on actual costs.
- 45. Ability to adapt prices to new realities
- 46. Do not deviate from historical fee area is not necessary.

Potential Options for Each Issue

The stakeholders generated potential options for three of the issues.

1. Geographic Application (*items may be outside purpose of stakeholder process as identified in the purpose and scope).

- a. 8 digit HUC or service area
- b. Basin
- c. Program
- d. Mitigate a 8 digit but use a larger accountability region
- e. Use Actual Cost on basin level but adjust by land acquisition at CU level
- f. *Go to EMC to change mitigation level to smaller than 8 digit HUC
- g. *Got to EMC to change mitigation level to preclude mitigation of hot spots and/or correct for current hot spots.
- h. *Include a transport factor to address delivery reduction differences.
- i. *Price out different BMP options
- j. *Require BMP right out of the permit

2. Frequency of Adjustment

- a. Next Payment
- b. Quarterly
- c. Annually
- d. More than annually
- e. Percentage threshold
- f. Procurement quantity
- g. Combination (change in actual costs)
- h. Based on regulatory change

3. Inflation Adjustment

- a. US ACE construction cost index
- b. Property index
- c. Service index
- d. Consumer price index
- e. Composite
- f. Multiple Indices

Resume Discussion of the Adjustment Factor

Three proposals were generated for using/not using an adjustment factor in the actual cost method.

Proposal 1: - using an adjustment factor

- 1st rate adjustment using program level data
- Subsequent years use adjustment split out by basin
- # of years open for discussion- may be less than four proposed in the earlier assumptions.
- 1 year/1year same with options/triggers for adjustment
(True-up scenario #1: Adjust current discrepancies at the program level in year one to true up, then make annual adjustments at the basin level in subsequent years).

Proposal 2: - not using an adjustment factor/Reset

- Reset
- Cover all costs now and start with a blank slate or close to \$100k - give or take a little.
(True-up scenario #2 Do a one-time adjustment so that receipts equal the current payment deficit within year one. True all accounts one time.)

Proposal 3: - not using an adjustment factor/Reset

- Reset (true up the books)
- Retire additional assets on the books
(True-up scenario #3 Do scenario #1 or #2; clear the books and then eliminate all excess assets from this point forward).

Facilitator questioned if stakeholders clearly understood the discussion at this point. Several committee members had questions or comments:

Comment: Believes that EEP should use the Neuse 01 as the primary indicator of costs.

Question: Comments that EEP needs to be considerate of political ramifications of credit elimination, saying that some people may think eliminating assets paid for by others fees may be looked upon poorly.

Comment: Comments that if there is not a reset of credits value then there would be an unfair advantage if those credits were sold. Claims restoration will be at \$0.00/lb rate.

Comment: Attempts to find compromise by suggesting that a percentage (i.e., 50%) could be retired and 50 left as a cushion.

Note: Comments made ultimately left some questions on the table regarding advance mitigation's effect both on price stability and environmental impacts. This led to a request for a demonstration of this information.

Comment: If the data becomes available, there is some interest in having the fee at a CU level by a few stakeholders.

Response: This comment is followed by only wanting this to be done at the program level.

- Comment:** EEP should consider using no more than 50% of advance mitigation assets to see if there would be enough credits to keep the rate stable.
- Comment:** (Stanfill) We are required to start a project when the clock begins. From an ACM perspective, the first 25 – 30 payments that we get in an area, we could wait, but here is what we're getting by holding the payments: it's a real advantage to the program from a rate perspective especially in CUs that incur a low volume of payments. That problem is eliminated with advanced mitigation, that's why I said that in the first year we'd have a really low rate and then in the second year we'd have a high rate, if we get rid of advanced credits.
- Comment:** Doesn't believe it's politically feasible to implement multiple rates. Based on experience, you can't have one rate here and another rate some where else.
- Comment:** Being from Pitt County, which is located in both the Neuse and Tar Pamlico River Basins, we voluntarily applied the Tar Pamlico rules in the Neuse basin to discourage extreme growth in the southern portion of Pitt County where there are no regulations.
- Comment:** EEP should charge at the program level, recognizing the cost value of donated land, so there is no need to suggest eliminating advance mitigation.
- Comment:** One proposal is to use a basin level rate until there is enough demand in each CU for individual mitigation sites at which time you can set a rate based on the CU level.
- Comment:** (Stanfill) Since in many CUs, EEP collects very little if any receipts, the Program Level makes the best sense.

PROPOSAL: The stakeholders discussed the geographic application of rates.

Step 1: Reset in year one at the basin (program?) level to 0\$

Step 2: Retire assets in Tar-Pam

- a. All assets? 50%?

Step 3: Recalculate

- a. Use land acquisition cost data to differentiate costs at CU Level

Response: (Stanfill) If anybody believes that 14 rates are appropriate it is okay with me. There would be 9 separate nitrogen rates and 5 separate phosphorus rates at the CU Level. Eliminating assets increases rate volatility. This approach will be difficult to explain to the General Assembly. I hope that whatever

approach we take that we will be able to explain to General Assembly.

Comment: Some counties will have more than one rate. City of Greenville would have 5 rates.

Comment: Recommends dropping the third provision of retiring 50% of assets.

Comment: (Stanfill) In the interest of trying to facilitate this process and given that 84% of the payments are in Neuse 01, the Neuse 01 should have its own rate. There should be a Program Level rate for everywhere else and set an individual rates for special watersheds such as the Neuse 01, Cape Fear, Jordan Lake and Falls Lake.

Question: At the basin level, would inflation be used to derive that rate?

Response: (Stanfill) In Full Delivery, inflation rate has been included as part of the contract. In other types of procurement, the key is using one inflation index to apply to all type of indexes. We can add property inflation indexes, if valid. All costs are inflated by an index.

Comment: Write the rule to state, "..basin level or smaller."

Comment: Set CU rates using basin data until you get enough data

Revised Proposals

Part 1:

Reset to Zero

Use a CU rate using basin level data until data available at CU

Programmatic Level for everywhere but: Neuse 01, Falls Lake, Cape Fear (high costs areas)

Proposal #2: Straw Poll: with retirement of 50% assets:

Level 1(Like the proposal): 1

Level 2 (Proposal is OK): 4

Level 3 (Can live with it): 2

Level 4 (Object to the proposal, but won't block): 3

Level 5 (will block the proposal): 0

Proposal #3: Straw Poll: without retirement of 50% assets:

Level 1(Like the proposal): 2

Level 2 (Proposal is OK): 2

Level 3 (Can live with it): 4

Level 4 (Object to the proposal, but won't block): 4

Level 5 (will block the proposal): 0

Closing Summary and Next Steps

Jim Stanfill offered his appreciation to the committee, stating he was impressed with the energy, effort, and intellectual input of the committee. Even when there is not agreement on proposals or ideas, the end result is a better product because of the deliberations, the suggestions, and the thoughtful questions. Jim Stanfill recognized EEP staff for their extensive efforts in preparing information for this meeting.

The following action items were identified during the April 8 meeting

Actions:

1. EEP will provide fee rates per [Request 1](#).
2. EEP will provide property inflation values and their impact on the actual cost per [Request 2](#).
3. EEP will provide data regarding the impact that advanced mitigation has on the price stability and the environment in [Request 3](#).
4. The April 8th meeting summary will be distributed in advance of the June 12th meeting and presentations posted on the NRLI website.

Next Agenda:

Part of the meeting will focus on presenting additional scenarios of the actual cost method discussed at the April 8th stakeholder meeting. In addition, there will be discussions dealing with property inflation and advanced mitigation. Recommendations from the Credit Yield Subcommittee will be presented and followed with a discussion from the larger committee. The remaining issues and options will also be discussed.

Next meeting:

Scheduled for Friday, June 12th at location to be announced.

MEETING SUMMARY

**EEP / DWQ Nutrient Offset Payment Program
Transitioning to an Actual Cost-Based Pricing Method**

June 12, 2009

8:45 - 3:00pm

***Wake County Agriculture Services Building
4001 Carya Drive, Room 102***

I. List of Participants and Handouts Distributed at the Meeting

II. Welcome & Orientation

III. Response to Information Requests

IV. Actual Cost Method: Results & Discussion

V. Credit Yield Subcommittee: Review of Recommendations

VI. Deliberation of Remaining Issues/Options

VII. Summary and Next Steps

Reports and presentations are accessible via the NRLI website at: <http://www.ncsu.edu/nrli/decision-making/projects/NOPPStakeholderPage.php>

I. List of Participants & Meeting Handouts

1. Participants were provided with the following handouts:

- a. June 12 Agenda
- b. April 8 Meeting Summary (as needed)
- c. Response to Information Request
 - 1) Nutrient Offset Projects
 - 2) Buffer Restoration Projects
 - 3) Inflation of property values (no handout provided but was discussed using the actual cost method)
- d. Actual Cost Method: Results and Discussion
 - 1) Supplemental Handout: Neuse 01 Nitrogen Rate, Program, Nitrogen Rate, and Program Phosphorus Rate
- e. Actual Cost Method: Discussion of Choices and Policy Issues
- f. Credit Yield Subcommittee: Review of Recommendations

2. Participants who attended the June 12, 2009 meeting:

June 12, 2009 Participants	
Name	Affiliation
Bill Diuguid	NC Division of Water Quality
Rich Gannon	NC Division of Water Quality
John Huisman	NC Division of Water Quality
Nora Dreamer	NC Division of Water Quality
Kristin Miguez	NC Ecosystem Enhancement Program
Suzanne Klimek	NC Ecosystem Enhancement Program
Kelly Williams	NC Ecosystem Enhancement Program
Jim Stanfill	NC Ecosystem Enhancement Program
Eric Ellis	NC Ecosystem Enhancement Program
Bill Gilmore	NC Ecosystem Enhancement Program
Susan Lockwood	NC Ecosystem Enhancement Program
Charles Brown	Town of Cary
Haywood Phthisic	LNBA/NRCA & Johnston County
Jamie Guerrero	Johnston County
Sandi Wilbur	City of Durham
Anne Coan	NC Farm Bureau Federation
Mike Schlegel	Triangle-J Council of Government
Adam Riggsbee	Restoration Systems, Inc.
Barrett Jenkins	Restoration Systems, Inc
Alissa Bierman	Neuse River Keeper Foundation
Joe Rudek	Environmental Defense Fund

John Hutton	Wildlands, Inc
Mike Schlegel	Triangle J Council of Government
Mary Lou Addor	NCSU Natural Resources Leadership Institute
Steve Smutko	NCSU Natural Resources Leadership Institute

II. Welcome and Orientation

Mary Lou Addor, NRLI, opened the meeting with introductions, provided an overview the agenda and meeting process.

Review of Purpose and Scope

The purpose and scope of the stakeholder meetings are to:

- **Purpose:** *Provide guidance to the Ecosystem Enhancement Program in transitioning from a fee-based system to an actual cost system as required by the General Assembly.*
- **Scope:** The focus of the stakeholder recommendations will be on the pricing methodology.

Process Review

11. Roles

- a. Stakeholders: responsible for disclosing interests, needs, actions, and issues in a timely manner and committing to the purpose of the stakeholder process. Stakeholders will be expected to represent the interests of (1) themselves, (2) organizations which they have the authority to represent, or (3) groups of constituents with similar interests.
- b. Facilitators: responsible for helping the group stays on process and on topic, promoting open and balanced discussion, and organizing information for effective use.
- c. EEP: responsible for convening the group, providing basic information about the cost-based pricing method and the nutrient offset payment program generally.
- d. DWQ: responsible for assisting with understanding content and any agency policies that pertain to the formula.

12. Decision Rule

When the group presents proposals for consideration, each stakeholder (1 representative per organization) will designate his or her level of agreement using the following scale:

- Level 1:** Endorsement (I like it)
- Level 2:** Endorsement with a minor point of contention (basically I like it)
- Level 3:** Agreement with reservations (I can live with it)
- Level 4:** Stand Aside (I don't like it but I don't want to hold up the group)
- Level 5:** Block (I will not support the proposal and will act outside the group to meet my interests)

The final report will show at which level individuals or groups supported the final product. The focus for each stakeholder should be on making good decisions for his or her constituency, not simply to reach agreement.

13. Ground Rules

- a. Work the problem, not the person.
- b. Make space for others to contribute
- c. Follow the process
- d. One speaker at a time
- e. Park-off agenda items
- f. Rolling breaks
- g. Cell phones on vibrate
- h. Test assumptions/Ask Questions

14. Parking Lot

Topics not considered by the group to be germane to the day's agenda will be listed on a separate flip chart under the heading "Parking Lot." Prior to adjourning each meeting, the facilitators will review parking lot items, and the group will determine how (and possibly when) each item will be handled.

III. RESPONSE TO INFORMATION REQUESTS (Since April 8th meeting)

Request 1: (Neuse 01 Fee)*

Develop a fee that is reflective of the implementation costs associated with Nutrient Offset projects physically located in Neuse 01.

Request 2: (Programmatic Fee)*

Develop a fee that is reflective of the implementation costs associated with Nutrient Offset projects physically located in all other CUs except Neuse 01.

Request 3: (Inflation Rate – Property)*

Acquire and utilize an inflation rate that is reflective of land costs

Request 4: (Nutrient Offset Project List) – Nutrient Stakeholder Page(link?)

List of Nutrient Offset Projects - including the following information: project name, basin, acreage, whether or not individual projects leverage buffers from stream or wetland mitigation sites, date of project implementation/land acquisition, and pounds of offset provided.

Request 5: (Buffer Project List) – Nutrient Stakeholder Page(link?)

List of Riparian Buffer Mitigation Program Buffer Restoration Projects - a list of all Neuse and Tar-Pam buffer restoration projects associated with the Riparian Buffer Mitigation Program (Fund 2982).including: project name, basin, acreage, whether or not individual projects leverage buffers from stream and/or wetland mitigation sites, and the date of project implementation/land acquisition.

** The items were discussed within J. Stanfill's presentation of the Actual Cost Method.*

The Following discussion/action item resulted from this presentation:

Questions were asked about buffer projects with a procurement method of 'direct purchase'. It was explained that direct purchases occurs when one EEP mitigation program purchases unused mitigation credits from another EEP mitigation program. It was further explained that the costs of those credits were set using the fee schedule in place at the time of the transaction. This method of procuring surplus mitigation between programs has been in use for several years after a thorough examination of the benefits and efficiencies achieved from these transactions. Some stakeholders expressed concerns about this procurement method.

The issue of individual project sites yielding multiple types of credits also came up again during this discussion. It was noted that the Credit Yield subcommittee, which has been formed to capture discussion of unresolved items and parking lot issues from this stakeholder group, would further discuss this subject.

Several stakeholders reiterated earlier concerns to EEP about providing program information. For example, ensuring program information is provided on a per fund basis. During this discussion, EEP reiterated its willingness for transparency and emphasized that most of the information requests are currently available, are published quarterly or annually in EEP's reports, and have been provided to other organizations. It is not clear however, what other organizations might be interested in until they directly request information. Hence, an outcome of this discussion is the following action item.

Action Item: Suzanne Klimek will call Adam Riggsbee to discuss what kind of information might be of value to the stakeholder committee or others with similar interests.

IV. PRESENTATION: Actual Cost Method: Results and Discussion

Jim Stanfill presented, "[Transitioning the EEP Nutrient Offset Program to an Actual Cost Method, Result and Discussion.](#)"

Focus is to address:

- a) Review Objectives
- b) Review Proposed Components of ACM
- c) ACM Results and Discussion

Stakeholder Comment/Question: Regarding Falls Lake, new rules are needed very quickly to address degradation in Falls Lake. The legislature may enact something soon. Would it require that the ACM would have to be adjusted through rule-making each time a new area like Falls Lake is added?

Response: The intent is not to have to go through rulemaking to add another area for ACM application. The rules for the management strategy would reference the use of the ACM.

Stakeholder Comment/Question: If the ACM has a base cost and doesn't go negative, then excess money could be generated in the fund. How would it be used?

Response: That money is intended for advancing mitigation. One of the criticisms of in-lieu fee programs is that money is paid, then a project is built. When possible EEP intends to advance mitigation so that mitigation precedes impacts.

Stakeholder Comment/Question: It was noted that the inflation index will now have a separate index for land cost changes. Everything else is based on the construction cost index. The index reflects the cost of land for land contracts and cost of construction for all

other contracts. Have you been looked at the Consumer Price Index (CPI) and its possible use? Stakeholder also has question about administrative cost.

Response: Yes, EEP examined the CPI and multiple other indices. The Construction cost index is more reflective of EEP's work as compared to the CPI. In response to question about administration cost, the full administrative costs are included in the ACM.

Stakeholder Comment/Question: What if there was a time like 2006-2007 when EEP procurement was put on hold? If we run into another situation such as that, a 3-year running average includes a two year hiatus. There is a moving window of data, but shrinking data in terms of expenses.

Response: The Method adjusts historical actual cost values to the present values using the inflation indices. The three-year running average should not present an issue because it is not used to estimate costs. The moving window relates only to forecasting the quantity of future payments.

Regulatory/Policy Impact on Rate

Jim Stanfill: The second really major improvement to the ACM is that if you change credit yields on projects, the calculated actual cost rate automatically adjusts. So, if projects yield more or less credit because of a regulatory change, project costs would reflect that and the ACM would adjust the cost per pound to reflect that.

Stakeholder Comment/Question: It was noted that some of the credits associated with projects in Neuse 01 were adjusted downward based on recent technical evaluations. Did that affect the actual cost calculation for this area?

Response: No cost changes have been made to projects that had a downward credit adjustment (i.e. the overall cost has not changed but the cost per credit increased slightly). The actual cost method will adjust the rate appropriately if that occurs. Due to the fact that costs haven't decreased on those few projects and credits have, this did create a slight increase in cost per credit.

Neuse 01 Rate & Program Rate Discussion:

Stakeholder Comment/Question: In the adjustment factor you included administrative costs such as staff and supplies. Does the calculation also include the long-term stewardship of the projects?

Response: Yes, that is a project contract cost.

Stakeholder Comment/Question: Concern was expressed about the potential effects associated with having different rates in an area like Greenville which is in two basins and three HUCs. Different rates could have the effect of driving development away from some areas and toward others.

Inflation of Property Value –

Adjustments to the ACM were made after the last meeting to address how inflation is handled for property costs. All parties indicate no additional discussion is needed.

V. PRESENTATION: Review of the Recommendations from the Credit Yield Subcommittee

Steve Smutko: Requests no debate or discussion – the purpose of this agenda item is to understand previous discussions by the Credit Yield Subcommittee. John Huisman of DWQ discussed:

- 1) What occurred.
- 2) Where it might be heading.
- 3) Next steps.

John Huisman reported in the "[Buffer Nutrient Credit Yield Subcommittee Report](#)" that the Credit Yield Subcommittee held two meetings: one on May 4 and the second meeting on June 4. Two recommendations resulted from the meeting discussions and were presented to the ACM stakeholder committee as:

- a. "Keep the current credit yield calculation in place for now, but use site specific drainage areas contingent upon a review of actual drainage area data for existing projects. Convene a group of technical experts to examine the buffer credit yield calculation issues with the subcommittee members as a separate process."
- b. "Keep existing credit method for now and move ahead with ACM. Convene experts to sort out issue as separate process."

The Credit Yield subcommittee plans to meet and continue their discussions about the recommendations and other policy issues of interest.

Stakeholder Comment/Question: Does the credit yield calculation go into the rule? Would prefer that it did not have to be a part of the rule.

Response: This will largely be decided by the Rules Review Commission. But it could take the form of a guidance document or DWQ could publish a “credit yield value” that is changed and published at predictable, regular intervals. This may be discussed at next meeting of the subcommittee which should be this summer.

Action Item: John Huisman and Rich Gannon will reconvene the Credit Yield subcommittee in order to refine the two credit yield recommendations. The subcommittee will also provide a forum for other policy issues that are of concern to several stakeholders. For a list of these items please reference Stanfill presentation on Actual Cost Method- Discussion of Choices and Policy Issues (pg 2) - Nutrient Regulation and Policy.

John and Rich also expect to work with a technical committee comprised of researchers from surrounding universities and some of the stakeholder subcommittee members (unclear if this will be a subcommittee of the policy group). Researchers are interested in the proposed policy and have asked to be brought into the process. Other states look to North Carolina for innovative programs and thus, DWQ, the researchers, and subcommittee members want to ensure that any policy recommendations are based on tested inquiry and assumptions.

VI: Presentation: Actual Cost Method- Discussion of Choices and Policy Issues

Distribution of Handout: “Actual Cost Method: Discussion of Choices and Policy Issues”, James B. Stanfill, Ecosystem Enhancement Program, June 12, 2009.

AREAS OF AGREEMENT:

The ACM committee is in general agreement with respect to the following choices regarding the actual cost method:

1. Utilize inflation to determine actual cost of projects in process.
2. Include use of land inflation index
3. Ensure base price equals actual current costs
4. Tar Pamlico developers are required to minimize both nitrogen and phosphorus. EEP and DWQ agreed to include all Tar-Pamlico nutrients as requirements (not just the nutrient for which payment was originally received).
5. Use 3-year running averages to calculate average expected payments.

KEY ISSUES REMAINING:

1. Use of a rate adjustment factor.
 - Total program level and nitrogen
 - Neuse 01
 - Nitrogen evaluation year and phosphorus program.
2. Geographic Application
3. Frequency of Adjustment
4. Establishment of ACM in Rule

Frequency of adjustment:

- 1) Adjust yearly, check quarterly.
- 2) If new project costs increase rate by >10% or if unencumbered cash reserves drop below the cost to complete existing projects, there would be a new update at the end of the next quarter.

Geographic Application of Rates:

- Neuse 01 rate coupled with program rate.
- Neuse rate
- Nutrient rate
- Nitrogen rate coupled with program rate.
- Nitrogen and phosphorous rate.

Program Rates:

1. **Neuse 01 Program Rate**
 - a) Program Nitrogen
 - b) Program Phosphorous
2. **Basin Development Program Rate**
 - a) Program Nitrogen
 - b) Program Phosphorous
3. **Tar-Pamlico Program Rate**
 - a) Neuse Nitrogen
 - b) Tar-Pamlico Phosphorous

Polling of the Three Choices for Consideration

Jim introduced three issues/choices to encourage additional discussion and feedback from the ACM committee. The three issues presented were:

1. Geographic Application of Rate (note: geographic rate application is different from mitigation requirement location)
2. Frequency of Adjustment
3. Establishment of Actual Cost Method in Rule

A description of the three issues is listed below including the general preferences for the proposals from the stakeholder committee.

1. **Geographic Application of Rates:** ACM committee was asked to weigh-in with respect to preferences regarding the geographic application of rates. The first column represents five different rate applications, within a perfect world. The second column offers three different rate applications, in a world impacted by change and uncertainty. Twelve members of the ACM committee weighed-in (voted), representing their organization (example: an organization with 5 people in attendance was not allowed to weigh-in 5 times, only once each time the poll was taken). The results are presented in the lower right hand corner of each box presenting a different rate scenario.

Perfect World Poll	World of Change & Uncertainty
<p>#1 Program N Rate Program P Rate</p> <p>Special Rate Area: Neuse 01 N Rate</p> <p>*other special rate areas may be added later</p> <p style="text-align: right;">Votes: 1</p>	<p>#1 Program N Rate Program P Rate</p> <p>Special Rate Area: Neuse 01 N Rate</p> <p>*other special rate areas may be added later</p> <p style="text-align: right;">Votes: 1</p>
<p>#2 Program N Rate Program P Rate</p> <p>*other special rate areas can be added later</p> <p style="text-align: right;">Votes: 1</p>	<p>#2 Program N Rate Program P Rate</p> <p>*other special rate areas can be added later</p> <p style="text-align: right;">Votes: 5</p>
<p>#3 Neuse N Rate Tar Pam N Rate Tar Pam P Rate</p> <p>* other special rate areas can be added later</p> <p style="text-align: right;">Votes: 5</p>	<p>#3 Neuse N Rate Tar Pam N Rate Tar Pam P Rate</p> <p>* other special rate areas can be added later</p> <p style="text-align: right;">Votes: 6</p>
<p>#4 Program Nutrient Rate & Special Rate Area: Neuse 01 N Rate</p> <p style="text-align: right;">Votes: 2</p>	
<p>#5 Program Wide with special rate areas</p> <p style="text-align: right;">Votes: 3</p>	

2. Frequency of Adjustment:

Comments were made that included making sure the frequency of adjustment was short enough to actually recover if costs exceeded the rates, but long enough to provide some stability and predictability in the rates for the development community to plan projects.

2 – year	Votes: 2
3 – year	Votes: 1
4 - year	Votes: 8

3. Establishment of Actual Cost Method in Rule:

Request: To discuss further the Next Steps. Facilitator assured that this would be discussed shortly.

Issues Related to Policy

Discussion around retirement of assets:

During the morning and afternoon session, Jim Stanfill discussed with the ACM committee reasons why EEP cannot retire existing unused mitigation credits. Foremost, none of the current EEP projects are completed and closed out (i.e. all are within the first 8 years of the project cycle). Mitigation credits are not certified complete credits until closeout. Any retirement prior to close out would be premature and could create significant financial and mitigation compliance risk to the program.

Second, EEP does not have the financial resources to consider reducing mitigation credits for donation purposes. Recently, the North Carolina General Assembly took \$800,000 of the program receipts to assist with the state budget shortfall. The current cost of the projects that were identified as potential donations exceeds the receipts collected within this area.

Third, retiring unused credits results in eliminating advanced credits which is a primary goal of the Program. Advanced credits are preferable to producing mitigation after the impact.

Fourth, it is unclear whether or not the Nutrient Offset Program could legally consider donating unused mitigation credits and thus increase the cost of future applicants. EEP is required to produce mitigation at the least cost and donating certified unused credits would result in unnecessary increased costs to customers. This issue is most pronounced in low demand areas which is where the identified credits exist.

Jim and other EEP staff acknowledged that the retirement of assets is an important discussion but not one EEP can move forward on at this time given the current constraints on project obligations and a less than ample receipt base. Stakeholders concerned with this issue seemed to understand/agree with EEP's points made regarding this issue. They were interested in pursuing this conversation at a later point if possible – potentially at a future meeting of the credit yield subcommittee.

Discussion about Nutrient Regulation and Policy:

The committee discussed the nutrient regulation and related policy issues during the day's meeting. John Huisman and Rich Gannon will convene the subcommittee group to discuss these issues in the future. For a list of these items please reference Stanfill's presentation on [Actual Cost Method-Discussion of Choices and Policy Issues](#) - Nutrient Regulation and Policy.

VII: Closing Summary and Next Steps

The following action items were identified during the meeting. It is anticipated follow through will occur via email and publishing of material for stakeholders as well as other interested parties on the NRLI website at: [EEP Nutrient Stakeholder Information](#).

Actions:

1. EEP will seek out reporting preferences from stakeholders.
2. Policy Subcommittee will continue to meet to discuss credit yields and other related issues.

Next Steps:

Plan is to begin to fashion a Rule to incorporate what was discussed today. Rich Gannon, Suzanne Klimek, and John Huisman will talk with the Rules Commission to see if it meets their criteria. Plan is to send draft Rule to stakeholder group for review and feedback in July. It is anticipated that a draft rule will be presented to the Water Quality Committee of the Environmental Management Commission in September.