

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

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

1. [Welcome and Orientation](#)
 - a. Purpose and Scope
 - b. Agenda Review
 - c. Process Review
 - d. Feb 4 Meeting Summary Review
 - e. Introduction of Debrief Format
2. [Requests for Information from EEP](#) (Since Feb 4th meeting)
3. [Accounting for Nitrogen and Phosphorous Offsets in the Tar-Pamlico River Basin](#)
4. [Proposal to establish a subcommittee to work with DWQ on credit calculations for nutrient reduction projects](#)
5. [Continuation of Presentation on Transitioning the EEP Nutrient Offset Program to Actual Cost Method](#)
6. [Criteria for Evaluating Options](#)
7. [Identification of Issues to be Discussed](#)
8. [Potential Options for Addressing the Issues](#)
9. [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 Rigsbee	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

I. 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.

II. 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 Rigsbee, 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 the 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)

III. 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 the 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).

IV. 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 Rigsbee | 9. Charles Brown |
| 5. Alissa Bierman | |

V. 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:

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

VI. 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

VII. Identification of Issues to be Discussed

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

1. Frequency of adjustment
2. Geographic application
3. Inflation method (adjustment) for future costs
4. Nitrogen and phosphorous on the Tar-Pamlico
5. Floor on the adjustment factor
6. How to address cost 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

VIII. 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)

IX. 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 the 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:

$\text{Actual Costs} / \text{Total Pounds} = \text{Actual Cost per pound}$

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

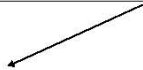
$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$



Total Pounds of Nutrients that will be offset
by Projects

Adjustment Factor

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

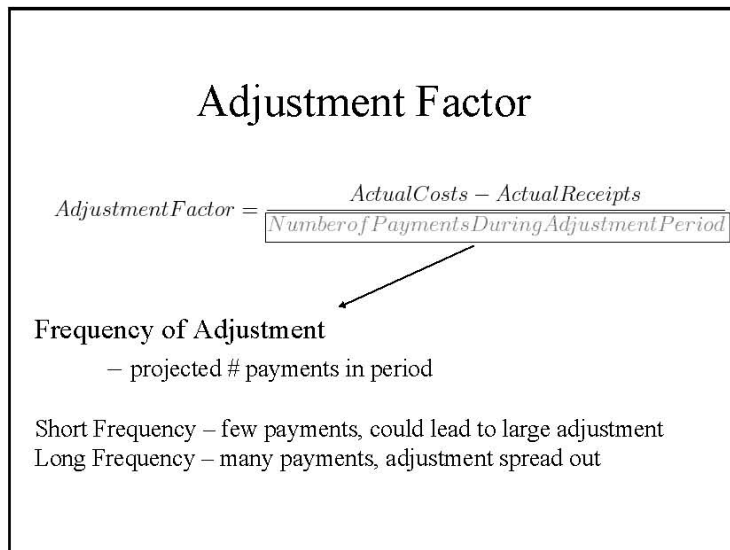
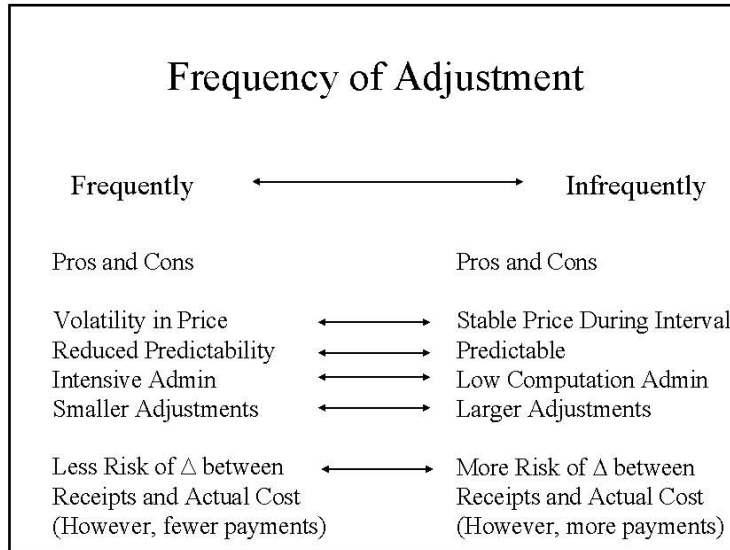


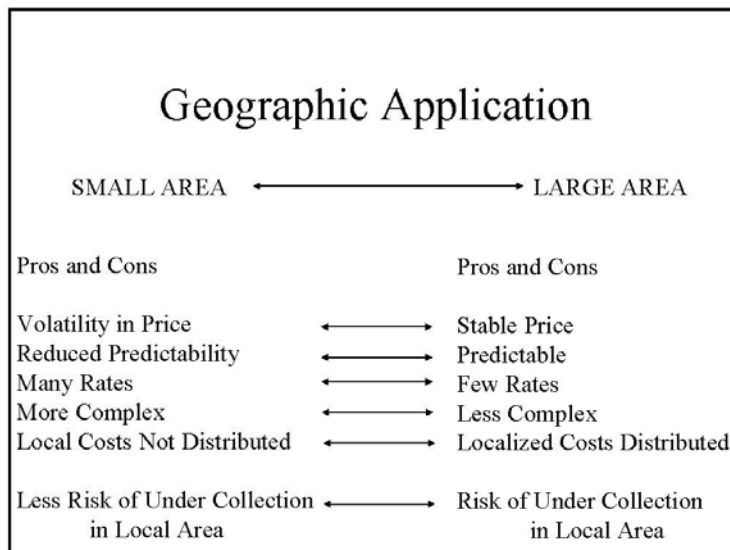
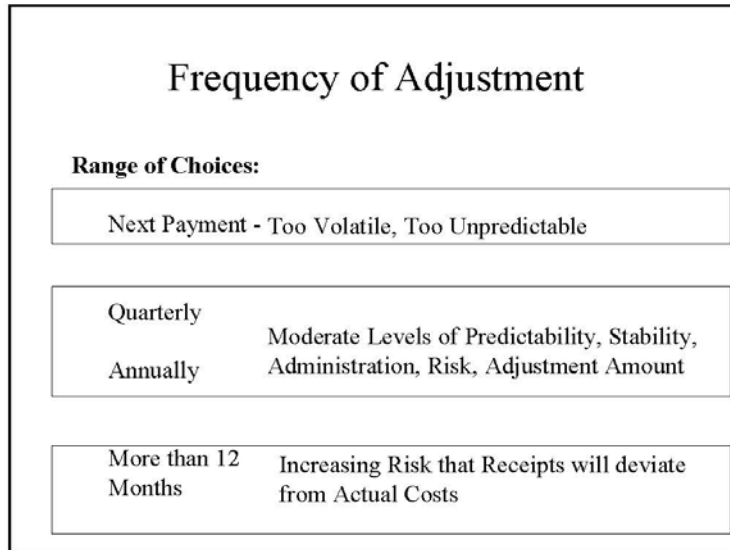
Differences Between Actual Costs and Actual Receipts are
distributed to future payments made into program
- Upward or Downward Adjustments

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

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

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

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

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	\$556,599.31	\$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	\$478,632.00	\$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	\$9.96	2002	\$133.98	\$665,753.33	\$12.00
Grand Total			\$6,550,269.57	\$538,961.00	\$12.16			\$7,652,383.98	\$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