

Strategy: Enhancement of Wetlands Regulatory Program

A. Summary of Coastal Management Problem

Virginia is in the process of implementing a newly mandated regulatory program for nontidal wetlands. Actions of Virginia's 2000 General Assembly have given the Virginia Department of Environmental Quality (DEQ) a clear mandate to revise the existing Virginia Water Protection Permit (VWPP) regulations, which have served since 1992 as the Commonwealth's non-tidal wetlands program through the Section 401 Certification process. By their actions, the General Assembly removed the dependence of the VWPP program on the issuance of a Corps permit, thus enabling DEQ to regulate activities, such as excavation in wetlands and fill in isolated wetlands, which are not currently under federal jurisdiction. DEQ has also been given the authority to consider cumulative impacts not only to water quality, but to fish and wildlife resources as part of the permit evaluation process, and to ensure that all permits allowing wetland impacts address no net loss of wetland acreage and function. The final regulations effecting initial implementation of this program will be enacted on October 1, 2001. While these regulations apply statewide, their impact will be felt more in the coastal areas of Virginia, where the majority of both wetland resources and development pressures reside.

New protocols and procedures are needed to effectively implement many aspects of the enhanced regulatory program. Two areas in particular will require immediate attention if these regulations are to provide enhanced protection of Virginia's wetland resources. First, the ability to assess and consider cumulative impacts of a proposed project on water quality and fish and wildlife resources will require a consistent and technically based assessment protocol implemented on a watershed basis. Long-term effectiveness of the new program will require coordination between the DEQ regulatory program and other state and local programs impacting land use management. Second, ensuring that all permits allowing wetland impacts address no net loss of wetland acreage and function will require a protocol for continued monitoring of compensation efforts on a watershed basis and a protocol for adjusting permit requirements such as compensatory mitigation ratios to ensure a no net loss outcome.

Absent the development of these technically based procedures, the non-tidal wetland regulatory program will not be able to effectively assess whether it has met its stated goals of ensuring that cumulative impacts to water quality and fish and wildlife resources are addressed and minimized and achieving no net loss of wetland acreage and function. A mechanism for documenting effectiveness, and a basis for modifying protocols to ensure achievement of policy goals are key to the success of these regulatory initiatives.

B. Proposed Program Changes

To implement the new VWPP regulations and enhance the effectiveness of the non-tidal wetlands regulatory program, we propose development of two specific new management protocols. The first will be a cumulative and secondary impact assessment protocol that will guide permit decisions and form a basis for coordination across regulatory programs. The second will be an assessment and review protocol that provides the basis for periodic

adjustments to the compensation ratios used to ensure no net loss of wetland acreage and function.

Cumulative and Secondary Impact Assessment Protocol. The largest challenge in achieving the overall policy of no net loss of wetland acreage and function is adequate assessment of the cumulative and secondary impacts associated with individual permit decisions. The current approach to cumulative assessment in Virginia is basically limited to tabulating cumulative losses within watersheds or hydrologic units. The first part of this program enhancement strategy will be design and testing of an assessment protocol which will allow individual permit reviews to include consistent and technically based information on resource conditions at watershed and sub-watershed scales. Once the protocol is developed it will be incorporated into the permit application review by VWPP staff.

Compensation Ratio Assessment: In order for the VWPP to achieve the goal of no net loss of wetland acreage and function, compensation for impacts through wetland restoration and creation is anticipated. The initial guidance for individual permit conditions, and the initial set of general permits used by the program will incorporate compensation ratios based on existing federal programs. DEQ has indicated a desire to base required ratios on actual experience in Virginia's management program. Changes to the ratio requirements will be possible at each re-issuance of the general permits (every five years in the current program), or at any time for individual permits. The protocol developed in this effort will be used to assess the cumulative experience of Virginia's compensation efforts, and to provide guidance for revision of ratio requirements on a five-year cycle.

C. Anticipated Effect of the New Wetland Protocols

The proposed changes to the Virginia wetlands management program will accomplish three important objectives. First, they will allow effective implementation of key aspects of the revised and enhanced wetland regulatory program. Second, they will make the regulatory program "adaptive" in the sense that it will have built-in feedback enabling it to respond to changing conditions in the resource, the landscape, and the program accomplishments. Third, they will create a framework for linking the wetlands program to other regulatory programs that can affect achievement of management goals.

D. Appropriateness of Change

Cumulative and Secondary Impact Assessment Protocol: With the adoption of the new VWPP regulations, DEQ has been given the authority to consider cumulative impacts not only to water quality, but also to fish and wildlife resources as part of the permit evaluation process. The capability of assessing cumulative and secondary impacts is critical for the charge to ensure that the effect of the permitted impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources. While there are a wide variety of assessment methods developed for wetlands, few are focused on more than site specific impacts, and none are specific to conditions in Virginia's coastal zone. The development and implementation of a formal protocol will ensure consideration of

cumulative and secondary impacts within coastal watersheds in a consistent and technically based manner. Effective implementation of the mandate to consider cumulative impacts to fish and wildlife resources and water quality will require a broader perspective that includes both the extant wetland resources and the surrounding landscape conditions.

Compensation Ratio Assessment: The Virginia non-tidal wetland management program was mandated to incorporate general permits for similar classes of activities. The proposed permits include specific compensation requirements to meet no net loss goals for wetland acreage and function. These compensation ratios, which also serve as the basis for individual permit decisions, are currently based on Corps guidance practice, but are without strong scientific backing. Virginia has the ability to modify its program by incorporating a continuing technical review of the accomplishments of the compensation efforts, to see if the goal of no net loss of wetland acreage and function is being met. Compensation ratios can be adjusted accordingly or even by wetland type or location, to ensure that Virginia meets this goal. Research into appropriate and effective compensation ratios will provide a technical basis for proposing any future modification of ratio requirements.

E. General Work Plan

1. Develop Assessment Protocol for Cumulative and Secondary Impacts

The Virginia Institute of Marine Science will work with the DEQ VWPP staff to design and test

a cumulative assessment protocol. The purpose of the protocol will be to provide a summary of cumulative documented changes to wetland resources by watershed, and potential impacts associated with proposed permit activities in a defined geographic area surrounding each permit under review. This protocol will be based on extant permit databases, with enhancements needed to provide appropriate information. The protocol will be designed to be a dynamic assessment of the data. The protocol is intended to provide useful guidance to permit reviewers and will be GIS based to the extent practical. We anticipate it will require three years to develop and test the protocol. Key steps in the process will include summarization of extant cumulative impact assessment methods, summarization of extant databases for support of the assessment, and drafting of the assessment protocol. Each of these steps will be concluded in a report, with the protocol being a final deliverable. The protocol will then be tested by DEQ permitting staff, and any refinements for its use.

2. Compensation Ratio Assessment

VIMS will work with DEQ VWPP staff to develop and institute a monitoring protocol for compensation efforts undertaken as part of the regulatory program. This will involve a survey of existing compensation practices and design of a monitoring protocol and database which can document the nature and success of those practices. Once the protocol is designed and tested, development of the database will begin. The analysis of the database and the protocol for generating recommendations for amendment of compensation ratios will follow database development. The first recommendations will be due in 2005 at the start of the review period for renewal of the general permits in

2006. Design and testing of the monitoring and analytical procedures is expected to occur over a four-year period in advance of the renewal date, so that any needed changes in compensation ratios can be incorporated. The database, the protocol and the first iteration of compensation ratio recommendations will be the primary deliverables in this effort.

Time Line

Fiscal Year 2000 (July 2001 – June 2002)

Ratio – Part B

- Task 1: survey current compensation activities
- Task 2: draft monitoring protocol and begin data collection

Fiscal Year 2001 (October 2001 – September 2002)

Assessment – Part A

- Task 3: summarize extant assessment methods
- Task 4: summarize extant databases
- Task 5: draft assessment protocol

Fiscal Year 2002 (October 2002 – September 2003)

Assessment – Part A

- Task 8: test protocol on actual permit applications
- Task 9: revise and retest protocol as necessary to optimize utility

Ratio – Part B

- Task 10: draft assessment protocol for monitoring
- Task 11: review/revise/continue monitoring and data base development

Fiscal Year 2003 (October 2003 – September 2004)

Assessment – Part A

- Task 12: complete protocol revision and prepare for implementation

Ratio – Part B:

- Task 13: draft data summary and recommendations protocol
- Task 14: continue data collection and analysis

Fiscal Year 2004 (October 2004 – September 2005)

Ratio –Part B

- Task 15: continue data collection and analysis
- Task 16: test and evaluate initial five-year cumulative recommendation

Fiscal Year 2005 (October 2005 – September 2006)

Ratio – Part B

- Task 18: prepare for implementation

F. Summary of Program Costs

	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
Assessment – Part A						
Personnel	0	83,000	48,500	18,000		
Operations	0	2,000	2,000	2,000		
Total	0	85,000	50,500	20,000		
Ratio – Part B						
Personnel	57,675	0	40,000	30,000	15,000	10,000
Operations	1,100	0	0	0	0	0

Total	58,775	0	40,000	30,000	15,000	10,000
TOTAL	58,775	85,000	90,500	50,000	15,000	10,000

G. Likelihood of Attaining the Proposed Program Changes

All of the proposed changes are consistent with the mandates given the VWPP by the General Assembly, the draft regulations established to implement the program, and the expectations established for the program by the Technical Advisory Committee that advised DEQ during the regulatory process. All of the proposed changes appear attainable within the proposed timelines.

H. Fiscal and Technical Needs

Funding and staffing levels of natural resource agencies in Virginia are currently fixed, with no new funding likely and reductions in agency budgets required. Projected surpluses in the Virginia economy have not been realized. This limits the agencies' abilities to undertake new or expanded program activities without outside funding.

