

MEMORANDUM

DATE: October 14, 2003

TO: The Board of Supervisors

FROM: Darryl E. Cook, Environmental Director

SUBJECT: Chesapeake Bay Preservation Ordinance - Update

The Chesapeake Bay Preservation Ordinance is being revised to bring it into compliance with the first major revision to the State Chesapeake Bay Preservation Area Designation and Management Regulations since the State law was adopted in 1989. The regulations became effective on March 1, 2002, and all local governments were originally given until March 1, 2003, to amend their Ordinances to ensure consistency with the revised regulations. On February 11, 2003, the Secretary of Natural Resources requested that the Chesapeake Bay Local Assistance Board (CBLAB) extend that deadline primarily so that more guidance could be provided to localities in the area of perennial flow and associated wetlands determinations. On February 18, 2003, CBLAB met and passed a resolution granting an extension to its deadline until December 31, 2003. A technical adhoc committee was formed by the Department of Conservation and Recreation (DCR) to help CBLAB finalize the outstanding guidance. The DCR adhoc committee developed the guidance this summer and the CBLAB adopted the guidance on September 15, 2003. Now that the guidance has been adopted, all the information necessary to move forward with adoption of the Ordinance is in place.

The amended Ordinance was presented to the Board in a Work Session held on March 25, 2003. That version of the Ordinance was developed with the input of an external review team consisting of representatives of the local engineering, development, and environmental communities. Staff met with representatives of these groups four times during the month of January to review the proposed Ordinance amendments. As the deadline for adoption was delayed until December 31, 2003, no action was proposed or taken by the Board at that Work Session. As CBLAB has nearly finished developing the guidance, staff reassembled the local review committee in August to make any final changes necessary to achieve compliance with the new regulations. The committee has met twice since that time. This memorandum discusses in detail all the proposed changes to the attached Ordinance and it incorporates changes that were generally consensus items developed with the committee. It will be pointed out in this memorandum the one item to date where it was not possible to obtain consensus.

The new regulations require many changes to the Chesapeake Bay program, some major and some minor. Some of the changes are required and others are left as a local option. This memorandum will outline the major changes and discuss the impact of those changes. One of the major required changes was to clarify the protection and maintenance of the 100-foot Resource Protection Area (RPA) buffer. Language in the previous regulations allowed reduction of the buffer to 50 feet if equivalency to the 100-foot buffer could be demonstrated. This language has been removed and it is the State's position that the buffer is always 100 feet in width with provisions made for any necessary encroachment. This does not represent a change in our administration of the ordinance as the 100-foot buffer has always been the standard in the County. Other major changes are presented below and presented in the body of the memorandum in bold type:

- **Perennial flow basis for determination of the RPA - Sections 23-3 -pg 6, 23-4 -pg 9, 23-10(2)d -pg 30.**
- **Site specific RPA determination requirements - Sections 23-4 -pg 9, 23-8 -pg 19, 23-10(2)d -pg 30.**
- **Stormwater management performance criteria - Sections 23-9(b)(8) -pg 23.**

- **Agricultural performance standards and management plans - Sections 23-7c(3) -pg 17, 23-9b(10) -pg 24.**
- **Clarifications regarding noncomplying structures and lots, and exemptions - Sections 23-12 -pg 36, 23-13 -pg 40.**
- **Exception review and approval process - Sections 23-14, pg 43, 23-15, pg 45, 23-16, pg 46.**
- **Lot Size - Section 23-6 -pg 10.**

The optional or permissive items in the regulations that may be included in local programs are:

- Designation of Intensely Developed Areas - not applicable to James City County.
- Septic system inspections and alternatives - Two options were presented in the State regulations to the currently required mandatory septic tank pumping once in every five years. These options were installation and maintenance of a plastic filter in the outflow pipe of the septic tank, or inspection and certification once every five years by a certified sewage hauler that the septic system was functioning properly and that the tank did not need pumping. Neither the Williamsburg Environmental Health Office of the Virginia Department of Health nor staff recommends the first alternative, and, therefore, that alternative has not been included in the Ordinance. However, the second alternative of inspection and certification is in accordance with the proposed regulations for septic systems as contained in the Sewage Handling and Disposal Regulation of the Commonwealth of Virginia developed by the Virginia Department of Health and is being included in the Ordinance.
- Some components of the agricultural management plans - added in Sections 23-7, 23-9b(10).
- The additional grandfather period for lots platted between October 1, 1989, to the effective date of the amended Ordinance - added in Section 23-7(c)(2) -pg 16.

The major changes are outlined below along with the rationale for each change and as applicable, the review Committee's input is included. The changes are listed by section in numerical order.

Section 23-3. Definitions

- A. The major change in this section relates to the definition of the RPA. The RPA is defined as lands adjacent to water bodies with perennial flow (streams flowing year-round). The new regulations (9 VAC 10-20-105) and the revised Ordinance in Sections 23-4 and 23-10(2)(d) require that the determination of perennial flow be conducted on a site-specific basis using a reliable scientific method. This is a required change from the current situation where a perennial stream was identified on a USGS quadrangle map (see *tributary stream* definition which is being deleted).**

Before the State developed its perenniality guidance this summer, the County hired a consultant to develop a method to meet the perennial flow determination requirement. The goal was to develop a method that met the State regulations but could be readily applied in the field without significant cost or training requirements. The consultant proposed the use of a well known, scientifically based methodology developed by the North Carolina Department of Water Quality. It is referred to simply as the North Carolina method and it turned out to be one of the five methods that the DCR adhoc committee endorsed for use in the state. The other four endorsed methods are groundwater

monitoring, surface water monitoring, drainage area, and documented observation (photographs, etc.).

The North Carolina method was applied in the Powhatan Creek watershed and the results are contained in a report available in Development Management. The study demonstrated that perennial flow generally extended further upstream than depicted on the USGS topographic maps, which were the reference documents for perennial flow determinations when the Ordinance was first adopted in 1990. The increase in area established as an RPA buffer would be increased by 206 acres. But as shown in the attached Table 2 from the report, after evaluation of areas that were already developed, government-owned, or located within existing conservation easements, the increase in buffer acreage was reduced to 72 acres of private, undeveloped land. There is an outstanding issue regarding the application of the method related to the threshold value for perennial flow that is being worked on by a separate local technical committee. An example of the stream classification form is attached to this memorandum.

Another result of the study was that there was no demonstrated correlation between drainage area and perennial flow in Powhatan Creek. Therefore, it is proposed that the drainage area method not be used for determination of perennial flow in the County, however, the other four methods listed previously would be acceptable.

- B. At the request of the review committee, a definition of perennial flow was added. The definition is from the guidance development by CBLAB.
- C. **A definition was added for the Chesapeake Bay Board, which is comprised of the members of the Wetlands Board. The exception process has been revised by the state regulations and in Section 23-14 to require that certain exceptions for RPA encroachments not be granted administratively by County staff but by a Board of Supervisors' appointed board. The process also requires that a public hearing be held for the Chesapeake Bay Board processed exceptions. This is a required change.**
- D. There are minor changes in the definitions of floodplain, highly erodible soils, impervious cover, nontidal wetlands, noxious weeds, and Resource Management Areas. Most of these were modified at the suggestion of the review committee.
- E. A definition was added for public roads to match the State regulations.
- F. A definition was added for silvicultural (forestry) activities as these are exempt from the ordinance requirements and it was important that the eligible activities be identified. The definition is from the State regulations.
- G. At the suggestion of the review committee, definitions were added for *sight line* and *runoff*.

These were consensus items from the committee.

Section 23-4. Designation of Chesapeake Bay Preservation Area (CPBA)

This section was modified to require that a site specific delineation of the RPA occur for each project as described previously in the definitions section. This is a required change as discussed in the definitions section.

In addition, the preparation of a map that will generally present the location of the RPA is required by the regulations. A map will be prepared based on the County's Soil Survey map with the general limit of the RPA

(perennial flow) being based on the presence of hydric soils. At the time of submission of a plan of development, this general location will be replaced by a site specific, field determination. The committee reached consensus on the use of the soil survey as the basis for the general map of the RPA with the USGS perennial stream information also being presented.

Section 23-5. Permitted Uses.

Wording was deleted to eliminate a reference to other sections of the Ordinance where disturbance of 25 percent slopes is allowed without an exception. This wording was unnecessary as there are no other sections of the Ordinance where this is permitted.

Section 23-6. Lot Size.

This section has been amended to include a 15-foot construction zone setback between the principal structure and the limit of the RPA. This setback would also be applied to existing platted lots. The setback area can be used as yard area, for additions to the principal structure that would not damage the RPA such as decks and patios, or the installation of accessory structures. This provision is for protection of the buffer and the future property owner by ensuring that they will have reasonable use of their lot. This is modeled after similar provisions in Henrico and Chesterfield Counties. Henrico County instituted the measure because without this separation, the lots were not satisfactory to homeowners (no rear yards or expansion possibility) and it resulted in higher quality development. The study of local Chesapeake Bay programs by the Joint Legislative Audit and Review Commission (JLARC) commented that this provision in Henrico County virtually eliminated the need for exceptions and offered a high degree of protection to the buffer (see attachment). This provision is also recommended by CBLAB as presented in the attached letter dated November 8, 2002. The setback is consistent with the Zoning Ordinance 15-foot construction zone setback requirement in Section 24-96(c) related to protection of landscape area buffers.

In James City County, there has been a similar experience with regard to inadequate separation between residential structures and the RPA. Currently, the largest separation we can obtain is about 10 feet, which is the minimum distance necessary to construct a structure without disturbing the RPA. This is not a specific requirement of the Ordinance; its application becomes a negotiated site-by-site administrative procedure. This minimal separation has led to dissatisfaction on the part of some homeowners because of the small amount of useable yard area and has contributed to some violations. This issue has caused problems on lots in Landfall at Jamestown, Heron's Run in Seasons Trace, Governor's Land, Kingsmill, and other individually platted properties. In some cases, the homeowners stated they would not have purchased the property if they had realized the placement of the house allowed them no rear yard or limited the ability to expand their home.

In staff's opinion, the provision is a reasonable method to protect the buffer from encroachment, protect future property owners from having an inadequate rear yard area, and decrease the administrative effort associated with protecting the buffer. The Board has been seeking a way to increase protection of the RPA buffer and reduce the number of violations and this represents an effective way that has been utilized elsewhere and is endorsed by the State. Exceptions to this provision would be administratively handled by County staff. It was not possible to obtain consensus on this item with the review committee. Dissenting members of the committee felt that the problem could be handled on a case by case basis with the requirement shown on individual plats and plans that no disturbance of the buffer would be allowed under any conditions, and also through increased education of the public and the realtor community. A memo prepared by the dissenting members dated September 8, 2003, is attached to this memo. This is an optional item.

Section 23-7. Development Criteria for Resource Protection Areas

- A. There are numerous changes to this section as a major focus of the regulations' revisions concerned the RPA. Changes have been incorporated in Subsection (a) regarding the use of the RPA for placement of roads or driveways, stormwater management facilities, and new uses on lots recorded prior to adoption of the revised Ordinance. These items are optional but they were included in the Ordinance to allow for increased flexibility regarding the use of the RPA, as the extent of the RPAs will be expanding as a result of the perennial stream definition change.
- B. Subsection (a)(1)(a) was amended to add a reference to any *applicable approved watershed management plan* such as the Powhatan Creek Watershed Plan.
- C. Subsection (a)(4)(i) was amended at the request of the committee to determine how "optimum" would be applied when reviewing the siting of a BMP in the RPA. The following explanation has now been included: optimum location shall mean that it is the best place to locate the facility from an engineering/functionality consideration regardless of the presence of an RPA.
- D. Subsection (c) was moved from Section 23-9 to this section for consistency as all the other items related to the RPA were contained in Section 23-7. In addition, there were some changes made to this section.
 - 1. A statement was added that the buffer shall consist of three layers of vegetation and be of native vegetation for clarification. This is currently how the buffer requirements are being administered.
 - 2. A sentence was added at the request of the committee that states that existing vegetation can be included in a buffer modification plan.
 - 3. The language regarding reduction of the buffer width is being deleted as discussed in the third paragraph of this memorandum.
 - 4. Language was added to Subsection (1) to clarify that buffer modifications require approval by the County before they are undertaken.
 - 5. Any modification of the buffer vegetation must be shown on a buffer modification plan.
 - 6. The word vista was removed from Subsection (1)(a) as it was redundant to the sight line criteria and caused confusion as to its definition.

The change related to the buffer width is a required change; the others are optional.

- E. Subsection (c)(2)(a) allows for administrative RPA buffer modifications and the use of the separation area on lots created before the adoption of the revised ordinance. It sets forth mitigation requirements associated with the buffer modifications. **The additional "grandfather" period as presented in Subsection (c)(2)(b) is optional but was included to allow for greater flexibility in administration of the ordinance provisions.**
- F. **There are several language changes to the agricultural provisions but essentially the use of the buffer for agricultural purposes is little changed. The requirement for a conservation plan has been changed to a conservation assessment or nutrient management plan. These are required changes.** One additional change requested by the review committee was to add "and implemented" to the requirement that a nutrient management plan be developed.

- G. Subsection (4) was added to ensure that when agricultural or silvicultural use of the buffer ceases and the land converted to other uses, the RPA buffer is to be reestablished. This is a required change.

Section 23-8. Determining Resource Protection Areas Boundaries.

As discussed previously, a site specific delineation of the RPA is required by the new regulations and is included in this section.

Section 23-9. Performance Standards.

- A. Language was included in this subsection regarding the stormwater management objectives for redevelopment or as the regulations now refer to this category of development, previously developed land. This revision has no material effect on the County's administration of this criteria as we use a point system rather than a direct pollutant load calculation for demonstrating compliance with the stormwater management criteria.
- B. Subsection (b)(1)b. has been revised to allow for flexibility in the application of the 60 percent impervious cover limitation. Sites can exceed the 60 percent coverage if it can be demonstrated that water quality impacts will be no greater that if the site were 60 percent impervious. The changes also include a provision that encourages stormwater master planning for projects by allowing the computation of impervious cover on a project rather than individual site basis.
- C. In Subsection (2)a., a statement was added at the committee's request to state that trees 12 inches and larger could be removed to accommodate site grading. Also, the size of vegetation to be replanted for restoration of vegetated areas has been reduced from 2-1/2 inches to 1-1/2 inches caliper. It has been determined that the survivability and availability of the smaller size trees plants is greater.
- D. Subsection (8) regarding the stormwater management requirements for projects has been revised to be consistent with the State's stormwater criteria. This is a required change. Also, a statement was added to clarify that water quantity increases resulting from development activities would need to be addressed in accordance with the County's Erosion and Sediment Control Ordinance, Chapter 8 of the County Code.**
- E. Subsection (8)(a) contains a clarification for sites utilizing existing BMP facilities for compliance with stormwater management criteria.
- F. Subsection (9) was amended at the committees request to include language that addressed projects that do not require wetlands permits or only have to submit post-construction information.
- G. Subsection (10) changes the requirement for a conservation plan to a conservation assessment. The assessments are not as comprehensive as a plan but this is a required change. A factor to consider is that the Colonial Soil and Water Conservation District is currently not able to prepare conservation plans due to cutbacks.** Language has also been added to this section to clarify that plans of development or water quality impact assessments would not be required for agricultural lands except for land disturbing activities not associated with food and fiber production.
- H. Subsection (c) has been transferred to Section 23-7 as discussed previously.

Section 23-10. Plan of Development.

- A. The introductory section and subsection (1) establish that a plan is required for all development activities that exceed 2,500 square feet to ensure that the requirements of the ordinance are met. This is a requirement of the regulations. Language was also added to include consistency with any approved watershed management plans when reviewing development plans.
- B. The environmental inventory, subsection (2) has been revised to include the requirement for the perennial flow determination and the change in definition for RPA features. This is a required change.** A requirement has been added to show the regulated floodplain, which is required by the Zoning Ordinance (Chapter 24). This is an optional change but does not represent a change in administration as the floodplains have always been shown on the environmental inventories.
- C. The Clearing Plan, Subsection (3)(a)3 has been modified to remove the word vista to be consistent with the change in Section 23-7(c)(1). Also, subsection a.4. has been added regarding the inclusion of erosion control measures on the plan. Again, this has been a matter of practice but has not been explicitly stated in the Ordinance. Under Subsection b., the size of the trees to be planted has been reduced from 2-1/2 to 1-1/2 inches for the reasons stated previously for Section 23-9(b)(2)a.
- D. Subsection (4) regarding stormwater management was modified to clarify that water *quantity* control stormwater management would still need to be considered as part of the Erosion Control Ordinance requirements even if water *quality* were not required by the Chesapeake Bay Ordinance.

Section 23-11. Water Quality Impact Assessments.

This section was modified to include the requirement for a water quality impact assessment for land disturbance activities in an RPA. This is a required change.

Section 23-12. Waiver for Noncomplying Structures.

- A. This section has been modified to address the granting of waivers to the ordinance requirements for structures that were in existence prior to the adoption of the original ordinance in 1990. These provisions are generally the same as they were previously but have been restructured to meet the new regulation requirements.**
- B. Subsection (1)(d) was added to include a statement that the waiver would not conflict with the comprehensive plan or applicable watershed management plan.

Section 23-13. Exemptions.

This section has been modified to meet the current regulations. The exemptions are a requirement of the regulations but do not represent a significant change from the previous requirements. The exemptions for RPAs were included in the previous ordinance in Section 23-14 as exceptions.

Section 23-14. Exceptions.

This section contains significant required changes regarding exceptions that are granted for the use of RPAs. The use requirements are presented in Section 23-7. The changes involve the requirement that RPA encroachments be handled by a citizen board and that a public hearing must be conducted. Currently, all exceptions are handled administratively by County staff. The process and the findings required for granting an exception are included in this section. As presented in the revised ordinance,

staff recommends that the Wetlands Board be the hearing body for these exception requests. The Wetlands Board is currently the appeal body for the administrative determinations made under the Ordinance and has stated its willingness to serve as the exception hearing body. The Wetlands Board is already familiar with the RPA issues through their involvement with granting wetlands permits although additional training will be necessary.

Section 23-15. Applications for Exceptions.

This section was amended to include the Board as one of the entities to which an exception application can be made.

Section 23-16. Granting waivers or Exceptions.

This section was amended to include the Board as one of the entities which can grant an exception.

Section 23-17. Appeals.

This section was amended to remove reference to the Wetlands Board to be consistent with Section 23-14. Also, Subsection (d) was added to state that appeals to the Board decisions are to the Circuit Court.

Darryl E. Cook

CONCUR:

William C. Porter, Jr.

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Attachments:

1. Table 2 from Perennial Stream Protocol Report for Powhatan Creek Watershed Study
2. North Carolina Stream Classification Form
3. Joint Legislative Audit and Review Commission's Chesapeake Bay Study, Page 41
4. Chesapeake Bay Local Assistance Department Letter dated November 8, 2002
5. Chesapeake Bay Preservation Ordinance Update - Separation of Structures from the RPA dated September 8, 2003
6. Proposed amended Ordinance