



REQUIREMENTS FOR MAJOR AND MINOR WATER QUALITY IMPACT ASSESSMENT (WQIA)

NOTE:

The following information is copied or substantially derived from Sec. 90-668 of the Prince George County Zoning Ordinance. (RPA = Resource Protection Area; RMA = Resource Management Area)

Purpose and Intent of the WQIA:

- i. Identify the impacts of proposed land disturbance, development or redevelopment on water quality and lands in RPAs and other environmentally sensitive lands;
- ii. Ensure that, where land disturbance, development or redevelopment does take place within RPAs and other sensitive lands, it will occur on those portions of a site and in a manner that will be least disruptive to the natural functions of RPAs and other sensitive lands;
- iii. Protect individuals from investing funds for improvements proposed for location on lands unsuited for such development because of high groundwater, erosion, or vulnerability to flood and storm damage;
- iv. Provide for administrative relief from terms of this article when warranted and in accordance with the requirements contained herein; and
- v. Specify mitigation which will address water quality protection.

Applicability - A WQIA shall be required:

- i. For any proposed land disturbance, development or redevelopment activity within a Resource Protection Area and
- ii. For any other development in resource management areas as deemed necessary by the planning director or his designee for the county due to the unique site characteristics or intensity of the proposed use or development.

There shall be two levels of WQIAs: a minor assessment and a major assessment. The table below describes when each is required.

Minor WQIA	Major WQIA
A minor WQIA pertains only to land disturbance, development or redevelopment activity within a CBPA which causes no more than 5,000 square feet of land disturbance and/or which proposes to encroach into the landward 50 feet of the 100-foot buffer area.	A major WQIA shall be required for any development which: (i) Exceeds 5,000 square feet of land disturbance within CBPAs and proposes to encroach into the landward 50 feet of the 100-foot buffer area; (ii) Proposes to disturbs any portion of the seaward 50 feet of the 100-foot buffer area or any other component of an RPA; or (iii) Is located solely in a RMA when deemed necessary by the planning director or his designee for the county.

Submission and Review Requirements for WQIAs

1. Five copies of all site drawings and other applicable information as required by this section shall be submitted to the planning director or his designee for the county for review.
2. All information required in this section shall be certified as complete and accurate by a professional engineer or certified land surveyor.
3. A minor WQIA shall be prepared and submitted to and reviewed by the planning director or his designee for the county.
4. A major WQIA shall be prepared and submitted to and reviewed by the planning director or his designee for the county in conjunction with a request for rezoning or a special exception permit, as deemed necessary by the planning director or his designee for the county.
5. As part of any major WQIA submittal, the planning director or his designee for the county may require review by the Virginia Department of Environmental Quality. Upon receipt of a major WQIA, the planning director or his designee will determine if such review is warranted and may request CBLAD to review the assessment and respond with written comments. Any comments by CBLAD will be incorporated into the final review by the planning director or his designee, provided that such comments are provided by CBLAD within 90 days of the request.

All WQIAs

The following information is necessary to complete review for all WQIAs (both major and minor):

- (1) Description of Project
- (2) Narrative explaining the applicant's goals and justifying why the project is necessary
- (3) Photos of the project area adequate for a reviewers to understand the existing conditions of the site and project area
- (4) Calculation of area of land disturbance in square feet:
 - a. Area of land disturbance in the landward 50 feet of the RPA
 - b. Area of land disturbance in the seaward 50 feet of the RPA
 - c. Area of land disturbance outside of the RPA
 - d. Area of land disturbance in the RMA
 - e. Total area of land disturbance
- (5) Calculation of impervious surface area on the site (building footprints, sidewalk, driveway, patio, deck, pool, etc.):
 - a. Pre-construction / Before project
 - b. Post-construction / After project

Minor WQIAs

A minor assessment must demonstrate that the undisturbed buffer area, enhanced vegetative plantings and any required best management practices will result in the removal of no less than 75 percent of sediments and 40 percent of nutrients from post-development stormwater runoff and that will retard runoff, prevent erosion, and filter nonpoint source pollution the equivalent of the full undisturbed 100-foot buffer area.

A minor assessment shall include a site drawing drawn at 1"=100' or the same scale as the preliminary site plan or subdivision plat, and shall be certified as complete and accurate by a professional engineer or a certified land surveyor, which shows the following:

- (1) Location of the components of the resource protection area, including the 100-foot buffer area; and the location of any water body with perennial flow;
- (2) Location and nature of the proposed encroachment into the buffer area, including, type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drainfield sites;
- (3) Type and location of proposed best management practices to mitigate the proposed encroachment;

- (4) Location of existing vegetation on site, including the number and type of trees and other vegetation to be removed in the buffer to accommodate the encroachment or modification.
- (5) Revegetation plan that supplements the existing buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control.

Major WQIAs

The information required in this section shall be considered a minimum, unless the planning director or his designee determines that some of the elements are unnecessary due to the scope and nature of the proposed use and development of land.

The following elements shall be included in the preparation and submission of a major WQIA:

- (1) All of the information required in a minor WQIA, as specified in this section (see above);
- (2) A hydrogeological element that:
 - a. Describes the existing topography, soils, and hydrology of the site and adjacent lands.
 - b. Describes the impacts of the proposed development on topography, soils, hydrology and geology on the site and adjacent lands.
 - c. Indicates the disturbance or removal of wetlands and justification for such action;
 - d. Indicates the disruptions or reductions in the supply of water to wetlands, streams, lakes, rivers or other water bodies;
 - e. Indicates the disruptions to existing hydrology including wetland and stream circulation patterns;
 - f. Indicates the source location of and description of proposed fill material;
 - g. Indicates the location of dredging and location of dumping area for such dredged materials;
 - h. Indicates the estimation of pre- and post-development pollutant loads in runoff;
 - i. Indicates the estimation of percent increase in impervious surface on site, type(s) of surfacing material used;
 - j. Indicates the percent of site to be cleared for project;
 - k. Indicates the anticipated duration and phasing schedule of construction project;
 - l. Indicates the listing of all requisite permits from all applicable agencies necessary to develop project;
 - m. Describes the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures include:
 1. Additional proposed erosion and sediment control concepts beyond those normally required. These additional concepts may include the following: minimizing the extent of cleared area; perimeter controls; reduction of runoff velocities; measures to stabilize disturbed areas; schedule and personnel for site inspection;
 2. Proposed stormwater management system for nonpoint source quality and quantity control;
 3. Creation of wetlands to replace those lost.
 4. Minimizing cut and fill.
- (3) A vegetative element that:
 - a. Identifies and delineates the location of all woody plant material on site, including all trees on site with six inches or greater diameter at breast height or, where there are groups of trees, said stands may be outlined.
 - b. Describes the impacts the development or use will have on the existing vegetation. Information should include:
 1. General limits of clearing, based on all anticipated improvements, including buildings, drives, and utilities;
 2. Clear delineation of all trees and other woody vegetation which will be removed;
 3. Description of all plant species to be disturbed or removed.
 - c. Describes the proposed measures for mitigation. Possible mitigation measures include:
 1. Proposed design plan and replanting schedule for trees and other woody vegetation removed for construction, including a list of proposed plants and trees to be used;

2. Demonstration that the revegetation plan supplements the existing buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control;
3. Demonstration that the design of the plan will preserve to the greatest extent possible any significant trees and vegetation on the site and will provide maximum erosion control and overload flow benefits from such vegetation;
4. Demonstration that indigenous plants are to be used to the greatest extent possible.

Evaluation Procedures for WQIAs

- (1) Upon the completed review of a minor WQIA, the planning director or his designee for the county will determine that any proposed encroachment into the RMA is consistent with the provisions of this article and make a finding based upon the following criteria:
 - a. The necessity of the proposed encroachment and the ability to place improvements elsewhere on the site to avoid disturbance of the buffer area;
 - b. Impervious surface is minimized;
 - c. Proposed mitigation measures, in the RMA, including the revegetation plan and site design, result in minimal disturbance to all components of the RPA, including the 100-foot buffer area;
 - d. Proposed mitigation measures will work to retain all buffer area functions: pollutant removal, erosion and runoff control;
 - e. Proposed best management practices, where required, achieve the requisite reductions in pollutant loadings;
 - f. The development, as proposed, is consistent with the purpose and intent of this article;
 - g. The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.
- (2) Upon the completed review of a major WQIA, the planning director or his designee for the county will determine whether or not the proposed development is consistent with the purpose and intent of this article and make a finding based upon the following criteria:
 - a. Within any RPA, the proposed development is water-dependent or a redevelopment;
 - b. The percentage of existing wetlands disturbed by the development. The number of square feet or acres to be disturbed;
 - c. The development will not result in significant disruption of the hydrology of the site;
 - d. The development will not result in unnecessary destruction of plant materials on site;
 - e. Proposed erosion and sediment control concepts are adequate to achieve the reductions in runoff and prevent off-site sedimentation;
 - f. Proposed stormwater management concepts are adequate to control the stormwater runoff to achieve "no net increase" in pollutant loadings;
 - g. Proposed revegetation of disturbed areas will provide optimum erosion and sediment control benefits, as well as runoff control and pollutant removal equivalent of the full 100-foot undisturbed buffer area;
 - h. The development is consistent with the purpose and intent of the overlay district.
- (3) The planning director or his designee for the county shall require additional mitigation where potential impacts have not been adequately addressed. Evaluation of mitigation measures will be made by the planning director or his designee based on the criteria listed above and in subsections (1) and (2).
- (4) The planning director or his designee for the county shall find the proposal to be inconsistent with the purpose and intent of this article when the impacts created by the proposal cannot be mitigated. Evaluation of the impacts will be made by the planning director or his designee based on the criteria listed in (1) and (2) of this section.