

City of Fredericksburg

WATER QUALITY IMPACT ASSESSMENT

Roads and Driveways

This document is intended to be a guide for localities to determine whether a proposed road or drive is consistent with the Chesapeake Bay Preservation Area Designation and Management Regulations. Forms may need to be amended to include site-specific conditions or to be consistent with local ordinances and conditions.

Application Date: ____/____/____

Applicant Name: _____

Project Type (road, driveway, etc): _____

Project Address: _____

Tax Map/Parcel #: _____

Project
Description: _____

Reviewer: _____

Review completed on ____/____/____

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Purpose Statement:

In general, Water Quality Impact Assessments (WQIAs) are tools that Bay Act localities use to evaluate the environmental impacts of a certain proposed development activity on water quality and to determine specific measures for mitigation of those impacts. A WQIA may also be required, at the discretion of the local government, for development proposed in Resource Management Areas (RMAs). Localities may determine that a WQIA is warranted because of the unique characteristics of the site or intensity of the proposed development.

This form is to be used for the review of all road and driveway projects that involve land disturbance or removal of vegetation in the Resource Protection Area (RPA). Generally, the purpose of this Water Quality Impact Assessment (WQIA) is to:

1. Identify the impacts of the proposed road or drive on water quality;
2. Ensure that the alignment and installation of the proposed road or drive will occur in a manner that will be least disruptive to the natural functions of RPAs; and,
3. Ensure that proposed mitigation will address water quality protection.

Regulatory Authority:

Section 9VAC 10-20-130.1.a (or local code citation) of the Regulations requires a “water quality impact assessment for any proposed land disturbance” within an RPA, including the 100-foot buffer area.

Section 9 VAC 10-20-120 and 10-20-130.1.d of the Regulations permits the construction of roads or driveways in or across RPAs, provided that local governments make a determination that:

- There are **no reasonable alternatives** to aligning the road or driveway inside the RPA;
- The proposed alignment will **minimize encroachment into the RPA** (water bodies with perennial flow, tidal and non-tidal wetlands, tidal shores and associated 100-foot buffer area);
- **Water quality impacts have been minimized** by optimizing the alignment and design of the road or drive;
- **Indigenous vegetation** will be preserved to the maximum extent practicable;
- Proposed **land disturbance** (limits of construction) will be minimized;
- The project complies with **erosion and sediment control** requirements;
- Effective **mitigation measures, including additional vegetative plantings**, are proposed to mitigate the potential water quality impacts of the proposed road or drive; and,
- The local government has reviewed the plan for the proposed road or driveway in or across the Resource Protection Area in coordination with local site plan, subdivision and plan of development approvals.

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Submittal Requirements:

In order to adequately review the project, the applicant must provide three (3) copies of a site plan that includes the following information:

- Scaled drawing including the project study limits;
- Plan and profile drawings of proposed crossing, including proposed materials type and location;
- Field-delineated location of the RPA (water body with perennial flow determination and wetland delineation), including the 100-foot buffer area;
- Existing vegetation on site;
- Vegetation to be removed or impacted;
- Limits of land clearing;
- Erosion and sediment control measures to be employed.

Other requirements:

- Written documentation explaining: (1) the justification (need) for the project, **and** (2) the basis for selecting the proposed crossing structure/ sizing;
- Buffer mitigation plan (re-vegetation plan);
- Review of the proposed road or driveway crossing in coordination with local government's site plan, subdivision and plan of development process;
- Copy of the Joint Permit Application or other required wetlands permits prior to clearing and/or grading;
- Description of types of vegetation currently in the RPA buffer.

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Project Evaluation:

Reasonable Alternatives:

1. Can the subject property be accessed without crossing the RPA? Y N
 - If yes, the driveway cannot be constructed as a permitted activity. The applicant may apply for an exception.
2. If no, is the crossing location at a point that causes the minimal RPA disturbance possible? (shortest crossing point) Y N
 - If no, the proposed road or driveway must be realigned to minimize the proposed RPA disturbance before it can be approved.
3. Can driveways or roads be shared between adjoining parcels in order to minimize the proposed RPA disturbance? Y N

Minimization of land disturbance/Amount of impervious coverage:

Disturbed area: _____ ft.² Size of parcel or lot _____ ft.²

Is the width of pavement the minimum necessary for the level of traffic to be generated? Y N

Is there excessive grading between the driveway or road and the original grade? Y N

Will the proposed road surface construction material prevent erosion and sedimentation? Y N

Note: All of the above questions must be answered affirmatively before an administrative approval can be granted.

Preservation of indigenous vegetation/ Land Disturbance:

Area of woody vegetation proposed to be disturbed for: impervious area _____ ft.²

access/ grading area _____ ft.²

Total area of disturbance _____ ft.²

Mitigation plantings proposed:

Describe proposed mitigation/revegetation or other practices to reduce the effects of this crossing on water quality.

Does the existing buffer include vegetation that is adequate for water quality protection? Y N

Is the existing buffer appear to be functioning to reduce non-point source pollution runoff, reduce erosion and sedimentation and allow for infiltration? Y N

Note: Additional plantings should be selected to help the buffer to perform the above functions and should equal the area of proposed land disturbance noted above.

Vegetation to be planted: _____ ft.²
_____ plants/ acre

NOTES: A forested buffer is suggested by the Virginia Department of Forestry to be >320 woody stems/acre, not including herbaceous vegetation.

Vegetation proposed for mitigation must satisfy all buffer functions described in 9 VAC 10-20-130.3, including retarding runoff, preventing erosion and filtering non-point source pollution from runoff. Mitigation species should be native to the local environment and reference sites should be consulted where possible.

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Please refer to the Buffer Guidance Manual for assistance. Lawn grass is not appropriate as a replacement planting.

Erosion and Sediment Control:

Has applicant demonstrated compliance with the local E&S control regulations or indicated that compliance will be required prior to issuance of any land-disturbing permits? Y N

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Consistency Checklist

| REQUIRED CONDITION | Y/N | If no, list conditions that must be addressed for consistency |
|--|-----|---|
| Does the proposed road or driveway alignment minimize encroachment into the RPA? | | |
| Is the design of the road or driveway optimized to minimize the adverse effects on water quality? | | |
| Has indigenous vegetation been preserved to the maximum extent practicable? | | |
| Has the proposed land disturbance (limits of construction) been minimized to the extent practicable? | | |
| If applicable, have appropriate mitigation plantings been proposed that will provide the required buffer area functions? | | |
| Does the amount of disturbance seem excessive for the existing site conditions? | | |
| Will the applicant obtain all required wetlands permits prior to commencement of construction? | | |
| Does the project comply with all erosion and sediment control requirements? | | |
| Is the amount of vegetation to be removed excessive given the site conditions? | | |

