

# Policy and Procedures for the Evaluation of Downstream Impoundments

## I. Definitions

A. Potential Influence Area is defined as the closer of

1. The point at which the total drainage area is at least 100 times greater than the maximum proposed disturbed area, or
2. An offsite water impoundment downstream of the proposed land-disturbing activity where the cumulative total water surface area of the downstream water impoundment(s) exceeds ten percent of the proposed disturbed area.

B. Land Disturbing Activity:

The definition of land-disturbing activity for this policy will be identical to the definition in Chapter 104 of the *Code of the County of Fairfax, Virginia* with the exception that disturbed land areas for commercial and non-commercial uses less than one acre shall be considered exempt from the provisions of this policy.

## II. Developer/Engineer Responsibilities

A. The submitting engineer will identify all downstream water impoundments within the potential influence area of proposed land-disturbing activity through:

1. Latest aerial photographs, and/or
2. Approved plans, and/or
3. Existing County tax maps, and/or
4. A field investigation of the site outfall(s) to the extent possible to ensure all downstream water impoundments have been identified within the potential influence area.

B. The submitting engineer will provide a certification on the plan that indicates if a water impoundment is or is not located within the potential influence area of the proposed land-disturbing activity.

C. A pre-development bathymetric survey shall be:

1. Provided for all water impoundments located in the potential influence area defined above, or
2. Provided as required by the department.
3. Performed within 180 days prior to plan approval or as otherwise approved in writing by the Environmental and Facilities Review Division (EFRD).

- D. The developer will be released from the requirement to perform a pre-development and/or post development bathymetric survey if:
1. The owner of the water impoundment does not respond within 30 calendar days to the developer's written request to perform a pre-development bathymetric survey. A copy of a suggested written notice requesting permission to perform a pre-development bathymetric survey of the water impoundment(s) is available at [www.fairfaxcounty.gov/dpwes](http://www.fairfaxcounty.gov/dpwes) under Letters to Industry or at the Plan and Document Control (PDC) Counter. If a written notice is issued, a copy of the notification and certified mail receipt provided to the Plan and Document Control Section (PDC), will satisfy this criteria, or
  2. The owner of the water impoundment does not allow the developer reasonable access to perform the bathymetric survey after reasonable efforts to secure that access by developer have been made, or
  3. The requirement is waived or modified in writing by EFRD on behalf of the Director, Department of Public Works and Environmental Services.
- E. A post-development bathymetric survey will be required:
1. If a Notice of Violation (NOV) has been issued regarding offsite damage associated with erosion and sedimentation from the proposed development and the NOV requires the submission of a post-development bathymetric survey, or
  2. If requested by EFRD or the Environmental and Facilities Inspections Division.
- F. Two copies of each submission of the bathymetric survey must be submitted to PDC, for review and approval by EFRD on behalf of the Director.

#### **The Department of Public Works and Environmental Services Responsibilities**

- A. If the Engineer certifies a water impoundment as being within the potential influence area of the proposed land-disturbing activity, PDC will add a pre-approval condition in the County's land development automated records to satisfy the requirements listed below.
- B. The Site Reviewer is responsible for ensuring the applicable requirements, including the bathymetric survey requirements have been satisfied before changing the pre-approval condition to "MET."
- C. The pre-development bathymetric survey shall be approved by EFRD on behalf of the Director prior to plan approval.
- D. A copy of the approved bathymetric survey should be placed in the project file.

- E. If a post-development bathymetric survey is required, the site inspector shall ensure that a post-approval condition is added to the County's land development records, and request the Bonds, Agreements, and Administration Section to add a condition on the appropriate bond release screen.
- F. The site inspector should not process any requests of a reduction or release of a conservation deposit or forward the Letter 18 for approval, until the associated NOV has been released.
- G. If a development agreement was not executed with the County, the site inspector shall place a note in the project file, if a post-bathymetric survey is required. The site inspector should not process any requests for reductions or release of a conservation deposit until the associated NOV has been released.

#### IV. Bathymetric survey submission requirements

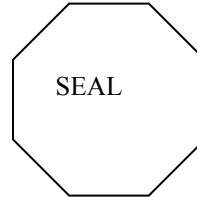
- A. The bathymetric survey should be performed in accordance with the U.S. Army Corps of Engineers Manual No. 1110-2-1003, Hydrographic Surveying, Chapter 8, Section 8-4. Sounding Pole, page 8-4 through 8-6.
- B. The survey grid of the water impoundment shall be established as follows:
  - 1. For water impoundments with surface areas less than one and one half acres, the grid spacing shall not exceed 25 feet, provided a minimum of five survey points are attained.
  - 2. For water impoundments with a surface area greater than or equal to one and one half acres but less than five acres, the grid shall not exceed 25 feet for a one half acre area nearest to each concentrated tributary and 50 feet for the remainder of the water body.
  - 3. For water impoundments greater than or equal to five acres, the grid and method and extent of analysis shall be submitted to PDC for approval by EFRD.
- C. All Bathymetric Surveys shall contain:
  - 1. The approximate coordinates of the grid that are utilized to establish the elevations of the floor of the water impoundment. The coordinates of the grid used in the pre-development survey shall be used in the post-development bathymetric survey. The coordinates shall be tied to the Virginia Coordinate System of 1983 (VCS 1983).
  - 2. A plan that depicts the location and identifies each survey coordinate on the grid.
  - 3. A summary of all the coordinate points on the grid and computed elevation of each coordinate.
  - 4. The metadata about the vertical data of survey.

5. If a post-development bathymetric survey is required, the results of a three dimensional analysis shall be provided that computes the quantity of sediment that has accumulated in the water impoundment since the pre-development survey was conducted. The analysis shall utilize and be based on the data from the pre-and post-development bathymetric surveys.
6. The following signed and sealed certification by a surveyor licensed in the Commonwealth of Virginia:

Certification:

“I certify that this bathymetric survey has been performed in accordance with the U. S. Army Corps of Engineers Manual No. 1110-2-1003, Hydrographic Surveying Chapter 8, Section 8-4 and/or Fairfax County policies regarding bathymetric surveys.”

\_\_\_\_\_



## Notification Letter

XYZ Development Corporation  
123 Main Street  
Fairfax, VA

Mr.\ (Mr. & Mrs.)\ ( Ms.) J. Doe  
Any Drive  
Fairfax, VA

Reference: Project name and County Plan Number

Dear Mr.\ (Mr. & Mrs.)\ (Ms.) Doe:

It is our understanding that you are the owner(s) of the property identified on Fairfax County Tax Map XX-X ((X)) XXXXX and that a water impoundment such as a pond or lake exists on your property. As the developer of the project referenced above, which is located upstream from your property, we would like to obtain your permission to conduct a pre-construction survey of the elevation of the bottom of your pond. This type of survey procedure is commonly referred to as a bathymetric survey.

Sediment accumulates in all ponds as a result of several factors including natural stream bank erosion; however, we are required to minimize any sediment resulting from our construction activity. The purpose of requesting the survey is to establish the elevations and topography of the bottom of the pond so that all parties have accurate documentation and a common understanding of its condition before construction commences. The results of the pre-construction bathymetric survey may assist to determine the extent of sediment deposited in the water as a result of our development activities. This information may help us avoid disputes at the conclusion of our project about the extent of sedimentation we might have caused.

The survey will be conducted in accordance with the procedures established by the U.S. Army Corps of Engineers Manual No. 1110-2-1003, Hydrographic Surveying, Chapter 8, Section 8-4 and endorsed by Fairfax County. Usually, this involves a team using a small boat to make depth measurements at certain points in the pond, from which a topographical profile of the pond bottom can be drawn. A copy of all survey data will be forwarded to you at your request.

Please note that you are not required or obligated to grant us permission to conduct the pre-construction bathymetric survey. Further, the County's approval of our project's proposed construction plan is not contingent upon receiving authorization to conduct a bathymetric study. You will not be responsible for the costs of this survey. Of course, any study which you commission on your behalf will be your own obligation. We are requesting your permission to conduct a pre-construction bathymetric survey in order to avoid any future misunderstanding or disagreements and to minimize the costs and length of time to resolve any disputes regarding the extent of sedimentation caused by upstream development activities. Prior to conducting any survey work, we will work with you to develop and establish the details regarding reasonable access, timing of the work, responsibilities and liabilities.

J. Doe  
Page 2

The County may eventually require that a post-construction bathymetric survey be performed if it observes a failure of our erosion and sediment controls and evidence of new sedimentation in your pond. If that occurs, we would request your permission again to access your property.

Please fill out and return the enclosed form letter in the self addressed and stamped envelope within 30 days of the postmarked date on the envelope. The purpose of the attached form is to indicate your intention to work with our firm in establishing the parameters to conduct a bathymetric survey of the pond on your property. Please understand that agreeing to discuss this matter with our firm in no way obligates you or provides any additional rights for us to perform any work on your property.

If you have any questions regarding this letter, please call (Contact person from your firm) at (Phone number of contact person). If you have any questions regarding Fairfax County's requirements pertaining to this matter please call the Environmental and Facilities Review Division at (703) 324-1720.

Sincerely,

XYZ Development Corporation

Enclosure: As stated

Date: \_\_\_\_\_

XYZ Development Company  
123 Main Street  
Fairfax, VA

Dear Mr./Mrs./Ms. (Developer's Name):

I have received your notice informing me of your desire to conduct a survey of the bottom of the water impoundment that exists on my property.

This indicates my willingness to work reasonably with your firm in establishing the parameters of the survey work that you would like to perform on my property, but does not authorize you or your firm to perform any work on my property at this time.

Sincerely,

\_\_\_\_\_  
Name of property owner

Phone number: \_\_\_\_\_