**Henrico County**

**No-Rise Certificate Template and Instructions**

**APPLICANT’S GUIDE TO A NO-RISE CERTIFICATION**

**Regulatory Authority**

Per the Henrico County Floodplain Ordinance, Section 10-9(a), a no-rise certification is required for all development within a designated floodplain, in accordance with the stated requirements shown below:

*Development shall not cause an increase in the BFE, reduce the flood-carrying capacity of any watercourse, drainage ditch, or other drainage facility or system, or similar adverse impacts. The applicant shall submit a No-Rise Certificate, signed, and sealed by a licensed professional engineer with sufficient supporting technical data such as a hydrologic and hydraulic analysis, as determined by the Floodplain Administrator. Compensatory storage may be utilized to satisfy the no-rise requirement for any type of development if engineering data shows the site is hydraulically equivalent and the Floodplain Administrator approves the plans for each compensatory storage area.*

**No-Rise Certification Template**

A no-rise certification template is included at the end of this section for consideration and use by the certifying engineer for a development project.

**Supporting Documents and Technical Data**

Certifying engineers should review the Henrico County Floodplain Technical Guidance Manual, specifically Section 5, to determine the required supporting documents and technical data specific to a project type, which may include the following three types of supporting documentation and technical data for a no-rise certificate, including: (1) No Impact Statement, (2) Compensatory Storage, and (3) Flood Study. A brief description of each type of supporting documentation generally required is summarized below.

1. **No Impact Statement**

The No Impact Statement is a short narrative document for projects too small to warrant an engineering study and it should outline logical and common-sense engineering approaches without preparation of a hydrologic and hydraulic model. Examples of these types of minor projects are listed in the Henrico County Floodplain Technical Guidance Manual. Projects within the conveyance shadow of other structures are on type of project that may be covered by a no impact statement as described in the manual.

1. **Compensatory Storage**

When significant topographic and geometric changes to the floodplain are part of a development project, the project is required to provide compensatory storage to ensure that the flood storage and conveyance of the site is maintained. Removing any unpermitted development, such as fill or structures, does not constitute adequate compensation, since removing unlawful development does not address the original, illegal loss of flood storage volume.

Compensatory storage must instead be designed in a way that floodwaters are allowed to freely enter and exit the compensatory storage area without restriction. It should be located onsite and adjacent to or opposite the areas of new floodplain development to be hydraulically equivalent and should be hydrologically connected to the floodplain.

Proposed development in the floodplain must be compensated with excavation of at least one times the volume of the displaced storage volume (1:1 compensatory storage ratio requirement). It must also show that cut/fill volumes are balanced at 1-foot elevation increments up to the BFE. Without this requirement, compensatory storage can be graded in a way where the majority of the cut volume is found in the higher elevations, causing smaller event water surface elevations to increase.

An alternatives analysis may also be required to identify a location for compensatory storage that minimizes the impact to other resources (i.e., riparian buffers, wetlands, fisheries habitat, etc.). Additionally, test pits may be required to demonstrate that the proposed compensatory storage will not intercept the seasonal high groundwater table which would negate the required functionality of the compensation area.

For more information about acceptable methods of compensatory storage calculations or for more details about map changes, please consult the Henrico County Floodplain Technical Guidance Manual.

1. **Flood Study**

For larger or more complex development projects, it may be necessary to provide a flood study to demonstrate no-rise. Generally, this is the County’s preferred method for most project types, as any floodplain changes are permanently documented within the hydraulic models so that future developments have access to the models with the most current topography and structures.

The methods and reporting requirements in a flood study should follow the procedures outlined in the Henrico County Floodplain Technical Guidance Manual and revisions to the floodplain geometrics must be adopted into the County’s regulatory models and maps for consideration on future projects.

**NO RISE CERTIFICATION**

This is to certify that I am a duly qualified, registered professional engineer licensed to practice in the Commonwealth of Virginia.

It is to further certify that the attached technical data supports the fact that (**briefly explain the proposed project or development**) at (**insert physical address**) will not impact the 100-year flood elevations, floodway elevations, or floodway widths on (**name the waterway, floodplain, or floodway**) as presented on the current effective Henrico County Floodplain Maps in the vicinity of the proposed development.

Attached are the documents and technical data that support my findings:

[ ]  No Impact Statement

[ ]  Compensatory Storage

[ ]  Flood Study

[ ]  Other:

**Submitted By:**

***[Insert PE Seal & Signature]***

*Date:*

*Name:*

*Title:*