



Bureau of Planning & Zoning
435 W. Hamilton Street
Allentown, PA 18101-1699
Office: 610.437.7613
Fax: 610.437.8781

NO-RISE CERTIFICATION GUIDANCE

Regulatory Authority

Per the City of Allentown's Flood Control Ordinance, Chapter 298-22, a No-Rise Certification is required for all development, such as fill, new construction, and substantial improvements, within the following areas:

- The floodway
- The AE zone without a FEMA delineated floodway

No-Rise Certification

The term No-Rise Certification is defined as a document used to certify that a proposed project will not cause an increase in flood heights. This document must be supported by technical data from a hydrologic and hydraulic analysis and signed by a registered professional engineer (Flood Control Ordinance, Chapter 298-3.02).

A No-Rise Certification template is included at the end of this document for consideration and use by the certifying engineer.

Hydrologic and Hydraulic Analysis

A hydrologic and hydraulic analysis, more commonly known as a flood study, is used to determine if proposed development in the floodway or the AE zone without a delineated floodway will cause a rise in flood heights.

The detailed process for conducting a hydrologic and hydraulic analysis can be found in the [Guidance for Flood Risk Analysis and Mapping, Floodway Analysis and Mapping](#). An abbreviated outline of this process is included below:

1. The registered professional engineer obtains a copy of the model used to develop the effective flood insurance study from FEMA. Data may be accessed through the Flood Risk Study Engineering Library (FRiSEL).
2. The engineer duplicates the results of the effective model (called the Duplicative Effective Model).
3. The engineer makes any corrections to the effective model (called the Corrected Effective Model) such as technical errors in the effective modeling or the inclusion of any floodplain changes that occurred prior to the date of the effective model.
4. The engineer develops a model for existing conditions that reflects any modifications that have occurred within the floodplain since the date of the effective model but prior to the proposed development (called the Pre-Project (Existing) Conditions Model).



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5. The engineer modifies the Pre-Project Conditions model to reflect the proposed development while retaining the currently adopted floodway widths (called the Proposed Conditions Model).
6. The engineer compares the results of the Proposed Conditions Model to the Corrected Effective Model (or Effective Model if applicable) to determine if there will be an increase in elevation of the base flood or floodway elevations at any existing or new cross section or evaluation line.

If the results of the analysis demonstrate that there will not be an increase in either of the elevations, the engineer can prepare and submit the No-Rise Certification. The hydrologic and hydraulic analysis must accompany the certification as supporting technical documentation of the no-rise. The No-Rise Certification and supporting documentation will be reviewed by the City of Allentown's Floodplain Manager and City Engineer.

It is important to note that FEMA defines "No-Rise" as meaning a zero increase. It does not allow for negligible rises, such as a 0.01-foot rise, as the cumulative effects of even negligible rises could significantly increase flood stages.

Minor Projects

Some projects are too small to warrant a complete hydrologic and hydraulic analysis. Examples of these types of minor projects **may** include:

- Signposts
- Utility poles
- Mailboxes
- Chain link and barbed wire fences
- Paving project (driveways, parking lots, roads) that do not increase the natural grade

For these types of projects, a No Impact Statement can be submitted as the supporting technical documentation to the No-Rise Certification. The No Impact Statement can be a short narrative document but must outline logical engineering approaches to support the No-Rise Certification without preparation of a hydrologic and hydraulic model.

If there is any doubt as to whether a project will increase flood stages, the Floodplain Manager has the authority to require that a hydrologic and hydraulic analysis be conducted. **Therefore, applicants are encouraged to contact the Floodplain Manager to discuss their proposed project prior to preparing No-Rise Certifications.**



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NO RISE CERTIFICATION

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

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)** at published sections in the Flood Insurance Study for the City of Allentown dated **(provide study date)** and will not impact the 100-year flood elevations, floodway elevations, or floodway widths at unpublished cross-sections in the vicinity of the proposed development.

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

- No Impact Statement
- Hydrologic/Hydraulic Analysis
- Additional Attachments: _____

Submitted By:

Date: _____

Name: _____

Title: _____

[Insert PE Seal & Signature]