

# State of Nebraska Procedures for “No-Rise” Certification for Proposed Developments in the Regulatory Floodway

## Regulatory Setting

The floodway is defined by Title 455 Neb. Admin. Code Ch. 1, § 002.07 Floodway:

“Floodway” shall mean the channel of a watercourse or drainway and the adjacent land areas that are necessary to be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.”

Floodways are a reserved area. So, any development requires additional analysis to show there is no impact. This is pursuant to Title 455 Neb. Admin. Code Ch. 1, § 005.01, Minimum Standards Governing Location of Obstructions and Substantial Improvement in Floodways:

*“No new construction, substantial improvement or other obstruction (including fill) shall be permitted within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed new construction would not result in any increase in water surface elevations along the floodway profile during the occurrence of the base flood.”*

Also, pursuant to Title 44 Code of Federal Regulations, § 60.3(d) and § 60.3(d)(3):

*(d) “When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community’s FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community’s FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:”*

*(d)(3) “Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;”*

Prior to issuing any building, grading, or development permits involving activities in a regulatory floodway the community must obtain a certification stating the proposed development will not impact the pre-project base flood elevations, floodway elevations, or floodway data widths. The certification should be obtained from the applicant and be signed and sealed by a Nebraska professional engineer.

**The engineering or “no-rise” certification must be supported by technical data** or an explanation of why a hydraulic analysis is not required. A hydraulic analysis is anticipated to be required in most cases. The supporting technical data should be based upon hydraulic analyses that utilize the same model used to prepare the effective Flood Insurance Study (FIS) report and Flood Insurance Rate Map (FIRM) unless it is demonstrated that the “effective” hydraulic model is unavailable or its use is inappropriate. If an alternative hydraulic model is used, the new model must be calibrated to reproduce the FIS profiles within 0.5 feet. The hydraulic model used in the analysis must be on FEMA’s accepted models list, or documentation must be provided showing the model meets the requirements of National Flood Insurance Program (NFIP) regulation 65.6 (a)(6).

Although communities are required to review and approve the “no-rise” submittals, they may request, in writing, technical assistance and review from the Nebraska Department of Natural Resources (NeDNR). However, prior to forwarding to NeDNR, the community must review the technical submittal package and verify that all supporting data, listed in the following paragraphs, are included in the package. The final files must be kept in the community’s project file.

## Hydraulic Analysis

When a hydraulic analysis is performed to support a “no-rise” certification for proposed developments encroaching into the regulatory floodway, a community will require that the following procedures be followed:

1. Duplicate Effective Model:

The duplicate effective model is a copy of the hydraulic analysis used in the effective FIS, referred to as the effective model. The effective model should be obtained and then reproduced on the applicant’s equipment to produce the duplicate effective model. This is required to ensure that the effective model’s input data has been transferred correctly to the applicant’s equipment and to ensure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the project reach. For information related to obtaining copies of the effective FIS models, see DHS-FEMA’s Internet site at: <https://www.fema.gov/engineering-library>.

2. Corrected Effective Model:

The Corrected Effective Model is the model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model. The floodway limits should be manually set at the new cross section locations by measuring from the effective FIRM. The cumulative reach lengths of the stream should also remain unchanged. The Corrected Effective Model must not reflect any man-made physical changes since the date of the Effective Model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

3. Existing or Pre-Project Conditions Model:

The Duplicate Effective Model or Corrected Effective Model is modified to produce the Existing or Pre-Project Conditions Model to reflect any modifications that have occurred or have been permitted to occur within the floodplain since the date of the Effective Model but prior to the construction of the project. If no modification or permitted modifications have occurred since the date of the Effective Model, then this model would be identical to the Duplicate Effective Model or Corrected Effective Model. The Existing or Pre-Project Conditions model may be required to support conclusions about the actual impacts of the project associated with the revised or post-project model or to establish more up-to-date models on which to base the revised or post-project conditions. The results of this Existing Conditions analysis will indicate the 1% annual-chance elevations at the project site.

4. Revised or Post-Preliminary Conditions Model

The Existing or Pre-Project Conditions Model (or Duplicate Effective Model or Corrected Effective Model, as appropriate) is modified to reflect revised or post-project conditions. This model must

incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project. When the request is for a proposed project, this model must reflect proposed conditions. The overbank roughness coefficients should remain the same unless a reasonable explanation of how the proposed development will impact Manning's "n" values is included with the supporting data. The results of this analysis will indicate the 1% annual-chance flood elevation for proposed conditions at the project site. **These results must indicate NO impact on the 1% annual-chance flood or floodway elevations when compared to the Existing Conditions or Pre-Project Conditions model.** If an increase results, the project will require the submittal of a CLOMR prior to the start of the project.

## Supporting Data

The "no-rise" supporting data and a copy of the engineering certification must be submitted to and reviewed by the appropriate community official prior to issuing a permit.

The "no-rise" supporting data should include, but may not be limited to:

1. Hydraulic Models, in a currently approved FEMA modeling program, including:
  - a. Duplicate Effective Model;
  - b. Corrected Effective Model;
  - c. Existing Conditions or Pre-Project Conditions Model;
  - d. Proposed Conditions or Post-Project Conditions Model.
2. FIRM and topographic map, showing floodplain and floodway, the additional cross sections, the site location with the proposed topographic modification superimposed onto the maps, and a copy of the effective FIRM showing the current regulatory floodway. The spatial files associated with the design, in shapefile format, should also be submitted.
3. Project narrative clearly stating analysis procedures. All modifications made to the original FIS model to represent revised existing conditions, as well as those made to the revised existing conditions model to represent proposed conditions, should be well documented and submitted with all supporting data. A Statement defining source of additional cross section topographic data and supporting information should also be included.
4. Copy of the effective Floodway Data Table copied from the FIS report.
5. Cross section plots, of the added cross sections, for revised existing and proposed conditions.
6. Property survey information indicating the location of structures on the property, if applicable.
7. Copy of the source from which input for the original FIS model was taken.
8. Electronic copies of all input and output files.

The engineering "no-rise" certification and supporting technical data must stipulate NO impact on the 1% annual-chance flood or floodway elevations at the new cross sections and at all existing cross sections anywhere in the model. Therefore, the revised computer model should be run for a sufficient distance

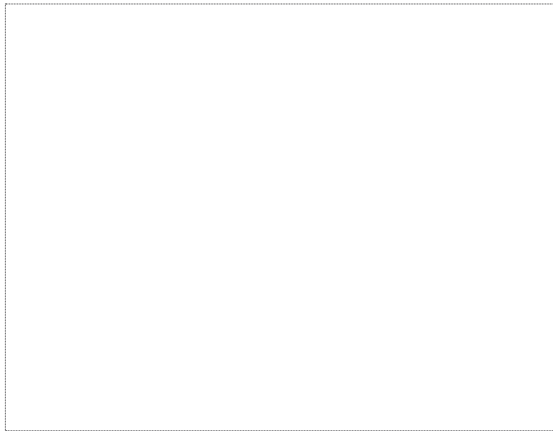
(usually one-mile, depending on the hydraulic slope of the stream) upstream and downstream of the development site to ensure proper “no-rise” certification.

If published floodway widths are changed as a result of the encroachment, then a floodway revision will be required as described in Part 65.7 of the NFIP regulations.

Attached is a sample “no-rise” certification form that can be completed by a registered professional engineer and supplied to the community, along with the supporting technical data when applying for a development permit.

## No Rise Certification

This document is to certify that I am a duly qualified engineer licensed to practice in the State of Nebraska. It is to further certify that the attached technical data supports the fact that the proposed project \_\_\_\_\_  
Project Name and Description  
located at \_\_\_\_\_  
Address or Parcels  
will not increase the base flood elevations or floodway elevations, or impact the floodway widths, on \_\_\_\_\_  
Stream Name  
at published cross-sections in the Flood Insurance Study for the community of \_\_\_\_\_  
Community Name  
dated \_\_\_\_\_ and will not increase the base flood elevations or floodway elevations, or impact the floodway widths at unpublished cross-sections in the area of the proposed development.



Seal and Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Date Certified

### FOR OFFICIAL USE ONLY

Approved

Disapproved

Notes:

\_\_\_\_\_  
Name & Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date