

## PIH Report & PQS Memo Floodplain Wording

**(6.1) Based on the condition that applies to the project, select the applicable PQS statement from the following (This description will address whether the scope of the project will occur within the boundaries of a mapped base floodplain or a mapped regulatory floodway):**

### **MAPPED COMMUNITIES**

**Condition 1. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and crosses or overlaps upon Base Floodplains.**

PQS Statement: (6.1) Review of floodplain mapping shows that the project overlaps upon one or more Base Floodplains. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for inclusion in a Permit Application.

**Condition 2. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and crosses or overlaps upon Base Floodplains and Regulatory Floodways. Check with Roadway Design Hydraulics or Bridge Hydraulics Section to confirm whether Statement A or Statement B (below) is applicable.**

***Use only the statement that applies:***

PQS Statement A (Typically use this statement when there is no channel or bridge work which changes the roadway profile, the conveyance capacity of the bridge or channel, *and* no roadway work which changes vertical or horizontal alignment or the existing roadway prism.):

(6.1) Review of floodplain mapping shows that the project overlaps upon one or more designated Regulatory Floodways and Base Floodplains. Based on the current scope of work the project will be designed to assure that no increase in a Regulatory Floodway's Base Flood Elevation occurs. All certifications required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project meets floodplain regulations will be forwarded to the Environmental Permits Unit for inclusion in a Permit Application. Any change in project scope will be communicated to the Hydraulics Section(s).

***or***

PQS Statement B (Typically use this statement when Statement A condition does not apply.):

(6.1) Review of floodplain mapping shows that the project overlaps upon one or more designated Regulatory Floodways and Base Floodplains. Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section will do a hydraulic investigation to determine the effect of the project on the Regulatory Floodway's Base Flood Elevation. Depending on results of the analysis, the Hydraulics Section(s) will either certify that the current scope of the project conforms to floodplain regulations, work with Roadway Design to modify the project to conform to regulations, or pursue a floodplain map revision. It is unknown at this time whether or not a map revision will be required. All certifications required from the Hydraulics Section(s) confirming that the project meets floodplain regulations will be forwarded to the Environmental Permits Unit for inclusion in a Permit Application. Any change in project scope will be communicated to the Hydraulics Section(s).

**Condition 3. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and does not overlap upon any Base Floodplain or Regulatory Floodway.**

PQS Statement: (6.1) Review of floodplain mapping shows that the project does not overlap upon a Base Floodplain or Regulatory Floodway.

**Condition 4. Review of Floodplain Mapping shows that the project is located in a Mapped but Non-Participating Community and crosses or overlaps upon Base Floodplains.**

PQS Statement: (6.1) Review of floodplain mapping shows that the project overlaps upon one or more Base Floodplains in a non-participating community. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for record retention. A Permit is not required.

#### **NON-MAPPED COMMUNITIES**

**Condition 5. Review of Floodplain Mapping shows that the project is in a Non-Mapped and Non-Participating Community and crosses or overlaps upon Potential Base Floodplains.**

PQS Statement: (6.1) The project is located in a non-participating community with no floodplain mapping; State Minimum Standards apply. Review of topographic mapping shows that the project overlaps upon one or more Potential Base Floodplains. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for record retention. A Permit is not required.

**Condition 6. Review of Floodplain Mapping shows that the project is in a Non-Mapped and Non-Participating Community and does not overlap upon a Potential Base Floodplains.**

PQS Statement: (6.1) The project is located in a non-participating community with no floodplain mapping; State Minimum Standards apply. Review of topographic mapping shows that the project does not overlap upon a Potential Base Floodplain. This project does not require a floodplain certification or permit.

#### **BY EXPLICIT PERMISSION OF THE ROADWAY HYDRAULICS ENGINEER ONLY**

**Condition 7. Review of Project Scope and Plans shows that the project work Does Not Meet the Criteria for Development.**

PQS Statement: (6.1) Review of the project scope, project description and Plan-In-Hand Plans by the Roadway Design Hydraulics Engineer indicates that the project work has no potential to impact the Base Floodplains/Regulatory Floodways it might cross, and does not meet the criteria for Development within a base floodplain/regulatory floodway. Certification will not be required from the Roadway Design Hydraulics Section or the Bridge Hydraulics Section. A Permit is not required.

**(6.2) Based on the project scope, select the applicable PQS statement that describes whether the project will cause a rise in the Base Flood Elevation (BFE) greater than 1-foot, an increase in the potential for property loss and hazard to life, or any rise in a regulatory floodway from the following:**

PQS Statement (6.2) It is anticipated that this project will be certified to meet floodplain regulations. It is not anticipated to cause greater than one foot of rise in the Base Flood Elevation within a Base Floodplain, any rise in the Base Flood Elevation within a Regulatory Floodway, nor increase the potential for property loss and hazard to life.

Or for Condition 3 only:

PQS Statement (6.2) No floodplain certification or permit is required for this project.

For projects that will require a map revision from FEMA (These projects are few):

PQS Statement: (6.2) It is anticipated that the project will require a conditional letter of map revision (CLOMR) and a letter of map revision (LOMR) following construction and will require further coordination with FEMA. Notify the NDOT Public Involvement Unit.

**(6.3) Does the project have a base floodplain that overlaps the project at locations other than culverts and/or bridges? Determine whether the project scope results in a floodplain encroachment other than functionally dependent uses (e.g. bridges, culverts, wetlands) or actions that facilitate open space use (e.g. recreational trails, bicycle and pedestrian paths).**

Functionally dependent use has been described as bridges, or any water conveyance structures or actions that facilitate the use of open space use (e.g. recreational trails, bicycle and pedestrian paths). Functionally dependent uses also include culverts, grading and guardrails, and other associated or required work that are required to support or protect the bridge or culvert.

PQS Statement – Yes: There are locations along the project that overlap a base floodplain and are not functionally dependent. The following floodplain NFIP/FHBM maps were reviewed: Panel # Dated ####/###/##.

PQS Statement – No: There are no locations along the project that possibly or potentially overlap a base floodplain outside of culverts and bridges, or other activities listed above. All overlapping areas are located at culverts or bridges and are considered a functionally dependent use of the base floodplain. The following floodplain NFIP/FHBM maps were reviewed: Panel # Dated ####/###/##.

PQS Statement – Not Applicable: There are no base floodplains that overlap the project. The following floodplain NFIP/FHBM maps were reviewed: Panel # Dated ####/###/##.

**23 CFR Section 650.111 (b) Location studies shall include evaluation and discussion of the practicability of alternatives to any longitudinal encroachments.**

A. Is the entire project located on existing alignment?

- Option 1 – No longitudinal (parallel) encroachments

PQS Statement – There are no longitudinal (parallel) encroachments located along the project.

- Option 2 – Location(s) parallel to base floodplain, but no overlap

PQS Statement – There are location(s) in which the highway runs parallel to the base floodplain but the project scope does not overlap the base floodplain.

- Option 3 – Longitudinal (parallel) encroachments exist.

PQS Statement – There is or are longitudinal (parallel) encroachments located along the project, which are described as follows: [Describe this or these locations]. Based on the scope of work on alignment, there would be no reasonable and practicable alternative(s) to this longitudinal encroachment.

B. Is the project or any portion of the project location on new alignment?

- For reconstruction or new construction on any portion of the project on new alignment, include a paragraph regarding the alternative analysis and selection of the alignment.

- *Describe Alternative Analysis and final decision*

**23 CFR Section 650.111 (c) Location studies shall include discussion of the following items, commensurate with the significance of the risk or environmental impact, for all alternatives containing encroachments and for those actions which would support base floodplain development.**

**1) The risks associated with implementation of the action:**

- Do the alternatives containing encroachments increase the potential for loss of life or property?
  - No  
PQS Statement – This action would not increase the potential for loss of life or property.
  - Yes  
PQS Statement – This action may increase the potential for loss of life or property. [Describe the increase in the potential for loss of life or property associated with the implementation of the action.]

**2) The impacts on natural and beneficial floodplain values:**

- Do the alternatives containing encroachments impact the natural and beneficial floodplain values?
  - No  
PQS Statement – There are no significant encroachments associated with this Project and this Project will not have an impact on the natural and beneficial floodplain values.
  - Yes  
PQS Statement – This action may impact natural and beneficial floodplain values. [Describe impacts to the natural and beneficial floodplain values.]

**3) The support of probable incompatible floodplain development:**

- Do the alternatives containing encroachments support probable incompatible floodplain development?
  - No  
PQS Statement – The proposed improvements on this Project will maintain local and regional access to existing rural and agricultural areas and will not create new access to undeveloped lands. Therefore, this highway improvement Project will not support probable incompatible floodplain development.
  - Yes  
PQS Statement – This action may support probable incompatible floodplain development. [Describe alternatives containing encroachments that support probable incompatible floodplain development.]

**4) The measures to minimize floodplain impacts associated with the action, and:**

- Discuss measures to minimize floodplain impacts associated with encroachments, commensurate with the significance of the risk or environmental impact.
  - Encroachment results in no/minimal impact on the floodplain.  
PQS Statement – Based on assessment of the significance of the risk or environmental impact, no additional measures are necessary to minimize floodplain impacts associated with the action.
  - Encroachment results in significant impact on the floodplain.  
PQS Statement – Additional measures to minimize floodplain impacts associated with the action are necessary. [Discuss measures to minimize floodplain impacts associated with the action.]

**5) The measures to restore and preserve the natural and beneficial floodplain values impacted by the action:**

- Discuss measures to restore and preserve the natural and beneficial values impacted by the action.
  - PQS Statement – There will be limited impacts to the natural and beneficial floodplain values of the floodplains along this Project. Since there will be temporary soil disturbance during construction activities, sediment and erosion control best management practices will be utilized during construction and disturbed areas will be seeded following construction.

**23 CFR Section 650.111 (d) Location studies shall include evaluation and discussion of the practicability of alternatives to any significant encroachments or any support of incompatible floodplain development.**

- Does a significant encroachment occur as a result of the project?
  - No  
PQS Statement – There is no significant encroachment. This does not result in a significant potential for interruption or termination of this transportation facility, which is needed for emergency vehicles or a community’s only evacuation route. It also does not result in a significant risk or potential for loss of life or property. This project does not result in a substantial adverse impact on natural and beneficial floodplain values. No discussion of the practicability of alternatives is required.
  - Yes  
PQS Statement – A significant encroachment would occur as a result of the project. [Please evaluate and discuss the practicability of alternatives to any significant encroachment.]
  
- Does the project support incompatible floodplain development?
  - No  
PQS Statement – This highway improvement Project will maintain local and regional access to existing rural and agricultural areas and does not support incompatible floodplain development. No discussion of the practicability of alternatives is required.
  - Yes  
PQS Statement – This action may support incompatible floodplain development. [Describe alternatives containing encroachments that support probable incompatible floodplain development.]

## **DEFINITIONS**

Floodplain Mapping	<p>Flood Hazard Maps (FHM), Flood Hazard Boundary Maps (FHBM) or Flood Insurance Rate Maps (FIRM) accepted by the Federal Emergency Management Agency (FEMA) or created for review and acceptance by FEMA that show Special Flood Hazard Areas (SFHA0) subject to inundation by the 1% Annual Chance Flood (100-yr Flood).</p> <p>Mapping is available at the FEMA Flood Map Service Center web site <a href="https://msc.fema.gov/portal">https://msc.fema.gov/portal</a> or the Nebraska Department of Natural Resources Floodplain Interactive Map <a href="https://dnr.nebraska.gov/floodplain/interactive-maps">https://dnr.nebraska.gov/floodplain/interactive-maps</a></p>
Potential Base Floodplain	<p>A drainage way in a Non-Mapped Community, which has a watershed area of more than 640 acres (one square mile) upstream of the point of interest (usually the highway).</p>
Mapped Community	<p>A Community (County, City or Village) which has Floodplain Mapping (FHM, FHBM, FIRM, or work maps) (see definition above).</p>
Non-Mapped Community	<p>A Community (County, City or Village) which does not have Floodplain Mapping (see definition above). State Minimum Standards apply within these Communities.</p>
Participating Community	<p>A Community (County, City or Village) which is participating in the National Flood Insurance Program (NFIP). A Participating Community regulates development activities, via ordinances and permits, which occur in floodplains (mapped or potential) within in its jurisdiction.</p> <p>A list of Participating Communities is maintained on the FEMA web site <a href="http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book">http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book</a></p>
Non-Participating Community	<p>A Community (County, City or Village) which does not participate in the National Flood Insurance Program (NFIP). A non-participating community does not regulate development activities that occur in floodplains (mapped or potential) within in its jurisdiction.</p> <p>A list of Non-Participating Communities is maintained on the FEMA web site <a href="http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book">http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book</a></p>
State Minimum Standards (paraphrased)	<p>No construction, improvement or obstruction shall be allowed in the floodplain unless it is demonstrated that the effect of the construction will increase the water surface elevation of the base (100 year) flood for a:</p> <ul style="list-style-type: none"><li>• Base Floodplain - one foot or less (&lt; 1.0 feet), and</li><li>• Regulatory Floodway – no rise (0.00 feet).</li></ul>

