Subject: Notice for Interpreting the Limits of the Floodway for Linear Infrastructure Projects Complying with HUD Floodplain Management Regulations, 24 CFR Part 55

Scope: This Notice applies only to linear infrastructure projects traversing a floodway that require an environmental review and compliance with 24 CFR Part 55.

I. Purpose and Background

This Notice provides guidance on interpretation of the floodway for purposes of compliance with HUD’s Floodplain Management and Protection of Wetlands regulation, 24 CFR Part 55 (“Part 55”). Under Part 55, “no HUD financial assistance (including mortgage insurance) may be approved after May 23, 1994 with respect to any action other than a functionally dependent use or floodplain function restoration activity, located in a floodway” unless an exception in section 55.12(c) excludes the action from Part 55 compliance. Section 55.1 permits three categories of activities in a floodway: functionally dependent uses, floodplain restoration activities, and activities listed in section 55.12(c). Construction or repair of linear infrastructure does not fit into any of these categories and, therefore, cannot receive HUD assistance in a floodway. This prohibition presents challenges to large linear infrastructure activities which may pass over or under a floodway (such as a river or stream) without harm. Because Part 55 prohibits the use of HUD financial assistance for any action “located in a floodway,” it is important to understand when actions are within a floodway for purposes of this Part. The purpose of this Notice is to define when linear infrastructure activities are considered to be located in a floodway under Part 55.

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1 For background information on floodways, including definitions and guidance materials, see https://www.fema.gov/floodway.
2 See 24 CFR 55.1(c)(1). A functionally dependent use is defined as “a land use that must necessarily be conducted in close proximity to water (e.g., a dam, marina, port facility, water-front park, and many types of bridges)” (24 CFR 55.2(b)(6))
II. Applicability

This Notice applies to linear infrastructure projects funded using HUD financial assistance that require an environmental review and compliance with Part 55. The guidance in this Notice describes how Responsible Entities (REs) and HUD reviewers should interpret the limits of the floodway in the environmental review of linear infrastructure projects utilizing Community Development Block Grant (CDBG) funds, including the Entitlement, State, Insular Areas, and Non-Entitled Counties in Hawaii CDBG Programs, as well as Indian Community Development Block Grant (ICDGB) funds, CDBG-Disaster Recovery funds, and Section 108 Loan Guarantee Program funds.

For purposes of this Notice, linear infrastructure projects include installation, construction, or repair of water and sewer lines, power and broadband transmission lines, and other large-scale corridor projects that connect infrastructure resources to a community. This notice is not intended to address small-scale infrastructure activities, such as projects that would extend water or sewer connections to individual homes or housing developments as part of a housing development project. Housing projects that require installation of infrastructure connections will be addressed in a separate guidance. This Notice does not apply to bridges, as bridges are considered functionally dependent uses, and therefore, subject to a different analysis under Part 55. This notice does not in any way change the interpretation of the horizontal or vertical limits of any Special Flood Hazard Area (SFHA) other than the floodway. The information provided below will assist in determining whether an activity is outside of the floodway and, therefore, eligible for HUD financial assistance.

III. Discussion

The floodway includes the channel of a river or other watercourse as well as the adjacent land areas that must be kept clear to discharge flood waters. Because the floodway is the effective part of the floodplain conveying the water, floodways are the most dangerous part of the floodplain. Part 55 is particularly conservative regarding floodway development, because HUD is committed to ensuring that sites containing floodways are not approved for housing. However, unlike housing, it is sometimes necessary and appropriate for linear infrastructure activities to cross a waterway in order to meet community needs.

Whereas HUD relies on the Federal Emergency Management Agency (FEMA)’s Flood Insurance Rate Maps (FIRMs) to define the horizontal limits of the floodway, Part 55 does not define a vertical limit for when a project is “in” the floodway. It is HUD’s interpretation that vertically, the floodway is limited to the area between ground or riverbed level and base flood elevation (BFE), as illustrated in the shaded area in Figure 1. Under 24 CFR 55.1(c)(1), HUD financial assistance cannot be used within the floodway except in very limited circumstances, meaning that most HUD projects may not enter or disturb the area between ground level and base flood elevation within the horizontal limits of the floodway (see Figure 1). This precludes the use of HUD financial assistance for any ground level construction (e.g., housing or other structures or improvements) within the floodway.

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This interpretation does not affect HUD’s interpretation of the horizontal or vertical limits of any SFHA other than the floodway.
With the new guidance provided by this Notice, the construction, installation, or repair of linear infrastructure located entirely below ground level or entirely above base flood elevation may comply with Part 55 subject to the conditions discussed below. In other words, these activities may pass over or under the floodway if there is no new construction or ground disturbance within the floodway. Underground pipelines may pass under a floodway if installed by construction technology such as directional drilling or any other technology that would not disturb the stream or floodway. Aboveground lines may pass over a floodway by being attached to an existing bridge or supported by existing construction spanning the channel such as a utility bridge, pipeline bridges, or pipe racks, as long as the pipeline is entirely above BFE within the horizontal limits of the floodway, and there are no new supports for the bridge, such as pillars, posts, or bents, within the floodway. HUD financial assistance may not be used to install an aboveground pipeline if any part of the pipeline would be located below BFE at any point within the floodway or if the installation of the pipeline would require construction or installation of any supporting structures within the floodway.

a. 8-Step Decisionmaking Process

Although this interpretation allows certain projects to pass through the horizontal limits of a floodway, these projects must still comply with Part 55, including completion of the 8-Step Process to determine whether there are practicable alternatives to locating the project in a floodplain. (Refer to Section 55.20.) The information below shall be used to supplement Section 55.20 to complete the 8-Step Process with respect to linear infrastructure projects that cross the floodway.
• Step 1: Use the guidelines above to determine whether the project will be located in the horizontal limits of a floodplain. For any HUD-assisted activity within the horizontal limits of the 100-year floodplain, the 8-Step Process is required. The 8-Step Process is also required for critical actions located in the horizontal limits of the 500-year floodplain.

• Step 2: The early public notice must clearly define the project’s potential impacts. It is especially important to convey the scope of the project and the potential for impacts on floodplains for a large and complex activity such as a linear infrastructure project.

• Step 3: Evaluate alternatives to avoid the floodway altogether.

• Step 4: Any potential impacts associated with the project’s presence above or below the floodway must be identified and evaluated. This analysis must consider the potential for erosion and scouring of the river bed, taking into consideration the stability of the river channel. For example, underground pipelines may pass under streams through bedrock with a low risk of scouring. In contrast, the danger that erosion will expose underground pipelines increases in areas with river beds with soil or other unstable material. Exposed pipelines are more vulnerable to damage and may obstruct the flow of water in the floodway, thus increasing flood risk and damage in the surrounding area. The analysis must consider flood depths, flood velocity, hydrostatic loads, hydrodynamic loads, possible debris impact loads, erosion and localized scour, duration of floodwater, and subsidence. Analysis must also consider the health, safety and ecological impacts attributable to a potential spill or rupture of a pipeline. Consult with knowledgeable parties, such as the state or local floodplain manager or state regulatory agency, to ensure that steps 4, 5, and 6 are completed appropriately.

• Step 5: Ensure that project designs minimize potential adverse impacts to and from the floodplain. Underground linear infrastructure should be installed using directional boring under the channel bed. This step must include a report by a professional engineer demonstrating that the construction of the pipeline will not compromise the floodplain by rendering it vulnerable to hydromodification of flow pattern or erosion. For channels subject to erosion, the analysis must demonstrate that measures have been taken to prevent future exposure of the buried pipeline. In all cases, mitigation must include development of a maintenance and inspection plan and an emergency plan in case of rupture or pipeline failure. This is especially critical for infrastructure conveying materials, including sewage, that create a higher risk of contamination if a breach occurs.

• Step 6: Considering the full range of information gathered in the previous steps, reevaluate the proposed activity to determine whether the project should continue as planned, or whether there are practicable alternatives to the proposal. This step must

4 Critical actions are defined as an “activity for which even a slight chance of flooding would be too great, because such flooding might result in loss of life, injury to persons, or damage to property.” See 24 CFR 55.1(b)(3) for more information on critical actions.
revisit the practicability of the alternatives considered in Step 3 and include a discussion of the potential impacts to the floodplain. In this step, consider impacts to the natural and beneficial functions of the floodplain, including the floodway’s role in conveying flood waters. Also consider economic costs and benefits, including the cost of replacing utilities if functions are lost due to flooding, anticipated life of the project, the resilience of associated facilities or structures, and the potential to function without interruption.

- Step 7: Publish a final notice that communicates the reason the proposal must be located in the floodplain and cross the floodway, a list of all alternatives considered, and all intended mitigation measures.

- Step 8: Execute the proposed action, ensuring that all mitigation measures are implemented.

b. Other Environmental Review Factors

Actions to construct, install, or repair linear infrastructure must comply with the related environmental laws and authorities listed in 24 CFR 58.5 and 58.6. Even beyond compliance with Part 55, environmental review preparers must be aware of a range of environmental risks and concerns that will be more challenging for linear infrastructure projects than for the typical HUD project. For example, projects that may impact a watercourse or the land directly around it must give special consideration to archaeological resources, endangered species, and wetlands. Projects affecting rural areas should be particularly cautious of their impacts to natural resources such as prime farmlands and wild and scenic rivers.

Projects that bring new infrastructure to undeveloped areas must also evaluate the indirect and cumulative impacts of the new infrastructure access. This analysis must consider the capacity of the infrastructure and whether its installation will lead to an increase in development or population in the area. Projects that will lead to increased development of a previously undeveloped or sparsely populated area will generally have significant impacts on the human environment and will therefore require Environmental Impact Statements.

It would be highly unusual for HUD assistance to be used for pipelines containing any hazardous substances. However, if this does arise, the environmental review must evaluate the full impacts and risks associated with the project. An Environmental Impact Statement should be prepared for any such projects. Consult with HUD program staff to ensure that any proposed pipeline activity is eligible for HUD financial assistance.

Project planners should also be mindful of state and local floodplain management standards, which may impose additional requirements on actions impacting floodways. If you have any questions about this Notice, please contact Elizabeth Zepeda at Elizabeth.G.Zepeda@hud.gov, or phone (202) 402-3988.