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Discrepancies with regulatory floodway boundaries and the process to change a mapped floodplain line

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Development in and adjacent to mapped floodplains requires careful planning. It also warrants careful scrutiny of the mapped floodplain boundaries themselves. Occasionally boundaries may not be consistent with topographic mapping or historically observed flood elevations. While not seeking to minimize the importance of careful planning and design within the floodplain, this article provides a discussion of potential discrepancies with regulatory floodway boundaries, and provides guidance on how to navigate the process with regulators to change a mapped floodplain line.

Most watercourses examined in FEMA's Flood Insurance Studies (FIS) utilize field cross sections, which are generally spaced widely apart. As a result, the hydraulic models used to calculate flood elevations might not account for low areas along the river corridor, diversions through highway or railroad cuts, or critical channel restrictions. While FIS models are a useful planning tool, it is not uncommon to find discrepancies between the models and field conditions. We have seen FIS models that omit bridges, include non-existent dams, have a 3-ft. discontinuity at a town line, or flows that are uncharacteristically high and unsupported by gauge data. The good news is that there is a process to address these issues.

When a building with a first floor elevation higher than the 100-year floodplain elevation, commonly referred to as the base flood elevation, is inadvertently mapped in the floodplain, this mapping error is straightforward to correct. In this case, the owner applies for a Letter of Map Amendment (LOMA) from FEMA. The LOMA serves as an acknowledgement from FEMA that the building is at or above the base flood elevation. Unfortunately, some lenders may not honor a LOMA and require flood insurance anyway.

FEMA also has a second process for physically remapping floodplain and floodway boundaries, and changing flood elevations. There are two elements to this process, a Conditional Letter of Map Revision (CLOMR) and a Letter of Map Revision (LOMR). If the project is an existing condition where only floodplain boundaries or base flood elevations are modified, then only a LOMR is required. However, if the project involves proposed physical changes to topography within the floodplain, then both the CLOMR and LOMR are typically required.

A CLOMR is a statement from FEMA that, if a proposed project is built to the lines and grades shown on the plans, the floodplain boundaries would change to those in the application. A CLOMR is useful to demonstrate that a proposed project will comply with National Flood Insurance Program regulations upon completion and can serve as the precursor to the LOMR. The LOMR is a letter from FEMA that identifies a segment of the river where the floodplain boundaries have been modified since the publication of the FIS.

Depending on the basis of the request, the complexity of the application can vary. If the applicant simply wishes to show that there was an error in the mapping without changing the hydraulic model,

the process is simple. However, if the applicant adds new cross sections to the model, or is making a case for better hydrologic flow data, then a greater engineering effort is warranted. In some cases, better geometric data already exists in other studies that have been performed by state and local agencies.

The advantage of pursuing the map revision process is that it can potentially increase the developable area of the site, giving owners more flexibility on where important elements of the project can be built. If the hydraulic analysis shows that the proposed development is outside the floodplain boundaries, it may also save the owner the yearly expense of flood insurance, and increase the marketability of a building since it is outside a floodplain.

It should be noted that the community's floodplain management official must approve any change to a mapped floodplain boundary. In addition, any increases in base flood elevations must be noticed to affected property owners, and are subject to an appeal period. Tighe & Bond's engineers and permitting experts have helped numerous clients to successfully remap floodplain boundaries, and are available to assist you with your next project.

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