

Background

The Flood Insurance Study for the North Platte River in Saratoga, Wyoming has recently been updated. The updated study includes an updated hydraulic model and special flood hazard area determinations. The study includes updated maps for the 1 percent regulatory flood hazard area (Zone AE) and the 0.2% flood hazard area (Zone X) but did not include a floodway analysis.

The Town of Saratoga is interested in investigating the possibility of adding a floodway. Floodways have more strict regulations for what developments are allowed within them, however, they can provide more flexibility for regulations within the flood fringe.

The floodway is determined by incorporating encroachments into the Zone AE floodplain to cause the water surface elevation to rise by one foot. Figure 1 shows the different zones within a floodplain cross section.

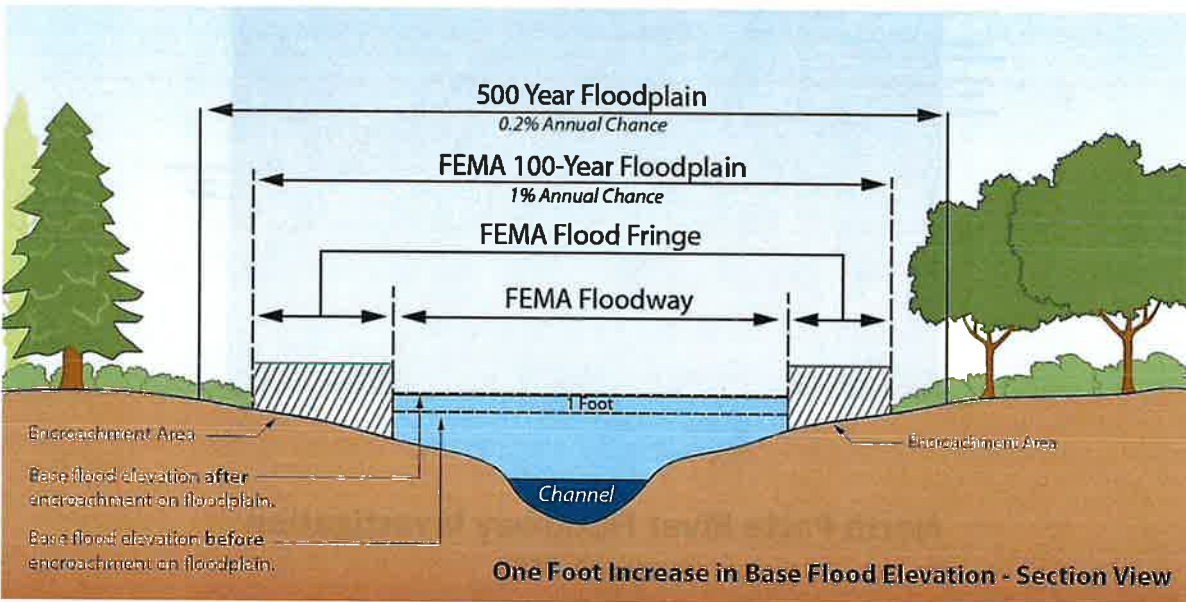


Figure 1 Typical floodway cross section

Scope of Work

The scope of work in this proposal is to conduct a preliminary floodway analysis for the North Platte River in Saratoga. The preliminary analysis will be draft in nature and is intended to guide the decision-making process on if a floodway is something the Town wants to incorporate. This study is investigatory and will not be to a level of detail to be accepted by FEMA for regulatory purposes. The results will be detailed enough to determine the approximate boundaries of the floodway.

Hydraulic Modeling

The effective floodplain model will be utilized to model the floodway. To model a floodway, a new plan will be created to model the encroachments. The encroachments are adjusted until the results have a one-foot rise in water surface elevations. The modeling for a floodway is an iterative process that requires multiple updates to the encroachment with the goal of creating as close to 1.00 feet of rise at

every cross section with no cross sections being more of a rise than 1.00 feet, and no cross sections can have a decrease in water surface elevation.

Draft Work Maps

The resulting encroachments from the hydraulic model will be used to create the floodway boundary on the draft work maps. In draft form these maps will be an approximate boundary that will capture all major topographic feature, but will need refinement for minor topographic features if the study is advanced to a regulatory floodway.

Proposed Fee

The cost will be billed as actual hours expended at a rate of \$200 per hour. Due to the iterative nature of the floodway analysis, it is unknown what the actual effort will be but is expected to be no more than 16 hours. This proposal will be a not to exceed fee of \$3,200.

Additional Services

If the results of the preliminary floodway analysis are favorable for the Town of Saratoga, an additional proposal will be provided to advance the study to meet regulatory requirements to make a floodway effective.

Additional services can be provided through an addendum to this agreement or through a separate agreement.