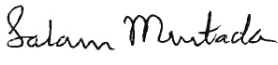


Technical Memo:

Date: 12/30/2020

To: Suzanne Jiwani, P.E., CFM
DNR-EWR, Central Office

From: Salam Murtada, P.E., PH, CFM 
DNR-EWR, Central Office
(MN PE License No. 46677)

RE: Addressing the preliminary floodway near 11567 280th Ave NE, Thief River Fall, Pennington County

During the Pennington County FIS Open House, a question was raised regarding the newly proposed floodway and its effect on a structure located in the Red Lake River floodplain (AE Zone) at 11657 280th Ave, Thief River Fall (Figure One). The structure is located approximately 870-ft downstream of FIS Z (Stream Sta = 153.2, Model ID of 135). It was constructed in 2010-2011 over fill and slab at an elevation of 1152.514 NAVD88-ft. The preliminary mapping placed the structure within its floodway limits, where currently the effective maps do not include a floodway.

To re-examine and revise the floodway, the floodway limits downstream of the house were re-adjusted between 1148-ft and 1150-ft contour elevations. Then using the same preliminary floodway width of approximately 600-ft, the re-adjusted floodway was extended upstream to tie-in with the floodway limits of FIS Z cross-section (Model ID=135), as shown in Figure Two. The result of this revision caused the house to be placed outside the floodway zone, without affecting the surcharges already determined in the model.

This analysis and revision was conducted based on engineering judgement that meets federal and state floodplain mapping and management standards.

If you have any question about this memo or need more information, please let me know.

cc: Stephanie Klamm

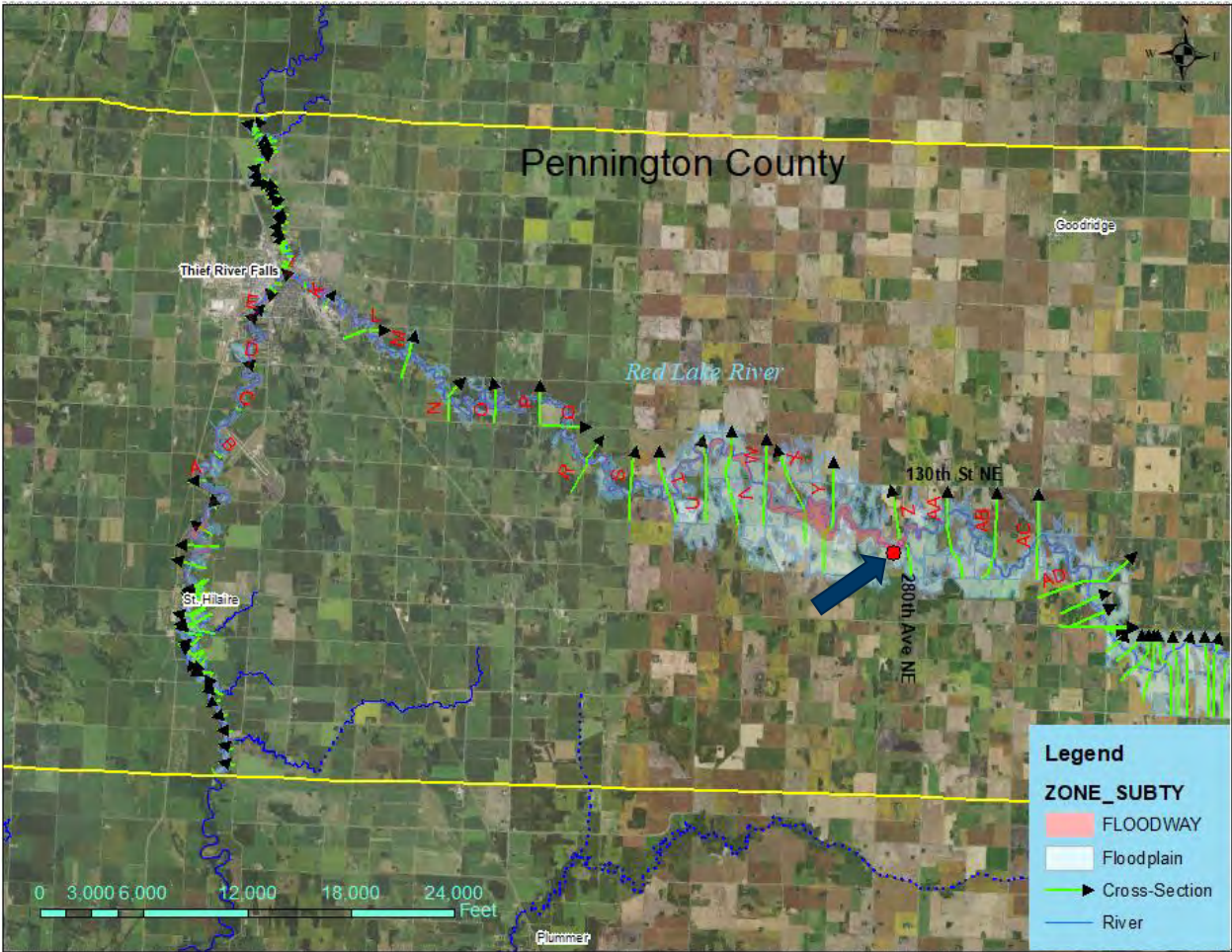


Figure One: Location of floodway revision

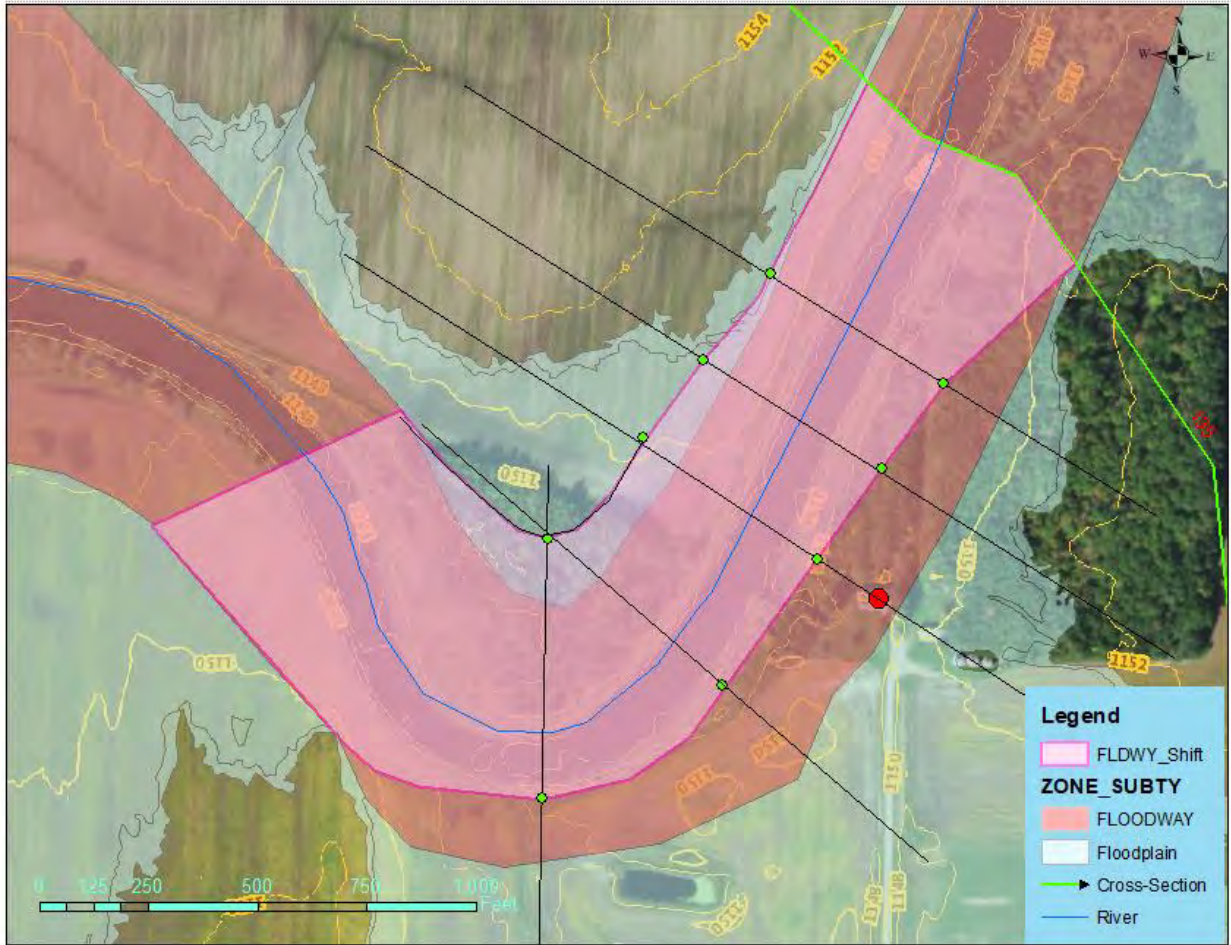


Figure Two: Floodway revision