

Information for File # 2014-00981-CLJ

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Primary County	Kittson
Section	Section 35
Township	T 162N
Range	R 49W
Information Complete On	January 13, 2015
Posting Expires On	January 30, 2015
Authorization Type	LOP-05-MN (B)

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act (CWA) identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act. The jurisdictional review determines the scope of the projects regulated impacts and compensatory mitigation requirements.

PROJECT PURPOSE & NEED: Sediment accumulation within the waterway has resulted in reduced water conveyance through the channel. This leads to water breaking out of the banks during high water events, resulting in overland flows which cause damages to agricultural land and increased sedimentation downstream. The project intends to restore the capacity of the existing watercourse.

PROJECT DESCRIPTION: The Minnesota Department of Natural Resources (MDNR) has reviewed the proposal and designed the project based on a number of factors including: upstream drainage area, soils, elevations, and fluvial geomorphology principles. The project would consist of sediment removal for approximately 7,107 linear feet of the Unnamed to North Branch Two Rivers. Excavation would begin at approximate station 106+65, at an elevation of 813.399, and continue downstream with a slope of 0.0011 to approximate station 35+69, ending at elevation 805.8. The watercourse channel would be u-shaped, with top-width not to exceed 10.7 feet wide. The channel depth from top of bank to bottom would not exceed 3.05 feet deep, and excavation would occur along the existing meanders. Areas of the channel which already meet the channel design dimensions would not be modified.

Two grade control rock-riffles would be installed at the downstream end of the project to reduce potential head cutting. Excavation would provide smooth transitions between existing and modified watercourse, with no alteration of watercourse alignment, slope/grade, side-slopes or top width beyond what is described above. All excavated material would be placed in upland areas within the adjacent agricultural field.

NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS: The project would impact 7,107 linear feet (1.75 acres) of an intermittent tributary to the North Branch Two Rivers. No fill material will be placed in adjacent wetlands.

ALTERNATIVES CONSIDERED: The applicant considered two alternatives: do nothing or create an upstream water storage area. The do nothing alternative would not reduce overland flows through the adjacent agricultural field which results in crop damage and loss of topsoil. According to the applicant, construction of an upstream storage site (impoundment) would be cost prohibitive and may result in additional environmental impacts.

COMPENSATORY MITIGATION: The MDNR, through their Public Waters permit, is requiring a 50-foot buffer beginning at the top of the bank on each side of the watercourse. The project would also enhance the current degraded condition of the intermittent watercourse by reconstructing the watercourse to dimensions appropriate for that geographic location. The installation of rock-riffle structures would reduce the potential for future head cuts, increase dissolved oxygen levels downstream, and provide additional habitat for fish and invertebrate species.

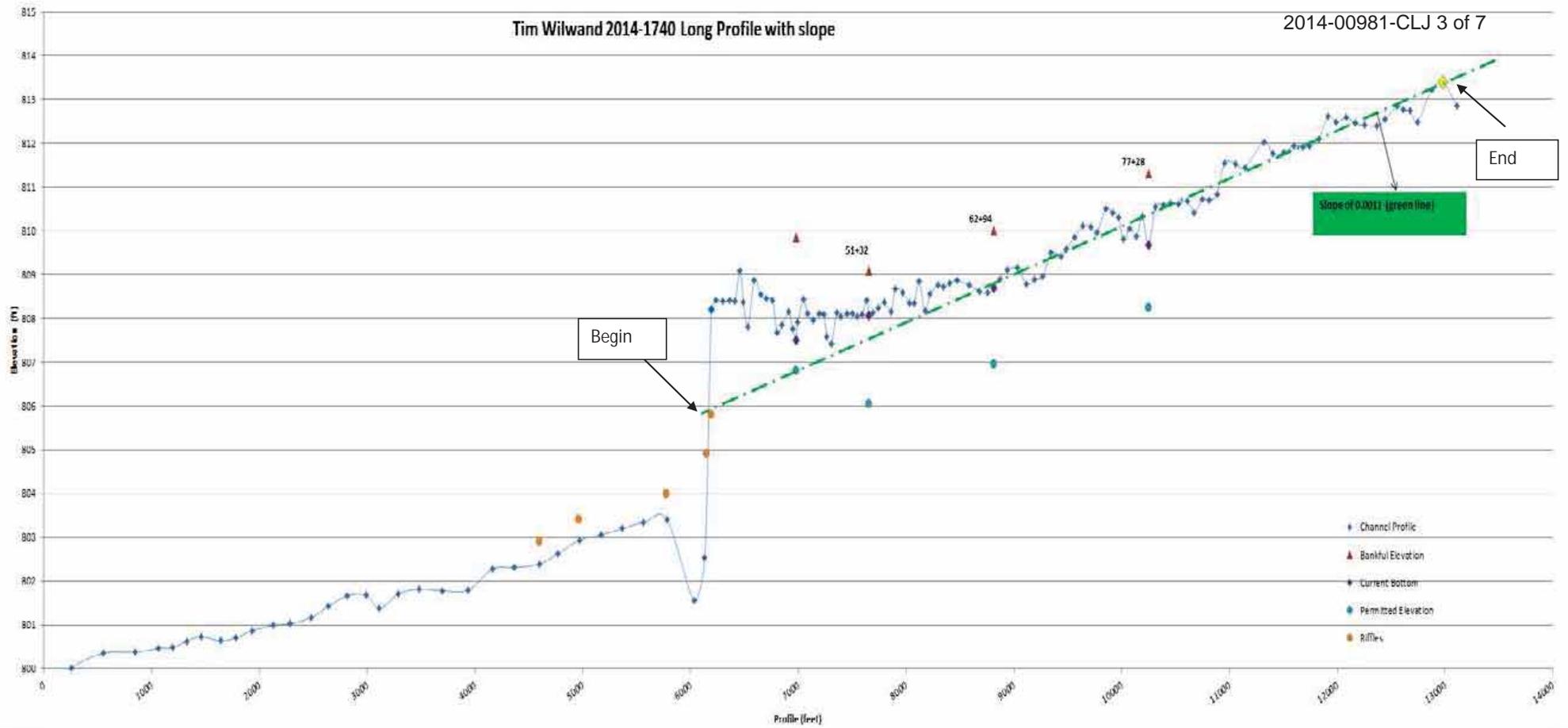
Drawings: 2014-00981-CLJ 1 of 7 through 7 of 7. See attached.



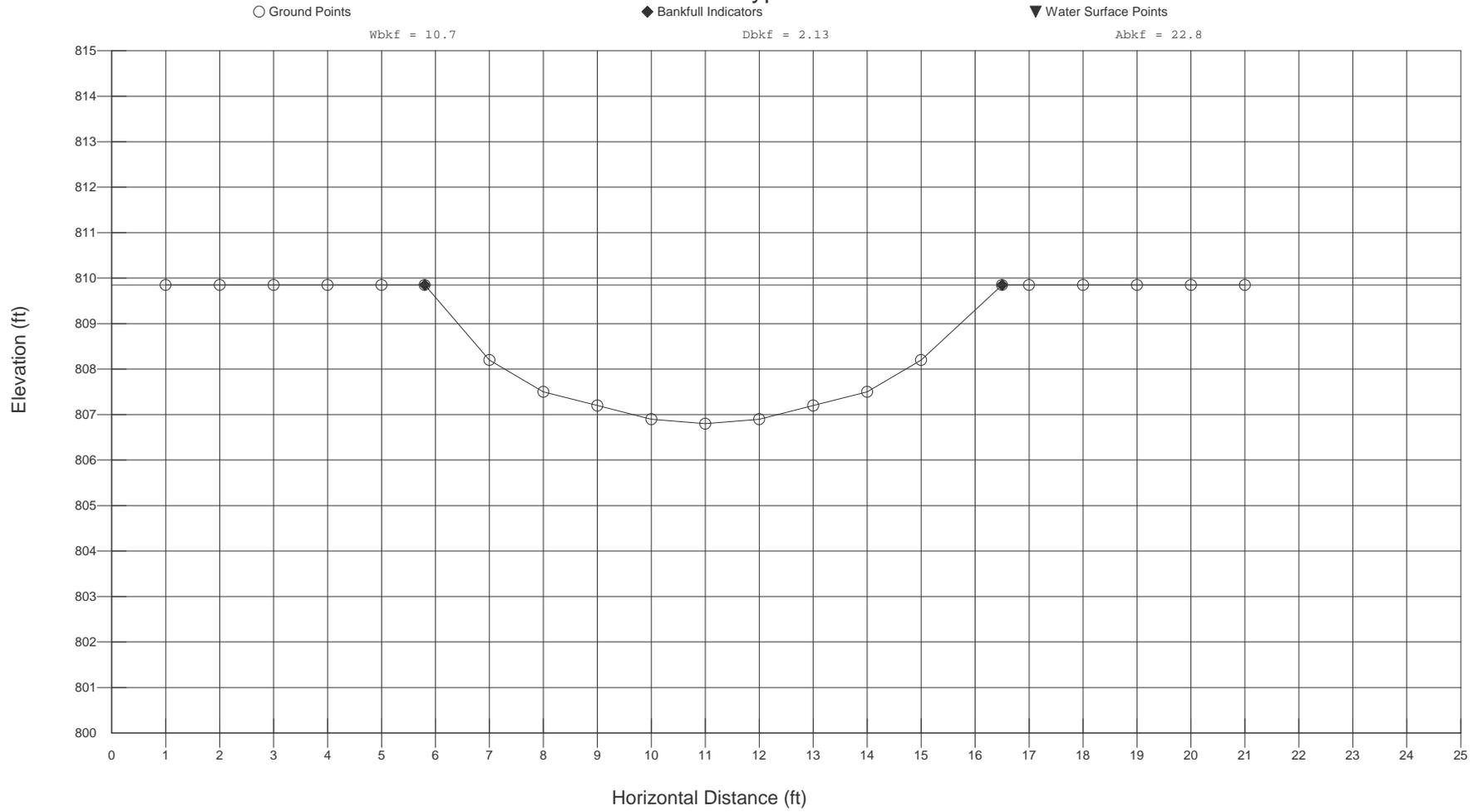
Tim Wilwand Permit Application
Section 35, T162N, R49W
2010 Aerial #3

Tim Wilwand 2014-1740 Long Profile with slope

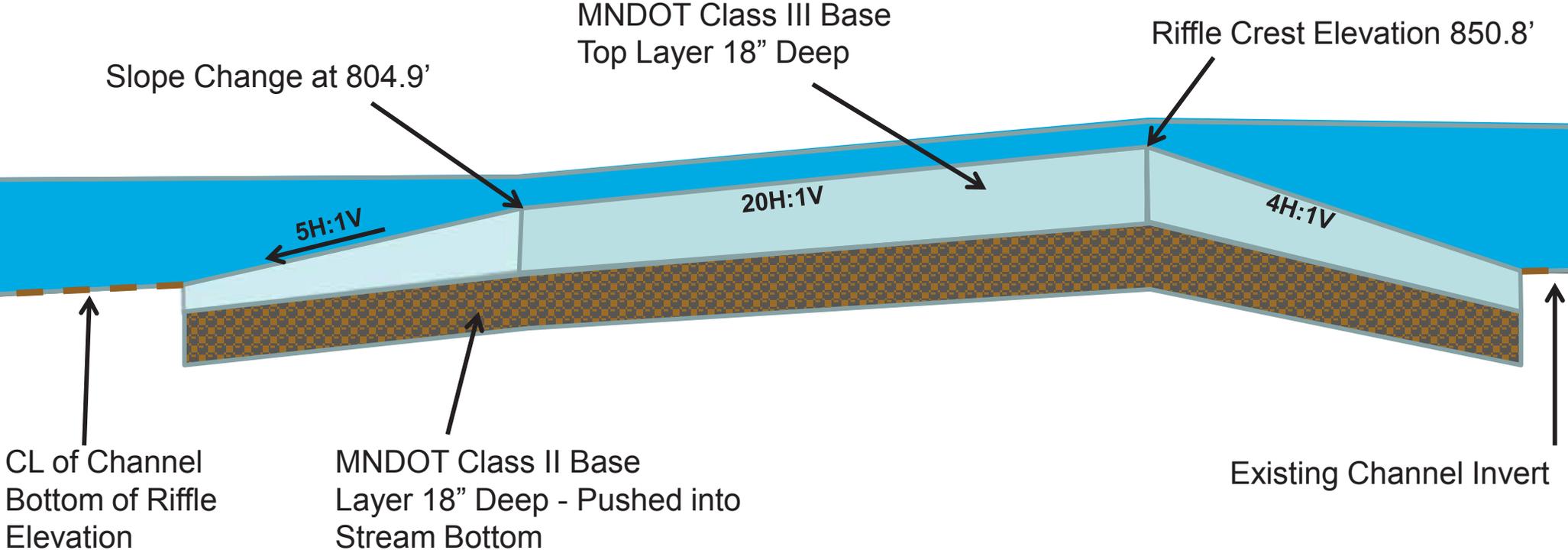
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Wilwand Sec. 35 Typical Riffle



Upstream riffle (not to scale)



*Materials Needed for upstream riffle:
 Base and Keys MNDOT Class II – 25 yd³
 Top Layer MNDOT Class III – 25 yd³. Other riffles will
 need approximately half of these quantities or about
 12 cu yd of Class III and 12 cu yd of Class II.

MNDOT Class II Keys and Base

MNDOT Class III
Top Layer

Bankfull Riffle Dimension 10.7'

Dmax 2.5'

Key

Key

