FORB – Friends of the Rail Bridge

Established 2018 | Burleigh & Morton County | (701) 220-4513
1015 East Bowen Avenue
Bismarck ND 58504
friendsoftherailbridge@gmail.com

November 21, 2022

Nancy Dragani, Region 8 Administrator
Federal Emergency Management Agency
Denver Federal Center, Building 710
PO Box 25267
Denver, CO 80255-0267
Nancy.Dragani@fema.dhs.gov (electronic transmittal only)

RE: FEMA's Input to the U.S Coast Guard's Final Environmental Impact Statement for the BNSF Railway Bridge 196.6 Project (USCG-2019-0882)

Dear Ms Dragani,

I am writing to request information regarding FEMA's review assistance to the U.S. Coast Guard on the Final Environmental Impact Statement for the BNSF Railway Bridge 196.6 Project (USCG-2019-0882). During development of the EIS, the Friends of the Rail Bridge (FORB) provided the attached technical memoranda from Ackerman-Estvold indicating that the hydraulic modeling completed by BNSF for the proposed bridge project manipulated coefficients and rounded results to falsely achieve a no net rise result. USCG never responded to our concerns and no corrections to the hydraulic model were made; therefore, FORB again objected via a comment to the Draft EIS regarding the scientific integrity of floodplain effects presented.

In the Final EIS, USCG provided the following response to the comment (page A-11): "The modeling and coefficients used in the BNSF floodplain modeling analysis were reviewed and approved by the Federal Emergency Management Agency." FORB is therefore requesting information from your agency as to if you provided that approval and if you reviewed the concerns noted by Ackerman-Estvold. We have these specific questions:

1. As outlined in item #2 of the technical memorandum, the HEC-RAS model utilized an Yarnell K coefficient of 1.15 to represent the existing piers based on inaccurately assuming that pier width is not already accounted for in the K values. Given the configuration of the existing piers, the correct range of the K value would be 1.0-1.05, which would indicate an increase of the BFE. On what basis did FEMA determine the K value of 1.15 to be a correct choice?

2. As outlined in item #3 of the technical memorandum, while the initial CLOMR submittal utilized standard 0.3 and 0.5 expansion and contraction coefficients for the bridge, the final CLOMR submittal utilized coefficients of 0.1 and 0.3. Particularly

during spring runoff events, where ice collects upstream of bridge piers, the bridge will not act as a "gradual transition"; the fact that 3 piers will now be in the main channel as opposed to 2 piers will create an even more abrupt transition. Why did FEMA determine that use of the 0.1 and 0.3 coefficients were appropriate in the model?

As noted in the technical memorandum, the result of correcting these errors would indicate a BFE increase of up to 0.013 feet that will potentially impact 550 structures upstream of the bridge. Of even more importance to the validity of the EIS process, however, is the USCG dismissal of EIS alternatives that would allow construction of a new bridge as well as leaving the existing bridge in place.

As outlined in the technical memoranda, from a hydraulic perspective there clearly is a feasible alternative for achieving that option via corrected modeling and placement of culverts in the upstream interstate highway floodplain fill. Our last question, therefore, is:

3. Did FEMA advise the USCG that all alternatives that involve retaining the historic bridge were infeasible from a floodplain permitting perspective?

We appreciate any clarity you can provide as to your technical guidance to USCG in this matter.

Sincerely,

/s/

Lyle Witham
FORB's In-House General Counsel
North Dakota Bar ID # 04118

enclosures: Ackerman Estvold, September 1, 2020, Technical Memoranda

cc: Mr. Rob McCaskey
U.S. Coast Guard-dwb
1222 Spruce Street
Suite 2.102D
St. Louis MO 63103-2832
Rob.E.McCaskey@uscg.mil
HQS-SMB-CG-BRG@uscg.mil.

Charles Bello, FEMA Region 8 Historic Preservation Advisor
Denver Federal Center
Building 710, Box 25267
Denver, CO 80225-0267
Charles.Bello@fema.dhs.gov