



LARIMER COUNTY | ENGINEERING DEPARTMENT

P.O. Box 1190, Fort Collins, Colorado 80522-1190, 970.498.5700, Larimer.org

FLOOD REVIEW BOARD

Date: December 16, 2024

Time: 8:30 AM, MST

Location: Lake Estes Conference Room, 3rd Floor, 200 W Oak St., Fort Collins and via Zoom webinar

Contact: Tina Kurtz, Larimer County Engineering Department

MEETING MINUTES

Staff Present: Tina Kurtz, Traci Shambo

Staff Online: None

Board Members Present: Dr. Chris Thornton, Chad Morris, Jamis Darrow, Travis Rounsaville, Daniel Richardson, John Hunt

Board Members Online: None

Call to Order: Dr. Thornton opened the meeting at 8:35a.m., MST

Introductions

Item 1: Approval of August 22, 2024, Board meeting minutes

Motion:

Mr. Rounsaville motioned to approve the August 22, 2024, Board meeting minutes.

Mr. Darrow seconded the motion.

Further Discussion:

None

Vote:

Mr. Hunt – Yes

Dr. Thornton – Yes

Mr. Morris – Yes

Mr. Darrow – Yes

Mr. Rounsaville – Yes

Mr. Richardson - Abstain

Motion passed [5-0], with 1 abstentions.



Item 2: Open Meetings Guide

Presentation and discussion of the Open Meetings Guide provided by the Commissioner's Office

Item 3: A petition filed by Northern Water under Section 12.1.6.G of the Larimer County Land Use Code for a Conditional Letter of Map Revision for improvements to the Poudre Valley Canal diversion, Poudre Valley Canal and Cache la Poudre River channel within the Cache la Poudre River Zone A Floodplain Overlay District at the following location to wit: Section 15, Township 8 North, Range 70 West, Larimer County, CO

Applicants Present: Issac Allen, John Sikora, Tim Engemoen, Kevin Lock, AECOM; Kevin Lock, Northern Water

Public Present: Tawnya Ernst, City of Fort Collins

Ms. Kurtz introduced the project. This project is located within the Poudre River Zone A floodplain. It is for improvements on the diversion and canal for meeting existing ditch demands and expanding supply of water to Glade Reservoir, which is under construction. There is one insurable structure that is impacted, which is due to a representation of existing risk, as based on the consultant's model. There are multiple design features in this project, which include upstream grading, fish passage and a redesigned diversion structure.

The applicant presented the project using the attached slides. He noted that it is an upgrade of an existing structure to meet their water needs and described how it ties into the Glade Reservoir project. The work will create a fish passage, which is an upgrade since there is no fish passage in the current condition. They have their 1041 permit from the County and have obtained other Federal & State permits that are necessary.

Mr. Sikora went over highlights of the project, which are in the attached slides. A key piece of the new design is adding a fish passage, which has been reviewed by CO Parks and Wildlife. They used 2D modeling for the project. Another key feature is that the canal capacity is going from 400 cfs to 1,300 cfs. To make the diversion tie into the new design, the diversion was moved slightly downstream.

He noted that RiskMAP flows were based on the rainfall runoff models using the gage as the inflow hydrology. The flow they chose to use for the design is 14,200 cfs which is in the modeling used by Fort Collins and to be consistent with what was done downstream.

The engineers had to develop cross-sections as noted on the attached CLOMR Hydraulic Notes slide. They used the HEC-RAS model that was calibrated with the SRH-2D model. They matched the width of the floodplain on the upstream and downstream reach.

The results show increases in the base flood elevation about 400' upstream and about 700' downstream. He pointed out that there were no increases onto CO Highway 14. The increases were due to better topography and modeling and not directly related to their project. Mr. Hunt mentioned that Ms. Kurtz said that there is an impact to an insurable structure, a shed/outbuilding, based on



discovering what the water surface was for existing conditions. He asked if these increases are proposed conditions versus existing conditions? The answer was yes, it is due to better topography that is currently available versus the original Zone A floodplain data.

Question about how much freeboard there is on CO Highway 14. The applicant answered that there is just over 2' of freeboard to the crest of the road. There was discussion about whether CDOT has looked at this project. The applicant will go back to see if there has been coordination with them on this project. He said that there have been previous CDOT communications on projects the applicant is completing.

There was a discussion on riprap sizing.

Mr. Sikora pointed out that they did look at alternatives and this design reflects optimized design for reducing water surface impacts while meeting the Northern Water project goals.

Motion:

Mr. Darrow moved to recommend approval to sign the MT-2 form for the Poudre Valley Canal diversion, Poudre Valley Canal and Cache la Poudre River channel improvements Conditional Letter of Map Revision to the County Engineer with the following condition:

Recommendation for the applicant to consult with CDOT about impacts to Highway 14.

Mr. Hunt seconded the motion.

Further Discussion:

None

Vote:

Mr. Hunt – Yes

Dr. Thornton – Yes

Mr. Morris – Yes

Mr. Darrow – Yes

Mr. Rounsaville – Abstained

Mr. Richardson – Yes

Motion passed [5-0], with 1 abstention

Item 4: A petition filed by Mears Broadband/Comcast under Section 12.1.6.H of the Larimer County Land Use Code for a Floodplain Project Review for a horizontal directionally drilled 2"x2" fiber conduit under the Big Thompson River along N County Road 3 and access vaults within the Big Thompson River Zone AE (Floodway) Floodplain Overlay District at the following location to wit: Section 14, Township 5N, Range 68W



Applicants Present: Alexis Maskule, Randall Cox, Mears Broadband; Chad Tuttle, Mike Speedie, BT Group

Ms. Kurtz introduced the project. This project is located within the Big Thompson River Floodway floodplain zone. It is a crossing of fiber line that will be directionally bored at least 10' under the river. There will be limited disturbance from the bore pits.

The applicant described the project which is installing fiber under the river. They will also have bore pits, one of which is within the floodway.

There was a question from the Board on the maximum depth of where they can place the fiber line. The scour depth in the application is 14.5', but the applicant said they could go to 20-25' below the channel if needed. They said the boring will be deeper than the scour depth.

There was a question on the scour equation submitted with the application and whether they looked at any other types of scour equations. A discussion on different types of scour equations followed. Mr. Rounsaville noted that he could not replicate the scour calculation results based on information that was provided with the application. Mr. Rounsaville mentioned that he thought the result provided may be higher than it should be. Mr. Hunt would also like to check bridge contraction scour.

Mr. Rounsaville suggested that they use three different regime equations and take the average value, which is the preferred methodology. He would also like the applicant to include bridge contraction scour. He mentioned that they could also likely use a lower discharge if they use the Colorado Hazard Mapping Model Program (CHAMP) model vs the US Geological Survey discharge.

Mr. Hunt said that they need to substantiate the d50 at this location.

Mr. Hunt had a question about whether the bore pit in the floodway would be temporary or permanent. The answer was temporary. They will be bringing the area back to grade after they are finished with the project.

Motion:

Mr. Rounsaville moved to recommend approval to proceed with a horizontally directionally drilled 2" by 2" fiber conduit under the Big Thompson River along N County Road 3 and access vaults for Mears Broadband/Comcast to the County Engineer with the following conditions:

Scour calculations be revisited and resubmitted to Larimer County for review and approval and final boring depth be deeper than the scour depth.

Mr. Hunt seconded the motion.

Further Discussion:

None



Vote:

Mr. Hunt – Yes
Dr. Thornton – Yes
Mr. Morris – Yes
Mr. Darrow – Yes
Mr. Rounsaville – Yes
Mr. Richardson – Yes

Motion passed [6-0], with 0 abstentions

Other items:

- Discussed upcoming agendas

Meeting adjourned at 9:40a.m., MST.