

FLOOD REVIEW BOARD

Date: November 16, 2023

Time: 8:30 AM, MST

Location: Lake Loveland Conference Room, 2nd Floor, 200 W Oak St., Fort Collins and via Zoom meeting

Contact: Tina Kurtz, Larimer County Engineering Department

MEETING MINUTES

Staff Present: Tina Kurtz, Caryn Nezat, Marin Kasperbauer

Board Members Present: Dr. Chris Thornton, Jamis Darrow, Travis Rounsaville, Chad Morris, Dr. Elisabeth Ervin-Blankenheim, Travis Rounsaville

Board Members Online:

Call to Order: Dr. Thornton opened the meeting at 8:36 a.m., MST

Introductions

Item 1: Approval of October 26, 2023, Board meeting minutes

Motion:

Mr. Morris motioned to approve the October 26, 2023, Board meeting minutes.

Dr. Ervin-Blankenheim seconded the motion.

Further Discussion:

None

Vote:

Mr. Hunt – Absent

Dr. Thornton – Yes

Mr. Morris – Yes

Dr. Ervin-Blankenheim – Yes

Mr. Oberlander – Absent

Mr. Darrow – Yes

Mr. Rounsaville – Yes

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



Item 3: A petition filed by the Coalition for the Poudre River Watershed for a Floodplain Project Review under Section 12.1.6.H of the Larimer County Land Use Code for stream restoration actions in the South Fork of the Poudre, a FEMA Zone A Floodplain Overlay District at the following location to wit: Section 36, Township 8 North, Range 73 West, Larimer County, CO

Applicants Present: Colin Barry, Chelsey Heiden, Ayers Associates; Taryn Contento, Coalition for the Poudre River Watershed

Ms. Kurtz introduced the project to the Flood Review Board and stated that this is a Floodplain Project Review for stream restoration projects in the South Fork Cache la Poudre River Zone A floodplain. The applicable Larimer County Land Use Code (LCLUC) Section for a Floodplain Project Review is LCLUC Section 12.1.6.H.

The request is for a project located downstream of high severity burn areas. The location is experiencing incision and bank erosion along with ecological impacts. The project is employing multiple mitigation strategies for stream restoration which will improve water quality and ecological functioning.

Mr. Barry shared a presentation on the project and goals. They want to address water quality, ecological and post-burn restoration by installing engineered log jams, smaller log structures and cottonwood planting within the floodplain. They want to increase the roughness of the project site and used Jarrett's equation for steep slopes with larger bed materials for mountainous streams. Jarrett's equation uses higher Manning's n roughness values. This is an empirical equation using friction slope and bed slope. A US Department of Agriculture paper supports the approach. Roughness adjustment was used to show the existing and proposed condition. Mr. Barry provided information on the roughness changes for natural wood structures. Wood structures do not have a consistent roughness throughout the profile. The approach was to use a composite roughness. Ms. Heiden provided clarification on the Manning's values throughout the water column. Mr. Barry provided an explanation of how they accounted for existing condition roughness to not double count roughness from the stream bed. Mr. Rounsaville and Mr. Darrow asked questions on the reach averaged Manning's n value. Mr. Barry continued with the explanation of the maximum water surface elevation rise and Mr. Darrow confirmed the maximum per the State is greater than 0.3' or it requires a LOMR. Mr. Morris asked about the water surface depth above the log structure. The road is the primary infrastructure in the area. There is a recreational side with the reach as well. The American Water Works Association and US Forest Service are working to limit recreation in the area. The site will be monitored, and the Coalition for the Poudre River Watershed will be involved for several years. Dr. Ervin-Blankenheim asked if the area could be debris flow. Mr. Barry said that there have been debris flows on Little Bennett Creek and some on Fish Creek. Mr. Barry discussed the expectation of how the deposition of material is working in the area. Mr. Darrow asked about the risks of fully filling in the channel behind the log jams. Mr. Barry explained the potential for the overbanks and realignment of the channel. Ms. Heiden added some details about how it is expected to work in high flow events. Mr. Morris asked about the model approach of adjusting Manning's n. Ms. Heiden explained the approach and Mr. Barry expanded on the composite roughness. Dr. Thornton and Mr. Rounsaville on the form and bed roughness and water column roughness and roughness due to wood. Mr. Barry explained how the total roughness is incorporating the bed roughness between existing and proposed conditions. Mr. Rounsaville and Mr. Morris further discussed



the composite roughness. Mr. Morris asked for further clarification on the approach. Mr. Barry pointed out that the system will behave very differently between small storms and the 100-yr storms. There was some discussion on what this precedent would be for future projects. Mr. Rounsaville suggested getting the Colorado Water Conservation Board (CWCB) involved for potential waivers. There was also discussion on doing a structural analysis to determine when log jams will be removed. There was more discussion on the precedent and CWCB's role.

Motion:

Mr. Rounsaville moved to recommend approval of stream restoration activities in the South Fork Cache la Poudre River Floodplain Project Review to the County Engineer with the condition that the report be resubmitted with corrected typos subject to staff review.

Mr. Darrow seconded the motion.

Further Discussion:

None

Vote:

Mr. Hunt – Absent

Dr. Thornton – Yes

Mr. Morris – Yes

Dr. Ervin-Blankenheim – Yes

Mr. Oberlander – Absent

Mr. Darrow – Yes

Mr. Rounsaville – Yes

Motion passed [5-0], with 0 abstentions

Item 4: A petition filed by Sheri C. Welch for a Map Amendment under Section 12.1.6.G of the Larimer County Land Use Code for a Letter of Map Revision (LOMR) for the Ladera Development LOMR Number 2 in the Cache la Poudre FEMA and Best Available Zone AE (Floodway) Floodplain Overlay Districts at the following location to wit: Section 3, Township 6 North, Range 68 West, Larimer County, CO

Applicants Present: Caitlin Link, Galloway; Chris Pauley, Galloway; William Welch, representing applicant

Others Present via Zoom: Eric Furman, Town of Timnath

Ms. Kurtz introduced the project to the Flood Review Board and stated that this is a Map Amendment Floodplain Project Review for a Letter of Map Revision (LOMR) for the Ladera Development #2. The applicable Larimer County Land Use Code (LCLUC) Section for a Map Amendment is LCLUC Section 12.1.6.G.



This LOMR application is for the approved Conditional Letter of Map Revision (CLOMR) for this area. The CLOMR was done relative to RiskMAP by direction of FEMA. The LOMR is also using RiskMAP data. This is an addition to LOMR #1 which is currently being reviewed by FEMA and incorporates their comments on LOMR #1 into this report.

Ms. Link shared some background from the previous presentation in August for Ladera LOMR #1. The project limits include Larimer County and part of the Town of Timnath. The LOMR #1 final determination from FEMA is expected in December. They are using the FEMA revised study from 2021 for the hydrology. She showed the corrected effective area and due to FEMA comments from LOMR #1, they corrected small details for the RiskMAP conditions. The drainage will go to the west and the revised condition work map was discussed. She explained it was revised due to corrections and comments from LOMR #1. The floodway analysis shows no-rise, and the correct topography was used.

Motion:

Dr. Ervin-Blankenheim moved to recommend approval to sign the MT-2 form for the Ladera Number 2 Letter of Map Revision Map Amendment to the County Engineer.

Mr. Morris seconded the motion.

Further Discussion:

None

Vote:

Mr. Hunt – Absent
Dr. Thornton – Yes
Mr. Morris – Yes
Dr. Ervin-Blankenheim – Yes
Mr. Oberlander – Absent
Mr. Darrow – Yes
Mr. Rounsaville – Yes

Motion passed [5-0], with 0 abstentions

Other items:

- Discussed upcoming agendas

Meeting adjourned at 9:42 a.m., MST.