



CCMC Flood Control Project Steering Committee

The **CCMC Flood Control Project Steering Committee** met Thursday, April 8, 2021, at 3:00 p.m. over Zoom. Present were Committee Members Floodplain Administrator (FPA) Samantha Malenovsky, City Councilperson (CCP) Austin Lott, Custer County Commissioner (CC) Jason Strouf, Public Works Director (PWD) Scott Gray. Also present were Grant Writer Ally Capps, (KLJ) Carl Jackson, (KLJ) Becky Bey, (KLJ) Matt Smith, (DNRC) Nadene Wadsworth and (USACE) Chris Fassero.

Chris Fassero with the United States Corps of Engineers (USACE) gave an update on the Section 205 study. An initial economic analysis has been done on the subsegments within each reach of the proposed levee system along the Tongue River. Estimated cost based on conceptual design for each subsegment alternative within the levee segments are being reviewed and determined. The footprint of the levee, floodwalls, sheet piling, and property acquisition are all being reviewed in the estimated cost. An initial benefit and cost summary with project alternatives have been drafted. The summary projects benefits, construction costs, LERRD (Land, Easements, Right of ways, Removals, and Demolitions used for real estate purposes), planning, engineering, design, and construction management, utilized to determine net annual benefits and the benefit-cost ratio for each reach.

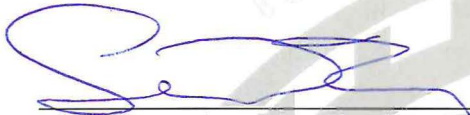
After the project cost summary is complete the USACE would like to visit with the community to evaluate the initial analysis and array of alternatives. This community discussion will help the USACE determine what areas need a more detailed analysis and will also allow the community to provide input as to the alternatives. Based on the cost of some of the potential alternatives, cost limitations of the Section 205 will need to be evaluated and discussions as to how to make it a complete project that provides the protection the community requires will need to be held. This could be done in combination with a separate levee/storm water project. Chris shared a major milestone schedule, Attachment A, and expressed interest in having an internal meeting with the CCMC Steering Committee and primary stakeholders before the tentatively selected plan, scheduled to be completed by July 14, 2021. It would appear late October or early November of 2021 would be appropriate for this meeting as well as perhaps an update to the general public. Samantha will work with Chris to schedule a date/time.

Other initial and long-term costs that could be related to the overall project are drainage mechanisms within the levee and the internal drainage of the slough. Not all drainage mechanisms and internal drainage are covered within the Section 205 project and would need to be completed by the community outside the 205 Study. Chris will follow up with Tony Krause, USACE Floodplain Section Chief, to get more information on the federal requirement for internal drainage, Attachment B. Nadene will also send information on internal drainage, Attachment C. Nadene with the Montana Department of Natural Resources and Conservation (DNRC) pointed out that for continued maintenance an Operation and Maintenance (O&M) plan is necessary. USACE will include an O&M plan for the Section 205

portion of the project. An updated Emergency Action Plan is also required. This will need to be completed/updated by the community and should include the entire levee project to be recognized as valid by Federal Emergency Management Agency (FEMA).

There was further discussion on the Section 205 budget and the financial status of the community and USACE, Attachment D. Some discussion was had related to State American Rescue Plan Act (ARPA) dollars and the possibility of either a direct appropriation or opportunity for additional state grants for the project. State ARPA expenditures and protocols are still largely unknown as the Legislature is still in session. It is also still necessary to determine whether State ARPA dollars can be used to match USACE funds (as both originate from the Federal level and as a rule, federal dollars cannot be utilized to match federal dollar). Becky with KLJ is continuing to monitor the state legislature and possible utilization of ARPA funds for the project.

Respectfully Submitted,



Samantha Malenovsky, Flood Control Project
Steering Committee Chairperson and Recorder

Miles City Sec 205 Study Milestone Schedule

14 Jul 2021 – Identify Tentatively Selected Plan

22 Oct 2021 – Prepare Interim Draft Feasibility Report

21 Dec 2021 – Optimize Tentatively Selected Plan/Identify Recommended Plan I

29 Apr 2022 – Prepare Conceptual Design

07 Sep 2022 – Prepare Final Draft Feasibility Report

20 Oct 2022 – Prepare Final Feasibility Report

Potential Opportunities to Shorten Schedule:

- Report preparation timeframes could be shortened, but these include required reviews, which are difficult to shorten.
- Conceptual design timeframe could be shortened based on design efforts completed as part of plan selection.

Samantha Malenovsky

From: Fassero, Christopher A CIV USARMY CENWO (USA)
<Christopher.A.Fassero@usace.army.mil> on behalf of Fassero, Christopher A CIV
USARMY CENWO (USA)
Sent: Friday, April 9, 2021 9:54 AM
To: Samantha Malenovsky
Cc: Carl Jackson
Subject: Miles City Interior Drainage Question

Sam,

Tony Krause provided the following response to the question about interior drainage requirements in order to have a levee system accredited by FEMA.

.....
The interior drainage requirements are stated in 44 CFR 65.10(b)(6), which states the following: An analysis must be submitted that identifies the source(s) of such flooding, the extent of the flooded area, and, if the average depth is greater than one foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters.

In laymen's terms:

As part of the Section 205 Design & Implementation (possibly in the Feasibility Study Phase), we would develop an interior drainage analysis that identifies areas that interior drainage/ponding would occur (typically adjacent to the levee and likely in the existing swale [the slough]). This analysis would be submitted as part of the certification/accreditation/LOMR package to FEMA and included on the map update. The community would be required to continue managing these areas as SFHA. In most cases, we would attempt to design the interior drainage system (culverts) such that the SFHA would not include any insurable structures and/or minimize the depths in the SFHA such that they are less than existing conditions.

.....
Tony also mentioned that the communities in Glasgow/Malta/Havre are currently pursuing levee accreditation through the USACE transitional guidance (levee safety process), which doesn't define who's responsible for interior drainage analysis. He said those communities, along with MTDNRC, are taking the lead on interior drainage analysis. However, he said that new USACE guidance should allow USACE to take the lead on interior drainage analysis. So, for the analysis at least, we may be able to cost share the work as part of the Sec 205 study. However, any actions required to address interior drainage issues would still be the city's responsibility. We can continue to coordinate on this and when it's time for the interior drainage analysis get a definite ruling on whether we can make it part of the study.

Please let me know if you have any questions.

Thanks,
Chris

Chris Fassero
Lead Planner/Project Manager
Army Corps of Engineers, Omaha District
Planning Branch
1616 Capitol Avenue

Samantha Malenovsky

From: Wadsworth, Nadene <Nadene.Wadsworth@mt.gov> on behalf of Wadsworth, Nadene
Sent: Thursday, April 8, 2021 3:47 PM
To: smalenovsky@milescity-mt.org
Cc: Turk, Peri
Subject: Interior Drainage analysis

Here is the full narrative from the guidance. FEMA levee guidance 2020

The interior drainage requirements are stated in 44 CFR 65.10(b)(6), which states the following: An analysis must be submitted that identifies the source(s) of such flooding, the extent of the flooded area, and, if the average depth is greater than one foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters. Interior drainage represents all runoff, seepage inflow, coastal overwash, and collection associated with the flooding sources tributary to the landside or interior drainage area of the levee system. An analysis must identify and demonstrate the modes and potential runoff paths from the interior drainage area. This will involve an analysis of runoff, seepage inflow, streams, coastal overwash, pump stations, detention/retention ponds, storm sewers, and other stormwater management facilities based on the judgement of the certifying engineer. The certifying engineer should evaluate and certify all data associated with the flooding sources within the interior drainage area related to handling the anticipated runoff and seepage landward of the levee and identify any ponding areas or streams. Any areas with an average depth greater than one foot Levees December 2020 Guidance Document 95 Page 33 must be identified with the relevant BFE. A work map should be provided indicating the inundation areas of the analysis. The interior drainage analysis should be done utilizing a FEMA approved hydrologic and hydraulic model. A list of these acceptable models can be found at www.fema.gov/numerical-modelsmeeting-minimum-requirements-national-flood-insurance-program. Any analyses done with a model that has not been accepted by FEMA will not be considered as valid under this requirement and results cannot be mapped. The analysis should include a joint probability analysis of events on the interior and exterior of the levee, with the most conservative combination used for final analysis. In lieu of a joint probability analysis, the engineer may evaluate several scenarios rather than identify a probability-based based flood event, the most conservative combination should be used for final analysis. Comparable methodology is also available in appropriate USACE guidelines. If a flooding source on the landside of the levee is instrumental to the interior drainage analysis but not previously identified on the FIRM, an analysis of the flooding source should be done by the certifying engineer and submitted as part of the interior drainage analysis. The analysis should meet relevant FEMA Guidance and Standards (G&S) but the associated inundation areas on the workmap provided by the certifying engineer do not need to meet FEMA G&S for mapping. However, FEMA must convert inundation areas into flood hazard areas on the FIRM, as appropriate, in accordance with FEMA G&S and in coordination with the impacted community. If a previous analysis of interior drainage was performed and is still applicable to current hydrologic and hydraulic conditions, it may be used in lieu of providing a new analysis. A registered P.E. must certify the previous data and documentation represent current interior drainage conditions and associated flood hazards.

To put it in non engineering terms

It's an additional study that runs multiple scenarios in looking at how it would flood behind the levee. The study simulates different scenarios of how things would flood based on the Miles City levee's interior drainage system. The final products for this effort would be a report and the supporting documentation to justify the report.

Let me know if this helps and if you need more.

*Nadene Wadsworth, CFM
MT DNRC Floodplain Program
Outreach Specialist
(406) 444-6732*

Samantha Malenovsky

From: Fassero, Christopher A CIV USARMY CENWO (USA)
<Christopher.A.Fassero@usace.army.mil> on behalf of Fassero, Christopher A CIV
USARMY CENWO (USA)
Sent: Thursday, April 8, 2021 7:03 PM
To: Samantha Malenovsky
Subject: Miles City Sec 205 Study Budget

Sam,

Here's a summary of the Miles City Sec 205 Study budget.

The total study cost estimated in the Feasibility Cost Sharing Agreement is \$2,347,622, which is cost shared 50/50, so the Miles City share is \$1,173,811. The value of any work-in-kind (WIK) is subtracted from the Miles City share, reducing the cash contribution the city needs to make. To date, we've received a total of \$700,000 of federal funding and \$250,000 of sponsor funding, we've spend \$610,834.11 of that, and we have \$339,165.89 remaining. Miles City has also been credited for \$137,956.91 of WIK.

So, the total amount of study funds expended to date is $\$610,834.11 + \$137,956.91 = \$748,791.02$, and the total amount remaining is \$1,598,830.98. We won't necessarily spend all of the remaining study funding, and any that we don't spend will leave more of the total federal project cost limit of \$10M available for design and construction.

Please let me know if you have any questions.

Thanks,
Chris

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