METRO FLOOD DIVERSION AUTHORITY

207 Fourth Street North • Suite A • Fargo, ND 58102

CEMETERY PROTECTION PLAN

of the

METRO FLOOD DIVERSION AUTHORITY

EXECUTIVE SUMMARY

The leaders and representatives of the Member Entities of the Metro Flood Diversion Authority (the "Authority") entered into a Joint Powers Agreement, dated June 1, 2016 (the "JPA") that established procedures and a governing structure to secure long term and comprehensive flood risk reduction for the Fargo-Moorhead Metropolitan Area and to promote accountable governance, provide for the construction of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (the "Comprehensive Project"), encourage Member Entities' participation, and foster a sense of community by facilitating joint jurisdictional cooperation among the Member Entities.[1]

Section 7.01(z) of the JPA states that the Authority has the power to enter into contracts or other arrangements with cemetery associations or non-profit entities operating cemeteries for cooperation or assistance in the design and construction of the Comprehensive Project.

The Final Feasibility Report and Environmental Impact Statement ("FEIS") for the Comprehensive Project states that cemeteries located in the Staging Area will be impacted by the Comprehensive Project and evaluated on a case by case basis. After finalization of the Supplemental Environmental Assessment in 2013, information was gathered on cemeteries in the region to gain a better understanding of potential impacts and to identify mitigation measures to offset impacts of the Comprehensive Project.

In 2014, the United States Army Corps of Engineers ("USACE") conducted a cemetery mitigation study to analyze mitigation alternatives for potentially impacted cemetery sites. The USACE performed site specific analysis of mitigation alternatives formulated for each cemetery which considered existing site conditions, the impacts of water due to the Comprehensive Project at the site, and the overall feasibility of the plan.

The following year, the USACE released a federal cemetery mitigation plan that identified mitigation options for each of the potentially impacted cemetery locations. The federal cemetery mitigation plan requires the Authority to obtain flowage easements on the impacted cemeteries within the USACE federal mitigation zones 1 and 2, as is required for operation of the Comprehensive Project.

[1] The Authority is a North Dakota political subdivision and has five Member Entities, which are: i) the City of Fargo, ND; ii) Cass County, ND; iii) Cass County Joint Water Resource District, ND; iv) the City of Moorhead, MN; and v) Clay County, MN. One or more of the Member Entities may perform the land acquisition associated with this Cemetery Protection Plan.

The Authority formed a Local Cemetery Mitigation Team with representatives from entities in North Dakota and Minnesota. The Local Cemetery Mitigation Team met with representatives from several impacted cemeteries. With completion of the Federal Cemetery Mitigation Plan, and an understanding of the minimum federal requirements, the Local Cemetery Mitigation Team has been tasked with building upon USACE's efforts and the creation of a local mitigation plan.

On October 26, 2020, the Authority, Richland-Wilkin Joint Powers Authority ("RWJPA"), the Buffalo-Red River Watershed District, the City of Wolverton, Minnesota, and the City of Comstock, Minnesota, entered into a settlement agreement for resolution of all claims, actions, disputes, and litigation pertaining to Plan B, the proposed comprehensive flood control project for the Fargo-Moorhead Metropolitan Area (the "Settlement Agreement"). The Settlement Agreement, in part, called for the withdrawal of objections to the issuance of MN DNR permits for Plan B and dismissal of ongoing litigation in the United States District Court for the District of Minnesota. The administrative proceeding was fully resolved on February 9, 2021, and the MN DNR Permit authorizing Plan B was amended and reissued on March 19, 2021. Following issuance of the MN DNR Permit, the parties jointly agreed to the dismissal. The joint stipulation for dismissal was granted by the Honorable John R. Tunheim on March 30, 2021, which dismissed complaints by RWJPA and MN DNR, and dissolved the preliminary injunction previously issued by the Court; thus, ending remaining litigation issues related to the Comprehensive Project.

Article XVIII of the Settlement Agreement requires the Authority to provide reasonably sufficient and annual funds to affected cemeteries located within the Staging Area to develop and construct reasonable cemetery protection plans, which may include ring dikes/levees, fencing, maintenance requirements, and/or an internal water management and discharge system inside the ring dikes/levees, surrounding the cemetery to eliminate and prevent any impact of the Comprehensive Project. If the cemeteries are unable to perform the work and the Authority is required to perform the mitigation, the Authority or its Member Entities will perform the work.

In addition, the Authority has developed the Property Rights Acquisition and Mitigation Plan to document the property rights acquisition and mitigation policies to be followed for the Comprehensive Project. The Property Rights Acquisition and Mitigation Plan was drafted in coordination with the USACE, and in consultation with the North Dakota Department of Water Resources ("NDDWR") and the MDNR, along with input from the Authority's Land Management Committee, Agricultural Policy Subcommittee, and the CCJWRD. Pursuant to the Property Rights Acquisition and Mitigation Plan, the Authority is responsible for the development of this Cemetery Protection Plan. Note that the Property Rights Acquisition and Mitigation Plan is subject to change and will be updated periodically.

The Authority recognizes that Plan A was the basis for the Cemetery Study previously conducted by USACE. As a result of the approval of Plan B and changes to the Comprehensive Project, the Authority developed this Cemetery Protection Plan to provide a framework that identifies potential impacts and mitigation measures for cemeteries within the Staging Area and with viewshed impacts as a result of the Comprehensive Project.

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1. INTRODUCTION

1.1. Cemetery Protection Plan. The Authority recognizes cemeteries are a vital feature of the local landscape. Cemeteries are the focal point for families and religious and cultural celebrations that honor the deceased and cultivate a sense of community among the living. In 2013, the USACE conducted a Cemetery Study that identified 11 cemeteries in the Staging Area that would experience impacts as a result of the Comprehensive Project. An illustration of the Staging Area is attached to this Plan as **Exhibit A**. The Cemetery Study is described in greater detail in Section 2.3 below. Plan A was the basis for the Cemetery Study conducted by the USACE in 2013. As a result of the approval of Plan B and changes to the Comprehensive Project, the Authority has determined that 8 of the 11 cemeteries originally identified will potentially experience impacts as a result of the Comprehensive Project. This Plan identifies potential impacts to the 8 cemeteries as a result of the Comprehensive Project and describes mitigation measures for each individual cemetery.

2. BACKGROUND LEADING TO THE DEVELOPMENT OF THIS CEMETERY PROTECTION PLAN

2.1. Final Feasibility Report and Environmental Impact Statement. The Final Feasibility Report and Environmental Impact Statement ("FEIS") for the Comprehensive Project, stated that the cemeteries in the Staging Area of the Comprehensive Project would be evaluated on a case by case basis in the future. After the Supplemental Environmental Assessment was finalized in September 2013, information was gathered on regional cemeteries to gain a better understanding of potential impacts, to identify potential mitigation measures that could be used to offset Comprehensive Project impacts, and to form a general understanding of flooding issues associated with regional cemeteries. A cemetery assessment team was formed and consisted of members from the USACE and the local sponsors and included geotechnical, hydraulic, civil site layout and county/city engineers, an archaeologist, a biologist/forestry specialist, and project managers. An effort was made to identify all cemeteries located within areas benefitted and impacted by the Comprehensive Project and to visit, photograph, and analyze each site. A search was conducted to determine points of contact ("POCs") for a majority of the 54 cemeteries on the list.[2] Site POC's include cemetery caretakers, church board representatives, and farmers. Of the 54 cemeteries identified, 28 are located within the benefitted area, 2 are located along the Buffalo River in Minnesota, 2 are located west of the Comprehensive Project, and 22 are located upstream of the Comprehensive Project. 11 of the 22 cemeteries located upstream of the Comprehensive Project would be potentially impacted by the Comprehensive Project. Of the 11 potentially impacted sites, 7 are located within the Staging Area and 4 are located outside and upstream of the Staging Area.[3]

2.2. Briefings, September 2013 to Present. Briefings on cemeteries have been provided to the Authority, Clay County, Minnesota, the City of Moorhead, Minnesota, the natural resource agency team including the MN DNR, the North Dakota Legislature, and the Governor of the State of Minnesota.

2.3. Cemetery Study, September 2013 – June 2014. In October 2013, an effort was made to visit the regional cemeteries and interview POCs to document impacts to cemeteries caused by flooding, level of effort to clean up and/or repair flooding impacts, and to determine possible flood impact mitigation options. A site form was filled out for each cemetery while conducting the first on-cemetery surveys October 28, 2013, through October 30, 2013. This information

[2] **Exhibit B**, attached to this Plan identifies the 54 cemeteries identified as being benefitted and impacted by the Comprehensive Project before Plan B.

[3] **Exhibit C**, attached to this Plan identifies the 11 cemeteries located upstream of the Comprehensive Project within the Staging Area and outside of the Staging Area before Plan B.

was used to further explore POCs and to set up on-site meetings with the cemetery assessment team and POCs from cemeteries that would be impacted by the Comprehensive Project. The study report (the "Cemetery Study") presents the potential impacts to sites and identifies possible mitigation options.

The Cemetery Study was developed for informational purposes only – no cemetery mitigation decisions had yet been made. The information was used as a tool for discussing specific mitigation at impacted cemeteries. The Cemetery Study was mailed to POCs in June 2014 and posted on www.fmdiversion.gov. Comments were requested but none were received so the Cemetery Study was considered final. In addition, letters were sent to POCs of upstream non-impacted sites informing them that the Comprehensive Project would not impact their site.

2.4. Upstream Cemetery Authority Formed. In October 2013, the Upstream Cemetery Authority was formed to honor and respect those who lay at rest in cemeteries. It consists of a group of 16 cemetery associations who believe their graveyards will be inundated by the Comprehensive Project. The cemetery assessment team continued to communicate directly with POCs at each site to gather site-specific information. As demonstrated in the USACE Cemetery Mitigation Plan, 11 of the 16 cemeteries were carried forward as showing an impact when the Comprehensive Project is constructed and operated for a 100-year event, the remaining 5 cemeteries showed no impact caused by Comprehensive Project implementation and operation.

2.5. Cemetery Site Visits, July and September 2014. Results of the Cemetery Study were used to conduct site visits at each of the 11 potentially impacted cemeteries. The cemeteries visited were Clara Cemetery, Eagle Cemetery, Hemnes Cemetery, North Pleasant Cemetery, Roen Family Cemetery, Wolverton Cemetery, Lower Wild Rice and Red River Cemetery, South Pleasant Cemetery, South Pleasant Church Cemetery, Hoff Cemetery, and Comstock Cemetery. The purpose of these visits was to identify any additional information that would inform the pending development/analysis of mitigation alternatives. Arrangements were made with each site POC to meet them on-site. Members of the cemetery assessment team visited 10 of 11 sites on July 21, 2014, through July 22, 2014, and the 11th site on September 3, 2014. Others in attendance included concerned families/citizens, church board members, caretakers and volunteers, MnDak Upstream Coalition, Upstream Cemetery Authority and Authority representatives.

Permission was verbally requested to enter the cemetery site; in some cases, entrance was denied, and the discussions/interviews were conducted off-site from public right-of-way. A list of questions was developed for the visits and asked of the site POCs. Representatives of several sites, including those that are currently flood prone, stated that the addition of water by the Comprehensive Project was disrespectful and unacceptable.

In addition to the mitigation options identified in the June 2014 Cemetery Study, a site POC suggested raising low areas with fill and removing and replacing the affected headstones. Another option identified was to provide protective fencing as a debris barrier. Several sites expressed concern with access and requested that access be provided to the sites at all times throughout floods, even if they currently experience access issues. They also stated that if a protective berm (ring levee) is provided, that interior drainage and any necessary pump stations/power should be provided. One site POC stated he would rather be paid an upfront stipend by the Authority so they could perform their own maintenance and clean up.

Overall, the message from the POCs was that they are opposed to the Comprehensive Project, and they are opposed to any impacts to their cemeteries caused by the Comprehensive Project.

2.6. Cultural Surveys and Rights of Entry, August 2014 to June 2015. The USACE Cemetery Mitigation Plan identified potential impacts that may result from the Comprehensive Project, the 11 cemeteries upstream of the Comprehensive Project require Phase I cultural resources surveys in order to record the cemeteries and the features within them and to prepare an inventory that would identify the cemeteries for potential eligibility for listing in the National Register of Historic Places ("NRHP"). The surveys must be completed prior to implementation of any mitigation. The local sponsors researched and determined the ownership for each cemetery. CCJWRD sent right of entry request letters to the landowners in Minnesota. After several attempts, not all of the landowners consented to providing right of entry. The Phase I surveys have been performed for the sites that have granted right of entry, of which 4 were recommended as eligible to the NRHP (Hemnes, Clara, and Wild Rice and Red River Cemeteries, and St. Benedict's Cemetery, which was not one of the original 11 cemeteries listed in the FEIS).

2.7. Cemetery Mitigation Study, August 2014 to June 2015. Under Plan A, the USACE Cemetery Mitigation Plan acknowledged that an alternatives analysis was conducted for each of the 11 potentially impacted cemetery sites and cost estimates were developed. Under Plan B, the Authority recognizes that 8 cemeteries within the Staging Area and with viewshed impacts may potentially be impacted by the Comprehensive Project. The analysis established a baseline, identified problems, and assessed mitigation alternatives for each cemetery. The parameters used to formulate the mitigation alternatives included the existing site conditions, the impacts of staged water to the site, and overall feasibility of the alternatives. The impacts of staged water due to the Comprehensive Project at each site were evaluated in order to produce an understanding of each unique site. Impacts from the additional flooding may include damage from ice or debris, sediment or debris deposition, unstable bank slopes, and the inability to access the cemetery. Access into the cemetery site as well as access to the cemetery site from adjacent township, county, state, and/or federal highways was also evaluated. The impacts were evaluated for existing and with Comprehensive Project conditions.

Cemetery representatives identified their level of service expectations during site visits with the USACE, local sponsors, and consultants for the Comprehensive Project. The considerations identified as most important by the local cemetery representatives included obtaining flood protection and the desire to prevent any disruption of the cemetery services during flood events. These two guidelines were used to set criteria, screen options, and determine feasible alternatives.

Alternatives identified and analyzed for each site included; ring berm surrounding the cemetery to minimize impacts from staged water. Includes interior flood control features; optional access to site; fence that is structurally capable of preventing potentially damaging floodwater debris from impacting the headstones or entering the site; anchor upright monuments (headstones) to provide increased resiliency from potential debris flowing within the floodwaters; raising the site and resetting the removed markers/headstones.

2.8. Addressing Specific Issues/Concerns.

Grave Buoyancy/Eruption. As part of the Cemetery Study, an analysis was performed to address the concern of buried caskets becoming buoyant and rising out of the ground due to submergence by flood water. The analysis was based on the soil types prevalent in the area

and the caskets and vaults being completely air tight. It was found that the scenario of a casket being buried without being in a vault would be the most buoyant, however if 2.5 feet of soil cover is provided over them, the caskets alone will not be buoyant and will not emerge from the ground. For caskets contained within a vault, 2 feet of soil coverage is enough to keep them non-buoyant. Historically in this part of the country, the average soil cover is 4 feet and there has not been any reported issues of substance with caskets or vaults rising out of the ground; therefore, buoyancy is not an issue.

Grave Relocation. It was conveyed to concerned citizens that any relocation of graves would be conducted only as a last resort and that the only instance where it may be necessary is to relocate grave(s) required as part of constructing a protective berm; in these cases the grave(s) would be relocated to a site within the affected cemetery.

Raising Roads to Provide and Maintain Access. The Cemetery Mitigation Plan explains that raising roads within the Staging Area may impact hydraulics during some flood events. Analysis using the Comprehensive Project's Phase 7 HEC-RAS model showed that raising roads to access cemeteries during floods would impact water surface elevations in the area.

Impacts to Trees and Other Vegetation. The Cemetery Mitigation Plan explains that the timing and duration of the flooding is an important component to consider when looking at how flooding could impact the trees in the cemeteries. Flooding during the growing season is more problematic to tree health than flooding while trees are dormant. The majority of the flooding that will be induced by the Comprehensive Project will be during the months of March, April, and early May, which is considered a period of dormancy for the tree species in the region. Flooding in May that extends into June could have an impact if it is over a long period of time. Floodplain tree species in the cemeteries that would be impacted can survive months of flooding during the growing season as long as their canopies remain above water. Other species of trees commonly found in the cemeteries, to include spruce trees, have some tolerance to flooding but not as much as the native floodplain species, making them more likely to be impacted by flooding of several weeks during the summer months of June through September.

Bank Stability. The Cemetery Study found that there are cemeteries located on or in the vicinity of riverbanks. According to a Geomorphology Study conducted during the FMM Feasibility Study, the timing, depth, and duration of additional flooding upstream caused by the Project would not result in changes to bank stability.

Ice Conditions. The Cemetery Study found that ice-out on the Red River of the North is typically gradual without dynamic ice runs. A review of historic spring floods shows that most of the ice in the vicinity of the project has disappeared by the time the 20-year discharge (approximately 20,000 cfs) is reached, and the ice supply upstream of the proposed Comprehensive Project is limited by tight meanders and bends. Under existing conditions, the ice cover typically melts in place and is often confined within bends or held within the channel by natural levees or trees along the banks. While water levels may rise well above the top of bank elevation with project operation, the pool will fill from downstream to upstream with little change in the potential for ice to be drawn out of the Diversion Channel. In the USACE Cemetery Mitigation Plan, the USACE explained it is not aware of any evidence regarding damage due to ice formation on an already-flooded cemetery. Therefore, while damage due to the formation and movement of ice is not impossible, the likelihood of this happening is considered small and therefore can be addressed on an as-needed basis.

Monument Integrity. Prior to Plan B, the Cemetery Study found that all of the 11 potentially-impacted cemeteries were well maintained by established organizations of volunteers, church boards and members, and families. Based on the Phase I cultural resources investigations at 8 of the cemeteries in or upstream of the Staging Area, lawn-type grave markers are particularly susceptible to chipping and scratching damage from lawn maintenance equipment. Repairs to vertical headstones that have toppled and broken in the past are of varying quality. Most such stones have been repaired as close to their previous (unbroken) condition as possible, but some not so well. The Phase I cemetery investigation reports document the condition of all grave markers and other monuments in the cemetery as of the date of that cemetery's survey fieldwork and thus serve as a baseline condition record for potential Comprehensive Project-related impacts.

2.9. State Regulations and Guidance. As part of the Cemetery Study, research was conducted to identify North Dakota and Minnesota regulations related to cemetery impacts and mitigation. The Cemetery Mitigation Plan states the following:

North Dakota sites: Individual burials may be relocated from one part of a cemetery to another part of that same cemetery by the authorities in charge of that cemetery with the approval of the local health officer; otherwise only a licensed funeral practitioner with the appropriate permit from the state registrar of vital statistics may disinter a burial (see North Dakota Administrative Code § 33-05-01-02, Disinterment). According to the North Dakota Department of Health, if individual graves are to be relocated to another cemetery or the entire cemetery is to be relocated, then the Environmental Health Section becomes involved (see N.D.C.C. Ch. 23-06, especially N.D.C.C. § 23-06-24.1, Endangered gravesites – County action authorized, N.D.C.C. § 23-06-25, When body may be removed from cemetery, N.D.C.C. § 23-06-27 Protection of human burial sites…Exceptions, and N.D.C.C. § 23-06-30, Abandoned cemeteries, and N.D. Admin. Code Ch. 33-05-01, sub. 33-05-01-04, Depth of grave and requirements for above surface interments).

Minnesota sites: Individual burials may be relocated from one part of a dedicated cemetery to another part of that same cemetery by the authorities in charge of that cemetery upon receipt of the written and notarized authorization of the person or persons with the right to control the disposition of the deceased person (see Minn. Stats. § 149A.96, subd. 3, Exception; movement within a dedicated cemetery, and Minn. Stat. § 149A.80, Death; Right to Control and Duty of Disposition). If individual graves are to be relocated to another cemetery or the entire cemetery is to be relocated, then the Minnesota Department of Health becomes involved (see Minn. Stat. Ch. 149A Funeral Industry Law, especially Minn. Stat. § 149A.96 Disinterment and Reinterment; Minn. Stat. Ch. 306, Public Cemetery, especially Minn. Stat. § 306.05, Land Acquired for Cemetery Purposes, Minn. Stat. § 306.141, Relocation, and Minn. Stat. § 306.243 Maintaining Abandoned Cemeteries; and Minn. Stat. Ch. 307, Private Cemetery, especially Minn. Stat. § 307.08, subd. 8, Burial ground relocation and subd. 10, Construction and development plan review; and Minn. Stat. § 307.12, Relocation). Per the Minnesota Department of Health's Mortuary Science Section, there is no Minnesota agency that oversees or regulates cemeteries. There are two non-regulatory groups in Minnesota which deal with cemeteries: Minnesota Cemetery Association at (612) 822-2171 and Catholic Cemeteries at (651) 228-9991.

2.10. Flood Event Definitions. A 10-year event is a flood event that has a 10% chance of occurring in any particular year. A 50-year event is a flood event that has a 2% chance of occurring in any particular year. A 100-year event is a flood event that has a 1% chance of occurring in any particular year. A 500-year event is a flood event that has 0.2% chance of occurring in any particular year.

2.11. Purpose. The purpose of this Cemetery Protection Plan (the "Plan") is to provide a framework that identifies potential impacts to cemeteries within the Staging Area and with viewshed impacts as a result of the Comprehensive Project. The Plan provides historical context and a high level overview of individual options for the mitigation of impacts to each cemetery.

3. DEFINITIONS

3.1. "Authority" means the Metro Flood Diversion Authority, a permanent and perpetual North Dakota political subdivision created by the Joint Powers Agreement, dated June 1, 2016.

3.2. "Buffalo-Red River Watershed District" or "BRRWD" means the Buffalo-Red River Watershed District, a watershed district in the Red River Basin.

3.3. "CCJWRD" means the Cass County Joint Water Resource District, a political subdivision of the State of North Dakota, its successors and assigns.

3.4. "Cemetery Mitigation Plan" means the cemetery mitigation plan of the USACE, dated June 2015.

3.5. "Cemetery Study" means the study conducted by the USACE in September 2013 through June 2014 whereby regional cemeteries were visited by POCs to document impacts to cemeteries caused by flooding.

3.6. "CFR" means the Code of Federal Regulations.

3.7. "Clara Cemetery" means Clara Cemetery located in Section 17, Township 137 North, Range 17 West, Holy Cross Township, Clay County, Minnesota.

3.8. "Comstock" or "City of Comstock" means the City of Comstock, a Minnesota political subdivision.

3.9. "Comstock Lutheran Church" means Comstock Lutheran Church located at 2044 Main St., Comstock, MN 56525.

3.10. "Comprehensive Project" means the LPP Flood Risk Management Features and the Recreation Features as generally described in the Second Supplemental Environmental Assessment dated August 27, 2018 (2018 SEA), and the Engineering Documentation Report, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, ND and MN, Modifications Through February 2019, also known as Plan B.

3.11. "Comstock Cemetery" means Comstock Cemetery located in Section 28, Township 137 North, Range 48 West, Holy Cross Township, Clay County, Minnesota.

3.12. "Eagle Cemetery" means Eagle Cemetery located in Section 20, Township 136 North, Range 48 West, Eagle Township, Richland County, North Dakota.

3.13. "Eagle Valley Evangelical Christian Church" means Eagle Valley Evangelical Christian Church located at 17515 Co. Rd. 2., Christine, ND 58015.

3.14. "Fargo-Moorhead Metropolitan Area" means Fargo, North Dakota, Moorhead, Minnesota, and surrounding communities; it is further defined by the United States Census Bureau as comprising all of Cass County, North Dakota, and Clay County, Minnesota, which includes

the cities of Dilworth, Minnesota, West Fargo, North Dakota, and numerous other towns and developments from which commuters travel daily for work, education, and regular activities.

3.15. “Fargo-Moorhead Metropolitan Area Flood Risk Management Project” is the name given to the Comprehensive Project by USACE and has the same definition as Comprehensive Project in this Cemetery Protection Plan.

3.16. “Fee Simple” means an interest in land that, being the broadest property interest allowed by law, endures for the life of the owner or until sold. The person/entity that owns the land in Fee Simple is the appropriate party to provide an easement across his/her property.

3.17. “Final Feasibility Report and Environmental Impact Statement” or “FEIS” means the Final Feasibility Report and Environmental Impact Statement, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated July 2011, and approved by the Chief of Engineers on December 19, 2011, as amended by the Supplemental Environmental Assessment, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated September 2013, and approved by the District Engineer, St. Paul District, on September 19, 2013, as amended by the Final Supplemental Environmental Assessment #2, Modifications to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated February 2019, approved by the District Engineer, St. Paul District, on February 28, 2019, and which may be further amended by future supplemental environmental assessments.

3.18. “Hemnes Cemetery” means Hemnes Cemetery located in Section 1, Township 136 North, Range 49 West, Eagle Township, Richland County, North Dakota.

3.19. “Hoff Cemetery” means Hoff Cemetery located in Section 9, Township 137 North, Range 48 West, Holy Cross Township, Clay County, Minnesota.

3.20. “JPA” or “Joint Powers Agreement” means the Joint Powers Agreement dated as of June 1, 2016, by and between the Member Entities, as amended from time to time, which created and continued the Authority.

3.21. “Lower Wild Rice and Red River Cemetery” means the Lower Wild Rice and Red River Cemetery located in Section 6, Township 137 North, Range 48 West, Cass County, North Dakota.

3.22. “Member Entities” means the City of Moorhead, the City of Fargo, Clay County, Cass County, North Dakota, and CCJWRD.

3.23. “Metro Flood Diversion Authority” has the same definition as “Authority.”

3.24. “Minnesota” means the State of Minnesota.

3.25. “Minnesota DNR” or “MDNR” means the Minnesota Department of Natural Resources.

3.26. “Moorhead” or “City of Moorhead” means the City of Moorhead, a Minnesota political subdivision and home rule charter city.

3.27. “NDDWR” means the North Dakota Department of Water Resources.

3.28. “NHPA” means the National Historic Preservation Act of 1966.

3.29. “NHRP” means National Register of Historic Places.

3.30. “North Dakota” means the State of North Dakota.

3.31. “North Pleasant Cemetery” means North Pleasant Cemetery located in Section 27, Township 137 North, Range 49 West, Cass County, North Dakota.

3.32. “Plan” means this Cemetery Protection Plan.

3.33. “Plan B” means the proposed comprehensive flood control project for the Fargo-Moorhead Metropolitan Area that was the subject of the MN DNR and the Minnesota Contested Case.

3.34. “POC” means point of contact.

3.35. “Roen Family Cemetery” means Roen Family Cemetery located in Section 19, Township 137 N, Range 48 West, Clay County, Minnesota.

3.36. “RWJPA” means the Richland-Wilkin Joint Powers Authority.

3.37. “SHPO” means State Historical Preservation Office.

3.38. “South Pleasant Cemetery” means South Pleasant Cemetery located in Section 22, Township 136 North, Range 49 West, Richland County, North Dakota.

3.39. “South Pleasant Church Cemetery” means South Pleasant Church Cemetery located in Section 21, Township 136 North, Range 49 West, Richland County, North Dakota.

3.40. “St. Benedict’s Cemetery” means St. Benedict’s Cemetery located in Section 34, Township 138 North, Range 49 West, Cass County, North Dakota.

3.41. “Staging Area” means the area upstream of the Southern Embankment, Diversion Inlet Structure, Red River Control Structure and the Wild Rice River Control Structure (both of which are being built as part of Plan B) that will be used to store floodwater when the Comprehensive Project is fully operational. The Staging Area includes USACE Federal Mitigation Zones 1 and 2.

3.42. “USACE” means the United States Army Corps of Engineers.

3.43. “Upstream Cemetery Authority” means the authority formed consisting of cemeteries associations who honor and respect those that lay at rest in cemeteries impacted by the Comprehensive Project.

3.44. “Upstream Mitigation Area” or “UMA” means the area where the Authority is required to obtain property rights for the temporary storage of floodwaters during Comprehensive Project operations. The UMA includes USACE Federal Mitigation Zones 1, 2, 3, and 4.

3.45. “Wolverton” or “City of Wolverton” means the City of Wolverton, a political subdivision of the State of Minnesota.

3.46. “Wolverton Cemetery” means Wolverton Cemetery located in Section 28, Township 136 N, Range 48 West, Wilkin County, Minnesota.

4. CEMETERY STUDY AND PLAN B – THE COMPREHENSIVE PROJECT

4.1. Cemetery Studies. As described in Section 2 of this Plan, the Cemetery Study developed prior to Plan B identified 11 cemeteries in the Staging Area that would potentially experience impacts as a result of the Comprehensive Project. They were Clara Cemetery, Eagle Cemetery, Hemnes Cemetery, North Pleasant Cemetery, Roen Family Cemetery, Wolverton Cemetery, Lower Wild Rice and Red River Cemetery, South Pleasant Cemetery, South Pleasant Church Cemetery, Hoff Cemetery, and Comstock Cemetery. Subsequently, 9 cemeteries were the subject of Phase I cultural resources investigations, including Clara Cemetery, Hemnes Cemetery (aka Hemnes Lutheran Cemetery), North Pleasant Cemetery, Wolverton Cemetery (aka Salem Lutheran Cemetery), St. Benedict's Cemetery, Lower Wild Rice and Red River Cemetery, South Pleasant Cemetery (aka Lium Cemetery), Hoff Cemetery, and Comstock Cemetery.

4.2. Plan B. The Authority acknowledges that Plan A was the basis for the Cemetery Study conducted by the USACE in 2013. As a result of the approval of Plan B and changes to the Comprehensive Project, the Authority has determined that 8 of the 11 originally identified cemeteries will potentially experience impacts as a result of the Comprehensive Project. St. Benedict's Cemetery, and Lower Wild Rice and Red River Cemetery will be adversely impacted with respect to viewshed, as the dam and other project features will obstruct some views from within these cemeteries. Clara Cemetery, Eagle Cemetery, Hemnes Cemetery, North Pleasant Cemetery, Roen Family Cemetery, and Wolverton Cemetery may be impacted by water. Mitigation measures for each individual cemetery are described in **Appendix 1** of this Plan.[4]

4.3. Cemetery Study Superseded by Plan B. This Plan supersedes the Cemetery Study and any practices, plans, programs, or policies of the Authority that are specifically contrary to or inconsistent with the terms of this Plan.

5. IMPACTED CEMETERIES

5.1. Cemeteries with Increased Flood Water Impacts. The Authority has identified 6 cemeteries that may potentially experience increased flood water impacts as a result of the Comprehensive Project. These include: i) Clara Cemetery; ii) Eagle Cemetery; iii) Hemnes Cemetery; iv) North Pleasant Cemetery; v) Roen Family Cemetery; and vi) Wolverton Cemetery. Maps of the cemeteries are attached to this Plan as **Exhibit E**. These flood water impacts were determined using the Comprehensive Project's Condition Letter of Map Revision ("CLOMR") Case Number 19-08-0683R.

5.2. Cemeteries with Viewshed Impacts. The Authority has identified 2 cemeteries that may potentially experience viewshed impacts as a result of the Comprehensive Project. These include: i) St. Benedicts Cemetery; and ii) Lower Wild Rice and Red River Cemetery. Maps of the cemeteries are attached to this Plan as **Exhibit F**.

6. SECTION 106 REQUIREMENTS FOR HISTORIC AFFECTED CEMETERIES

6.1. Historic Cemeteries. Cemeteries are eligible for inclusion in the NRHP if they are integral parts of historic districts or fall within the purview of National Register eligibility criteria. To be eligible for the NRHP, a cemetery must retain its integrity of location, design, setting, materials, workmanship, feeling, and association (National Register Bulletin 41: Guidelines

[4] **Exhibit D**, attached to this Plan identifies the 8 cemeteries that will potentially experience impacts from the Comprehensive Project following Plan B.

for Evaluating and Registering Cemeteries and Burial Places). These factors must be considered when evaluating whether a cemetery retains enough of its characteristic features to represent the associations, function, and appearance it had during its period of historic significance. The State Historic Preservation Offices ("SHPO") of Minnesota and North Dakota have recommended Clara Cemetery and Hemnes Cemetery as cemeteries within the Staging Area that are eligible for listing on the NRHP.[5] The SHPO(s) have also recommended St. Benedicts Cemetery, Lower Wild Rice and Red River Cemetery, and Hoff Cemetery as eligible cemeteries located downstream of the Southern Embankment.

6.2. Section 106 Requirements. Pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, a federal agency must take into consideration effects of its undertakings on historic properties. Historic Properties are defined at its implementing regulation, 36 Code of Federal Regulations (CFR) Part 800. Effects may be both direct (involving physical changes to the actual property) or indirect (involving visual, auditory, or olfactory intrusions). If a site has been determined not eligible to the NRHP, then no cultural mitigation is required under Section 106 of the NHPA. The SHPO(s) have recommended Eagle Cemetery, North Pleasant Cemetery, Roen Family Cemetery, and Wolverton Cemetery as not eligible for listing on the NRHP; thus, no mitigation is required under Section 106 of the NHPA. Phase I cultural resources surveys have been performed for the sites that have granted right of entry, of which 4 were recommended as eligible the NRHP (Clara Cemetery, Hemnes Cemetery, Wild Rice and Red River Cemeteries, and St. Benedict's Cemetery). Phase II cultural resources surveys have been or are in the process of being conducted. Roen Family Cemetery will undergo Phase I cultural resources surveys in the Spring of 2021. Right of entry will need to be secured prior to the Phase I survey being conducted.

6.3. MN DNR Permit Conditions. The Authority will abide by MN DNR permit conditions with respect to mutually agreed mitigation for cemeteries. Pursuant to Permit Condition 25 of the MN DNR permit, prior to dam operation, the Authority shall provide to the MN DNR written, mutually agreed upon mitigation for impacts for the cemeteries. No impoundment of water is allowed by the MN DNR permit until all property rights are acquired and the MN DNR receives and approves signed agreements executed by each affected cemetery and the Authority.

6.4. Mitigation. For all cemetery sites, eligible or not eligible, any flood mitigation measure that involves physically altering the cemetery site, such as by adding a ring levee or fence where none has been before, may adversely affect the historical integrity of that site, particularly in regard to integrity of design, setting, and feeling. Integrity of design deals with the combination of elements that create the form, plan, space, structure, and style of a historic property. Integrity of setting deals with the physical character or environment of a property and how it relates to surrounding features and open space. Integrity of feeling deals with a property's expression of the aesthetic or historic sense of a particular period of time and results from the presence of physical features that convey the property's historic character. Such alterations could also affect the visual and spiritual experiences currently experienced by individuals with links to that cemetery.

Construction of ring levees on some cemeteries could require relocation of graves due to required setbacks from adjacent roads, water bodies, wetlands, etc. and may have a negative impact on the cemeteries and families associated with the affected graves. Some may require acquisition of property from adjacent landowners, and it is unclear if such property can be

[5] The Settlement Agreement requires mitigation of impacts to cemeteries located within the Staging Area. St. Benedict's Cemetery and Lower Wild Rice and Red River Cemetery are not located within the Staging Area but have viewshed impacts due to their proximity to the Southern Embankment. Hoff Cemetery has no viewshed impacts and also lies outside of the Staging Area. While the USACE is responsible for mitigating potential impacts to St. Benedict's Cemetery and Lower Wild Rice and Red River Cemetery, it is not required to do so pursuant to the Settlement Agreement.

obtained using eminent domain. Most of the cemeteries under consideration in this report have trees around their borders, which act as living fences and stop large items (e.g., tree trunks) from floating into the cemetery and damaging features (e.g., headstones, cemetery signs) during current flood events. While such trees do not stop crop debris from adjacent fields from floating into the cemetery, neither would a metal or wooden fence, unless its vertical members were so closely spaced as to have visual impacts looking both toward and from the cemetery. In addition, tipping of headstones at cemeteries currently susceptible to flooding was not cited by POCs as a common occurrence.

Raising the low portions of a cemetery so the ground surface is one foot above the inundation elevation for the 500-year flood event would involve surveying the grave markers in the low area and removing them from that area, adding earthen fill to that area, and then resetting the removed grave markers back in place above their respective burials. The actual burials (caskets, vaults) would not be moved. This alternative is not applicable to all the cemeteries; but might be considered a negative impact on the entire site and for families associated with the affected graves.

Operation of the Comprehensive Project will result in the temporary and periodic staging and retention of flood waters upstream of the SEAI in the UMA. In recognition that the operation of the Comprehensive Project may cause damage to public lands as well as the accumulation of debris, the Authority is developing a plan for the repair and clean-up of public lands in the UMA from the operation of the Comprehensive Project. The post-operation repair and clean-up plan will apply to the cemeteries addressed in this Plan.

Mitigation alternatives were developed for potential implementation by the Authority. The only mitigation required by the USACE is obtaining a flowage easement for sites located within the Staging Area under Plan A and now for sites located within USACE Federal Mitigation Zones 1 and 2.

7. FLOWAGE EASEMENTS

7.1. Flowage Easements, Federal Requirement. The federal requirements are that flowage easements be obtained on the impacted cemeteries within the USACE Federal Mitigation Zones 1 and 2, as is required for operation of the Comprehensive Project. Normal cemetery operations including burials, operation, and maintenance activities will not be restricted by the flowage easement.

7.2. Non-Federal Requirements. There are no federal mitigation requirements for other impacted cemeteries located outside of USACE Federal Mitigation Zones 1 and 2. Mitigation may include but is not limited to ring dikes/levees, fencing, maintenance requirements, and/or an internal water management and discharge system inside the ring dikes/levees surrounding the cemetery to eliminate and prevent any impact, including erosion, of the Comprehensive Project.

7.3. Execution of Flowage Easements. The Authority is required to obtain flowage easements for cemeteries in the Staging Area. Whether the cemetery association or individual plot owner has the authority to execute a flowage easement depends on the type of interest originally conveyed from the cemetery association to the burial plot owners.

7.3.1. North Dakota. In North Dakota, cemetery land must be surveyed and divided into lots. A map of the survey must be filed with the county recorder when the cemetery is a public cemetery. If the cemetery is a private cemetery, a plat must be kept for public inspection. North Dakota law does not specify the type of real property interests

conveyed for burial plots, and cemeteries may deed fee title to individual lots or only grant the exclusive right of interment in the lots. If anything less than Fee Simple was conveyed to each individual burial plot owner, then the cemetery association is the appropriate party to execute the flowage easement. To determine the correct party/entity to execute the flowage easement, a title opinion for each cemetery will likely be necessary.

If the cemetery association did not record the plats or follow proper procedures, and cannot determine who is to sign a flowage easement, petitioning and requesting the court (after providing notice to both the cemetery association and individual plot owners of the petition/request) to grant the flowage easement is likely necessary to obtain the flowage easement.

While not explicitly set forth in N.D.C.C. § 23-06, that next of kin has the authority to sign a flowage easement, it appears next of kin has the requisite authority to execute a flowage easement since next of kin is identified throughout N.D.C.C. § 23-06 as the appropriate party to be notified if a buried body has to be removed from the cemetery and has duty of final disposition of the body. Assuming the plot owner is the Fee Simple owner of the burial plot and not the owner of a plot that is subject to deed restrictions that reserves conditions, restrictions, reservations, rules, and regulations. If the burial plot owner's interest is less than Fee Simple, then the county/cemetery association is the appropriate party to authorize a flowage easement.

7.3.2. Minnesota. In Minnesota, cemetery land must be surveyed and divided into lots. A map of the survey must be filed with the county recorder when the cemetery is a public cemetery. If the cemetery is a private cemetery, a plat must be kept for public inspection. Minnesota law does not specify the type of real property interests conveyed for burial plots, and cemeteries may deed fee title to individual lots or only grant the exclusive right of interment in the lots. If anything less than Fee Simple was conveyed to each individual burial plot owner then the cemetery association is the appropriate party to execute the flowage easement. To determine the correct party/entity to execute the flowage easement, a title opinion for each cemetery will likely be necessary.

If the cemetery association did not record the plats or follow proper procedures, and cannot determine who is to sign a flowage easement, petitioning and requesting the court (after providing notice to both the cemetery association and individual plot owners of the petition/request) to grant the flowage easement is likely necessary to obtain the flowage easement.

While not explicitly set forth in Minn. Stat. §§ 306 and 307, that next of kin has the authority to sign a flowage easement; if the burial plot was conveyed to the decedent via warranty deed, the burial plot would be treated the same as any other real property interest owned by the decedent at his time of death and pass to the decedent's heirs or devisees. Thus, assuming the plot owner is the Fee Simple owner of the burial plot and not the owner of a plot that is subject to deed restrictions that reserves conditions, restrictions, reservations, rules, and regulations. If the burial plot owner's interest is less than Fee Simple, then the county/ cemetery association is appropriate party to authorize a flowage easement.

8. ACCESS TO CEMETERIES

8.1. Access to Cemeteries. The Authority will maintain reasonable access to the cemeteries at all times when the Comprehensive Project is not operating. The Authority will only raise roads when it does not impact water-surface elevation. To ensure access to cemeteries during non-operation of the Comprehensive Project, the Authority will work in conjunction with appropriate cemetery associations and boards.

9. MISCELLANEOUS

9.1. Amendments. This Plan may be amended only by written instrument duly executed by the Authority or its respective successors or assigns, except to the extent expressly provided otherwise in this Plan.

9.2. Severability. Each provision, section, sentence, clause, phrase, and word of this Plan is intended to be severable. If any provision, section, sentence, clause, phrase, or word hereof is held by a court with jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity will not affect the validity of the remainder of this Plan.

9.3. Authorized Representative. The Authority hereby designates the following individuals as its initial authorized representative to administer this Plan on its respective behalf:

Authority Representative: Kris Bakkegard, Director of Engineering

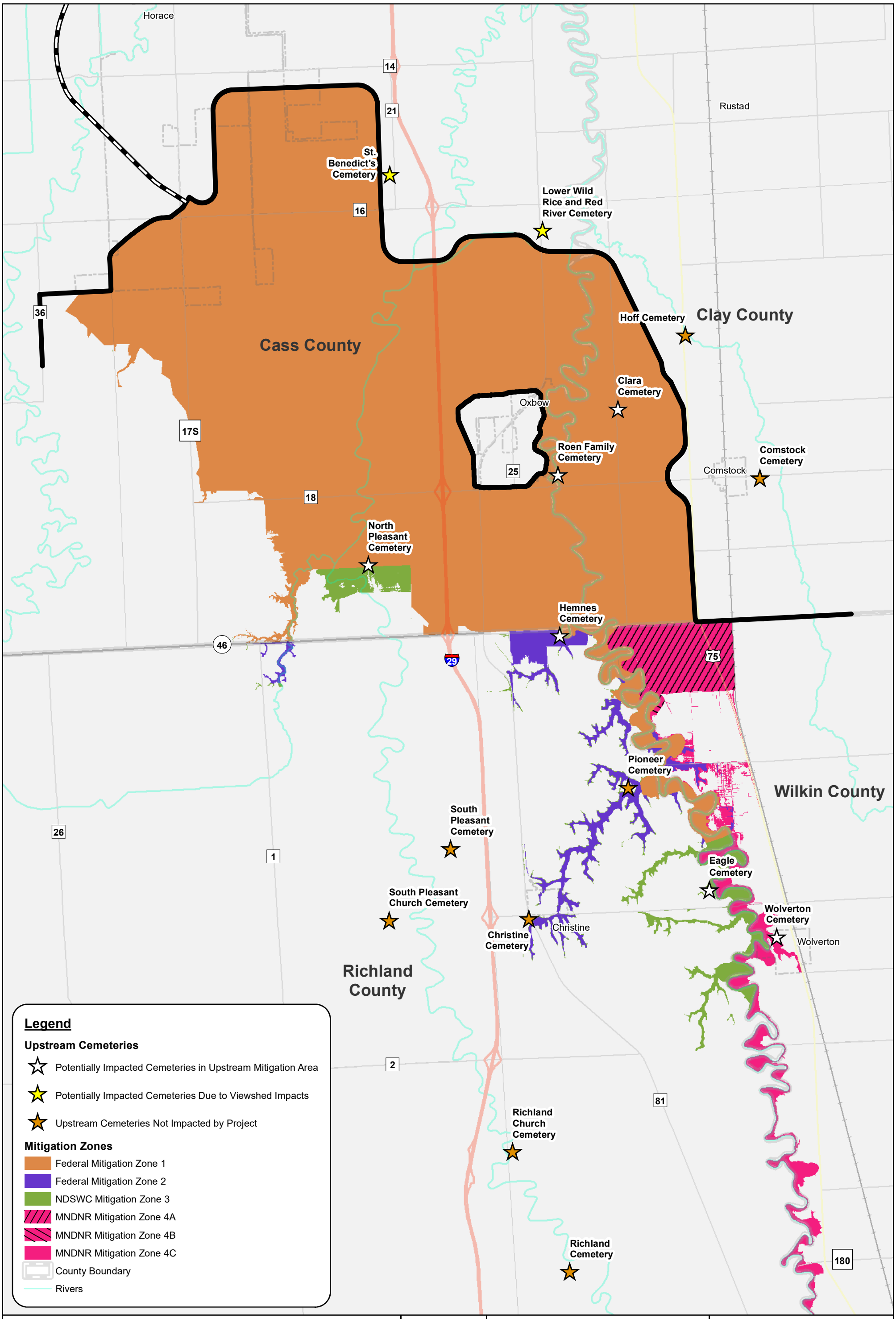
9.4. Governing Law. This Plan will be governed and construed in accordance with the laws of the State of North Dakota.

Dated: _____, 2022.

_____
Chad Peterson, Chair

_____
Joel Paulsen, Executive Director

Exhibit A



FM AREA DIVERSION
CEMETERIES NEAR THE UPSTREAM MITIGATION ZONES

Created By: KMV Date Created: 06/18/18 Date Saved: 09/08/22 Date Exported: 09/08/22
Plotted By: benjamin.kugler Parcel Date: Varies Aerial Image: N/A Elevation Data: 2008 Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
T:\Projects\19100\19116\2021_UMA_PRAM_6\Protected_and_Staging_Area_Cemeteries_2022_01_25.mxd

N W E S

0 0.65 1.3 2.6 Miles

Source: CLOMR FEMA Case Number 19-08-0683R

FM AREA DIVERSION

Exhibit B

No.	Cemeteries Impacted by the Comprehensive Project	Location
1.	Abercrombie Cemetery	North Dakota
2.	Beth El Memorial Park Cemetery	North Dakota
3.	Brink Cemetery	North Dakota
4.	Cass County Springvale Cemetery	North Dakota
5.	Christine Cemetery	North Dakota
6.	Clara Cemetery	Minnesota
7.	Clemenson Cemetery	North Dakota
8.	Comstock Cemetery	Minnesota
9.	Eagle Cemetery	North Dakota
10.	Emanual Cemetery	North Dakota
11.	Evergreen Cemetery	Minnesota
12.	Fargo Hebrew Congregational Cemetery	North Dakota
13.	Fridhem Cemetery	North Dakota
14.	Hector Memorial Cemetery	North Dakota
15.	Hemnes Cemetery	North Dakota
16.	Hoff Cemetery	Minnesota
17.	Holy Cross Historic Cemetery	North Dakota
18.	Diocese of Fargo – Holy Cross North Cemetery	North Dakota
19.	Diocese of Fargo – Holy Cross South Cemetery	North Dakota
20.	Horace Cemetery	North Dakota
21.	Horace Lutheran Church Cemetery	North Dakota
22.	Islamic Society Cemetery	North Dakota
23.	Lower Maple River Cemetery	North Dakota
24.	Lower Wild Rice and Red River Cemetery	North Dakota
25.	Maple Sheyenne Lutheran Church Cemetery	North Dakota
26.	Mapleton Cemetery	North Dakota
27.	McCauleyville Cemetery	Minnesota
28.	Moorhead Memorial Gardens Cemetery	Minnesota
29.	North Buffalo Lutheran Church Cemetery	Minnesota
30.	North Pleasant Cemetery	North Dakota
31.	Oak Mound United Church Cemetery	Minnesota
32.	Oak Wood South Cemetery	North Dakota
33.	Oak Wood North Cemetery	North Dakota
34.	Osterdalen Cemetery	North Dakota
35.	Pioneer Cemetery	North Dakota
36.	Prairie Home Cemetery	Minnesota

37.	Richland Cemetery	North Dakota
38.	Richland Church Cemetery	North Dakota
39.	Riverside Cemetery	North Dakota
40.	Riverside Prairie Home Cemetery	Minnesota
41.	Salem Church Cemetery	North Dakota
42.	Schmitt Cemetery	North Dakota
43.	South Pleasant Cemetery	North Dakota
44.	South Pleasant Church Cemetery	North Dakota
45.	St. Benedict's Cemetery	North Dakota
46.	St. Joseph's Church Cemetery	Minnesota
47.	St. Thomas Cemetery	Minnesota
48.	Sunset Memorial Gardens Cemetery	North Dakota
49.	St. John's Cemetery	North Dakota
50.	Wild Rose Cemetery	Minnesota
51.	Wolverton Cemetery	Minnesota
52.	Wolverton Norwegian Lutheran Cemetery	Minnesota
53.	Smith Family Cemetery	North Dakota
54.	Roen Family Cemetery	Minnesota

Exhibit C

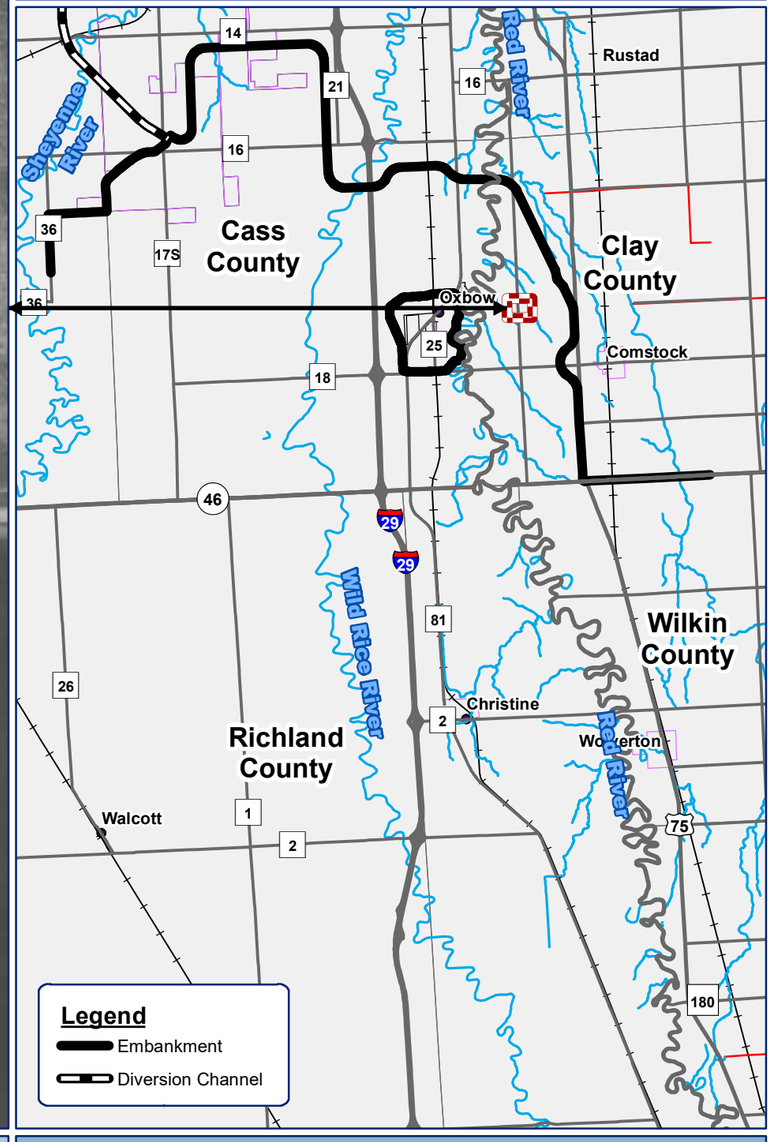
No.	Cemetery	State	Location and Impact Before Plan B
1.	Clara Cemetery	Minnesota	Staging Area
2.	Roen Family Cemetery	Minnesota	Staging Area
3.	Hemnes Cemetery	North Dakota	Staging Area
4.	North Pleasant Cemetery	North Dakota	Staging Area
5.	Hoff Cemetery	Minnesota	Staging Area
6.	Comstock Cemetery	Minnesota	Staging Area
7.	Wolverton Cemetery	Minnesota	Upstream of Staging Area
8.	Eagle Cemetery	North Dakota	Upstream of Staging Area
9.	Lower Wild Rice and Red River Cemetery	North Dakota	Staging Area
10.	South Pleasant Church Cemetery	North Dakota	Upstream of Staging Area
11.	South Pleasant/Lium Cemetery	North Dakota	Upstream of Staging Area

Exhibit D

No.	Cemetery	State	Location	Comprehensive Project Impacts
1.	Clara Cemetery	Minnesota	Mitigation Zone 1	Water
2.	Roen Family Cemetery	Minnesota	Mitigation Zone 1	Water
3.	Wolverton Cemetery	Minnesota	Mitigation Zone 4C	Water
4.	Eagle Cemetery	North Dakota	Mitigation Zone 3	Water
5.	Hemnes Cemetery	North Dakota	Mitigation Zone 2	Water
6.	North Pleasant Cemetery	North Dakota	Mitigation Zone 1	Water
7.	St. Benedict’s Cemetery	North Dakota	East of the Southern Embankment on the dry side of the Comprehensive Project	Viewshed
8.	Lower Wild Rice and Red River Cemetery	North Dakota	North of the southern embankment and Red River Control Structure on the dry side of the Comprehensive Project	Viewshed

CEMETERY MAP

CLARA CEMETERY - OIN 1837



FM AREA DIVERSION

N W E S

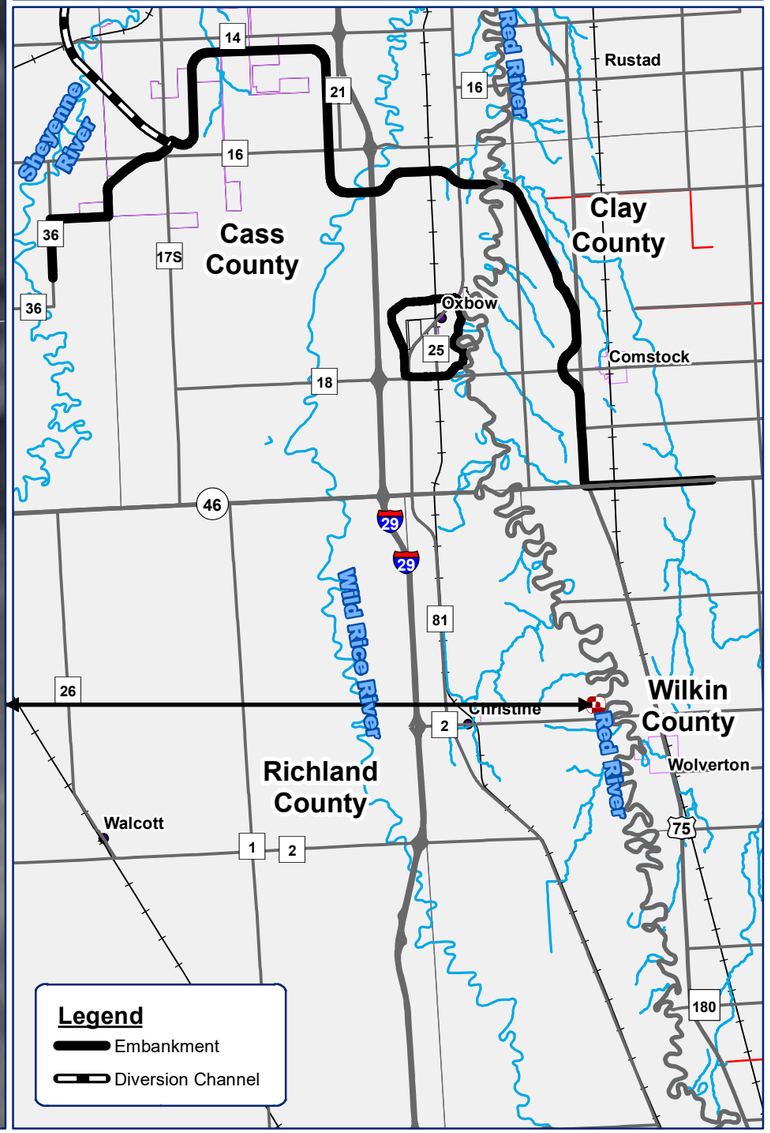
0 100 200 400 Feet

Exhibit E

Name:	**PAUL KLEIN & ROBERT E KLEIN**
PIN:	**15.017.3000**
County:	**Clay County, MN**
PDF Date:	**01/20/2022**

CEMETERY MAP

EAGLE CEMETERY - OIN 1357/1358



FM AREA DIVERSION

N W E S

0 30 60 120 Feet

Name:	**EAGLE CEMETERY**
PIN:	**01-0000-00030.201**
County:	**Richland County, ND**
PDF Date:	**09/08/2022**

CEMETERY MAP

HEMNES CEMETERY - OIN 1451

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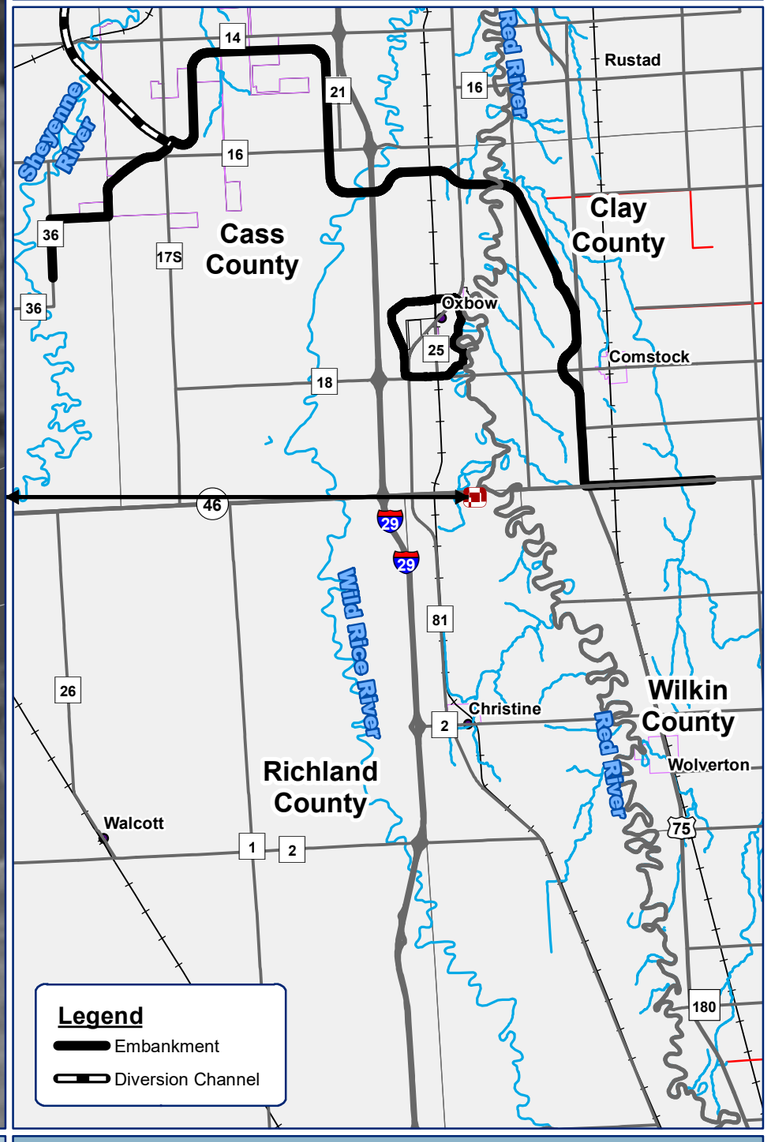


FM AREA DIVERSION

N W E S

0 50 100 200 Feet

Name: STUART T & LAVERNA YSTEBO LLLP

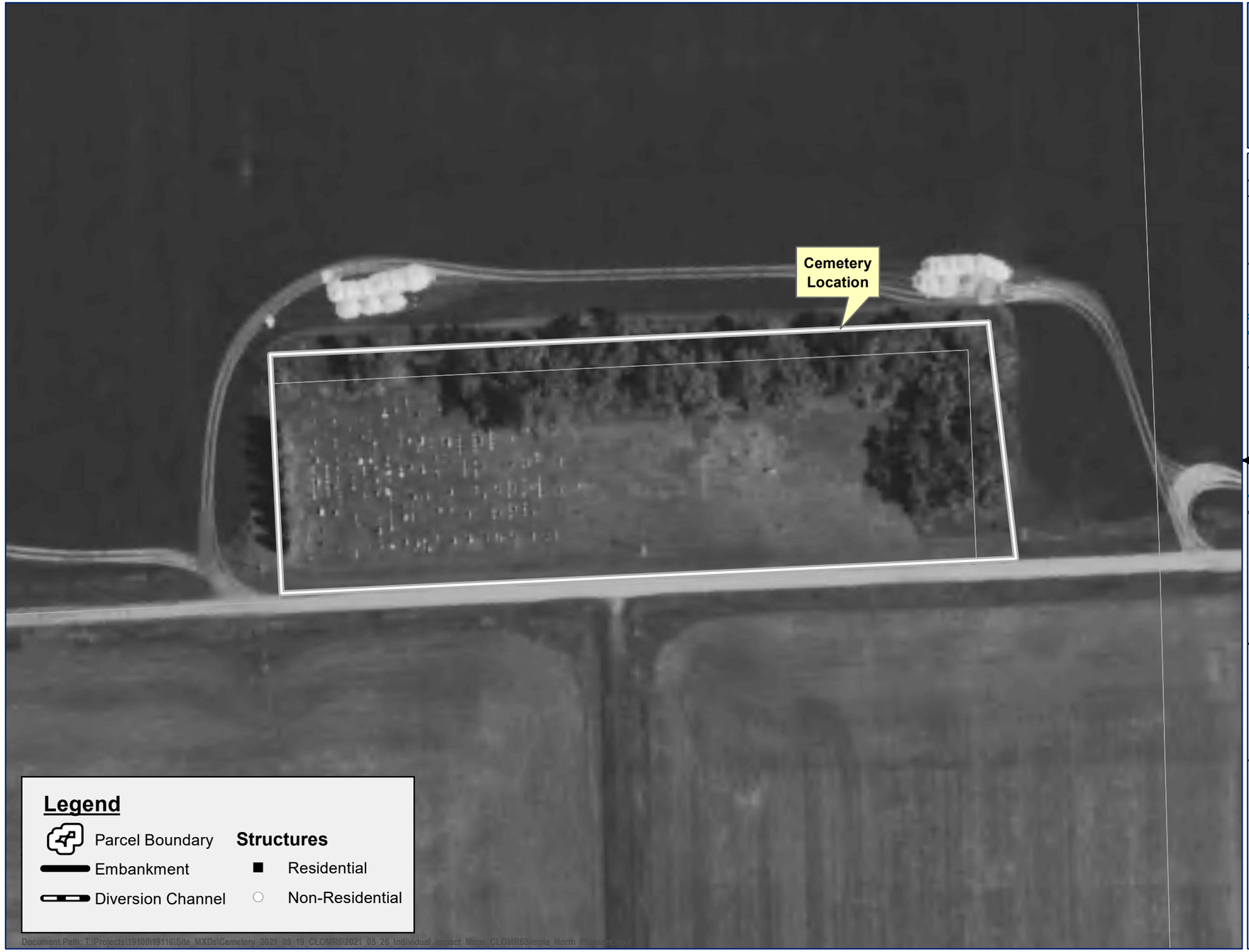
PIN: 01-0000-00066.000

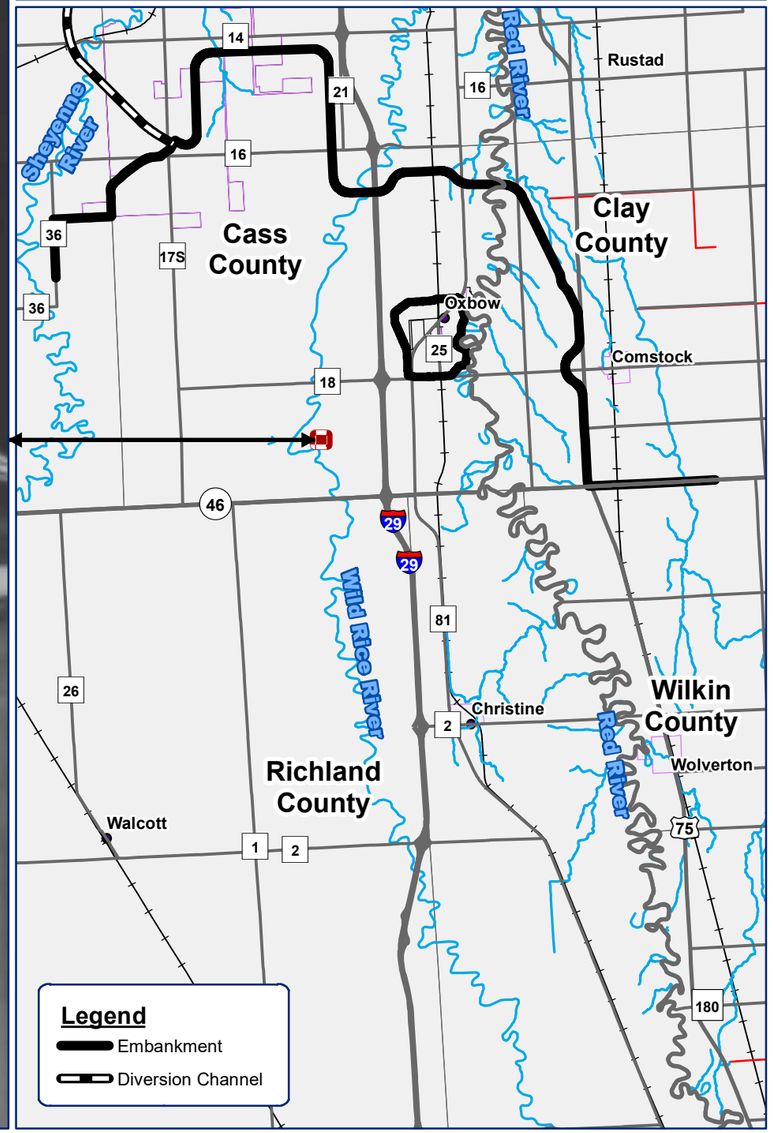
County: Richland County, ND

PDF Date: 01/20/2022

CEMETERY MAP

NORTH PLEASANT CEMETERY - OIN 2013





FM AREA DIVERSION

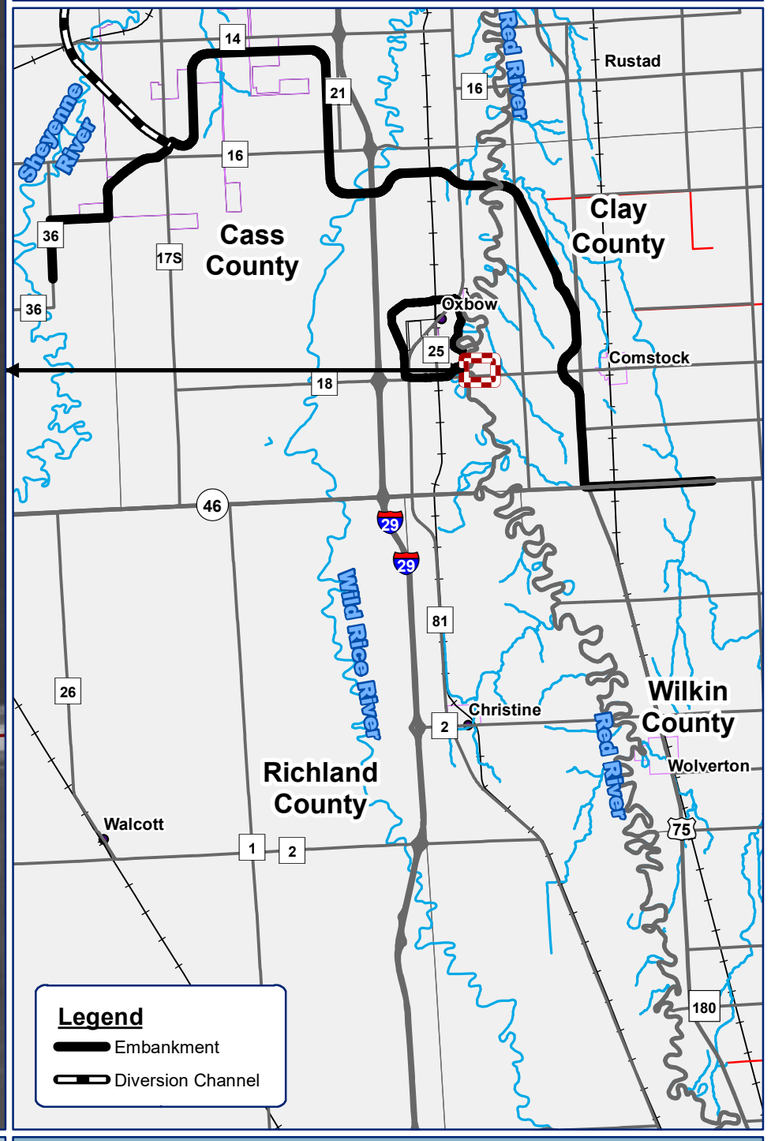
N W E S

0 45 90 180 Feet

Name:	**NORTH PLEASANT CEMETERY ASSOCIATION**
PIN:	**57-0000-10375-020**
County:	**Cass County, ND**
PDF Date:	**01/20/2022**

CEMETERY MAP

ROEN FAMILY CEMETERY - OIN 1689



FM AREA DIVERSION

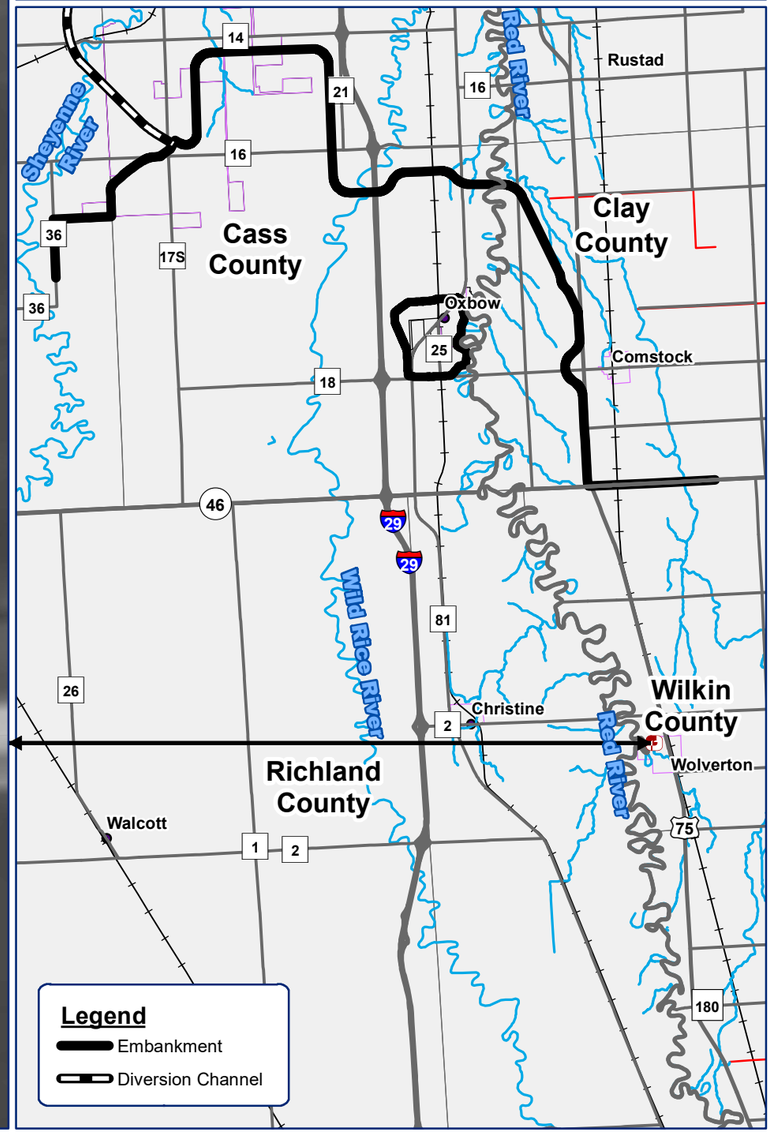
N W E S

0 125 250 500 Feet

Name:	**RHODA K UELAND**
PIN:	**15.019.3400**
County:	**Clay County, MN**
PDF Date:	**01/20/2022**

CEMETERY MAP

WOLVERTON CEMETERY - OIN 9179



FM AREA DIVERSION

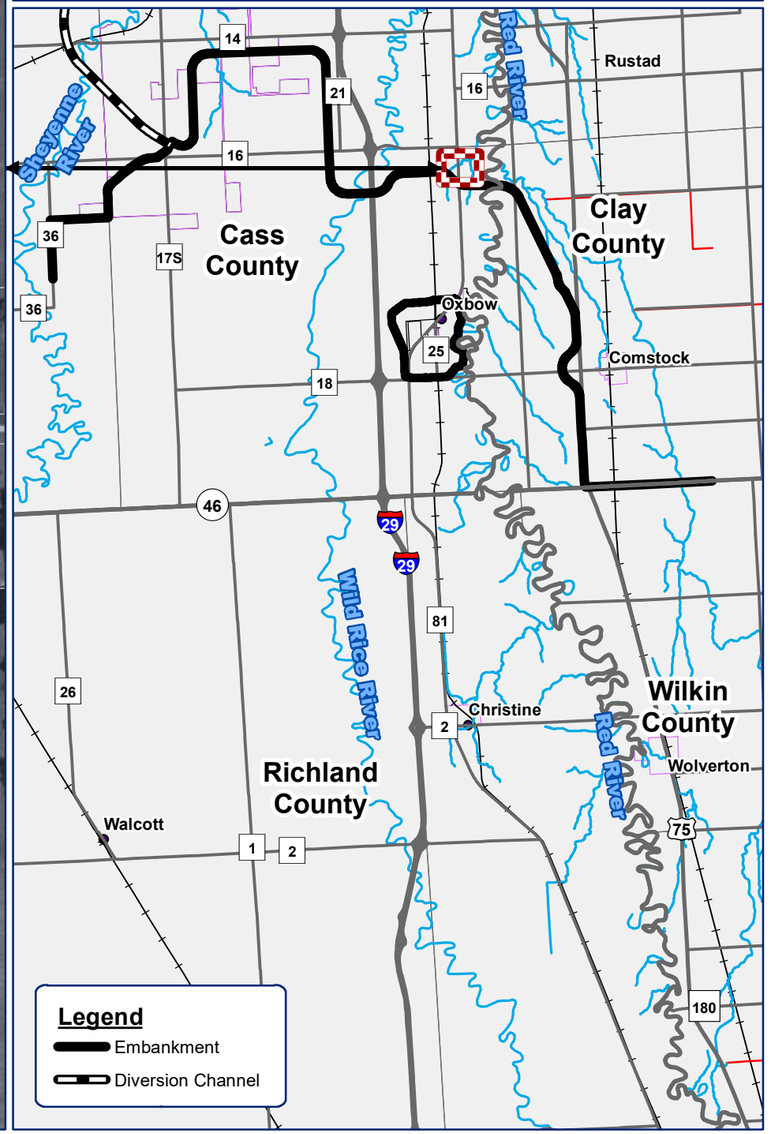
N
W
E
S

0 25 50 100
Feet

Name:	**SWEDISH EVANGELICAL LUTHERAN**
PIN:	**31-028-0050**
County:	**Wilkin County, MN**
PDF Date:	**01/20/2022**

CEMETERY MAP

LOWER WILD RICE AND RED RIVER CEMETERY



FM AREA DIVERSION

N W E S

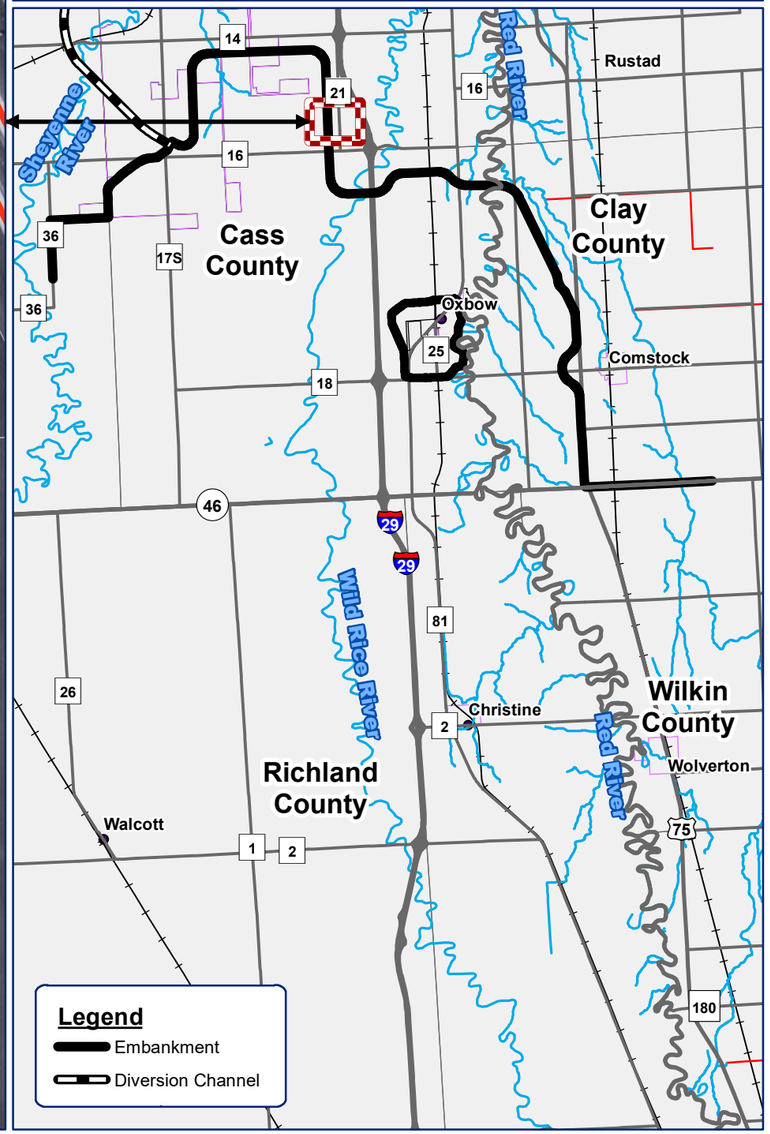
0 150 300 600 Feet

Exhibit F

Name:	**LOWER WILD RICE AND RED RIVER**
PIN:	**57-0000-10201-126**
County:	**Cass County, ND**
PDF Date:	**01/20/2022**

CEMETERY MAP

SAINT BENEDICTS CHURCH CEMETERY



FM AREA DIVERSION

N W E S

0 200 400 800 Feet

Name:	**SAINT BENEDICTS CHURCH**
PIN:	**64-0000-02830-010**
County:	**Cass County, ND**
PDF Date:	**01/20/2022**

APPENDIX 1
INDIVIDUAL CEMETERY IMPACTS AND INDIVIDUAL CEMETERY MITIGATION

1. INDIVIDUAL CEMETERY IMPACTS

1.1. Clara Cemetery.

1.1.1. Background. Clara Cemetery is located within USACE Federal Mitigation Zone 1 for the Comprehensive Project. A site visit was conducted on July 21, 2014, and site POCs were in attendance. Right of entry was granted by the landowner and a Phase I Cultural Resources Survey was conducted on January 25, 2015, through January 27, 2015. The site has been recommended as eligible for listing in the NRHP for its association with historical events connected with rural settlement/pioneer settlement of the Red River Valley. Minnesota SHPO concurred with this recommendation in a letter dated June 8, 2015.

Clara Cemetery is an approximately two acre parcel (pin no. 150173000) located in the SW quarter of the SW quarter of the SW quarter of the SW quarter of Section 17, Township 137, Range 48 West, Holy Cross Township, Clay County, Minnesota. The cemetery area is approximately 110 feet north-south by 100 feet east-west. It is bounded by an agricultural field on the north and east, by a gravel road, 150th Avenue South, on the south, and by another gravel road, 3rd Street South, on the west. According to the NRCS's Web Soil Survey, soils in the cemetery are Fargo silty clay, 0 to 1 percent slopes. Vegetation in Clara Cemetery consists of mown lawn grass with two rows of mature spruce trees along its north and east edges and one row of Douglas fir trees along its west and south edges, plus a few lone Douglas fir trees in the interior of Clara Cemetery. Recent site visits to Clara Cemetery and discussions with the cemetery board in 2021 indicate the trees are dead, and the cemetery intends on removing the trees. There is a U-shaped grassy two-track road through Clara Cemetery with access from the road on the south. This active cemetery contained 220 marked and 3 unmarked graves dating from 1894 to the present at the time of the Phase I survey. Headstones, including vertical monuments, family plot markers, and horizontal lawn-type markers, as well as footstones mark the burials. Clara Cemetery originally was a Swedish cemetery as reflected by the Swedish inscriptions on the earlier headstones. Members of the locally prominent Hicks family are buried here. There is a brick monument with a metal plaque with the cemetery's name ("Clara Lutheran Cemetery") and a wooden sign board at the cemetery. There are no buildings at Clara Cemetery.

Ground surface elevations in Clara Cemetery range from a low of 915.0 feet on the north and east sides of the cemetery to a high of 917.0 feet on the south side. Under modeled existing conditions, for the 10-year event there is a peak water elevation of 906.7 feet; for the 50-year event there is a peak water elevation of 913.1 feet; for the 100-year event there is a peak water elevation of 914.5 feet; and for the 500-year event there is a peak water elevation of 916.8 feet. This means that under existing conditions, there is no flooding of Clara Cemetery during the 10-year, 50-year, and 100-year events. During the 500-year event, most of Clara Cemetery would be flooded by up to 1.8 feet of water for 10.5 days.

Based on aerial photography taken during the 1997 flood event, there was floodwater just outside the west, north and east sides of Clara Cemetery, but none in Clara Cemetery itself. The roads to the west and south of Clara Cemetery were also inundated where they crossed branches of the drainage northeast of the cemetery. Aerial photography taken during the March 2009 flood event also shows no flooding in

Clara Cemetery, but water and ice to its north and east. Because Clara Cemetery has never flooded, no post-flood clean-up has been necessary. However, there may currently be problems with road access under existing conditions.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be at 907.3 feet with no flooding. For the 50-year event, the peak water elevation would be at 918.7 which results in a depth of 3.7 feet of flooding. Water exceeds the approximate lowest site elevation for 8 days, an increase of 3.7 feet of flooding depth and 8 days of flooding over no flooding under existing conditions. For the 100-year event, the peak water elevation would be at 921.1 feet which results in a depth of 6.1 feet of flooding. Water exceeds the approximate lowest site elevation for 9.5 days, an increase of 6.1 feet of flooding depth and 9.5 additional days of flooding over existing conditions. For the 500-year event, the peak water elevation would be at 922.7 feet which results in a depth of 7.7 feet of flooding. Water exceeds the approximate lowest site elevation for 14.5 days, an increase of 5.9 feet of flooding depth and 4.0 additional days of flooding over existing conditions. As under existing conditions, there would be no flooding with the Comprehensive Project in place during the 10-year event. The major change with the Comprehensive Project in place would be that Clara Cemetery would flood during the 50-year and 100-year event, when there is no flooding under existing conditions. Maximum increase in flooding depth with the Comprehensive Project in place for the 50-year, 100-year and 500-year events would be 6.1 feet and maximum additional duration would be 9.5 days longer than that experienced under existing conditions.

The land where Clara Cemetery is located is owned by Robert H. Klein. Clara Cemetery is operated by the Comstock Lutheran Church. The Clara Cemetery board for Comstock Lutheran Church will approve any changes to the Clara Cemetery, including relocation of graves.

1.1.2. Impacts. Possible impacts on Clara Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to: 1) increased potential for grass and tree damage over existing conditions due to greater depth and duration of flooding if the flooding occurs during the growing season; 2) potential for shifting or tipping over of headstones at and above a 50-year event; 3) potential for soil and crop debris from the adjacent agricultural field to wash into the cemetery with the flood waters, necessitating clean-up not needed under existing conditions; 4) potential for headstones tipping over or moving due to flood waters; 5) access problems to Clara Cemetery for longer periods of time due to greater duration of flooding; and 6) potential need for repairs to gravel roads used for cemetery access and to the road within the cemetery. A map of impacts to Clara Cemetery is attached as **Exhibit 1** to this Appendix 1.

1.2. Eagle Cemetery.

1.2.1. Background. Eagle Cemetery is located in USACE Federal Mitigation Zone 3 of the Comprehensive Project. A site visit was conducted on July 22, 2014, and site POCs were in attendance. Right of entry has not been granted by the landowner and a Phase I Cultural Resources Survey was completed. It was determined Eagle Cemetery is not eligible for listing in the NRHP.

Eagle Cemetery is located in two parcels totaling approximately 2 acres (pin nos. 1000000030200 and 1000000029000) in the SW quarter of the NW quarter of the SW quarter and the NW quarter of the SW quarter of the SW quarter of Section 20, Township 136 North, Range 48 West, Eagle Township, Richland County, North Dakota. The cemetery consists of two adjoining irregularly shaped parcels, with the

north parcel having maximum dimensions of approximately 216 feet north south by 253 feet east-west (not counting the 100-foot-long entry road) and the south parcel having maximum dimensions of approximately 174 feet north-south by 316 feet east-west. Eagle Cemetery is bounded on the west and north by a drainage tributary to the Red River, on the east by a wooded slope down to the river bottomlands which are used as an agricultural field, and on the south by an agricultural field. According to the NRCS's Web Soil Survey, soils in the majority of Eagle Cemetery consist of Nutley-Fargo silty clays, 3 to 6 percent slopes. Soils in the drainage to the northwest and north and on the slope to the east consist of Wahpeton-Cashel silty clays, wooded, 1 to 15 percent slopes, occasionally flooded. Soils in the field to the south consist of Overly silty clay loam, 0 to 2 percent slopes.

Vegetation in Eagle Cemetery consists of mown lawn grass with a scattering of mature deciduous trees in the north cemetery parcel and on the west side of the south parcel and with discontinuous lines of conifers on the south and east borders of the south cemetery parcel and the east border of the north parcel. Entrance to Eagle Cemetery is from the north-south gravel road, 175th Avenue SE, located west of the drainage. This active cemetery contained approximately 200 graves, dating from 1880 to the present at the time of the Phase I survey. Headstones include both vertical monuments and horizontal slabs. The original Eagle Cemetery is the north parcel. It did not have a church building associated with it. Eagle Cemetery was expanded in the 1980's and is now associated with the Eagle Valley Evangelical Christian Church located one-quarter mile to the south. There are no buildings at Eagle Cemetery.

Ground surface elevations in Eagle Cemetery range from a low of 924.0 feet on the west to a high of 928.0 feet where the two parcels abut. Much of the cemetery ranges from 926-928 feet in elevation. There are steep slopes to the drainage to the west and north and especially to the Red River bottomlands to the east. Under modeled existing conditions, for the 10-year event there is a peak water elevation of 915.3 feet; for the 50-year event there is a peak water elevation of 921.4 feet; for the 100-year event there is a peak water elevation of 924.3 feet; and for the 500-year event there is a peak water elevation of 928.5 feet. This means that under existing conditions, there is no flooding at the cemetery for the 10- year and 50-year events. During the 100-year event, there is a peak of 0.3 feet of flooding depth in the southwest corner of the south parcel and in the north and west sides of the north parcel exceeding the approximate minimum site elevation for 1.5 days. During the 500-year event, the entire Eagle Cemetery would be flooded with up to 4.5 feet of water exceeding the approximate minimum site elevation for 16.5 days.

Based on aerial photography taken during the 1997 flood event, only the extreme southwest corner of the south parcel of Eagle Cemetery was flooded. The floodplain to the east and the drainage to the north and west were full of water. Aerial photography taken during the March 2009 flood event shows no flooding in Eagle Cemetery, but water filling the floodplain to the east and the drainage north and west of the cemetery's north parcel. Past effects on Eagle Cemetery due to flooding include possible tipping over of headstones (cemetery POC was not sure of this when asked). In 2009, there was water on one headstone in the low southwest corner area, the water coming from water backing up the drainage from the Red River. The adjacent road (175th Avenue SE) needed repairs after the 2009 flood from damage caused by overland flooding. Post flood restoration has included repairs to the adjacent gravel road and possibly resetting of headstones.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be 915.4 feet with no flooding. For the 50-year event, the peak water elevation would be at 922.3 feet with no flooding. For the 100-year event, the peak water elevation would be at 925.1 feet resulting in a peak flooding depth of 1.1 feet and exceeding the approximate minimum site elevation for 5 days, an increase of 0.8 foot of flooding depth and 3.5 days of flooding longer than under existing conditions. For the 500-year event, the peak water elevation would be at 928.5 feet resulting in a peak flooding depth of 4.5 feet and exceeding the approximate minimum site elevation for 16.5 days, the same water elevation and the same duration as existing conditions. The maximum increase in flooding depth with the Comprehensive Project in place would be 0.8 foot and the maximum additional duration would be 3.5 days longer than that experienced under existing conditions.

The land parcels Eagle Cemetery is located on are owned by the Eagle Valley Evangelical Christian Church of Wolverton. Eagle Cemetery is operated by the Eagle Valley Evangelical Christian Church board. The board will need to approve any changes to Eagle Cemetery, including relocation of graves within the cemetery.

1.2.2. Impacts. Possible impacts on Eagle Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to: 1) increased potential for grass and tree damage over existing conditions due to greater depth and duration of flooding if the flooding occurs during the growing season; and 2) loss of access to the cemetery. A map of impacts to Eagle Cemetery is attached as **Exhibit 2** to this Appendix 1.

1.3. Hemnes Cemetery.

1.3.1. Background. Hemnes Cemetery is located within USACE Federal Mitigation Zone 2 for the Comprehensive Project. A site visit was conducted for this cemetery on July 24, 2014, and the site POCs were in attendance. Right of entry was granted by the landowner and a Phase I Cultural Resources Survey was conducted on October 20, 2014, and October 21, 2014. The site has been recommended as eligible for listing in the NRHP under Criterion A for its association with historical events connected with the themes of religion and rural settlement; under Criterion B for its association with persons significant in local and regional history; and under Criterion D for its potential to yield archaeological data important to the understanding of history. The North Dakota SHPO has concurred with this eligibility recommendation in a letter dated April 2, 2015.

Hemnes Cemetery is an approximately 1.2 acre parcel (pin no. 1000000066000) located in the NE quarter of the NW quarter of the NW quarter of the SE quarter of Section 1, Township 136 North, Range 49 West, Eagle Township, Richland County, North Dakota. The parcel is bounded on its north, west and south sides by an agricultural field. The parcel is approximately 245 feet along its north border, 175 feet along its west border, and 350 feet along its south border. The east border follows an outside curve of the Red River for approximately 202 feet at the river's edge and 237 feet at the top of the riverbank.

The actual Hemnes Cemetery area is approximately 175 feet north-south by 140 feet east-west, with riverbank sliding having claimed a third of Hemnes Cemetery parking area and part of its access road and now eating into the northeast corner of the actual cemetery area. According to the NRCS's Web Soil Survey, soils in Hemnes Cemetery parcel above the slumping riverbank are Fargo-Hegne silty clays, 0 to 1 percent slopes and soils on the riverbank slope are Wahpeton-Cashel silty clays, wooded, 1 to 15 percent slopes, occasionally flooded.

Vegetation in Hemnes Cemetery consists of mown lawn grass with a row of mature conifers on the north, west and south sides and one deciduous tree in the southeast corner. The riverbank area is brushy, with a deciduous tree still upright in one of the most recent slumpblocks. Current access to Hemnes Cemetery is from the north along a two-track road at the eastern edge of the agricultural field. A white-painted chain and post fence marks the upper edge of the slumping riverbank where the access road enters the Hemnes Cemetery parking area.

This is the oldest Norwegian Lutheran cemetery in North Dakota. It contained 58 marked graves, plus 18 unmarked graves primarily in the southeast quarter of the cemetery at the time of the Phase I survey. The first burial in the cemetery dates to 1872, but its location is unknown. In 1875, a soldier from Fort Abercrombie was buried here. The cemetery also contains the graves of local pioneers and veterans of World War I and World War II. The most recent burial dates to 1993. Two burials have been relocated here from the North Pleasant Cemetery because their families wished to avoid any flooding. Hemnes Cemetery is still accepting burials. Headstones at the Hemnes Cemetery include both vertical monuments (die-on-base, plaques, pulpits, tablets, obelisks, and pedestal) and horizontal slabs (family plot markers, lawn-type markers and government-issue military lawn-type markers), as well as some footstones. Unmarked graves are indicated by slight depressions or rises, changes in vegetation, or depicted on the cemetery's plot map. There is a wooden sign with the cemetery's name and a nearby wooden information board containing the history of the church and cemetery. A flagpole is also present. In 1889, the church for this cemetery was located one-quarter mile away in the NW corner of this section. After the congregation had dissolved, the church building was dismantled and moved to Strathcona, Minnesota, in 1935, where it is still in use.

Ground surface elevation at the cemetery is 922.0 feet, with much of the adjacent agricultural field at 921.0 feet. The slumping riverbank drops down to 893 feet at the edge of the Red River.

Under modeled existing conditions, for the 10-year event there is a peak water elevation of 910.2 feet; for the 50-year event there is a peak water elevation of 916.2 feet; for the 100-year event there is a peak water elevation of 918.5 feet; and for the 500-year event there is a peak water elevation of 922.2 feet. This means that there is no flooding during the 10-year, 50-year and 100-year events under existing conditions. Flooding would not occur until somewhere between the 100-year and 500-year events, when the peak water surface elevation reaches 922.2 feet. For the 500-year event there would be a maximum of 0.2 feet of water on the cemetery exceeding the approximate minimum site elevation for 1.5 days.

Based on aerial photography taken during the 1997 flood event, high water in the Red River reached nearly to the top of the riverbank adjacent to Hemnes Cemetery. There was no flooding inside Hemnes Cemetery, however. Aerial photography taken during the March 2009 flood event shows the Red River not as high as in 1997. Because Hemnes Cemetery has not previously flooded, no post-flood clean-up has been necessary. Pioneer Township has recently taken over maintenance at Hemnes Cemetery, work which was formerly done by volunteers.

Hemnes Cemetery has an existing serious riverbank erosion problem. Since the 1997 flood, the adjacent bank of the Red River has been actively sliding and has claimed a third of the parking area and part of the access road nearest Hemnes Cemetery. Bank erosion is currently only 20 feet from graves in the northeast corner of the cemetery.

Per the site POC, concern about the ongoing erosion is keeping people from getting buried here.

Hemnes Cemetery is a significant historic site located on the Red River that has experienced erosion issues that have impacted access and parking and may impact graves in the future. In June 2012, the cemetery POC wrote the USACE concerning the erosion issue. The USACE responded that the Comprehensive Project would not likely include any measures to stabilize the riverbank because it is not anticipated that the Comprehensive Project would worsen the current situation. It also stated they could request a Continuing Authorities Program (CAP) Section 14 project/study which would require a local cost share sponsor. The caretakers have requested assistance from Richland County and were told the county could not help with stabilization. As part of the Feasibility Study, a geomorphology study was completed; the results of the study indicate that riverbank stability will not change due to the Comprehensive Project.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be at 910.2 feet with no flooding. For the 50-year event, the peak water elevation would be at 919.5 feet with no flooding. For the 100-year event, the peak water elevation would be at 921.8 feet with no flooding. For the 500-year event, the peak water elevation would be at 923.7 feet resulting in a peak flooding depth of 1.5 feet and exceeding the approximate minimum site elevation for 6 days, an increase of 1.5 feet of flooding and 6 additional days of flooding compared to existing conditions. While there would be no flooding with or without the Comprehensive Project in place for the 10-year, 50-year, and 100-year events, flooding at the cemetery would occur with the Comprehensive Project in place starting with the 500-year event. The maximum increase in flooding depth with the Comprehensive Project in place would be 1.5 feet and the maximum additional duration would be 6 days longer than that experienced under existing conditions.

The land where Hemnes Cemetery is located and where the church was formerly located was donated by Nils Arentzen, the original landowner. The deed for Hemnes Cemetery is to the Hemnes Hauges Lutheran Evangelical Church. Hemnes Cemetery is within the NW quarter of Section 1, which quarter section parcel is owned by private citizens. The POC for Hemnes Cemetery will need to approve any changes to the cemetery, including relocation of graves within the cemetery.

1.3.2. Impacts. Possible impacts on Hemnes Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to: 1) increased potential for grass and tree damage due to water on Hemnes Cemetery for 6 days longer than at present if the flooding occurs during the growing season; 2) potential for soil and crop debris from the adjacent agricultural field to wash into the cemetery with the flood waters, necessitating clean-up not needed under existing conditions; 3) potential for headstones tipping over or moving due to flood waters; 4) loss of access to the cemetery; and 5) continued riverbank erosion. A map of impacts to Hemnes Cemetery is attached as **Exhibit 3** to this Appendix 1.

1.4. North Pleasant Cemetery.

1.4.1. Background. North Pleasant Cemetery is located within USACE Federal Mitigation Zone 1 for the Comprehensive Project. A site visit was conducted for North Pleasant Cemetery on July 21, 2014. The site POCs were in attendance and requested that the cemetery assessment team not enter the site. Discussions and interviews were conducted on public right-of-way adjacent to North Pleasant Cemetery. Right of entry was granted by the landowner and a Phase I Cultural Resources Survey was prepared

to record the site and identify its potential eligibility for listing in the NRHP from May 15, 2015, through May 17, 2015. The site was recommended not eligible for listing in the NRHP. The North Pleasant Cemetery report was submitted to the North Dakota SHPO for concurrence with this recommendation. SHPO concurrence with the recommendation of not eligible was conveyed in a letter dated September 11, 2015.

The North Pleasant Cemetery is a 2.83 acre parcel (pin no. 57000010375020) located in the S half of the SE quarter of the SW quarter of Section 27, Township 137 North, Range 49 West, Pleasant Township, Cass County, North Dakota. Based on the legal description from the Cass County Government 2013 Parcel Information web site, the North Pleasant Cemetery parcel measures 196 feet north-south by 627 feet east-west. It is bounded by a cultivated field on the west, north and east, and by a gravel road, 53rd Street SE, on the south. An overhead power line parallels the road along the cemetery side of road's north ditch. According to the NRCS's Web Soil Survey, soil at and near the cemetery consists of Fargo silty clay, 0 to 1 percent slopes.

Vegetation in North Pleasant Cemetery consists of mown lawn grass with a multi-row windbreak of deciduous trees on the north and east sides and a single row of conifers on the west side of the cemetery. A large deciduous tree stands in the middle of the western quarter of the cemetery. Monuments include headstones, both vertical and horizontal lawn-type, footstones and family plot markers. A wrought iron arch bearing the cemetery's name ("NORTH PLEASANT") faces the gravel road. There is no vehicle access point into the cemetery from the road. This active cemetery contained approximately 360 graves at the time of the Phase I survey. The church formerly at this location was moved to Hickson, North Dakota in the early 1940's. It is possible there is an unmarked grave of a suicide victim outside the formal cemetery, as suicides would not be buried inside a consecrated cemetery.

Ground surface elevation in North Pleasant Cemetery is approximately 921.0 feet throughout, with areas of 920.0 feet elevation to the west and northwest. Under modeled existing conditions, for the 10-year event there is a peak water surface elevation of 916.1 feet with no flooding; for the 50-year event there is a peak water surface elevation of 920.2 feet with no flooding; for the 100-year event there is a peak water surface elevation of 920.4 feet with no flooding; and for the 500-year event there is a peak water surface elevation of 921.3 feet resulting in a flooding depth of 0.3 feet and water exceeds the approximate minimum site elevation for 4 days. This means that under existing conditions, there is no flooding at the cemetery for the 10-year, 50-year and 100-year events. Flooding does not occur until somewhere between the 100-year and 500-year events.

Based on aerial photography taken during the 1997 flood event, there was no flooding in the North Pleasant Cemetery. Aerial photography taken during the March 2009 flood event shows floodwater near North Pleasant Cemetery's north side in a low area in the agricultural field, but none in the cemetery. Because North Pleasant Cemetery has not previously flooded, no post-flood clean-up has been necessary. Two burials have been removed from this cemetery due to uncertainty of future flooding connected with the Comprehensive Project.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be 916.0 feet, so there would be no flooding of the cemetery. For the 50-year event, the peak water elevation would be at 920.1 feet, so there would be no flooding of the cemetery. For the 100-year event, the peak water elevation would be at 921.3 feet resulting in a peak flooding depth of 0.3 feet and exceeding the approximate minimum site elevation for 3.5 days, an increase of 0.3 feet of flooding depth and 3.5

days of flooding over existing conditions. For the 500-year event, the peak water elevation would be at 922.4 feet resulting in a peak flooding depth of 1.4 feet and exceeding the approximate minimum site elevation for 8 days, an increase of 1.1 feet and 4.0 additional days of flooding over existing conditions. As under existing conditions, the cemetery would not flood during the 10- year and 50-year events. For the 100-year and 500-year events, however, there would be 0.3 to 1.4 feet of flooding for 3.5 to 8 days with the Comprehensive Project in place where there is none under existing conditions for the 100-year event and only 0.3 feet of flooding for 4.0 days for the 500-year event. The maximum increase in flooding depth with the Comprehensive Project in place would be 1.1 feet and the maximum additional duration would be 4 days longer than that experienced under existing conditions.

The land North Pleasant Cemetery is located on is owned by the North Pleasant Cemetery Association of the Norwegian Evangelical Lutheran Church of Hickson, North Dakota. The North Pleasant Cemetery Association operates the cemetery. The North Pleasant Cemetery Association will need to approve any changes to the cemetery.

1.4.2. Impacts. Possible impacts on North Pleasant Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to: 1) potential for damage to grass and trees due to standing water on the cemetery for 3.5 to 8 days if the flooding occurs during the growing season; 2) potential for headstones moving or tipping over due to flood waters; 3) potential for soil and crop debris from the adjacent agricultural field to wash into the cemetery with the flood waters, necessitating clean-up not needed under existing conditions; 4) potential for lack of access to the cemetery, though the adjacent gravel road is at [nine hundred twenty-three feet (923 ft) elevation]. A map of impacts to North Pleasant Cemetery is included in **Exhibit 4** to this Appendix 1.

1.5. Roen Family Cemetery.

1.5.1. Background. Roen Family Cemetery is located within USACE Federal Mitigation Zone 1 for the Comprehensive Project. A site visit was conducted for this cemetery on July 21, 2014, and site POCs were in attendance. Right of entry has not been granted by the landowner and a Phase I Cultural Resources Survey was completed. It was determined that Roen Family Cemetery is eligible for listing in the NRHP.

The Roen Family Cemetery is an unregistered cemetery located at the Roen family's farmstead along with various potentially historic buildings. The approximately 600-square-foot cemetery (pin no. 150193400) is located in the SW quarter of the NE quarter of the SW quarter of the SW quarter of Section 19, Township 137 North, Range 48 West, Holy Cross Township, Clay County, Minnesota. Roen Family Cemetery is approximately 20 feet northwest-southeast by 30 feet northeast-southwest. It is located within two feet of the top of the bank of the Red River of the North with the farmyard to the northeast, east and south. According to the NRCS's Web Soil Survey, soils in Roen Family Cemetery and farmyard are Wahpeton silty clay, 0 to 2 percent slopes, occasionally flooded. Soils on the riverbank slope northwest and west of the cemetery are Fluvaquents, frequently flooded-Hapludolls complex, 0 to 30 percent slopes.

Vegetation in Roen Family Cemetery consists of mown lawn grass, which is also present in the remainder of the farmyard. The slope down to the Red River is covered with deciduous trees and bushes. Access to the cemetery is northward through the farmyard from paved County Road 2 (160th Avenue South). This family cemetery contains three graves for a brother and sister (Ingvald Roen, age 5, buried 1884 and Ida Roen, age 18, buried 1901) and a cousin (Myrtle Roen, age 3, buried 1905). The

slant-face vertical headstones were placed in the 1970's and may not accurately mark the actual grave locations. Roen Family Cemetery is surrounded by a fence made of metal chain-link fence posts and horizontal metal rails, but no chain-link fencing.

The original homesteader of the parcel containing the cemetery was Narve Roen, a Civil War veteran who received a grant of land (259.3 acres in Sections 19 and 30) from the Federal government under the Homestead Act. The log cabin and barn of that original homestead were built in 1871 in Section 30 and are no longer standing. In 1881, Narve built the first frame house in the community as well as a barn in Section 30, both of which are still standing, as are a blacksmith shop and a granary. Narve was also the first banker in the area. His son Stennom Roen built a four-story frame house, still standing, along with other farm buildings in 1905-1906 in Section 19; this is the farmstead where the cemetery is located. A brother, Gilbert Roen, lived at the farm in Section 19 north of Stennom's. Other early buildings have been moved onto these farmsteads.

Ground surface elevation at Roen Family Cemetery is approximately 917.0 feet, rising to 918.0 feet in the farmyard, but dropping rapidly down the adjacent steep riverbank section to 892.0 feet at the Red River. Under modeled existing conditions, for the 10-year event there is a peak water elevation of 908.8 feet; for the 50-year event there is a peak water elevation of 914.8 feet; for the 100-year event there is a peak water elevation of 916.6 feet; and for the 500-year event there is a peak water elevation of 919.4 feet. This means there is no flooding for the 10-year, 50-year, and 100-year events, and a peak flooding depth of 2.4 feet exceeding the approximate minimum site elevation for 12.0 days for the 500-year event under existing conditions.

Based on aerial photography taken during the 1997 flood event, water in the Red River inundated its floodplain and reached near the top of the riverbank adjacent to the Roen Family Cemetery and farmyard, neither of which was flooded. Aerial photography taken during the March 2009 flood event shows the Roen Family Cemetery and farmyard with no flooding, but with the Red River floodplain inundated to near the top of the riverbank. The landowner has stated that there has been no past flooding of Roen Family Cemetery and thus no clean-up has been necessary. Maintenance, i.e., grass mowing, at the cemetery is done as part of farmyard mowing.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be at 909.0 feet with no flooding. For the 50-year event, the peak water elevation would be at 919.0 feet resulting in a peak flooding depth of 2.0 feet and exceeding the approximate minimum site elevation for 6.5 days, an increase of 2.0 feet of flooding depth and 6.5 days of flooding over existing conditions with no flooding. For the 100-year event, the peak water elevation would be at 921.5 feet resulting in a peak flooding depth of 4.5 feet and exceeding the approximate minimum site elevation for 8.5 days, an increase of 4.5 feet of flooding depth and an additional 8.5 days of flooding over existing conditions. For the 500-year event, the peak water elevation would be at 923.1 feet resulting in a peak flooding depth of 6.1 feet and exceeding the approximate minimum site elevation for 14 days, an increase of 3.7 feet of flooding depth and 2 additional days of flooding over existing conditions. The main change with the Comprehensive Project in place would be flooding of the cemetery at the 50-year and 100-year events where there is no flooding under existing conditions. The maximum increase in flooding depth with the Comprehensive Project in place for the 50-year, 100-year, and 500-year events would be 4.5 feet and the maximum additional duration would be 8.5 days longer than that experienced under existing conditions.
The land Roen Family Cemetery is located on is owned by a Roen descendent. The landowner will need to approve any changes to the cemetery.

1.5.2. Impacts. Possible impacts on Roen Family Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to: 1) potential for damage to grass if flooding occurs during growing season. A map of impacts to Roen Family Cemetery is attached as **Exhibit 5** to this Appendix 1.

1.6. Wolverton Cemetery.

1.6.1. Background. Wolverton Cemetery is located in USACE Federal Mitigation Zone 4C of the Comprehensive Project. A site visit was conducted on July 21, 2014, and site POCs were in attendance. Right of entry was granted by the landowner and a Phase I Cultural Resources Survey was conducted on January 15, 2015, through January 17, 2015. The site was recommended not eligible for listing on the NRHP. On June 8th, 2015, the Minnesota SHPO concurred with that recommendation.

The Wolverton Cemetery (also known as the Salem Lutheran Cemetery) is composed of two adjacent parcels totally approximately 2.1 acres (pin nos. 31-028-0050 and 31-28-0040) located in the SW quarter of the SW quarter of the SW quarter of the NW quarter of Section 28, Township 136 North, Range 48 West, Wolverton Township, Wilkin County, Minnesota. This cemetery is approximately 215 feet north-south by 395 feet east-west. It is located within the city limits of Wolverton and is bounded on the south by Park Avenue, on the north and east by an agricultural field, and on the west by an unnamed tributary to the Red River of the North. A narrow, approximately two-foot-deep road ditch is located between the cemetery and the gravel road. The actual city of Wolverton is one-quarter mile to the east. According to the NRCS's Web Soil Survey, soils at the cemetery consist of Fargo silty clay, 0 to 1 percent slopes. Soils in the drainage adjacent to the west are Lamoure silty clay loam, 0 to 1 percent slopes, occasionally flooded.

Vegetation in Wolverton Cemetery consists of mown lawn grass with a row of deciduous trees on the west, north and east sides, an interior north-south line of deciduous trees one-third of the distance from the east edge, and scattered conifers in the interior of the western two-thirds of the cemetery. The main entrance to Wolverton Cemetery is from Park Avenue into the western parcel. It is marked by a two-door wrought-iron gate between two square brick pillars. The metal plaque on the right-hand pillar gives the name of Wolverton Cemetery as "Salem Cemetery". A second entrance leads from the gravel road into the eastern parcel of the cemetery. This active cemetery contained 252 marked graves and 2 unmarked graves dating from the 1908 to the present, at the time of the Phase I survey. Headstones include vertical monuments, family plot markers, and horizontal lawn-type markers. The church associated with this cemetery is now gone but was presumably located in the eastern parcel. There is a small storage shed for lawnmowers and other maintenance tools at the cemetery.

Ground surface elevations in Wolverton Cemetery range from a low of about 923.0 feet in the southwest corner to a high of 930.0 feet along the center of the north side and the east half of the south side. The eastern two-thirds of Wolverton Cemetery is at or above 929.0 feet. Under modeled existing conditions, for the 10-year event there is a peak water elevation of 916.4 feet; for the 50-year event there is a peak water elevation of 922.7 feet; for the 100-year event there is a peak water elevation of 925.6 feet; and for the 500-year event there is a peak water elevation of 930.2 feet. This means that for the 10-year and 50-year events there is no flooding. During the 100-year event, the western third of the cemetery is flooded up to 2.6 feet for 5 days. Almost the entire cemetery is inundated during a 500-year event, with the floodwater depth ranging from

1.2 feet over the eastern two-thirds of the cemetery to 7.2 feet in its southwest corner, with a duration of 26 days.

Based on aerial photography taken during the 1997 flood event, the southwest corner and western edge of Wolverton Cemetery were inundated by water from the adjacent tributary to the Red River. Aerial photography taken during the March 2009 flood event shows flooding of Wolverton Cemetery's southwest corner to a lesser extent than in 1997. Per site POCs and interviews, past effects on Wolverton Cemetery due to flooding include damage to grass in the southwest corner of the cemetery. There are no graves in this low corner of the cemetery. Park Avenue was washed out west of the cemetery during flooding and there are local plans to raise this road.

With the Comprehensive Project in place, for the 10-year event the peak water surface elevation would be at 916.5 feet with no flooding. For the 50-year event, the peak water elevation would be at 923.3 feet resulting in a flooding depth of 0.3 feet and exceeding the approximate minimum site elevation for 3 days, an increase of 0.3 feet of flooding depth and 3 additional days of flooding over existing conditions. For the 100-year event, the peak water elevation would be at 926.1 feet resulting in a flooding depth of 3.1 feet and exceeding the approximate minimum site elevation for 8 days, an increase of 0.5 feet and 3 additional days of flooding over existing conditions. For the 500-year event, the peak water elevation would be at 930.2 feet resulting in a flooding depth of 7.2 feet and exceeding the approximate minimum site elevation for 6.5 days, the same water elevation, but 0.5 additional day of flooding over existing conditions. Maximum increase in flooding depth with the Comprehensive Project in place would be 0.5 feet and the maximum additional duration would be 3 days longer than that experienced under existing conditions. The portion of the cemetery affected with the Comprehensive Project in place would be the same as under existing conditions, that is, only the southwestern corner would be flooded until greater than the 100-year event.

The parcels Wolverton Cemetery is located on are owned by the trustees of the Swedish Evangelical Lutheran Salem Church of Wolverton and by the Faith Lutheran church. Wolverton Cemetery is operated by a cemetery board which is made up of three persons plus a treasurer. The cemetery board will need to approve any changes to the cemetery.

1.6.2. Impacts. Possible impacts on Wolverton Cemetery due to flooding with the Comprehensive Project in place includes but is not limited to potential for damage to grass if flooding occurs during the growing season in the low southwest corner of the cemetery. A map of impacts to Wolverton Cemetery is attached as **Exhibit 6** to this Appendix 1.

1.7. St. Benedict's Cemetery.

1.7.1. Background. St. Benedict's Cemetery is located east of the Southern Embankment on the dry side of the Comprehensive Project. A site visit was conducted for this cemetery on June 18 and 19, 2015. St. Benedict's Cemetery grounds were visually inspected by qualified cultural resources specialists for the presence of cultural materials. Individual burials, when clearly discernable, were photographed and documented within the modern boundary of the cemetery. The site was recommended eligible for listing on the NRHP, and the St. Benedict's Cemetery report was submitted to the North Dakota SHPO for concurrence with this recommendation. SHPO concurrence with the recommendation of eligibility was received in a letter dated December 18, 2015.

St. Benedict's Cemetery is an approximately 2.0 acre parcel, 64-0000-02830-010, located in the S half of the SE quarter of the NE quarter of Section 34, Township 138 North, Range 49 West, Stanley Township, Cass County, North Dakota. Based on the legal description from the Cass County Government 2013 Parcel Information web site, the St. Benedict's Cemetery parcel measures approximately 418 feet north-south by approximately 209 feet east-west. It is bounded on the north, west, and south by a low berm, and grassy areas. A small, unnamed, intermittent drainage is also located along the northern boundary. Structures associated with St. Benedict's Church of Wild Rice separate it from 38th Street S, on the east. According to the NRCS's Web Soil Survey, soil at and near the cemetery consists of Fargo silty clay, 0 to 1 percent slopes.

Vegetation in St. Benedict's Cemetery includes a wind break of deciduous trees along the southern edge of the cemetery and southern half of the eastern boundary. Four evergreen trees are located along the northern half of the eastern boundary. The remainder of the vegetation consists of a manicured lawn within the cemetery, along with two large deciduous trees flanking a crucifix. Monument types include headstone, footstones, and family plot markers. Headstones comprise lawn-markers, die-on-base, raised top, tablet, plaque, pedestal, pulpit, iron cross, and sculptural memorials. Vehicle access into the cemetery is available from behind the church. This active cemetery contained approximately 477 marked graves and at least one unmarked grave representing 636 individuals, at the time of the Phase I survey. St. Benedict's Cemetery was founded in the early 1818's as a burial place for the St. Benedict's Catholic Church congregation. The earliest grave marker dates to 1882.

The land St. Benedict's Cemetery is located on is owned by St. Benedict's Church. St. Benedict's Church operates the cemetery. The St. Benedict's Church staff and Parish Council will need to approve any changes to the cemetery.

1.7.2. Impacts. With the Comprehensive Project in place, St. Benedict's Cemetery is within the benefitted area. St. Benedict's Cemetery is being considered for viewshed considerations and visual impacts due to the proximity of the cemetery being within 0.5 miles of the earthen embankment levee. A map of impacts to St. Benedict's Cemetery is attached as **Exhibit 7** to this Appendix 1.

1.8. Lower Wild Rice and Red River Cemetery.

1.8.1. Background. Lower Wild Rice and Red River Cemetery is located north of the southern embankment and Red River Control Structure on the dry side of the Comprehensive Project (under Plan A, it was located on the wet side). A site visit was conducted on July 21, 2014. The site POCs were in attendance and requested that the cemetery assessment team not enter the site. Discussions and interviews were conducted on public right-of-way adjacent to the cemetery. Right of entry was granted by the landowner and a Phase I Cultural Resources Survey was conducted on November 6, 2014, and November 7, 2014. The site has been recommended as eligible for listing in the NRHP under criterion A for its association with historical events connected with the themes of religion and rural settlement. The North Dakota SHPO concurred with this eligibility recommendation in a letter dated April 2, 2015.

The Lower Wild Rice and Red River Cemetery is a 3.5-acre parcel (pin no. 57000010201126) located in the SW quarter of the SW quarter of the NW quarter of Section 6, Township 137 North, Range 48 West, Pleasant Township, Cass County, North Dakota. Based on the legal description from the Cass County Government 2013 Parcel Information web site, the parcel measures 730.50 feet north-south by 208.73 feet east-west. It is bounded by an intermittent drainage and a slough/pond on the

north, a cultivated field on the east, a gravel road/driveway on the south, and County Road 81 on the west. There is an overhead power line and a wide ditch between the cemetery and County Road 81. According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, soil at the cemetery is Fargo silty clay, 0 to 1 percent slopes, except for north of the east-west row of conifers at the north end of the cemetery where the soil is Fargo silty clay, depressional, 0 to 1 percent slopes.

Vegetation in the Lower Wild Rice and Red River Cemetery consists of mown lawn grass and three north-south rows of trees, one row of alternating mature oak trees and young conifers on the west side of the cemetery, a second row of mature deciduous and coniferous trees up the middle of the cemetery, and a third row of alternating mature and young deciduous trees along the east border of the cemetery. An east-west row of conifers marks where the north side of the cemetery drops off into the drainage. The entrance to the cemetery is from the west off of County Road 81. This active cemetery contained 384 graves dating from 1872 to the present at the time of the Phase I survey. Headstones include both vertical monuments (die-on-base, die-in socket, pedestal, and plaques) and horizontal slabs (family plot markers lawn-type markers and government-issued veteran's lawn-type markers); some have inscriptions in Norwegian. There are at least 2 unmarked graves that are indicated by concrete grave curbs, with no headstones, at the cemetery. A church was built here in 1880. It was struck by lightning and burned down on July 17, 1940, and all cemetery records were lost. There is a commemorative marker and a scale model of the church in the north half of the cemetery where the church had been located, and the granite-and-wrought-iron cemetery sign ("Lower Wild Rice and Red River Cemetery 1872-1953"), a veteran's memorial marker, and a flagpole at the entrance to the cemetery. All of the burials are in the south half of the cemetery.

The parcel where the Lower Wild Rice and Red River Cemetery is located is owned by the Norwegian Evangelical Lutheran Church of Lower Wild Rice and Red River. The Lower Wild Rice and Red River Cemetery is incorporated and not church affiliated. The cemetery associations board of directors will need to approve any changes to the cemetery.

1.8.2. Impacts. With the Comprehensive Project in place, the cemetery is within the benefitted area. Lower Wild Rice and Red River Cemetery is being considered for viewshed considerations and visual impacts due to the proximity of the cemetery being within 0.5 miles of the earthen embankment levee. A map of impacts to Lower Wild Rice and Red River Cemetery is attached as **Exhibit 8** to this Appendix 1.

Tables showing each of the individual cemetery impacts are attached as **Exhibit 9** and **Exhibit 10** to this Appendix 1.

2. INDIVIDUAL CEMETERY PROTECTION[1]

2.1. Clara Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: flowage easements; an earthen embankment in strategic areas near the cemetery; replanting of trees to improve visual impact; anchoring grave markers; and post-operation debris clean-up. The Authority has determined that a ring levee around Clara Cemetery may be an option as modeling has been completed to show that a "carve out" from mitigation zone 1 may be practical.

[1] The Authority will only be responsible for the mitigation of impacts caused by the Comprehensive Project.

2.2. Eagle Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: flowage easements; utilization of fill in lower areas; fencing; and post-operation debris clean-up. The Authority has determined that a ring levee and earthen embankment around Eagle Cemetery is not an option as the impacts to the cemetery as a result of the Comprehensive Project will be minimal.

2.3. Hemnes Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: an analysis of potential slope stability issues; flowage easements; elimination of erosion; fencing; and post-operation debris clean-up. The Authority has determined that a ring levee and earthen embankment around Hemnes Cemetery is not an option as the impacts to the cemetery as a result of the Comprehensive Project will be minimal.

2.4. North Pleasant Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: a ring levee and earthen embankment; flowage easements; fencing; and post-operation debris clean-up.

2.5. Wolverton Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: flowage easements; fencing; and post-operation debris clean-up.

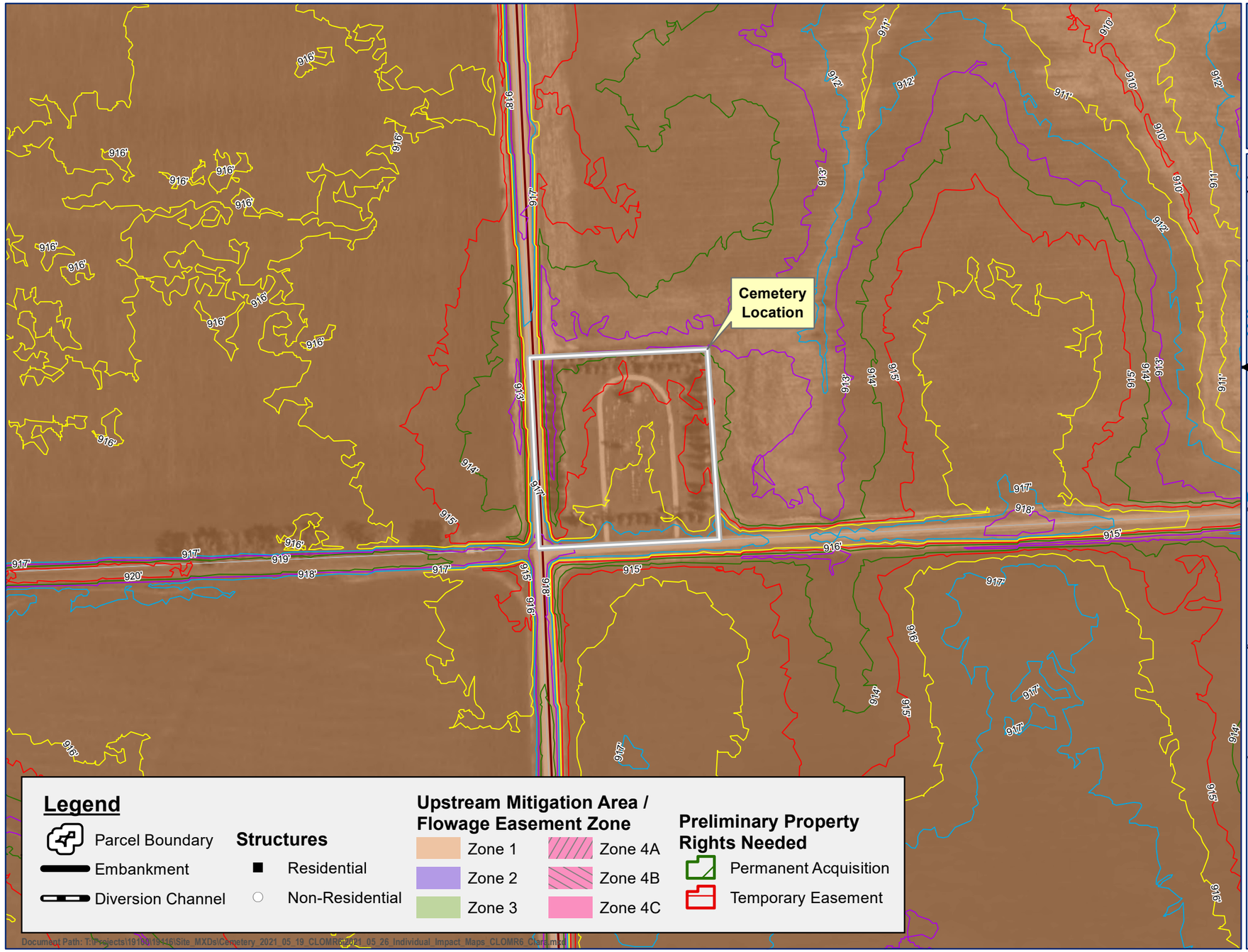
2.6. St. Benedicts Cemetery. The Authority has determined that mitigation options to mitigate or remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: mitigation for viewshed impacts given its location from the Southern Embankment and Associated Infrastructure; native wild flower seed mix at the embankment; providing historic context information to family members, descendants, and the community; and post-operation debris clean-up.

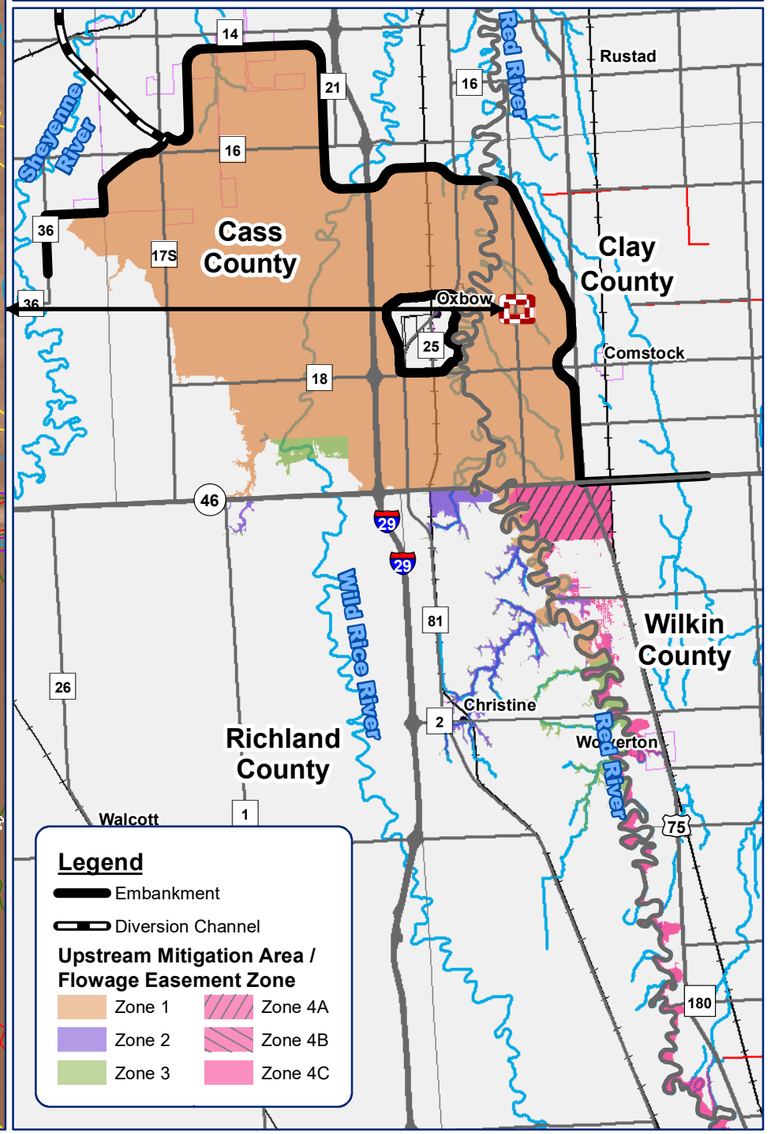
2.7. Lower Wild Rice and Red River Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but are not limited to: mitigation for viewshed impacts given its location from the Southern Embankment and Associated Infrastructure; planting of mature trees; providing historic context information to family members, descendants, and the community; and post-operation debris clean-up.

2.8. Roen Family Cemetery. The Authority has determined that mitigation options to remedy or prevent potential impacts from the Comprehensive Project may include but is not limited to: post-operation debris clean-up.

CEMETERY MAP

CLARA CEMETERY - OIN 1837





FM AREA DIVERSION

N W E S

0 100 200 400 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	906.7	907.3
20-Year	910.8	911.2
50-Year	913.1	918.7
100-Year	914.5	921.1
500-Year	916.8	922.7
PMF (175,000-Year)	919.3	924.0

OIN: 1837

Exhibit 1

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: PAUL KLEIN & ROBERT E KLEIN

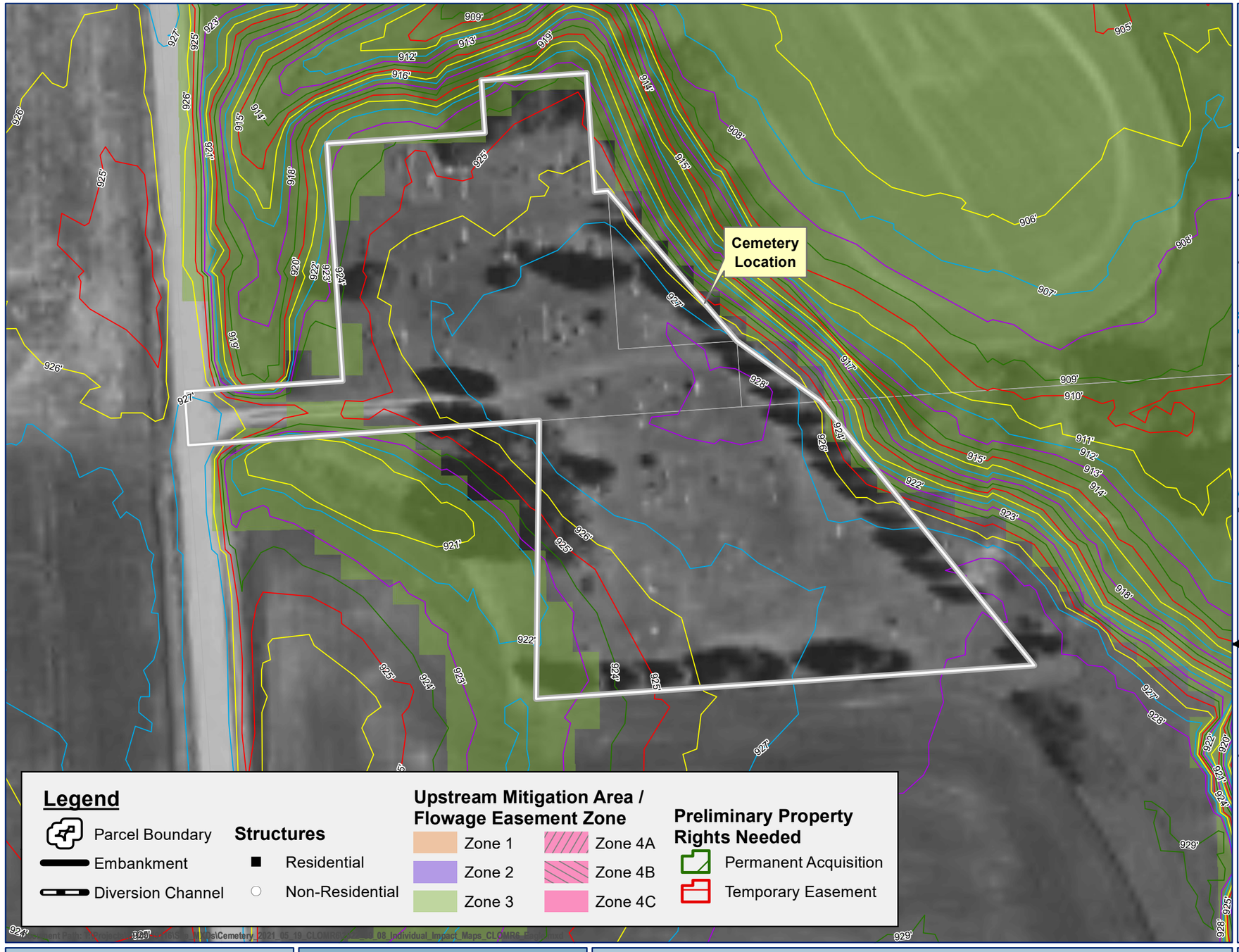
PIN: 15.017.3000

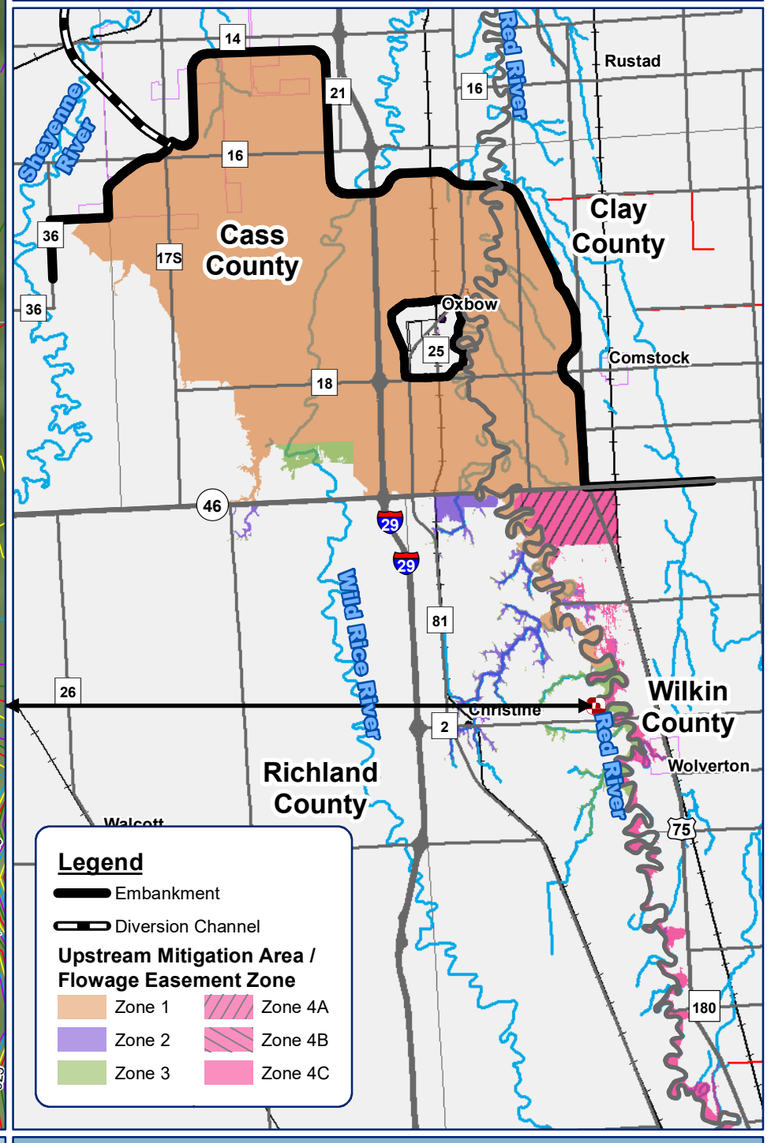
County: Clay County, MN

PDF Date: 01/21/2022

CEMETERY MAP

EAGLE CEMETERY - OIN 1357/1358





FM AREA DIVERSION

N W E S

0 30 60 120 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	915.3	915.4
20-Year	918.5	918.6
50-Year	921.4	922.3
100-Year	924.3	925.1
500-Year	928.5	928.5
PMF (175,000-Year)	930.7	930.7

OIN: 1357/1358

Exhibit 2

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: EAGLE CEMETERY

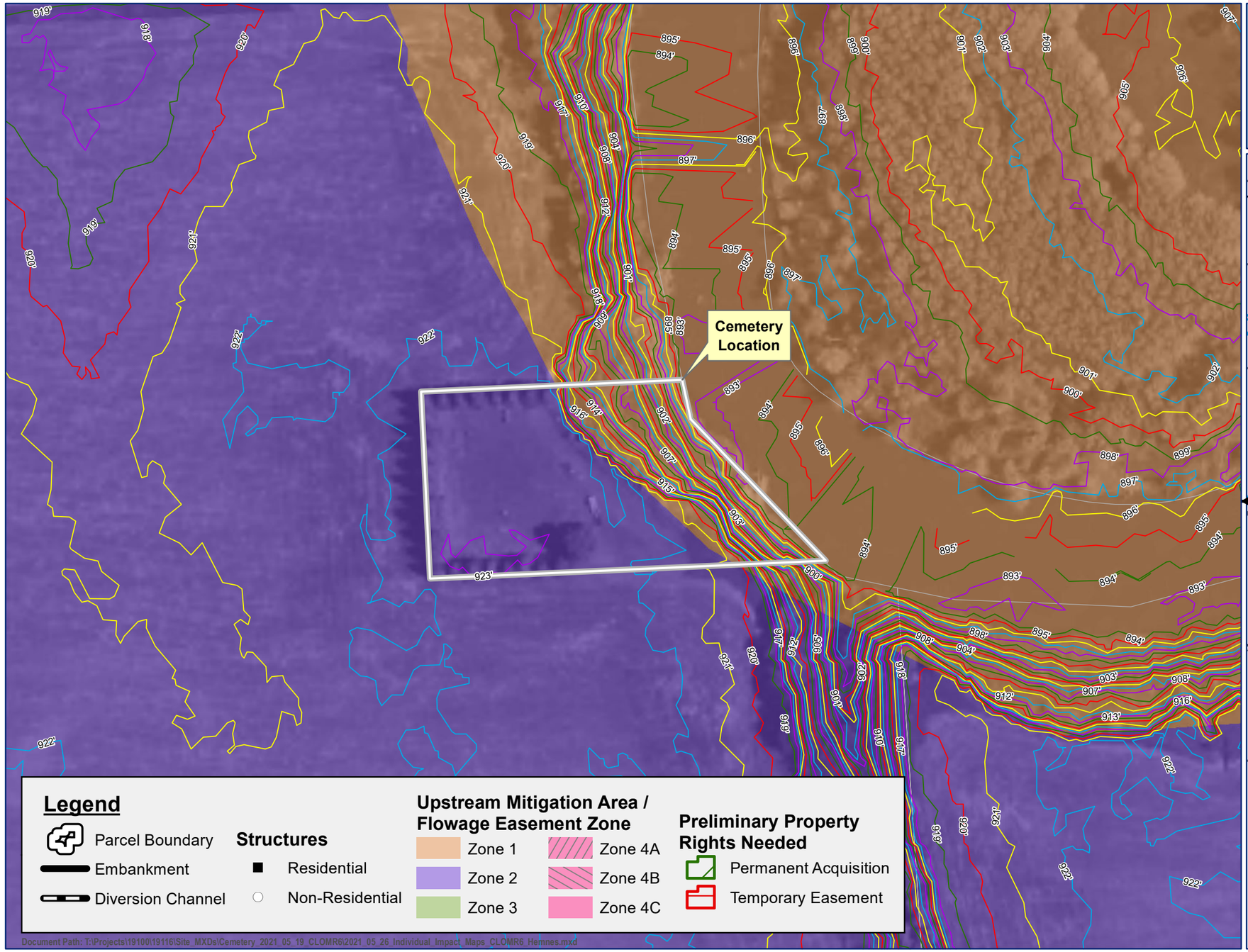
PIN: 01-0000-00030.201

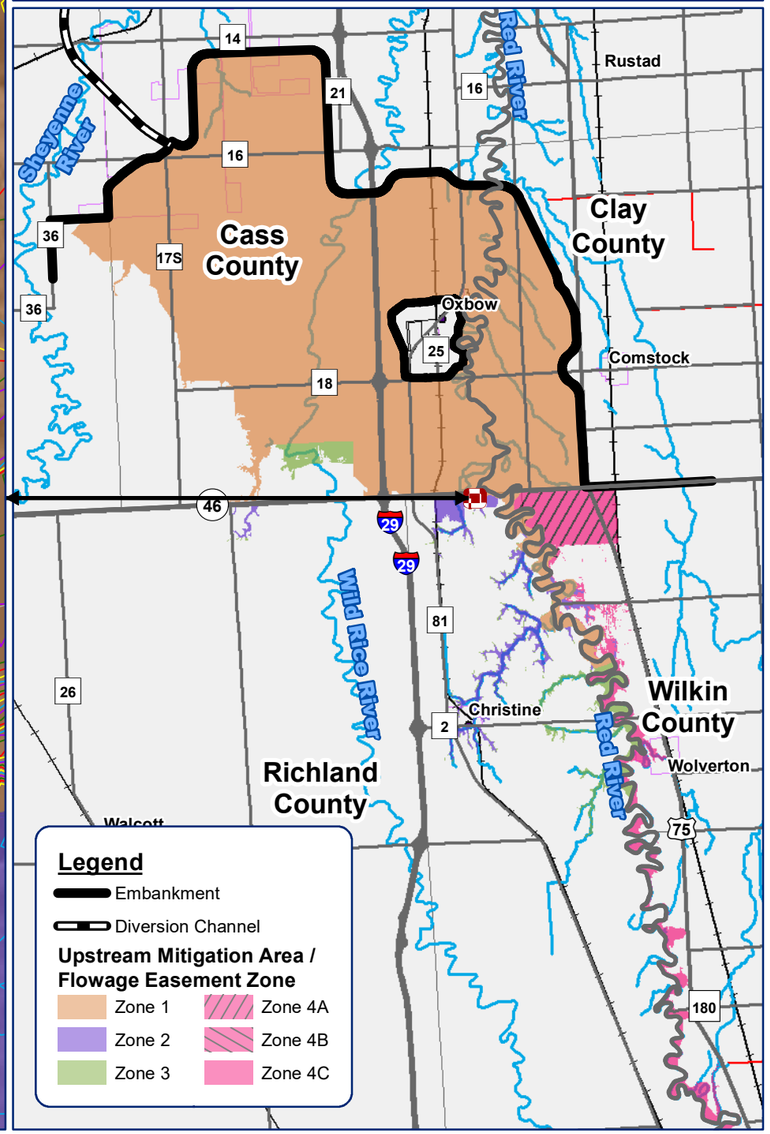
County: Richland County, ND

PDF Date: 09/08/2022

CEMETERY MAP

HEMNES CEMETERY - OIN 1451





FM AREA DIVERSION

N W E S

0 50 100 200 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	910.2	910.2
20-Year	913.4	913.7
50-Year	916.2	919.5
100-Year	918.5	921.8
500-Year	922.2	923.7
PMF (175,000-Year)	925.9	926.7

OIN: 1451

Exhibit 3

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: STUART T & LAVERNA YSTEBO LLLP

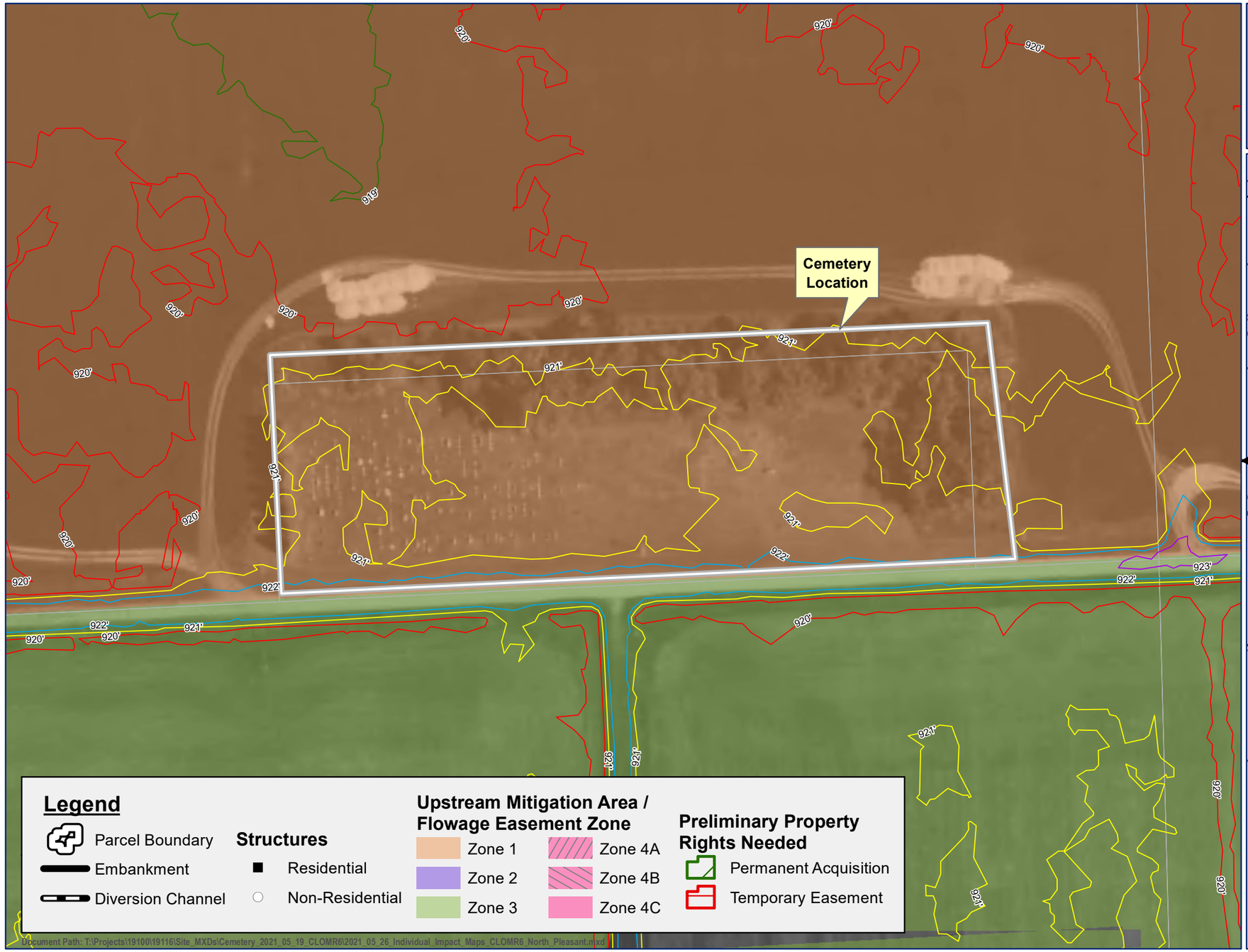
PIN: 01-0000-00066.000

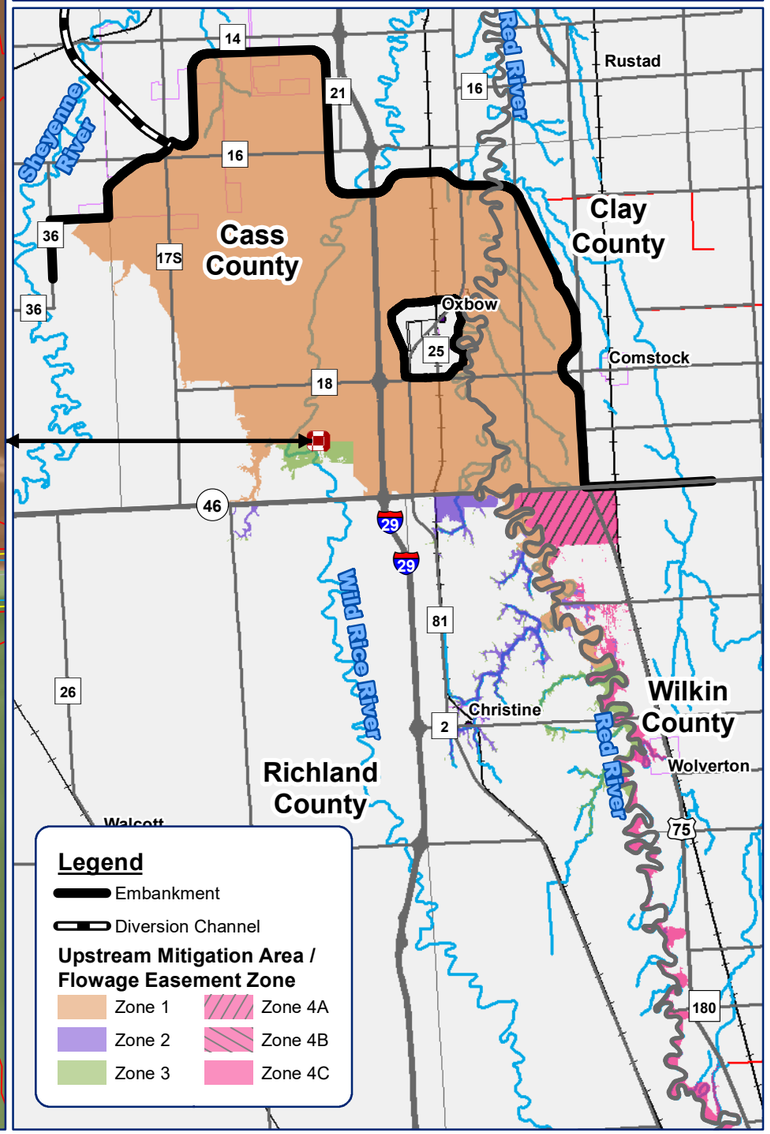
County: Richland County, ND

PDF Date: 01/21/2022

CEMETERY MAP

NORTH PLEASANT CEMETERY - OIN 2013





FM AREA DIVERSION

N W E S

0 45 90 180 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	916.1	916.0
20-Year	919.5	919.5
50-Year	920.2	920.1
100-Year	920.4	921.3
500-Year	921.3	922.4
PMF (175,000-Year)	923.4	924.2

OIN: 2013

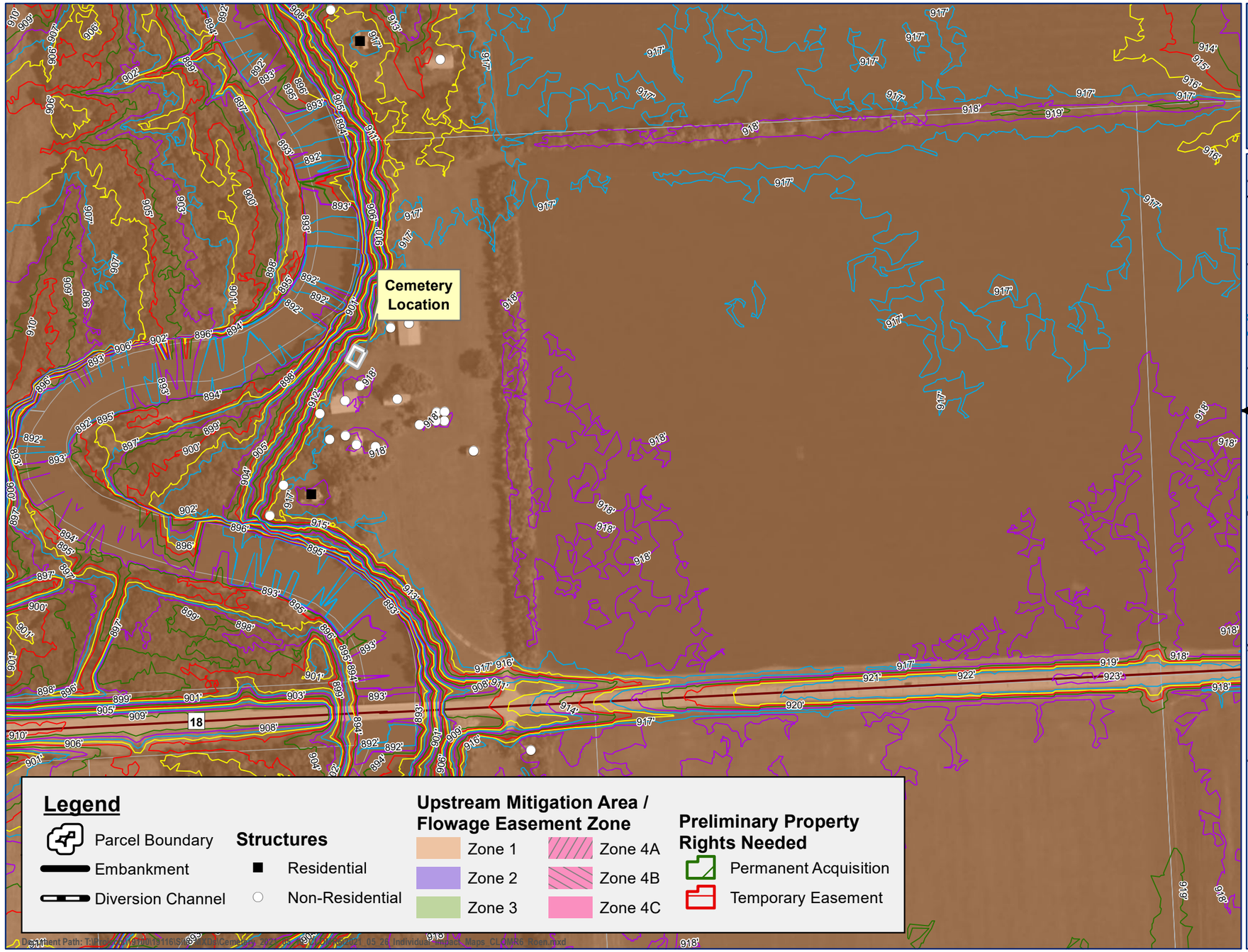
Exhibit 4

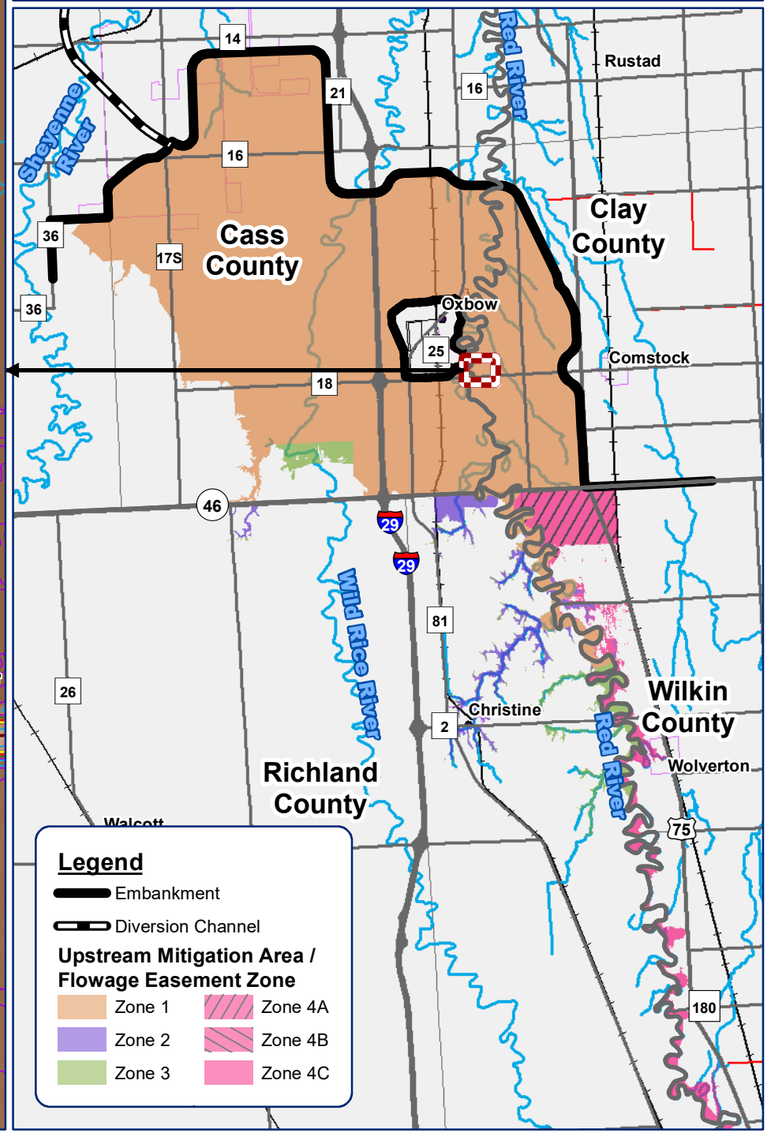
Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name:	NORTH PLEASANT CEMETERY ASSOCIATION
PIN:	57-0000-10375-020
County:	Cass County, ND
PDF Date:	01/21/2022

CEMETERY MAP

ROEN FAMILY CEMETERY - OIN 1689





FM AREA DIVERSION

N W E S

0 125 250 500 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	908.8	909.0
20-Year	912.2	912.5
50-Year	914.8	919.0
100-Year	916.6	921.5
500-Year	919.4	923.1
PMF (175,000-Year)	921.7	925.1

OIN: 1689

Exhibit 5

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: RHODA K UELAND

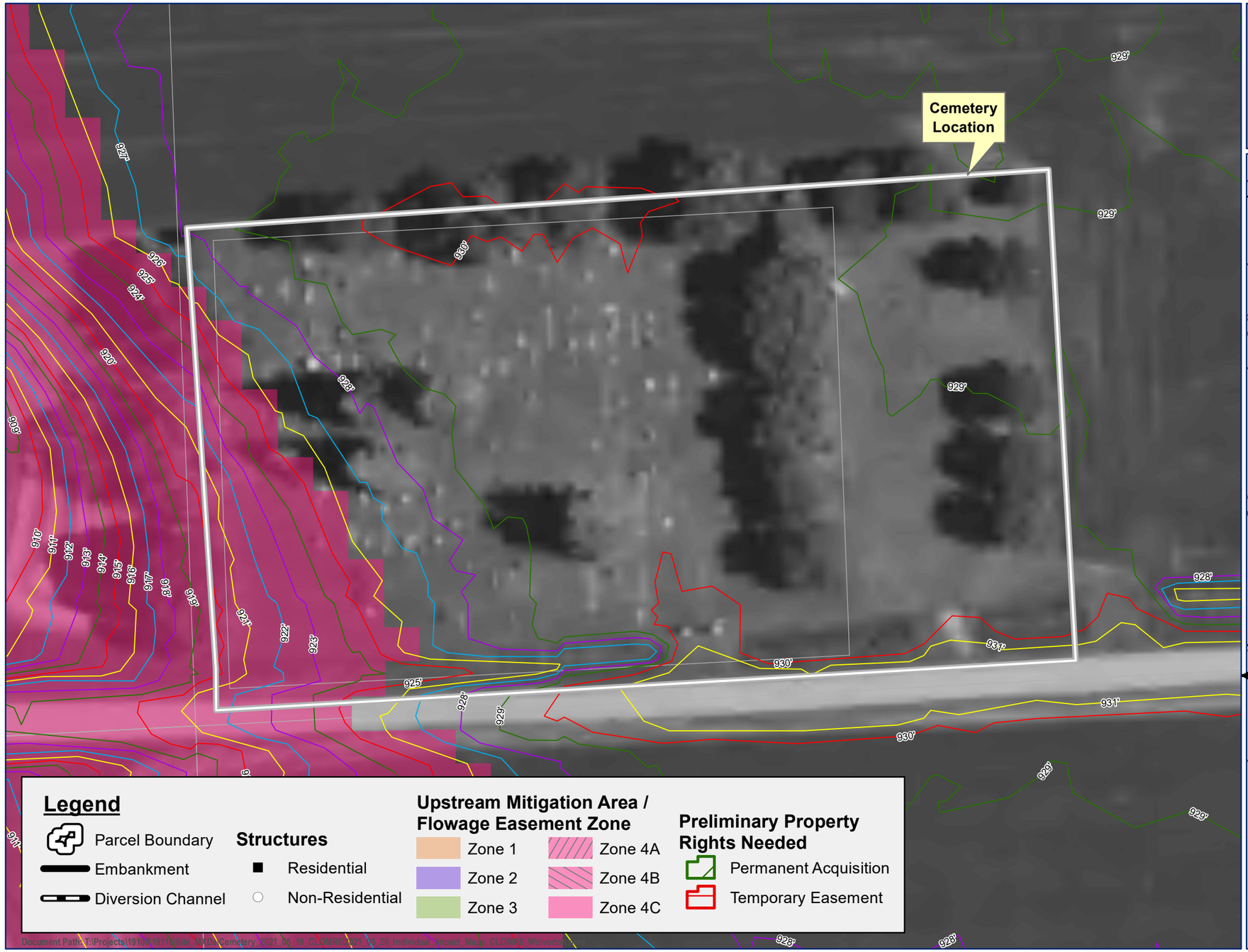
PIN: 15.019.3400

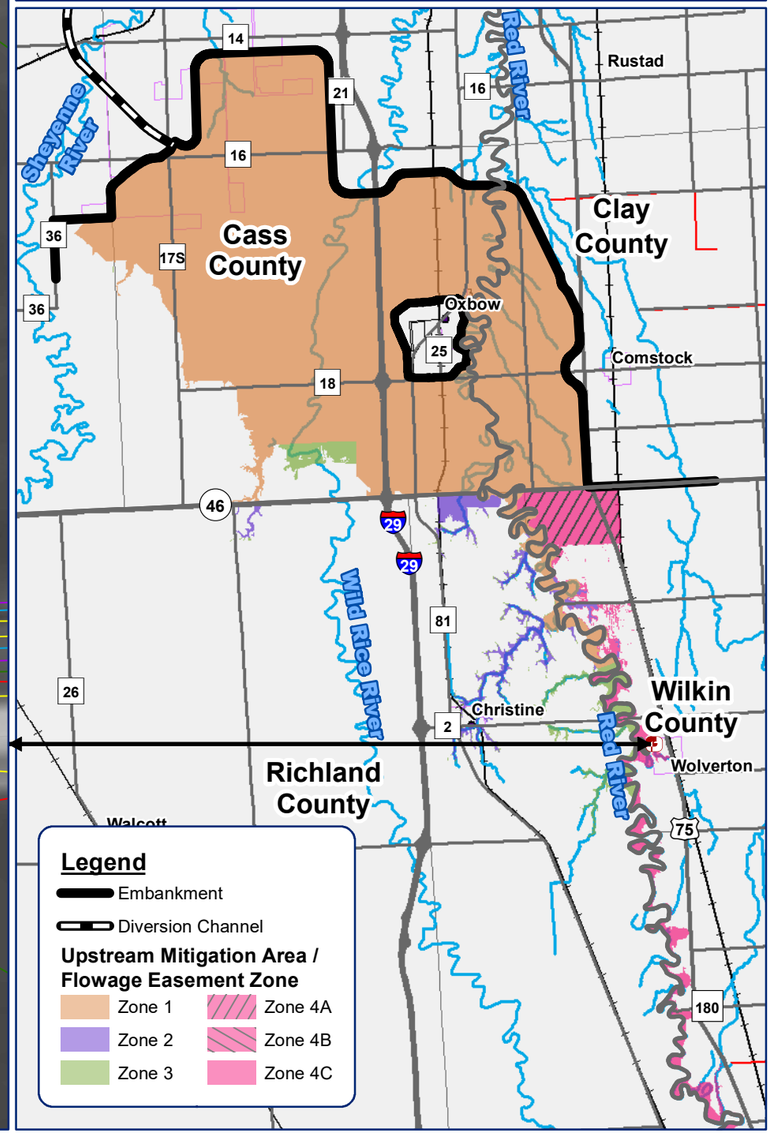
County: Clay County, MN

PDF Date: 01/21/2022

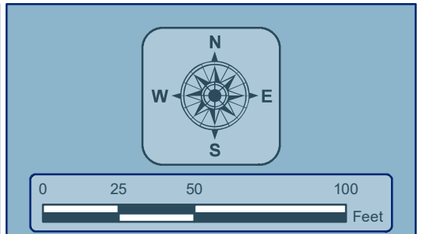
CEMETERY MAP

WOLVERTON CEMETERY - OIN 9179





FM AREA DIVERSION



Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	916.4	916.5
20-Year	919.7	919.8
50-Year	922.7	923.3
100-Year	925.6	926.1
500-Year	930.2	930.2
PMF (175,000-Year)	932.3	932.3

OIN: 9179

Exhibit 6

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: SWEDISH EVANGELICAL LUTHERAN

PIN: 31-028-0050

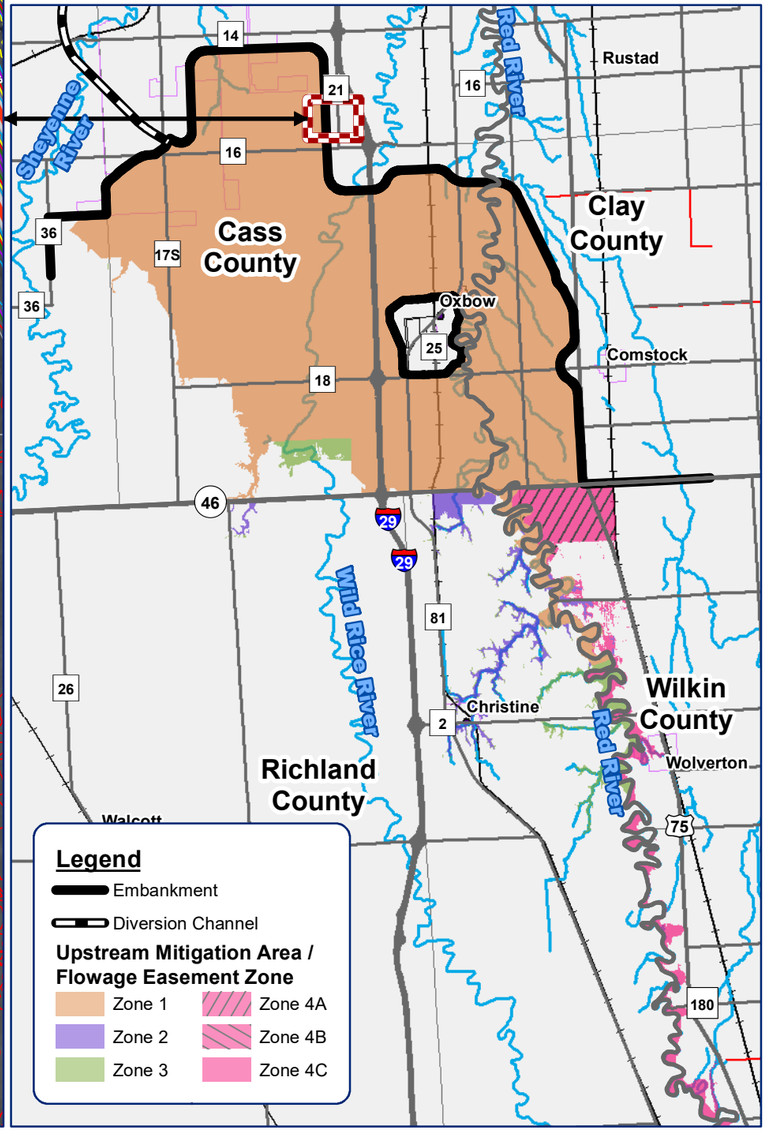
County: Wilkin County, MN

PDF Date: 01/21/2022

CEMETERY MAP

SAINT BENEDICTS CHURCH CEMETERY

Cemetery Location



Legend

Parcel Boundary
Embankment
Diversion Channel

Structures

Residential
Non-Residential

Upstream Mitigation Area / Flowage Easement Zone

Zone 1
Zone 2
Zone 3
Zone 4A
Zone 4B
Zone 4C

Preliminary Property Rights Needed

Permanent Acquisition
Temporary Easement

Document Path: T:\Projects\19100\19116\Site_MXDs\Cemetery_2021_05_19_CLOMR6\2022_01_20_Individual Site Maps_CLOMR6_Benedicts.mxd

FM AREA DIVERSION

N W E S

0 200 400 800 Feet

Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	907.1	907.0
20-Year	910.1	909.1
50-Year	911.6	910.0
100-Year	911.8	910.0
500-Year	912.7	911.2
PMF (175,000-Year)	914.6	914.6

Saint Benedict's Church Cemetery

Exhibit 7

Notes:

- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: SAINT BENEDICTS CHURCH

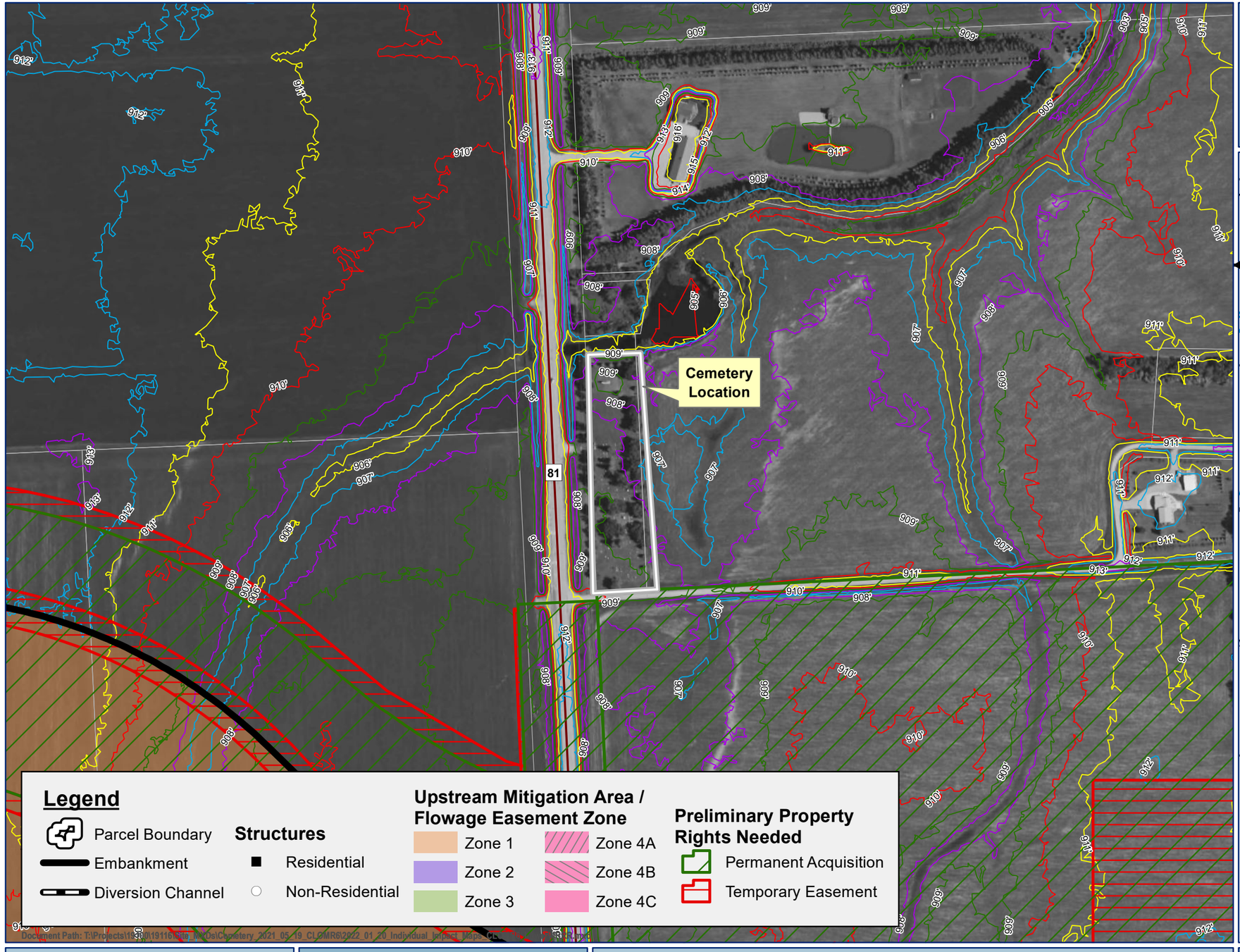
PIN: 64-0000-02830-010

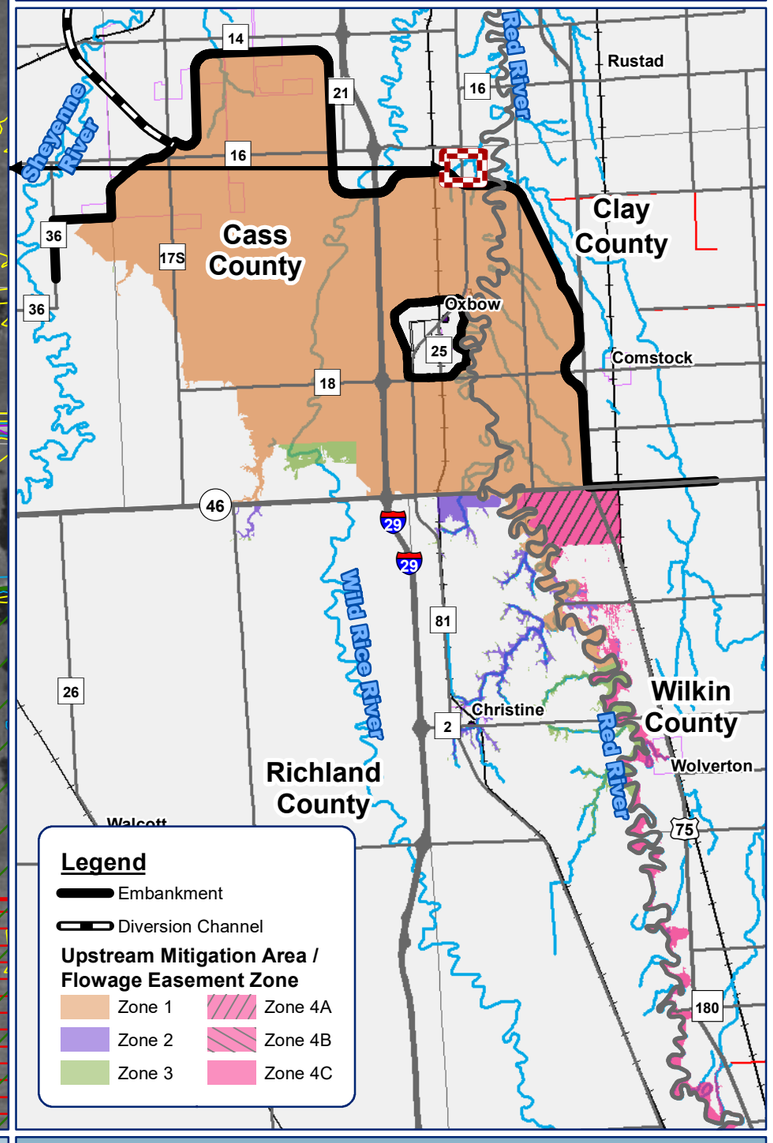
County: Cass County, ND

PDF Date: 01/21/2022

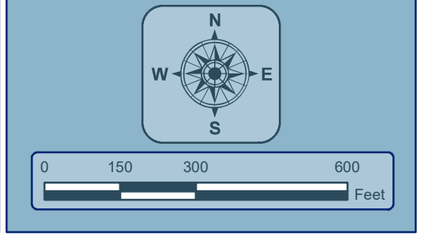
CEMETERY MAP

LOWER WILD RICE AND RED RIVER CEMETERY





FM AREA DIVERSION



Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	906.3	906.3
20-Year	910.1	909.7
50-Year	912.0	910.8
100-Year	913.1	910.8
500-Year	914.4	912.6
PMF (175,000-Year)	916.9	916.4

Lower Wild Rice and Red River Cemetery

Exhibit 8

Notes:
- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

Name: LOWER WILD RICE AND RED RIVER
PIN: 57-0000-10201-126
County: Cass County, ND
PDF Date: 01/21/2022

EXHIBIT 9

Cemetery	Location	Approx. Lowest Site Elevation (LSE)	10-year Flood Event					20-year Flood Event					50-year Flood Event					100-year Flood Event					500-year Flood Event					PMF				
			Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)	Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)	Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)	Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)	Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)	Existing Peak WSEL	Existing Duration Above LSE (Days)	With Project Peak WSEL	With Project Duration Above LSE (Days)	Add'l Duration (Days)
Clara	Zone 1	915.0	906.7	0.0	907.3	0.0	0.0	910.8	0.0	911.2	0.0	0.0	913.1	0.0	918.7	8.0	8.0	914.5	0.0	921.1	9.5	9.5	916.8	10.5	922.7	14.5	4.0	919.3	14.5	924.0	16.5	2.0
Eagle	Zone 3	924.0	915.3	0.0	915.4	0.0	0.0	918.5	0.0	918.6	0.0	0.0	921.4	0.0	922.3	0.0	0.0	924.3	1.5	925.1	5.0	3.5	928.5	16.5	928.5	16.5	0.0	930.7	16.0	930.7	16.0	0.0
Hemnes	Zone 2	922.0	910.2	0.0	910.2	0.0	0.0	913.4	0.0	913.7	0.0	0.0	916.2	0.0	919.5	0.0	0.0	918.5	0.0	921.8	0.0	0.0	922.2	1.5	923.7	7.5	6.0	925.9	8.5	926.7	10.0	1.5
Lower Wild Rice and Red River	North of the southern embankment and Red River Control Structure on the dry side of the Comprehensive Project	908.0	906.3	0.0	906.3	0.0	0.0	910.1	5.5	909.7	5.5	0.0	912.0	11.0	910.8	9.5	-1.5	913.1	16.0	910.8	13.0	-3.0	914.4	31.5	912.6	31.0	-0.5	916.9	17.0	916.4	16.5	-0.5
North Pleasant	Zone 1	921.0	916.1	0.0	916.0	0.0	0.0	919.5	0.0	919.5	0.0	0.0	920.2	0.0	920.1	0.0	0.0	920.4	0.0	921.3	3.5	3.5	921.3	4.0	922.4	8.0	4.0	923.4	15.0	924.2	15.0	0.0
Roen Family	Zone 1	917.0	908.8	0.0	909.0	0.0	0.0	912.2	0.0	912.5	0.0	0.0	914.8	0.0	919.0	6.5	6.5	916.6	0.0	921.5	8.5	8.5	919.4	12.0	923.1	14.0	2.0	921.7	15.5	925.1	16.0	0.5
Saint Benedict's Church	East of the Southern Embankment on the dry side of the Comprehensive Project	909.0	907.1	0.0	907.0	0.0	0.0	910.1	6.5	909.1	2.5	-4.0	911.6	13.5	910.0	8.0	-5.5	911.8	17.0	910.0	10.5	-6.5	912.7	25.0	911.2	23.5	-1.5	914.6	16.5	914.6	16.5	0.0
Wolverton	Zone 4c	923.0	916.4	0.0	916.5	0.0	0.0	919.7	0.0	919.8	0.0	0.0	922.7	0.0	923.3	3.0	3.0	925.6	5.0	926.1	8.0	3.0	930.2	26.0	930.2	26.5	0.5	932.3	16.5	932.3	16.5	0.0

EXHIBIT 10

Cemetery	Location	Approx. Lowest Site Elevation (LSE)	10-year Flood Event					20-year Flood Event					50-year Flood Event					100-year Flood Event					500-year Flood Event					PMF				
			Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)	Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)	Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)	Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)	Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)	Existing Peak WSEL	Existing Total Depth (ft)	With Project Peak WSEL	With Project Total Depth (ft)	Add'l Depth (ft)
Clara	Zone 1	915.0	906.7	0.0	907.3	0.0	0.0	910.8	0.0	911.2	0.0	0.0	913.1	0.0	918.7	3.7	3.7	914.5	0.0	921.1	6.1	6.1	916.8	1.8	922.7	7.7	5.9	919.3	4.3	924.0	9.0	4.7
Eagle	Zone 3	924.0	915.3	0.0	915.4	0.0	0.0	918.5	0.0	918.6	0.0	0.0	921.4	0.0	922.3	0.0	0.0	924.3	0.3	925.1	1.1	0.8	928.5	4.5	928.5	4.5	0.0	930.7	6.7	930.7	6.7	0.0
Hemnes	Zone 2	922.0	910.2	0.0	910.2	0.0	0.0	913.4	0.0	913.7	0.0	0.0	916.2	0.0	919.5	0.0	0.0	918.5	0.0	921.8	0.0	0.0	922.2	0.2	923.7	1.7	1.5	925.9	3.9	926.7	4.7	0.8
Lower Wild Rice and Red River	North of the southern embankment and Red River Control Structure on the dry side of the Comprehensive Project	908.0	906.3	0.0	906.3	0.0	0.0	910.1	2.1	909.7	1.7	-0.4	912.0	4.0	910.8	2.8	-1.2	913.1	5.1	910.8	2.8	-2.3	914.4	6.4	912.6	4.6	-1.8	916.9	8.9	916.4	8.4	-0.5
North Pleasant	Zone 1	921.0	916.1	0.0	916.0	0.0	0.0	919.5	0.0	919.5	0.0	0.0	920.2	0.0	920.1	0.0	0.0	920.4	0.0	921.3	0.3	0.3	921.3	0.3	922.4	1.4	1.1	923.4	2.4	924.2	3.2	0.8
Roen Family	Zone 1	917.0	908.8	0.0	909.0	0.0	0.0	912.2	0.0	912.5	0.0	0.0	914.8	0.0	919.0	2.0	2.0	916.6	0.0	921.5	4.5	4.5	919.4	2.4	923.1	6.1	3.7	921.7	4.7	925.1	8.1	3.4
Saint Benedict's Church	East of the Southern Embankment on the dry side of the Comprehensive Project	909.0	907.1	0.0	907.0	0.0	0.0	910.1	1.1	909.1	0.1	-1.0	911.6	2.6	910.0	1.0	-1.6	911.8	2.8	910.0	1.0	-1.8	912.7	3.7	911.2	2.2	-1.5	914.6	5.6	914.6	5.6	0.0
Wolverton	Zone 4c	923.0	916.4	0.0	916.5	0.0	0.0	919.7	0.0	919.8	0.0	0.0	922.7	0.0	923.3	0.3	0.3	925.6	2.6	926.1	3.1	0.5	930.2	7.2	930.2	7.2	0.0	932.3	9.3	932.3	9.3	0.0