Date: September 28, 2018

To: Red Lake River Watershed Stakeholders

From: Red Lake River Planning Group

Re: Red Lake River One Watershed, One Plan Project, submittal of draft Amended Plan for 60-day review.

The Red Lake River Planning Group, on behalf of the members, is pleased to submit the Amendment to the Red Lake River One Watershed, One Plan for 60-day review. The Red Lake River Planning Group invites all recipients of this notice to submit comments on the Amendment by November 30, 2018. A copy of the Amendment can be found on the West Polk Soil & Water Conservation District website: http://westpolkwcd.com/1w1p.html. History and background information about the project can also be found at: http://westpolkwcd.com/1w1p.html.

Please submit written comments to both (comments may be submitted electronically):

Myron Jesme
Administrator
Red Lake Watershed District
1000 Pennington Avenue South
Thief River Falls, MN 56701
218-681-5800
RLWD@redlakewatershed.org

Peter Nelson
Red Lake River 1W1P Coordinator
Pennington SWCD
201 Sherwood Avenue South
Thief River Falls, MN 56701
218-683-7075
Peter.nelson@mn.nacdnet.net

After completion of this review period, a summary of comments received will be provided to all who commented and the Red Lake River Planning Group will hold public hearings on dates yet to be determined.

Thank you on behalf of the members of the Red Lake River Planning Group:

Polk County
West Polk Soil & Water Conservation District
Red Lake County
Red Lake County Soil & Water Conservation District
Pennington County
Pennington Soil & Water Conservation District
Red Lake Watershed District
Proposed Amendment to Section 8.1.3 of the plan at page 8-5 (per BWSR Recommendation)

Water Management Districts

The RLWD may create a Water Management District to provide a mechanism for funding watershed projects addressing local resource concerns and priorities. Fee and funding formulas are developed on the basis of a benefit or contribution with respect to how the project addresses a flood problem or water resource issue. Appendix J includes information on and a map of the existing Water Management District in Thief River Falls that was established in 2010. Appendix N includes the procedure for amending this plan to create new Water Management Districts and contains all existing Water Management Districts.
Appendix N - Water Management Districts

Section 1 – General Authority and Process

Overview

Pursuant to section 8.1.3 of this plan, the Red Lake Watershed District (RLWD) plans on using Water Management Districts (WMD) as one of several funding mechanisms for the implementation of activities to solve local and regional problems and issues. The provisions for collection of charges (MS 103D.729 and 444.075) allow a watershed district, through the amendment of its plan or during a plan update, the authority to establish one or more WMDs for the purpose of collecting revenues and paying the costs of projects initiated under MS 103B.231, 103D.601, 103D.605, 103D.611, or 103D.730. Appendix J of this plan contains the Board of Water and Soil Resources (BWSR) guidance for the establishment of WMDs and includes the previously established Thief River Falls Flood Damage Reduction Project Water Management District. Appendix J, however, includes several unrelated items of importance to this plan including RLWD Rules and Soil and Water Conservation District (SWCD) statutory authority, chapter 103C. This appendix N is dedicated solely to WMDs established or to be established by further amendment to this plan. Section 1 of this appendix N outlines the authority and processes for establishment of WMDs, including review of proposed WMDs and plan amendments by the One Watershed One Plan (1W1P) planning and policy committees. Current and future WMDs will be included as subsequent sections to this appendix N.

To establish a WMD, a plan update or amendment must describe the area to be included, the amount of the necessary charges, the methods used to determine the charges, and the length of time the WMD will remain in effect. After adoption, the plan update or amendment must be filed with the county auditor and county recorder of each county affected by the WMD. The WMD may be dissolved by the same procedures as prescribed for the establishment of the WMD – i.e. by plan update or amendment.

A distinguishing element of the WMD charge over an assessment, or ad valorem tax is that the watershed district exercises authority, similar to that of a municipality, to establish and impose a system of charges based on a prescribed method, such as a property’s contribution of storm water and/or pollutants to a receiving body of water, conveyance or management system; or the extent of relief or protection afforded to property by an impoundment, conveyance or diversion. Thus, funds generated by utilizing a WMD charge can be based upon a mechanism related to the cost of the project in managing a burden created by the property or in providing protection to the property rather than the value of the property (ad valorem tax) or special economic benefit conferred (assessment). Ultimately the WMD provides a supplemental financing tool, within a prescribed area, for the RLWD and is especially useful in situations where project components are required to address a locally generated need or problem.

Review and Establishment Process

Because this plan is a 1W1P based plan, WMD establishment, whether as part of a 10-year plan update or as a plan amendment, must follow the guidance provided in the BWSR One Watershed, One Plan Operating Procedures, version 2.0, effective 3-28-2018 (Board Decision #18-14) or its successor. The amendment process must also be consistent with the Operating Agreement for this plan which specifies the role of the Planning Workgroup and Policy Committee, confers upon the Planning Workgroup authority to develop and recommend plan amendments and confers upon the Policy Committee authority to review and adopt amendments as approved by the BWSR.

For WMD establishment by amendment, the following procedure will be followed:
1. **Initial Review by the Planning Workgroup:** The Planning Workgroup, as established in the Operating Agreement for this plan, consists of representatives from each SWCD partially or wholly within the 1W1P area and representatives of the RLWID. The Planning Workgroup shall either develop or be provided a copy of the proposed amendment for initial review. After review, the Planning Workgroup shall provide notice of the proposed amendment to the Plan Review Authorities and the public.

2. **Notice to Plan Review Authorities and Public:** Plan Review Authorities, including the Department of Agriculture, the Department of Health, the Department of Natural Resources, the Pollution Control Agency, the Board of Water and Soil Resources, SWCDs, other watershed districts and counties, cities, and towns partially or wholly within the One Watershed Plan area shall be provided notice and a copy of the proposed amendment along with a request for comments to be provided to the Planning Workgroup within 60 days of the notice. The public shall be notified of the proposed amendment by publication in a newspaper in general circulation within the 1W1P area. The publication must state the general nature of the proposed amendment, provide the public information on how to obtain or view a copy of the proposed amendment and state that comments on the proposed amendment may be provided to the Planning Workgroup.

3. **Final review and referral by the Planning Workgroup:** Upon expiration of the 60 day comment period, the Planning Workgroup will conduct a final review of the proposed amendment and make necessary revisions based on the comments received, if any. The Planning Workgroup may adopt responses to the comments received. After final review and revisions, the Planning Workgroup shall refer the proposed amendment, along with all comments and responses, to the Policy Committee along with the Planning Workgroup’s recommendation on approval. A copy of the Planning Workgroup’s referral shall also be transmitted to the BWSR.

4. **Hearing of the Policy Committee:** The Policy Committee, as established in the Operating Agreement for this plan, will schedule and hold a public hearing on the proposed amendment no sooner than 14 days after receiving the Planning Workgroup’s referral and recommendation. Notice of the public hearing shall be given by mail to the BWSR, Plan Review Authorities and the Planning Workgroup. Notice of the public hearing shall also be published in a newspaper in general circulation within the 1W1P area. A record shall be kept of the hearing to include an audio recording of the proceedings and copies of all written correspondence, comments or responses generated in the proceedings.

5. **Notice to Plan Review Authorities:** Following the public hearing, the Policy Committee shall provide a copy of the final proposed amendment along with its findings and recommendation regarding plan approval to the Plan Review Authorities and request that final comments, if any, be submitted to BWSR in advance of the BWSR consideration of the proposed amendment.

6. **Referral and Recommendation to BWSR:** Following the public hearing, the Policy Committee shall submit the final proposed amendment to BWSR for final review and approval. The submittal to BWSR must include the audio recording of the public hearing, a copy of all written comments and responses received on the proposed amendment and the Policy Committee’s findings and recommendation on approval of the proposed amendment. After review, the BWSR Board, or a committee thereof, shall render a decision approving or disapproving the amendment in accordance with its operating procedures.

7. **Local Adoption:** If BWSR approves the proposed amendment, the Policy Committee, according to the authorities granted to it in the Operating Agreement for this plan, shall adopt a resolution, within 120 days of BWSR Board approval, adopting the amendment. A copy of the resolution to adopt the amendment must be sent to BWSR. Notice of the adopted amendment shall be published in a newspaper in general circulation within the 1W1P area along with notice of appeal rights as outlined below. Unless appealed, the plan amendment is effective 30 days after first publication of the Policy Committee resolution adopting the amendment.
Implementation of Charges

Prior to implementing any charges within a WMD established in this plan, the Policy Committee must file a copy of the WMD plan amendment with the county auditor and county recorder of each county affected by the water management district. Along with the amendment, the Policy Committee may provide additional information to the auditors or recorders that is necessary to identify properties subject to charges within the water management district. With the consent of a city, charges to properties within the jurisdictional boundary of a city may be consolidated and presented to the city for payment.

Prior to the imposition of charges, the RLWD shall hold a public hearing in conjunction with a project’s establishment. At the public hearing, the RLWD Board shall present the amount of the necessary charges, the methods used to determine charges, and the length of time the WMD will remain in force. The RLWD Board shall also provide information on the amount of charges to individual parcels within the WMD. In addition to other notices required by statute, the RLWD Board must, ten days prior to a hearing or decision on projects to be paid in whole or in part by WMD charges, provide notice to the city, town, or county within the WMD. The city, town, or county receiving notice shall submit to the managers concerns relating to the implementation of the project. The managers shall consider the concerns of the city, town, or county in the decision on the project.

WMDs established under this plan are intended to be perpetual for the life of this plan and any subsequent revisions, unless dissolved by plan amendment or update. Initial charges, if any, will be effective for a duration consistent with the time necessary to repay the capital cost of projects to be paid for, in whole or in part by charges within the WMD. Thereafter and upon hearing, WMD charges may be reinitiated to generate revenue to pay for project maintenance.

Local Appeal

Local Appeal Procedure: Because WMDs established under this plan are proposed to be perpetual, the following local appeal procedure is established from the resolution adopting a plan amendment establishing a WMD:

1. Upon receipt of the Order of the BWSR authorizing a plan amendment establishing a WMD, the Policy Committee shall publish notice of its resolution adopting the plan amendment in a newspaper in general circulation in the part of the 1W1P area where the WMD is located.

2. Any landowner affected by the WMD may, within 30 days of first publication of notice of the resolution, appeal the establishment of the WMD to the Policy Committee by filing a letter stating the basis for the appeal.

3. Within 30 days of receiving a letter of appeal, the Policy Committee shall hold a hearing on the appeal, giving the appellant an opportunity to be heard and to present evidence why the WMD should not be established. The hearing shall be noticed as required for a special meeting under statutes chapter 103D.

4. The hearing shall be recorded in order to preserve a record for further review. The record of the appeal shall include the recording, any documentary evidence provided by the appellant and all records related to the establishment of the WMD.

5. Within 30 days of the hearing, the Policy Committee shall adopt and mail findings and an order on the appeal to the appellant and the BWSR.

6. Further appeal, if any, shall be as provided in Statutes Chapter 103D and existing authorities and procedures of the BWSR Board.
Section 2 – Thief River Falls Flood Damage Reduction Project Water Management District

The following is reprinted from Appendix J, pages J-29 to J-32

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Memo

To: Red Lake Watershed District Board of Managers
From: Nate Dalager, P.E.
Project: Plan Amendment – Water Management District
cc: 
Date: November 10, 2010
Job No: 131515

Re: Plan Amendment - Establishment of a Water Management District for the Thief River Falls Flood Damage Reduction Project

Introduction

Pennington County Ditch #1 (CD 1) has been a source of agricultural and urban flooding problems for years. Since its construction 100 or more years ago, the ditch has routinely flooded out of its banks in spite of cleanouts and culvert replacements. In 2005, the Pennington County Board of Commissioners, Thief River Falls City Council, RLWD, and others requested that HDR Engineering conduct a drainage study and provide a report of findings. Due to funding limitations and procedural uncertainties related to Minnesota (MN) ditch law, no entity was able to advance the project forward until a landowner ditch improvement petition was received by the Red Lake Watershed District (RLWD) in 2009.

In response to the landowner petition, the RLWD has approved the Preliminary Survey Report and Detailed Survey Report in accordance with MN Statute 103E. These reports explain the project in detail and are available for review from the RLWD upon request.

Because of the severity of the flooding problem and the complexity and cost of the proposed CD 1 improvement within the urban environment, the RLWD established the Thief River Falls Flood Damage Reduction (FDR) Project in accordance with MN Statute 103D.605. As part of the funding strategy for the project, the RLWD is hereby proposing to amend Section 7.1.6.2 of its watershed plan in accordance with MN Statute 103D.411 to establish a Water Management District (MN Statute 103D.729) with the purpose of collecting revenue and paying for a portion of the costs of the Thief River Falls Flood Damage Reduction Project. This memo will outline the following as required by the amendment procedure:

- Area included in the Water Management District (WMD)
- The amount of the necessary charges
- The method used to determine the charges
- The length of time that the Water Management District will remain in force

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HDR Engineering, Inc.
304 2nd St. East
Thief River Falls, MN 56701
Phone (218) 661-1000
Fax (218) 661-6452
www.hdrinc.com

[13333-0012/3140087/1] N-4
**Water Management District Area**

The area encompassed by the proposed Water Management District extends from CSAH 8 at the south (upstream) end, to the northern extents of CD 1 outletting into the Red Lake River within the City of Thief River Falls. The outer boundary of the WMD follows property lines, because any property that has partial drainage or protection benefits from the project will be included in the Water Management District. The WMD is approximately 1,070 acres in area and is a mix of agricultural, commercial, industrial, and residential properties. See Figure 1 below for a map of the WMD boundary.
Amount of Charges
The project has been estimated to cost $3 million, and is broken down into two distinct components:

- ditch improvement; and
- flood damage reduction project

The ditch improvement consists of an improvement of the ditch grade, cross-section, and culverts, and is estimated to cost approximately $1,000,000. The ditch improvement component of the project will be paid for by benefitted landowners as determined by the viewers in the re-determination of benefits process.

The flood damage reduction component is estimated to cost $2,000,000, and consists of a diversion down the CSAH 8/Challenger roadside ditch and the installation of storm sewer through the City, from Greenwood Street to the TH 59/1st St E intersection. The FDR project component will be paid for by contributions from the RLWD, the State of Minnesota FDR program, and the funds that the Water Management District would ultimately collect. The charges collected by the Water Management District for the construction of its portion of the flood damage reduction component shall consist of 30% of all costs associated with the FDR project, not to exceed $700,000.

Table 1 below describes the breakdown of the project funding.

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch Improvement</td>
<td>Benefitted Landowners</td>
</tr>
<tr>
<td>Flood Damage Reduction</td>
<td>35% Red Lake Watershed District</td>
</tr>
<tr>
<td></td>
<td>35% State of MN - FDR Program</td>
</tr>
<tr>
<td></td>
<td>30% WMD charges</td>
</tr>
</tbody>
</table>

Method for Determining Charges
The method used to determine the amount of charges each parcel will pay to the Water Management District will closely follow the method that the City of Thief River Falls uses to determine its monthly storm water utility charges. The monthly charge is determined by an approximation of the volume of storm water runoff from a parcel. Runoff volume is a factor of the parcel’s area, and the portion of the area that has impervious surfaces, such as rooftops, parking lots, driveways, and sidewalks. Each parcel that falls within the WMD boundaries will be placed into a land use classification, and assigned a Residential Equivalency Factor (REF) for each classification as follows in Table 2 below.
Table 2. Residential Equivalency Factor (REF)

<table>
<thead>
<tr>
<th>Land Use Classification</th>
<th>Residential Equivalency Factor (REF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1.0</td>
</tr>
<tr>
<td>Manufactured Home</td>
<td>1.0</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>1.5</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1.5</td>
</tr>
<tr>
<td>Schools/Churches/Institutional</td>
<td>1.5</td>
</tr>
<tr>
<td>City-Owned Land</td>
<td>1.0</td>
</tr>
<tr>
<td>Vacant/Vegetative/Agricultural/Unimproved</td>
<td>0.1 with cap</td>
</tr>
</tbody>
</table>

Then, the formula for determining the monthly charge is as follows:

Water Management District Charge = (REF) x size of parcel (acres) x fee per acre

The fee per acre will be determined upon a more detailed analysis of the final charges.

Length of Time in Force
The initial charges for the WMD for construction of the TRF FDR Project shall be assessed and recovered over a period not to exceed 20 years. In addition to the initial cost recovery period of 20 years, the WMD will remain in-place perpetually in order to assess fees for maintaining the WMD's share of the flood damage reduction portion of the project. The managers may assess all the parcels of property and municipal corporations previously assessed for project construction of the TRF FDR project, to establish a maintenance fund for the project. The assessment for the WMD maintenance fund may not be made when the fund exceeds 20 percent of the original cost of construction for the Thief River Falls Flood Damage Reduction project.

Conclusion
In accordance with MN Statute 103D.729, this plan amendment proposal shall be forwarded to the City of Thief River Falls, Pennington County, and appropriate state agencies for review and comment. The Board of Water and Soil Resources will hold a public hearing in conjunction with the RLWD to receive testimony on the proposed plan amendment providing for the establishment of a Water Management District.
Section 3 – Thief River Falls – West Side Flood Damage Reduction Project Water Management District

Introduction

Pennington County Ditch #70 (CD 70) is located north and west of the City of Thief River Falls (City). The system drains areas north and west of the City, as well as areas within the City. CD 70 currently provides an estimated 2-year or less level of service for drainage in agricultural areas and an estimated 10-year level of service for drainage in residential/commercial areas. Currently, much of the system does not completely drain following wet weather events due to the inconsistent grade, channel size, and excess vegetation in the ditch. These conditions result in long periods of inundation on adjacent agricultural and commercial land from minor rainfall events. Although much of the area may be located outside of the 100-year floodplain, there are vital properties within the 11 mile drainage area that must be protected from a 100 year event.

In 2017 the Red Lake Watershed District (RLWD) partnered with the City and Pennington County (County) to study alternatives that would alleviate the flooding along CD 70. Upon the completion of the Flood Damage Reduction Analysis, the City and County filed petitions under Minnesota Statute 103D.705 to the RLWD for the design and construction of a proposed flood damage reduction project.

The RLWD established the Thief River Falls Westside Flood Damage Reduction Project in accordance with Minnesota Statute 103D.605. As part of the funding strategy for the Project, the RLWD proposes to establish a Water Management District (WMD) for the project in order to provide an efficient mechanism for collecting a local share of project costs. This section outlines the following requirements for the establishment of a WMD:

- Area included in the Water Management District;
- The amount of the necessary charges;
- The method used to determine the charges; and
- The length of time that the Water Management District will remain in force.

Water Management District Area

The area encompassed by the proposed Thief River Falls-West Side Flood Damage Reduction Project WMD extends from the north (upstream) end of CD 70, to the outlet into the Red Lake River, as well as portions of the County Ditch 1 drainage area. The outer boundary of the WMD follows the drainage area boundaries or the benefitted area property lines, whichever is greater, because any property that has partial drainage or protection benefits from the Project will be included in the WMD. The WMD is approximately 10,670 acres in area and is a mix of agricultural, commercial, industrial, and residential properties. See Figure N-1 for a map of the WMD location. A listing of parcels affected by the WMD is included under a separate heading below.
Figure N-1: Water Management District Location
Amount of Charges

The Project has been estimated to cost $6 million. The Project will be paid for by contributions from the RLWD, the State of Minnesota FDR program, Pennington County, the City of Thief River Falls, Minnesota Department of Transportation, and the funds collected from the WMD. The charges collected by the WMD for the construction of its portion of the flood damage reduction component shall consist of approximately 17% of all costs associated with the Project, not to exceed $1,000,000. Table N-1 describes the breakdown of the Project funding.

Table N-1: Project Funding Breakdown

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Project Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLWD, City, County, MnDOT</td>
<td>$2.5 Million (41.6%)</td>
</tr>
<tr>
<td>State of MN – FDR Program</td>
<td>$1.5 Million (25%)</td>
</tr>
<tr>
<td>Red River Water Management Board</td>
<td>$1.0 Million (16.7%)</td>
</tr>
<tr>
<td>Water Management District</td>
<td>$1.0 Million (16.7%)</td>
</tr>
</tbody>
</table>

Method for Determining Charges

The method used to determine the amount of charges each parcel will be assessed towards the WMD is based on the Pre-Project and Post-Project flood damage protection conditions (level of service) for each acre or fraction thereof in the water management district. The level of service is defined as the ability for an area of land to drain 12 hours after the storm event has ended. Subwatersheds within the drainage area of the Project were analyzed for a 2-year (2.49 inches), 10-year (3.77 inches), and 25-year (4.69 inches) 24 hour duration summer storm event. Based on the pre- and post-project level of service, a level of service factor (LSF) was assigned.

Table N-2: Level of Service Improvement Categories

<table>
<thead>
<tr>
<th>Level of Service Improvement (LSI)</th>
<th>Level of Service Factor (LSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Year – 2 Year</td>
<td>Outlet Improvement (Base Rate = 1.0)</td>
</tr>
<tr>
<td>10 Year – 10 Year</td>
<td>Outlet Improvement (Base Rate = 1.0)</td>
</tr>
<tr>
<td>25 Year – 25 Year</td>
<td>Outlet Improvement (Base Rate = 1.0)</td>
</tr>
<tr>
<td>10 Year – 25 Year</td>
<td>2.0</td>
</tr>
<tr>
<td>2 Year – 10 Year</td>
<td>3.0</td>
</tr>
<tr>
<td>2 Year – 25 Year</td>
<td>4.0</td>
</tr>
</tbody>
</table>

The base rate will be determined by the following formula:

\[(\text{Base Rate} \times (\text{Outlet Improvement LSF}) \times \text{Total LSI Parcels (Acres)}) + (\text{Base Rate} \times (10Yr-25Yr LSF) \times \text{Total LSI Parcels (Acres)}) + (\text{Base Rate} \times (2Yr-10Yr LSF) \times \text{Total LSI Parcels (Acres)}) + (\text{Base Rate} \times (2Yr-25Yr LSF) \times \text{Total LSI Parcels (Acres)}) = $1.0 Million\]

The formula used for determining the total charge per parcel is as follows:

\[\text{Water Management District Charge} = (\text{LSF}) \times \text{Base Rate} \times \text{Size of Parcel in Acres Contributing to the Project Drainage Area}\]
Perpetual District; Duration of Charges, Subsequent Charges

The water management district shall be perpetual for the life of this plan and any subsequent revisions, unless dissolved by plan amendment or revision. The initial charges for the WMD for construction of the Project shall be extended and recovered over a period not to exceed 20 years. In addition to the initial cost recovery period of 20 years. Subsequent maintenance charges within the WMD may be extended to establish and maintain a maintenance fund. The balance of a maintenance fund may not exceed 20 percent of the original cost of construction for the Project, consistent with the limitations found in statutes section 103D.631.

Affected Parcels

The following is a list of parcels of record in the office of Pennington County Recorder that are included in the WMD:

(insert list of affected parcels that are included in the boundary of the WMD)

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Section 4 – Black River Impoundment Project Water Management District

Introduction

The Black River Impoundment Project’s primary purpose is to provide flood damage reduction within the Black River sub-watershed. Reducing peak flows will reduce risk of flood damage to local public transportation facilities, erosion of agricultural and private lands upstream and downstream of the impoundment site, improve water quality, and improve the operation efficiency of the downstream Schirrick Dam on the Black River.

The Red River Watershed Management Board (RRWMB) funded a comprehensive plan for expanded distributed detention strategies for Minnesota membered watershed districts throughout the Red River Basin. This plan is summarized in the Red River Basin Commission’s (RRBC) Long Term Flood Solutions (LTFS) Basin Wide Flow Reduction Strategy Report, and it concluded with a goal to reduce the Red River of the North (Red River) peak flow and volume by 20% during a flooding event comparable to the 1997 flood. To accomplish this, the report set forth guidelines while working with each of the watersheds to develop district specific strategies.

The Red Lake Watershed District’s Expanded Distributed Detention Strategy recommended 58 locations of off channel retention and 8 locations of on channel retention to help achieve the goals set forth in the RRBC LTFS Basin Wide Flow Reduction Strategy Report. The Black River Sub-Watershed encompasses several of the identified 58 locations. To begin the development of a flood control impoundment project, the RLWD investigated preliminary alternatives for the Black River sub-watershed. Four preliminary impoundment site alternatives were reviewed within the Black River sub-watershed. The selected alternative was carried forward due to cooperation from local landowners and the potential storage capabilities of the site. Privately owned agricultural lands were made available by either fee title or permanent flowage easements to the RLWD for the impoundment site. The RLWD board proceeded with further engineering investigation of the selected alternative.

In addition to the impoundment site and associated structures, approximately 12 miles of diversion ditches are being proposed to efficiently direct runoff into the impoundment site; maximizing the impoundments contributing drainage area. All project costs associated with the impoundment and diversion ditches will be funded as part of the overall flood damage reduction project. The RLWD is proposing to establish a Water Management District (WMD) as part of an overall funding strategy for long term operation and maintenance of the project. See Figure N-2 for the locations of the project facilities and properties effected by the WMD.

The following section outlines the requirements for the establishment of a WMD:

- Define Water Management District Area
- Establish the amount of necessary charges
- Describe the method for determining charges
- Establish the length of time the WMD will remain in force

Water Management District Area

The WMD area proposed for this project is generally bounded at the northerly limits by CSAH 7 and CSAH 12, a width approximately 1 mile east and 1 mile west of the intersection with CSAH 7, CSAH 13 and CSAH 12. The southerly limits are generally bounded by Pennington County Road 55 from the intersection with Pennington County Road 68, east for approximately 4 miles. The westerly limits of the proposed WMD is approximately Pennington County Road 68 from the intersection with CSAH 3, north approximately 3 miles, east 1 mile and north 1 mile along CSAH 12. The easterly limits follow the ridge line approximately 3 miles east
of Pennington County Road 68. The WMD area is bounded by either the limits of the drainage area or the limits of the benefitted area, whichever is greater. This is due to the opinion that any property having partial drainage or protection benefits will be included in the WMD. The WMD is approximately 10,288 acres of predominant agricultural land. Figure N-2 displays a more detailed boundary of the WMD area. A listing of parcels affected by the WMD is included under separate heading below.
Amount of Necessary Charges

The construction of the Black River Impoundment Project is being proposed for funding through a combination of sources other than WMD Charges. These funding sources include the RLWD, State of Minnesota Flood Damage Reduction Program, and the RRWMB. However, for long term operations and maintenance of the project, the RLWD is proposing to use WMD charges as the primary funding mechanism. Operations and maintenance is anticipated to include, but not be limited to, administration, inspection, vegetation management and mowing, repair, component replacement and reconstruction, and any other work deemed necessary by the RLWD to protect or preserve the function of the project. The RLWD anticipates a maximum annual operation and maintenance cost not exceed $75,000 for the project. Thus, the total of annual WMD charges will not exceed $75,000 during the life of the project.

Method for Determining Charges

Landscape level land modification has contributed to the rate and volume of run-off within the project area and has created the need for regional rate and volume control in order to meet the rate and volume reduction goals of the RRBC LTFS Basin Wide Flow Reduction Strategy. Relative contribution to the need for the project was determined based on parcel proximity and parcel land use in relation to various conveyance infrastructure (diversion ditches) to the impoundment area. Parcel proximity with direct drainage to the diversion ditches are classified as Service Area 1. Service Area 1 reflects the highest level of service for the project; which correlates to the highest charge rate. Reduced charge rates were determined for parcels with limited access as outlined below. Parcels that have indirect drainage to the diversion ditches through culverts or modified drainage are classified as Service Area 2. Parcels that have no direct access to the diversion ditches but have indirect drainage along CSAH 3 or CSAH 12 are classified as Service Area 3. Parcels within Service Area 1 through 3 that are designated non-farmed wetlands as referenced under the National Wetland Inventory (NWI) are classified as Service Area 4. The WMD level of service summary is outlined in Table N-3 and Figure N-2.

Table N-3: Level of Service Summary Black River Impoundment

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Level of Service Factor (LSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.33</td>
</tr>
<tr>
<td>2</td>
<td>4.00</td>
</tr>
<tr>
<td>3</td>
<td>2.67</td>
</tr>
<tr>
<td>4</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The base rate will be determined by the following formula:

\[
(Base \ Rate \times 5.33 \times \text{Service Area 1 (Acres)}) + (Base \ Rate \times 4.00 \times \text{Service Area 2 (Acres)}) + (Base \ Rate \times 2.67 \times \text{Service Area 3 (Acres)}) + (Base \ Rate \times 1.00 \times \text{Service Area 4 (Acres)}) = \$75,000 \text{ Maximum}
\]

The formula used for determining the total charge per parcel is as follows:

\[\text{Water Management District Charge} = \text{LSF Value} \times \text{Base Rate} \times \text{Size of Parcel Contributing to the Project Drainage Area (Acres)}\]

\[\text{1 Long term operations and maintenance funding may be supplemented with other revenue sources as deemed appropriate by the RLWD Board of Managers.}\]
Length of Time Water Management District Will Remain in Force

No charged assessment will be made to the WMD for the initial project cost. In order to generate revenue for future operation and maintenance, the WMD shall be perpetual for the life of this plan and any subsequent revisions, unless dissolved by plan amendment or revision. The imposition of charges for future operations and maintenance is subject to the fund limitations found in Minnesota Statute 103D.631.

Affected Parcels

The following is a list of parcels of record in the office of Pennington County Recorder that are included in the water management district:

(insert list of affected parcels that are included in the boundary of the WMD)

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