Stonewall Water Treatment Plant Technical Review Manitoba Métis Federation

October 31, 2024



1.0 Introduction

In June 2024, The Town of Stonewall submitted an Environment Act Proposal (EAP) to the Province of Manitoba for the expansion of the existing Stonewall Water Treatment Plant (WTP). This proposed expansion falls within the Interlake Region of the National Homeland of the Red River. The Red River Métis maintain substantial historic and ongoing Métis Land Use, Occupancy, and Traditional Ecological Knowledge in this region. This includes hunting, fishing, trapping, gathering, and cultural and occupancy sites within 20 km of the Project. In light of the historic and contemporary Red River Métis presence in the area, project planning, approval, and all other associated activities must be analyzed for their impacts on the Rights, interests, and claims of the Red River Métis.

The Manitoba Métis Federation (MMF), as the democratically elected government of the Red River Métis, retained Shared Value Solutions (SVS) to support the Red River Métis with a review of the Town of Stonewall's Environmental Act Proposal. The MMF reviewed the Town of Stonewall's submission to meet the following objectives:

- Identify environmental and/or technical concerns with Stonewall's proposal and indicate where these issues have the potential to negatively impact the Rights, claims, and interests of the Red River Métis, as outlined in Red River Métis' Rights, Claims, and Interests, Section 2.2 of this report.
- Identify areas of the proposed project expansion that will require meaningful and ongoing communication with the MMF as the elected government of the Red River Métis.

Based on the recognized collective rights held by the Red River Métis in this area, the MMF, acting on behalf of the Red River Métis, must be appropriately consulted, and where impacts to rights cannot be avoided or adequately mitigated, accommodated.

1.1 **Project Description**

The Town of Stonewall currently obtains its drinking water from a public water system, consisting of three wells, a WTP, a pumphouse, and a piping system.

With its recent application, the Town of Stonewall is proposing to expand and upgrade the current water infrastructure to accommodate the growing needs of the rural communities of Warren and Woodlands, including the replacement of existing and deteriorating wells. This expansion includes plans to replace wells built in the 1970s and 1980s, the addition of reverse osmosis water treatment and the installation of new groundwater wells in Stonewall and at the WTP. The plans also include the construction of a new reservoir and pumphouse in the Town of Warren and installation of two water supply lines connecting all three communities.

The Town of Stonewall's proposal contains a noticeable lack of recognition for the presence of the Red River Métis within the project area. The full extent of the MMF's technical concerns—and their potential to intersect with the Rights, interests, and claims of the Red River Métis within our National Homeland—are discussed in the sections below.



2.0 Background—The Red River Métis and the MMF

2.1 The Red River Métis

The Red River Métis is an Indigenous collectivity and Aboriginal People within the meaning of section 35 of *the Constitution Act, 1982*. Based on our emergence as a distinct Indigenous People in the Northwest prior to effective control by Canada and the creation of the Province of Manitoba, the Red River Métis holds rights, interests, and claims throughout and beyond the Province of Manitoba.

Since 1982, Métis Rights have been recognized and affirmed by section 35 and protected by section 25 of the *Constitution Act, 1982.* These rights were further confirmed and explained by the Supreme Court of Canada (SCC) in *R.* v. *Powley,* 2003 SCC 43. Manitoba Courts also have recognized Red River Métis Rights in *R. v. Goodon,* 2008 MBPC 59. These decisions have affirmed that the Métis hold existing Aboriginal Rights throughout their Traditional Territories. Our Citizens and harvesters rely on and use the lands, waters, and resources of our Traditional Territory throughout the Province of Manitoba and elsewhere within the historic Northwest to exercise their constitutionally protected rights and to maintain their distinct Red River Métis customs, traditions, and culture.

2.2 Red River Métis' Rights, Claims, and Interests

Based on its emergence as a distinct Indigenous People in the Northwest prior to effective control by Canada and the creation of the Province of Manitoba, the Red River Métis holds rights, claims, and interests throughout and beyond the Province of Manitoba consistent with the United Nations Declaration on the Rights of Indigenous Peoples, including the right to self-determination.

The MMF, as the National Government of the Red River Métis is mandated to promote, protect, and advance the collectively held Aboriginal Rights of the Red River Métis. Through this mandate, the MMF engages with governments, industry, and others about potential impacts of projects and activities on the exercise of these rights. In 2007, the MMF Annual General Assembly adopted Resolution No. 8, which provides the framework for engagement, consultation, and accommodation with the Red River Métis. Designed by Métis, for Métis, Resolution No. 8 sets out the process that is to be followed by governments, industry, and other Proponents when developing plans or projects that have the potential to impact the section 35 rights, claims, and interests of the Red River Métis. It was unanimously passed by MMF Citizens and mandates a "single-window" approach to consultation and engagement with the Red River Métis through the MMF Home Office.¹

¹ More information about Resolution No. 8 is available online at: <u>http://www.mmfmb.ca/docs/2013-Resolution%208%20Booklet-VFinal.pdf</u>



In engaging the MMF, on behalf of the Red River Métis, the Resolution No. 8 Framework calls for the implementation of five phases:

- Phase I: Notice and Response
- Phase II: Research and Capacity
- Phase III: Engagement and Consultation
- Phase IV: Partnership and Accommodation
- Phase V: Implementation

These projects have and continue to have the potential to impact Red River Métis Rights, claims, and interests and as such, engagement and consultation with the MMF, through the process set out above, must be followed. The Project is located within the Traditional Territory of the Red River Métis, and in the heart of our Homeland. At one time, this was the "postage stamp province" of Manitoba. This is the birthplace of the Red River Métis and where we currently have an outstanding claim flowing from the Federal Crown's failure to diligently implement the land grant provision of 1.4 million acres of land promised to the Red River Métis as a condition for bringing Manitoba into Confederation and set out in section 31 of the *Manitoba Act, 1870* in accordance with the honour of the Crown.²

Red River Métis section 35 rights are distinct from First Nation's rights and must be respected. The Manitoba Métis Federation is the National Government of the Red River Métis.

Prior to the creation of Manitoba, the Red River Métis had always exercised its inherent right of selfdetermination to develop its own self-government structures and institutions centred around the Red River Settlement and throughout the Northwest. As described by Louis Riel in his 1885 memoirs, Métis self-government was well-established and functioning when Canada came to the Red River Métis in the late 1800s:

When the Government of Canada presented itself at our doors it found us at peace. It found that the Métis people of the North-West could not only live well without it... but that it had a government of its own, free, peaceful, well-functioning, contributing to the work of civilization in a way that the Company from England could never have done without thousands of soldiers. It was a government with an organized constitution whose junction was more legitimate and worthy of respect, because it was exercised over a country that belonged to it.

² Manitoba Metis Federation Inc. v. Canada (Attorney General), 2013 SCC 14, [2013] 1 SCR 623 ("MMF Case"). The Supreme Court of Canada recognized that this outstanding promise represents "a constitutional grievance going back almost a century and a half. So long as the issue remains outstanding, the goal of reconciliation and constitutional harmony, recognized in s. 35 of the *Constitution Act*, 1982 and underlying s. 31 of the *Manitoba Act*, remains unachieved. The ongoing rift in the national fabric that s. 31 was adopted to cure remains unremedied. The unfinished business of reconciliation of the Metis people with Canadian sovereignty is a matter of national and constitutional import" (para. 140).



Métis self-government has evolved and changed over time to better meet the needs of the Red River Métis. Today, the MMF is the recognized, democratically elected, self-government representative of the Red River Métis. On July 6, 2021, The MMF and the Government of Canada signed the Manitoba Métis Self-Government Recognition and Implementation Agreement.

Since 1967, the MMF has been authorized by the Red River Métis through a democratic governance structure at the Local, Regional, and national levels. As part of this governance structure, the MMF maintains a Registry of Red River Métis Citizens.³ By applying for Red River Métis Citizenship, individuals are confirming the MMF is their chosen and elected representative for the purposes clearly set out in its Constitution⁴, including as related to the collective rights, claims, and interests of the Red River Métis.⁵

The MMF Constitution confirms that the MMF has been created to promote the political, social, cultural, and economic Rights and interests of the Red River Métis. The MMF is authorized to represent the Red River Métis' collective rights, interests, and claims. This authorization is grounded in the MMF's democratic processes that ensures the MMF is responsible and accountable to the Red River Métis.

The MMF governance structure includes a centralized MMF President, Cabinet, Regions, and Locals. There are seven (7) Regions and approximately 135 Locals throughout Manitoba (Figure 1). There are more than three thousand Citizens who live outside of Manitoba. All MMF Citizens are Members of a Local. Locals and Regions work together to authorize and support the MMF Cabinet, and the MMF's various departments and offices. Through elections held every four years, Citizens choose and elect the MMF Cabinet consisting of the MMF President, who is the leader and spokesperson for the MMF, a Vice-President of each Region, and two Regional Executive Officers from each Region. The MMF Cabinet also includes the spokeswoman from the Infinity Women Secretariat.

⁵ Behn v. Moulton Contracting Ltd., 2013 SCC 26 at para 30: "[A]n Aboriginal group can authorize an individual or an organization to represent it for the purpose of asserting its s.35 rights."



³ MMF Constitution, Article III outlines the citizenship definition and application process. This definition ("Metis" is defined to mean " a person who self-identifies as Métis, is of historic Métis Nation Ancestry, is distinct from other Aboriginal Peoples and is accepted by the Métis Nation ") aligns with the definition of what constitutes a section 35 rights-bearing Metis community as outlined by the Supreme Court of Canada in *Powley* at para. 30.

⁴ *Newfoundland and Labrador v. Labrador Metis Nation,* 2007 NLCA 75 at para 47: "Anyone becoming a member of the [Labrador Metis Nation] should be deemed to know they were authorizing the LMN to deal on their behalf to pursue the objects of the LMN, including those set out in the preamble to its articles of association. This is sufficient authorization to entitle the LMN to bring the suit to enforce the duty to consult in the present case."



Figure 1: Map of MMF Regions and Locals



The MMF, as the duly authorized representative of the Red River Métis, has been recognized by both the federal and provincial governments in agreements, policies, and legislation. For example, in 2002, *The Child and Family Services Authorities Act* recognized the MMF for the devolution of Manitoba child and family services to a MMF controlled entity institutions. This Act establishes a series of Child and Family Services Authorities and provide the delivery of services to various distinct Indigenous communities in Manitoba. It creates a Métis Child and Family Serviced Authority, the directors of which are appointed by the MMF.

In 2008, the courts in Manitoba further recognized that "[t]he Métis community today in Manitoba is a well organized and vibrant community. Evidence was presented that the governing body of Métis people in Manitoba, the Manitoba Métis Federation, has a membership of approximately 40,000, most of which reside in southwestern Manitoba."⁶ In 2010, the Manitoba Government adopted a Manitoba Métis Policy, and stated that:

The Manitoba Métis Federation is a political representative of Métis people in Manitoba and represents in Manitoba the Métis who collectively refer to themselves as the Métis Nation... Recognition of the Manitoba Métis Federation as the primary representative of the Métis people is an important part of formalizing relationships.⁷

In 2012, the MMF-Manitoba Harvesting Agreement (2012) negotiated between the MMF, and the Manitoba Government recognized some of the collective section 35 harvesting rights of the Red River Métis and relied on the Citizenship processes of the MMF as proof of belonging to a rights-holding Aboriginal community:

For the purposes of these Points of Agreement, Manitoba will recognize as Métis Rights-Holders, individuals who are residents in Manitoba and who hold a valid MMF Harvesters Card, issued according to the MMF's Laws of the Hunt. [... and will] consult with the MMF prior to implementing any changes to the current regulatory regime that may infringe Métis Harvesting Rights.⁸

In 2013, the SCC recognized the "collective claim for declaratory relief for the purposes of reconciliation between the descendants of the Métis people of the Red River Valley and Canada." It went on to grant the MMF standing as the "body representing the collective Métis interest" in the *MMF Case*.⁹ Additionally, in 2016, the *MMF-Canada Framework Agreement* stated:

⁹ *MMF Case, supra* note 6 at para 44.



⁶ R. v. Goodon, 2008 MBPC 59 para 52. Note that the number of MMF Citizens (40,000) identified by the Court was as of 2007.

⁷ Manitoba Métis Policy, September 2010 at 4, 12, online (PDF): <u>https://www.gov.mb.ca/inr/mbmetispolicy.html</u>

⁸ MMF-Manitoba Harvesting Points of Agreement (September 29, 2012), ss. 3, 6-7.

the Supreme Court of Canada recognized that the claim of the Manitoba Métis Community was "not a series of claims for individual relief" but a "collective claim for declaratory relief for the purposes of reconciliation between the descendants of the Métis people of the Red River Valley and Canada" and went on to grant the MMF standing by concluding "[t]his collective claim merits allowing the body representing the collective Métis interest to come before the court.

[and that] Canada is committed to working, on a nation-to-nation, government-to-government basis, with the Métis Nation, through bilateral negotiations with the MMF."¹⁰

The MMF signed the *Manitoba Métis Self-Government Recognition and Implementation Agreement* (MMSGRIA) on July 6, 2021. This marked a major step forward in reconciliation between the Red River Métis and Canada. The MMSGRIA, among other things, immediately recognized the MMF as the National Government of the Red River Métis and sets out a path forward toward the completion of a modern Treaty. Consistent with the direction of our Citizens, MMF removed the arbitrary provincial borders that separated Red River Métis who live outside of Manitoba from those within. Today, thousands of Citizens who reside beyond the borders of Manitoba, inside and outside of Canada have chosen to take their Citizenship with the Red River Métis. The MMF has a regional, provincial, national, and international mandate.

Our modern Treaty was ratified by thousands of Red River Métis Citizens in June 2023 and builds upon the important work of the MMSGRIA. The finalization of the Treaty with Canada, and its implementation legislation will enable the Red River Métis to renew its partnership with Canada through its democratically elected representative, the MMF Government.

¹⁰ MMF-Canada Framework Agreement on Advancing Reconciliation, November 15, 2016, Preamble.



3.0 Review Methodology

The MMF undertook a review of the Town of Stonewall's proposal in order to determine the potential impacts of the WTP expansion on the Rights and interests of the Red River Métis. This report is based on an analysis of the Town of Stonewall's technical documents, a review of MMF's Data Catalogue, and feedback from Red River Métis Citizens received through a community engagement session held in October 2024.

3.1 Technical Review

This technical review considered the Project's regional and local area, up to 20 km from the immediate project footprint. The MMF and SVS analyzed the connections between proposed activities and potential risks and impacts to the Red River Métis based on the following:

- The adequacy of baseline (data about existing conditions) information and data; effects assessment; and mitigation, management, and monitoring plans
- The consideration of Red River Métis presence, ways of life, land use, and occupancy
- Evidence of proper and meaningful engagement of local and Métis Knowledge in the collection of baseline data, technical planning, and new data collection

In addition to the EAP, the MMF reviewed spatial data within the MMF Data Catalogue. Since 2010, the MMF has collected and documented land use and occupancy information from Red River Métis Citizens across Manitoba. The MMF has used this information to build a database of locations throughout the National Homeland of the Red River Métis where Red River Métis Citizens practice traditional harvesting activities and other Aboriginal Rights as identified in and protected under section 35 of the *Constitution Act, 1982*. This database has over 22,481 land use and occupancy features and represents data collected from over 400 interviews with 372 individual Citizens.

For this report, the MMF drew upon information in the data catalogue to understand local knowledge of the Stonewall area. Overall, such data provides a snapshot of where and how Red River Métis Citizens used and still use the lands and waters across the whole of the National Homeland. The data also guided assessment of potential impacts to constitutionally guaranteed Rights, ways of life, cultural heritage, and more.

3.2 Red River Métis Citizen Engagement

The MMF hosted a community engagement session on October 15, 2024, in Stonewall, MB, with Red River Métis Citizens. The MMF presented an overview of the Stonewall Water Treatment Plant Project and explained the technical review methods used to identify key concerns and recommendations. The MMF presented the key concerns and recommendations for the Project as they relate to surface water and groundwater, fish and fish habitat, terrestrial ecology and the physical environment, and heritage resources and socio-economics. Additionally, the MMF asked Citizens about their land use in the area and



commercial harvesting. Red River Métis Citizens provided feedback and expressed concerns about the Project based on the information provided. Citizen feedback is summarized in Section 5.0, What We Heard: Red River Métis Citizen Engagement.

4.0 Technical Review Findings

4.1 Surface Water and Groundwater

Impacts on surface water and groundwater are presented in the EAP (July, 2024) prepared by Stantec Consulting Ltd. for the Manitoba Water Services Board. The EAP documents the proposed construction of the WTP, potential environmental effects, and planned mitigation measures associated with the Project. Additional reports on the feasibility and design of the water treatment and conveyance system are beyond the scope of the current MMF review.

The MMF understands the balancing act of supplying safe and reliable drinking water to expanding populations while also prioritizing the protection of surface water and groundwater resources. Reliable water management at the Stonewall plant requires innovative technologies, representative baseline characterization, and opportunities for engagement with Red River Métis Citizens, only through the MMF, in all project phases.

The Project details upgrades to the Stonewall WTP, which includes the addition of reverse osmosis treatment. This treatment system creates brine wastewater, known as concentrate. The EAP outlines Project plans to discharge this concentrate to the Grassmere Creek drain during open water periods (May to October) and to the existing Stonewall sewage lagoon during the winter (November to April). Concentrations of water quality parameters (e.g., salts, total suspended solids) will be high in the concentrate, to levels which exceed the Canadian Guidelines for the Protection of Aquatic Life(Canadian Council of Ministers of the Environment [CCME], 2024). The discharge will only account for 5% of the total flow in Grassmere Creek drain, diluting the concentrate and mitigating potential impacts to overall water quality and the suitability of the drain for aquatic life.

The MMF has several recommendations on the management and discharge of concentrate to enhance the protection of aquatic life and the receiving environment. Foremost, the MMF requests that the Proponent complete additional studies to assess the feasibility of beneficial resource recovery of concentrate. Beneficial resource recovery is a pollution prevention technique that collects a waste stream to be repurposed rather than released to the environment. The MMF is aware that concentrate, depending on quality, can be used to produce fertilizer or road salts for de-icing. By finding a beneficial recovery option for the concentrate, the Project would prevent the discharge of wastewater to the natural environment while supporting an economical opportunity for waste management.

If it is demonstrated that beneficial resource recovery is not feasible for the reverse osmosis water treatment, the MMF requests that additional protections be put in place to mitigate impacts from concentrate discharge. It is recommended that these mitigations include studying the benefit of discharging concentrate to a constructed wetland habitat. Constructed wetlands provide simultaneous



treatment of nutrients, metals, and trace organic contaminants at a low operational cost, while lowering concentrate volume and adding value through habitat creation (Scholes et al., 2021).

Besides wetland creation, it is recommended that further consideration be given to discharge erosion control. The current design relies on discharge to a riprap pad (i.e., rocks), which is known to slow vegetation growth, disrupt habitat for aquatic animals, birds, and other species, and is prone to failure. Rolled Erosion Control Products such as erosion control blankets and turf reinforcement mats should be meaningfully considered as a design alternative: they promote the growth of vegetation while also protecting against river scour (Forrester, 2016).

Regardless of the erosion control structure selected, the MMF recommends that the development of the WTP include an adaptive monitoring and management plan. As part of such a plan, changes in erosion and sedimentation should be monitored, including bank undercutting and stability, flooding and drain-flood interaction, as well as overall habitat quality at the outlet.

The current environmental assessment indicates that concentrate water quality will be elevated compared to background conditions and water quality guidelines. The MMF notes that the Project relies on limited water quality data (i.e., four sampling dates)—data that is now 14 years out of date—to characterize baseline conditions. The Proponent must prioritize the collection of updated water quality data, spanning at least one hydrologic year, to demonstrate a fulsome understanding of current water quality conditions. Additional monitoring must test for all parameters that are expected to be elevated in discharge, such as major ions, sulphates, alkalinity and pH. Trigger Response targets for discharge effluent should be developed by the Proponent as a mechanism to identify and respond to changes in water quality as a result of the Project. Further to this, the MMF recommends monthly testing of concentrate effluent for acute toxicity, to provide enhanced and proactive protection of aquatic life.

Besides concentrate discharge, there are potential Project impacts from the taking of groundwater. The pumping of groundwater for the drinking water system will lower the local water table and may interfere with other water users and wetlands. The current assessment does not discuss wetlands in the EAP's Regional Assessment Area (RAA). The MMF requires that the Proponent complete a wetland assessment and develop mitigation plans to offset any negative impacts to wetland function in the radius of influence. As wetlands are a key priority for the MMF, it is recommended that this assessment program include Red River Métis environmental monitors and prioritize Red River Métis Knowledge. This program should include training and capacity building for monitors where necessary. Furthermore, the Proponent should commit to developing a well interference program as an avenue for local residents to report changes in groundwater quality or quantity as a result of the Project.

The EAP notes that regional groundwater is characterized by high nitrate concentrations, potentially from agricultural operations or leaky septic systems. The Proponent has committed to an education program, which the MMF is pleased to support. The MMF recommends that this program include discussion of nitrate pollution holistically and includes a monitoring program for long-term changes in nitrates.

Conveyance systems (piping) to distribute treated water is expected to cross several waterways in the Regional Assessment Area. While the MMF is pleased to see that erosion and sediment control measures will be implemented during installation, there appear to be gaps in the baseline assessment and mitigation



plans. Firstly, the Project has not identified all waterways that will be crossed. A review of open data indicates that four waterways that will be crossed have not been identified by the Proponent. The Proponent must not limit the scope of assessment to provincially significant waterways and must instead reflect the understanding that all waterways are significant to the environment and the interests of Red River Métis Citizens. Additional mitigations such as slurry containment and post-construction monitoring of waterway crossings are recommended to enhance environmental protection during construction.

Lastly, the MMF recommends that the Proponent develop a comprehensive surface and groundwater monitoring program. This program should include surface water monitoring in the receiving environment, clustered groundwater wells, and a schedule of monitoring for both water quality and quantity. The monitoring program must include a Trigger Response Plan and metrics to identify and respond to changes in the environment. It is recommended that the Proponent offer capacity building and training for Red River Métis environmental monitors to further engage our Citizens in the long-term Project operations.

4.2 Aquatic Impacts

The Project EAP describes Project impacts to the aquatic environment for the Stonewall Water Treatment Plant and associated pipeline connecting the towns of Stonewall, Woodlands, and Warren for the distribution of drinking water to the rural communities in the Interlake Region. As mentioned previously, the pipeline is proposed to cross beneath multiple watercourses and therefore poses a potential risk to aquatic ecosystems including fish, aquatic invertebrates, and the people and other animals who rely on them.

The EAP outlines a final preferred route of the pipeline that includes crossing four watercourses including the East and West Branches of the Grassmere Creek Drain, Ekhart Drain, and the East Branch Sturgeon Creek. Outside of the EAP, open-source data identifies four additional watercourses that the pipeline will cross. These watercourses were excluded from any baseline characterization of the aquatic ecosystems, or the associated impact assessment of those systems. These watercourses must be assessed to capture any potential impacts that could result from project construction or operations. Red River Métis Citizens have a rich land use and occupancy history in this area and continue to use these areas for fishing and passing on Traditional Knowledge and cultural practices. This land use is at risk of being impacted by this Project if the aquatic systems the pipeline will cross are not adequately protected.

The Proponent conducting a desktop review of the general fish communities and aquatic species at risk present in two of the watercourses that the pipeline will cross in its final design. They cited fish community surveys from 2013, 11 years before the time of this EAP technical review but did not provide the original Milani, 2013 report for review. They also reported that site-specific mitigation measures to avoid the harmful alteration, destruction, or death of fish and fish habitat will be provided for the creek crossings (only the four reported) to the Department of Fisheries and Oceans Canada (DFO) through the request for review (RFR) process but did not provide this in the EAP for the MMF's review.

This out-of-date fisheries data does not provide a comprehensive characterization of the aquatic environment in the study area. The MMF requires field survey data to be dated within three years between the time of the survey and the time of application, to ensure minimal changes to the aquatic



environmental so that no potential impacts are missed. The MMF recommends that the Proponent execute field surveys for fish communities and habitat use at each of the watercourse crossings (not just the provincially significant waterways). The surveys must be done with adequate effort, using standardized methods, and must be submitted for review with adequate capacity funding for the MMF to review the updated fisheries data and fish and fish habitat environmental impact assessment in advance of their RFR to the DFO. Additionally the fisheries data gathered during the surveys as well as Traditional Knowledge of fish habitat use in the areas should be used to inform protective timing windows to avoid any construction activities at watercourse crossings during sensitive periods such as spawning, migrating, or nursey habitat for young fish, to reduce the impacts to fish.

In the EAP, the Proponent describes how the watercourse crossings will use horizontal directional drilling, where the pipe is inserted underground, underneath the watercourse, to minimize disturbance to the aquatic environment. In their mitigation measures they describe erosion and sediment during the construction process being the most likely risk for impacts to the aquatic environment. They proposed to mitigate these impacts by installing erosion and sediment control structures upstream and downstream of the drilling site. They also proposed to visually monitor the sites during construction for signs of turbidity or murky waters indicating that the drill caused "frac out" and came in contact with the watercourse. They did not however provide their detailed erosion and sediment control plans for triggers and actions that will take place if/when this issue occurs. Aquatic monitoring during construction should be done in collaboration with Red River Métis Monitors with adequate capacity funding to support their monitoring work. In the event of an erosion or sediment control issue in the watercourses the MMF must be notified of the event and the steps taken to rectify the situation during construction and over the lifetime of the pipeline.

Lastly, the Proponent stated that they would implement proper procedures for refuelling vehicles and equipment off-site but did not define the setbacks associated with their procedures. The MMF requires that any refuelling, chemical handling, or equipment checks associated with the project be done a minimum of 50 m back from the highwater mark or from any harvesting or cultural sites to ensure no accidental spills or leaks impact the environment. Any spills or leaks resulting from the project pipeline, equipment, or vehicles must be reported to the MMF to ensure the safety of Red River Métis Citizens using the land and waters in the area.

4.3 Terrestrial Impacts

The EAP prepared by Stantec Consultants Ltd. (2024) describes impacts and mitigation measures for the terrestrial environment, including soils and terrain, wildlife and wildlife habitat, and vegetation. A desktop site assessment was first undertaken by Stantec to identify terrestrial habitat within the Project area. This assessment identified existing conditions within the Project's Regional Assessment Area (RAA) including topography and surficial geology, plant species within the Lake Manitoba Plain Ecoregion (Project location) including plant species at risk (SAR) and species of conservation concern (SOCC), wildlife and wildlife habitat, and SAR that have potential to occur in the RAA.

While the desktop assessment is a good start, the MMF recommends the Proponent undertake field surveys prior to construction activities to confirm the presence and absence of plant and wildlife species



and SAR within the Project Development Area (PDA), Local Assessment Area (LAA), and Regional Assessment Area. This will help the Proponent develop and implement appropriate mitigation measures to reduce impacts.

A mitigation measure the Proponent has identified states that workers on the Project site should be aware of the potential for amphibian and reptile species to be present and apply best management practices to prevent accidental mortality during construction. While the MMF generally agrees with this statement, it is concerning that the Proponent has not completed amphibian and reptile field surveys to confirm the presence and absence of species, especially SAR. The Proponent's desktop assessment identified northern leopard frog and red-sided garter snake as SAR/SOCC with potential to occur within the RAA. It is best practice to first complete field surveys to confirm the presence of a species, then develop a mitigation protocol to prevent harm and/or mortality to species and their habitat while completing Project activities and construction.

The MMF recommends that the Proponent undertake amphibian and reptile field surveys to determine if they are present on the Project site and develop an appropriate mitigation plan a head of time to prevent harm and/or mortality during construction.

Within the EAP, the Proponent provides little information regarding impacts to vegetation. Project activities within the PDA include excavation of soils and disturbance and destruction of vegetation. However, the Proponent describes the terrain as being minimally impacted as the ground surface will be restored post-construction. The Proponent's desktop assessment identifies bur oak, hazelnut, Manitoba maple, high bush cranberry and Saskatoon berry within the Lake Manitoba Plain Ecoregion. These plant species are harvested by Red River Métis Citizens and are culturally important. The MMF's documented Red River Métis Knowledge and Land Use Occupancy shows that Citizens harvest throughout the entire Project area, including the PDA, LAA, and RAA. The MMF wants to ensure the replanting of any harvestable plants removed during Project activities such as excavation.

Since soil and vegetation will be disturbed during Project activities, the Proponent has proposed mitigation measures to restore disturbed natural vegetation and riparian areas to their natural states with native plants. The Proponent has also proposed to band trees that will remain in the ground as a protective measure from construction activities. The MMF is pleased that re-vegetation will occur, however the Proponent does not mention any associated monitoring activities. Additionally, it is unclear to the MMF how banding trees is an effective protection method as the Proponent does not provide further details. It is important to the MMF that trees that will not be removed during construction are appropriately protected and that re-vegetated areas are monitored to ensure that mitigation measures are successful. The MMF recommends that the Proponent implement a monitoring program for post-construction re-vegetation efforts that include the help of Red River Métis Citizens. The MMF also recommends that the Proponent provide further information regarding tree banding and encourages the Proponent to consider erecting physical barriers around trees for effective protection.

As Project activities begin, fugitive dust generation (dust from equipment) is expected and will need to be mitigated. The Proponent states they will use an approved dust suppressant and limit construction activities during high winds. As Red River Métis Citizens harvest throughout the Project area, the MMF is concerned about the use of chemical dust suppressants applied to roads and Project sites that may impact



the surrounding vegetation. The MMF recommends that the Proponent develop a dust map to identify areas that are likely to generate dust, prioritizing implementation of non-chemical dust control measures where possible.

Project activities also involve an increase of vehicles and heavy equipment in the area that need servicing and fuel. The Proponent has identified a 100-m setback from all watercourses for servicing and fuelling vehicles and equipment. The MMF appreciates this mitigative measure to protect watercourses, but remains concerned about the land and vegetation. Red River Métis Citizens harvest for personal and commercial purposes throughout the RAA and would be negatively impacted if a fuel spill occurred on or near harvesting areas. The MMF recommends that the Proponent implement a 100-m setback from Red River Métis harvesting areas and riparian zones for fuelling and servicing needs.

4.4 Heritage Resources and Socio-Economic Impacts

The EAP describes the socio-economic environment, including the heritage resources, within the RAA. Overall, the EAP fails to properly consider the presence of Red River Métis within its baseline assessment of the socio-economic context of this project, and to document the cultural importance of this area to the Red River Métis.

The Proponent states directly that "there are no First Nations or Métis Communities within the RAA." As explored at length in Section 4.5, the Red River Métis have historic and ongoing presence within the Project area and throughout the National Homeland of the Red River Métis. Based on this assertion, the Proponent does not consider the importance commercial harvesting and agricultural activity within the project area, as well as the presence of local Métis institutions, such as the MMF's Stonewall Local, and businesses.

The Proponent's proposed mitigations to the socio-economic impacts of the Project thus also do not include Red River Métis-specific mitigations. The MMF requests that the Proponent develop a detailed Red River-specific mitigation plan that does the following:

- Recognizes the presence of Red River Métis socio-economic activity in the area
- Provides strategies mitigating potential impacts on Red River Métis commercial harvesting
- Support economic monitoring initiatives conducted by Red River Métis through which feedback on the mitigation measures can be relayed to the Proponent
- Include Red River Métis-specific plans to bolster partnerships with Red River Métis-owned businesses and organizations, as well as plans to increase Métis participation in the Project through capacity building, employment, and training opportunities.

The Proponent must re-evaluate the socio-economic context of the project in light of a distinctions-based approach, recognizing the unique presence and values of the Red River Métis within the project area.



The EPA also states that "the pipeline route is in an area of low heritage concern based on current heritage resource data." The areas near the Project are of historical and cultural importance to the Red River Métis, and the Proponent has failed to consult the MMF on the potential heritage resources within the area. There is evidence of historic Red River Métis Settlement within the Stony Mountain area, an area of refuge for Red River Métis following floods in the Red River Valley throughout the 18th and 19th centuries. Using Red River carts, the Red River Métis opened this area to settlement, connecting Teulon, Stonewall, Stony Mountain, Gunton, Balmoral and Winnipeg (Lawrence Barkwell, 2018).

The MMF requires that the Proponent consider the historic presence of the Red River Métis and the need for meaningful engagement with the MMF during the development of the Heritage Resources Protection Plan. The MMF recommends that the Heritage Resource Protection Plan be co-developed with the MMF to ensure that the document and its approach meaningfully recognize the Rights and interests of the Red River Métis and comply with the United Nations Declaration on the Rights of Indigenous Peoples. The MMF requests that the plan include the co-development of a Red River Métis-specific chance finds protocol for archaeological material that is in line with Red River Métis heritage protocols.

All of the suggestions above must be developed through consultation with the MMF as the elected government of the Red River Métis.

4.5 Land Use, Occupancy, and Exercise of Rights

Despite the Proponent's assertion that there is no Métis presence within the project area, The Red River Métis have demonstrated land use and occupancy throughout the National Homeland, including within the vicinity of the Stonewall Water Treatment Plant. Within 20 km of the WTP, the MMF has documented hundreds of land use and occupancy locations, including cultural sites, overnight locations, personal and commercial harvesting areas, and sites of Métis Ecological Knowledge.

As described throughout Section 4.0 of this report, the project area includes sites of importance to the Red River Métis for cultural purposes and the exercise of their section 35 rights. Within this area, Red River Métis Citizens have documented habitat of culturally significant plant and animal species, which are harvested by Red River Métis harvesters for subsistence and ceremonial use.

In addition to personal harvest areas, Red River Métis Citizens commercially harvest fish and animal species within 20 km of the Project. This harvest includes fish species such as pickerel, sauger, jackfish, sucker, burbot, and carp, and fur bearing species such as red fox, coyote, snowshoe hare, jack rabbit, beaver, mink, muskrat, and weasel.

This data demonstrates the importance of this area for hunting, trapping and snaring, fishing, and gathering, all types of harvest which are Rights guaranteed to the Red River Métis under section 35 of the Constitution. The MMF thus requires the Proponent to conduct an assessment of the potential impacts of the Project's activities in relation to demonstrated Red River Métis presence in and ecological knowledge of the area.



5.0 What We Heard: Red River Métis Citizen Engagement

Red River Métis Citizens provided feedback and shared concerns about the WTP with the MMF. One of the most common concerns raised was around cost and taxes to home and business owners. Citizens are concerned about additional costs or an increase in taxes that come with a new WTP and infrastructure. Particularly, Citizens are concerned about those on fixed incomes and/or those who are struggling financially.

The lack of current data used within the EAP was also a main concern to Citizens. Citizens acknowledged that a lot of the data for water quality and baseline fish data were either non-existent or very outdated. While Citizens recognized the importance of the desktop assessments the Proponent completed, they recommend more field studies and the collection of current data in support of the desktop assessment.

Another common concern was about the negative impact to lands and water and the need for proactive monitoring throughout Project construction and after. Citizens are concerned about negative impacts to vegetation, agricultural land, water quality, water table levels, wetlands, and watersheds surrounding the Project area. Additionally, Citizens wondered how this Project will contribute to cumulative impacts in the area. Citizens voiced the need for collaboration with Red River Métis Citizen Scientists and communities to monitor the environment, including the water quality of the Grassmere Creek drain where water is released. Citizens would like to see the hiring and employment of Red River Métis for monitoring programs.

Citizens shared some general concerns about the WTP and water delivery system. Concerns were raised around the process of treating water and whether chemicals (i.e. chlorine and fluoride) will be used. Citizens also expressed concern for a lack of disaster and failure plans. One Citizen raised the recent watermain break event in Calgary in June, where many residents lost water supply and others were under water restrictions. Citizens want to make sure there are emergency response plans in place for when a disaster event such as this one occurs.

Lastly, Citizens expressed concern about the lack of consultation with Red River Métis Citizens before Project plans were developed. Red River Métis Citizens want to be consulted with in the early planning stages before the Project begins, throughout Project activities, and after Project activities are complete. Citizens expressed that they use the land within and around the Project area and need to be consulted with when projects are set to take place. A few Citizens expressed specifically they use the area for hunting waterfowl and deer, and still use ox cart paths that intersect with proposed water pipeline.

6.0 Summary and Recommendations

The MMF's main concern with the Stonewall WTP expansion is the Proponent's lack of early, meaningful, and ongoing engagement. The proposal not only grossly overlooks the presence of Red River Métis within the Project area, but also fails to meet the expectations set out in provincial guidelines for consultation and integrating Métis Knowledge and Land Use into assessment and planning.



Based on the technical review, spatial data review, and community engagement, we have identified the following key concerns:

- In several cases, the Proponent relies on desktop assessments, and incomplete or less-current data within the baseline for water quality, terrestrial and aquatic life. Up-to-date field surveys and sampling should be undertaken in order to form a representative baseline condition for water quality as well for as aquatic and terrestrial life
- The Métis Knowledge and Land Use data within this report demonstrates the Red River Métis' ongoing presence and use of the Project area for cultural, spiritual, economic and subsistence purposes. By omitting this information, the EAP fails to appropriately assess the potential impacts of the expansion to the Rights, interests, and claims of the Red River Métis within this area of the National Homeland
- The Proponent did not include Métis Knowledge to inform planning regarding construction work periods and re-vegetation/restoration to avoid disruption to species that are culturally significant to the Red River Métis
- The EAP fails to consider the historic importance of Red River Métis within the traditional settlement of Stony Mountain. A continued lack of willingness on behalf of the Proponent to engage the appropriate departments at the MMF about the heritage potential of the area may lead to the degradation of historical ties to the land and permanent disruptions to the transmission of Métis Knowledge.

Based on these comments, the MMF developed a series of recommendations:

Updated Data

- The Proponent must prioritize the collection of updated water quality data, spanning at least one year, to demonstrate a fulsome understanding of current water quality conditions in the study area. The MMF requests that additional studies are completed to assess the potential for recovery and reuse of the brine. This resource recovery would enhance the protection of aquatic life. If resource recovery is not a viable option, the MMF requests that the Proponent plan to mitigate potentially harmful impacts from concentrate discharge through efforts such as wetland creation or softer erosion control techniques that promote the growth of vegetation.
- The MMF requires field survey data to be no older than three years between the time of the survey and the time of application to ensure minimal changes to the aquatic and terrestrial environmental so that no potential impacts are missed. The MMF recommends that the Proponent execute field surveys, using standardized methods, for fish communities and habitat, and to confirm the presence and absence of plant and wildlife species within the PDA, LAA, and RAA. Such data collection must also include Traditional Knowledge of plant and animal habitat in the area. The data should be used to inform protective timing windows to avoid construction activities, in order to reduce the impacts to these species



 The Proponent's socio-economic baseline data is does not include Red River Métis-specific information and context. The Proponent must re-evaluate the socio-economic context of the project in light of a distinctions-based approach, recognizing the unique presence and values of the Red River Métis within the Project area.

Monitoring, Mitigation and Management Plans

- The MMF recommends the development of adaptive monitoring and management plans for several aspects of the Project, including: a plan for the drain outlet, a comprehensive surface and groundwater monitoring program, wetland monitoring, water quality monitoring which tests for acute toxicity, and a well interference program. It is recommended that this assessment program include Red River Métis environmental monitors, prioritize Red River Métis Knowledge, and include and training and capacity building for monitors
- As Red River Métis Citizens harvest throughout the Project area, the MMF is concerned about the use of chemical dust suppressants applied to roads and Project sites that may impact the surrounding vegetation. The MMF recommends that the Proponent develop a dust map to identify areas that are likely to generate dust and prioritize implementation of non-chemical dust control measures where possible. The MMF also recommends implementation of a 100-m setback from Red River Métis harvesting areas and riparian zones for refuelling and servicing needs
- The MMF requests that the Proponent develop a more detailed and Red River-specific mitigation
 plan that meaningfully considers the presence of Red River Métis socio-economic activity in the
 area. This plan should provide strategies for mitigating potential impacts to commercial
 harvesting, plans to support Red River Métis monitoring initiatives, and specific plans to bolster
 partnerships with Red River Métis-owned businesses and organizations and to increase Red River
 Métis participation in all phases of the Project
- The MMF recommends that the Proponent co-develop the Heritage Resource Protection Plan (HRPP)alongside the MMF to ensure that a Red River Métis-specific chance find protocol for archaeological material is developed in line with established Red River Métis heritage protocols.

The MMF is looking forward to further discussion and collaboration with the Proponent to ensure that the Rights and interests of the Red River Métis are appropriately accommodated and fully incorporated into the Project, for its lifetime.



Appendix A: Comment Table

Comment #	Section Reference	Comment	Recommendation
Surface and Gro	oundwater		
	2.3.1 Stonewall Water Treatment Plant	The proposed WTP will generate and discharge concentrate flow from the reverse osmosis treatment system to the Grassmere Creek drain or the sewage lagoon. Projected concentrate water quality has been provided and indicates elevated parameters of various contaminants. While the MMF understands there will be dilution to concentrate in the lagoon or drain, there are questions if innovative solutions to treat concentrate or improve concentrate quality have been explored.	The MMF requests additional information on the options explored to treat, reuse or improve concentrate quality. It is understood that concentrate from reverse osmosis systems can be used for beneficial resource recovery, depending on concentrate quality. Examples include recovering fertilizer water from brine or treatment with crystallizer to produce solids for road deicing. The MMF recommends innovative brine management is explored as an alternative to environmental discharge. Justification for the selected discharge/management method should also be provided.
	4.1.2 Surface Water	The Proponent identified that four creeks will be crossed by the PDA: Each Branch Grassmere Creek Drain, Ekhart Drain, West Branch Grassmere Creek Drain, and East Branch Sturgeon Creek. Review of Figure 1 indicates four other creeks/drains are crossed are crossed by the PDA and are not identified by the Proponent. Creeks present in Figure-1 were cross-referenced with the National Hydro Network Database and are present in the PDA.	Please provide justification for excluding creeks and drains from the surface water assessment. The surface water assessment should include all surface water bodies impacted by the project and should not be limited to those designated as provincial waterways.



4.1.2 Surface Water 4.1.2 Surface Water	The Proponent states "available water quality data for surface water bodies in the RAA include the portion of Grassmere Creek within the RAA with alkalinity ranging from 175 mg/L to 731 mg/L, with a mean of 287.75 mg/L (Lake Winnipeg Foundation, 2024)". The Lake Winnipeg Foundation Datastream was cross-referenced to validate the location of data collection. Grassmere 1 (G1) location has a recorded maximum alkalinity of 371 mg/L from four data points collected between May 2010 and 2011. It is concerning that the Proponent relies on outdated and infrequent data to characterize existing water quality within the RAA. Further, it is suspected the reported maximum alkalinity value of 731 mg/L is an error, as this value is uncharacteristically high for alkalinity in this region.	The MMF recommends the Proponent collect updated water quality data to characterize the assessment area. Surface water quality is predicted to have an adverse impact in the PDA and LAA as determined by the environmental assessment and an appropriate understanding of baseline conditions is needed to detect and manage project impacts. Discharge from the Stonewall Water Treatment Plant (direct or via lagoon discharge) contributes to impacts and updated existing surface water quality data should be collected from a site near the lagoon outlet. A minimum of one year of quarterly sampling is recommended. Parameters should include routine water quality analysis, as well as parameters of concern from reverse osmosis concentrate (Mg, Ca, sulphates, alkalinity, pH). It is also recommended the Proponent review Lake Winnipeg Datastream water quality data and update erroneous data in the Environmental Impact Proposal. All water quality collection locations should be properly documented and mapped as a part of this assessment.
4.1.2 Surface Water	Table 4-3 presents mean monthly discharge at Grassmere Creek drain from 1963-2024. A trend analysis has not been completed to identify changes in flow regime or to test if mean creek flows are representative of more recent years. Discharge conditions may be	It is recommended the Proponent complete a trend analysis on discharge rates in the Grassmere Creek to identify if mean discharge is representative of current conditions. Further assessment should be completed to understand how climate change will impact discharge levels in



	impacted by land use changes, water	the Grassmere Creek drain to develop robust
	management, or water takings.	discharge plans.
4.1.2 Surface Water	Table 4-3 indicates "detection limits were adjusted due to sample matrix effects (e.g., chemical interference, colour, turbidity)" for nitrate, chloride, and sulphate. The average values presented for these parameters are well above typical laboratory detection limits. It is unclear what adjustments were made.	The Proponent must clarify and justify what adjustments have been made to reported values for nitrate, chloride and sulphate. These parameters are of particular concern due to their concentration in concentrate and/or their ubiquitous presence in the watershed.
4.1.3 Groundwater	The Proponent relies on outdated reports (1987) to characterize groundwater quality in the carbonate aquifer.	Updated groundwater quality data should be used to classify current conditions on-site. The Proponent should include assessment of water quality data from the existing supply well, or complete sampling programs in the target aquifer. More recent groundwater quality data should be sought from integrated watershed plans (i.e., Netley Grassmere Integrated Watershed Management Plan or state of the watershed reports.
4.1.3 Groundwater	The Proponent indicates that nitrate is an ongoing groundwater quality concern. Review of the appended material indicates that "sampling of the existing Town of Stonewall raw water supply wells had detectable nitrates and nitrite from the samples (Stantec, 2023) which are indicators of the interconnection between the upper and the lower carbonate layers and anthropogenic impacts. While the	The MMF is pleased the Proponent is committing to education and awareness programs for nitrate transport pathways, such as abandoned wells. This program should include information on other nitrate sources, such as septic systems, agricultural practices, and other non-point sources. It is requested the Proponent outline what monitoring programs will take place for nitrate



	nitrate levels are less than the MAC for nitrate (10mg/L) and nitrite (1mg/L), these are causes of concern that will need to be addressed." Nitrate concentrations in the concentrate are anticipated to be high (i.e., 8.7 mg/L) and discharged to the natural environment. The Proponent has proposed water quality in the area to detect any trends of increasing nitrate in groundwater, as well as pre-emptive measures for education and awareness programs.	 quality (e.g., groundwater, surface, timing, frequency) and response measures to detected changes in trends. It is understood that nitrate concentrations in groundwater are a broad watershed issue. It is recommended the Proponent commit to co-developing or facilitating a working group on nitrate management, should nitrate appear to be increasing based on the proposed monitoring and response program.
5.1.1.2 Surface Water	The "proposed water supply pipeline will cross four waterways" where short term effects from construction could include erosion/sedimentation, stockpiling of material, and equipment/vehicle movement. The Proponent has proposed an erosion and sediment control plan to mitigate off-site soil migration, including silt fences.	The MMF is pleased to see the use of a Sediment and Erosion Control Plan to outline measures required to mitigate concerns of soil movement during construction. It is recommended that Silt Fence installation and design follow the U.S. Environmental Protection Agency (EPA) Stormwater Best Management Practice (EPA, 2021). The Sediment and Erosion Control Plan should include protocols for evaluating the effectiveness of sediment control measures during construction. Additional provisions should be included to evaluate the state of creek crossing post-construction and conduct adaptive management to mitigate any unforeseen impacts to bank stability or erosion post-construction.



		Further commitment and clarity are needed on the prevention measures planned for the four additional creek crossings identified as part of this review.
5.1.1.2 Surface Water	Directional drilling is proposed for all creek crossings. Directional drilling has the potential to produce drilling slurry of sediment and other contaminant discharges to the environment.	Appropriate management strategies must be implemented by the Proponent during directional drilling to mitigate release of slurry or other waters from drilling. This may include maintaining grass berms between drilling and roadsides/waterways, stormwater diversion around drilling sites, sediment control measures, strategic placing and covering of stockpiles, and containment pits or drums for the storage of well slurry.
5.1.1.2 Surface Water	The Proponent details "the concentrate pipeline will be placed 2.5 m below grade by open-cut excavation. It will be advanced into East Branch Grassmere Creek Drain via the side of the creek bank outlet on a riprap splash pad". There is concern that no field surveys have been completed to site the location of the concentrate drain. The Proponent has not provided the proposed location of the concentrate drain. Further, the design does not consider the use of softer erosion control	The MMF recommends the Proponent evaluate the use of a constructed wetland as the drain outlet upstream of the East Branch of Grassmere Creek. Use of a constructed wetland could provide further co-benefits such as improving surface water quality, creating habitat, flow reduction, and other ecological services. If a wetland outlet is not feasible, it is recommended that Proponent consider the use of softer erosion control mechanisms such as erosion control blankets and turf reinforcement. Erosion control techniques that allow for



	mechanisms, such as Rolled Erosion Control Products (RECP).	vegetative growth should be prioritized to avoid disruption of natural habitats and wildlife refuge. In any case, further site visits are needed to site the location of the drain, and these details should be incorporated into environmental assessments. The placement of the drain and erosion control structure should avoid harming any sensitive water or aquatic features, such as potential spawning areas, reptilian habitat, or significant vegetation. An adaptive monitoring plan should be developed for the drain outlet. The plan should include indicators and metrics to measure the accumulation of silt in the selected erosion control structure, erosion/sedimentation along the bank outlet, evidence of flooding or drain- flood water interaction, and the recovery of the natural landscape in the location of the outlet. Continuous in-stream monitoring for temperature and water level at the drain outlet is recommended to identify any changes in thermal regime.
5.1.1.2 Surface Water	The Proponent states "concentrate water from the WTP is estimated to discharge at a rate of 500 m ³ /d under full WTP operation, representing at most, approximately 4.7% of the total flow".	 Please clarify: 1. Does the lowest mean monthly flow capture potential drought conditions? 2. Will the estimated discharge rate of 500 m³/d vary under socio-economic



	It is appreciated that total flow from the WTP represents a small fraction of the total discharge downstream of the Project, however it is not clear what considerations have been made to determine the WTP operational flow rate.	 conditions, such as increased population, new industry, or competing water demands? 3. Does the 500 m³/d discharge rate account for total flow out of the existing lagoon, or discharge directly from the WTP? If there is additional discharge from the lagoon, how will this impact water quality predictions and the overall contribution to flow and quality downstream?
5.1.1.2 Surface Water	Table 5-1 compares the anticipated concentrations in concentrate water effluent to averages in Grassmere Creek and the CCME guidelines for the protection of freshwater aquatic life. There exists no CCME CWQG for the protection of aquatic life for hardness, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulphate, silicon dioxide, carbon dioxide, and total dissolved solids. There is no CCME CWQO or Grassmere Creek average for calcium, magnesium, potassium, carbonate, bicarbonate, silicon dioxide, and carbon dioxide.	The MMF recommends additional targets are set for water quality parameters which do not have a CCME WQG. For those parameters without baseline data or a CCME WQG, further field sampling is recommended to establish baseline conditions and set targets for water quality. Particular focus should be on parameters of potential concern from the reverse osmosis concentrate (Mg, Ca, hardness, pH, TDS, carbon dioxide and sulphate). These targets should be developed into a Trigger Response Plan with adaptive management measures to respond to changes in the receiving environment. Further, the MMF requests the Proponent includes comparison with the Manitoba Water Quality Standards, Objectives, and Guidelines and



	The average hardness for Grassmere Creek "may be biased high" and was based on total Ca and/or Mg.	demonstrate compliance with <i>The Water</i> <i>Protection Act.</i>
5.1.1.2 Surface Water	Nitrate has been identified as a problem contaminant in surface water and groundwater of the project area. Table 5-1 does not include concentrate design concentrations and CCME limits for nitrate.	Water quality objectives for nitrate must be added to environmental assessment and monitoring plans.
5.1.1.2 Surface Water	The Proponent states "acutely toxic conditions for aquatic life are not anticipated and the effect of concentrate on combined water quality in the receiving stream beyond the mixing zone is not expected to be significant". This implies that the effect of concentrate could be apparent within the mixing zone, which has not been defined.	The MMF recommends that concentrate effluent is monitored monthly for monthly acute toxicity to aquatic life (i.e., rainbow trout).
5.1.1.2 Surface Water	The Proponent has discussed impacts to surface water quality, without regard to long-term impacts to sediments of the receiving environment.	As surface water and sediment demonstrate strong geochemical relationships, the assessment should include consideration for accumulation and impacts to sediment of the receiving drain.
5.1.1.3 Groundwater	Hydrogeological investigations indicate the extent of drawdown effects from pumping are expected to be less than 0.46 m at 1.6 km radius from the WTP site, based on a perfectly efficient well and no other simultaneously	A study of wetlands in the RAA should be completed to assess potential impacts. The assessment should include the use of Red River Métis Monitors and local knowledge of the area. If impacts to wetlands are identified, a wetland



	pumping. The radius is less than the RAA. There are no considerations for the effect of groundwater drawdown on wetlands in the assessment.	offsetting program should be discussed to ensure there is no loss of habitat as a result of groundwater pumping.
5.1.1.3 Groundwater	Drawdown effects are anticipated in the RAA. There is no plan/mechanism to record and respond to concerns from other groundwater users.	A groundwater well compliant/interference program is recommended. This program should include an education and awareness campaign for all groundwater users in the area.
General Comment	No groundwater or surface water monitoring plans have been recommended as part of this assessment.	The MMF recommends that the Proponent implement a surface water and groundwater monitoring program. The surface water monitoring program should include stations along the East Branch of the Grassmere Creek drain to identify impacts from concentrate discharge. A groundwater monitoring program should include well clusters and level loggers to identify changes in groundwater head. Clustered wells should be sampled for water quality, including nitrate, to identify any impacts of surface water-influence on groundwater and potential interaction between aquifers. Additional groundwater monitoring should be conducted around the lagoon to identify potential seepage pathways. Monitoring programs should include trigger response metrics that outline actions to be completed if negative impacts are identified.



			Monitoring programs should include training and capacity for Red River Métis environmental monitors.
Fish and Fish Habitat	t		
Sec Fish	ction 4.1.6 Fish and h Habitat	The Proponent identified fish species that were present in the Sturgeon and Grassmere Creeks from studies that were conducted in 2007 and 2013 but did provide any contemporary fish community data or conduct any field surveys. Up-to-date surveys are necessary to verify the presence or absence in the water courses to be crossed or the receiving environment for their discharge of water treatment concentrate. The lack of baseline fish community data poses a great risk of unmitigated impacts to fish as a result of both construction and operational work.	The MMF recommends that the Proponent conduct updated fish community assessments in all watercourses that may be impacted by the Project activities. The MMF requires that fish and wildlife survey data from Proponents used in Impact Assessments be within three years of the proposed development to ensure data is accurately characterizing the contemporary environment. The MMF also recommends that the fish community study design be co-developed with the MMF, and that the Proponent provide capacity support to the MMF to allow Red River Métis Monitors to participate in fish community field studies.
Sec at R Spe Spe Con Con	ction 4.1.8. Species Risk, Table 4-5 ecies at Risk and ecies of nservation ncern in the RAA	The Proponent reports that two SAR could be present in the watercourses within the RAA including the calico crayfish and the mapleleaf mussel but did not conduct any field surveys to confirm their presence or absence, nor provide any mitigation measures to avoid impacts to these species in the worst-case that they are present in the watercourse that will receive	The MMF recommends that the Proponent conduct an aquatic SAR assessment at the time of the fish community survey recommended above. The survey should be conducted upstream and downstream of the discharge point and watercourse crossings. Due to the nature of low populations for these aquatic SAR and the reduced likelihood of visual surveys identifying



	discharged concentrate, or in the watercourses that will be crossed by the pipeline.	 their presence, the MMF recommends that the Proponent utilize survey tools such as eDNA. Paired with traditional survey methods eDNA is more likely to accurately determine if these SAR are present in the watercourses interacting with the project area. The impacts to SAR should be reassessed following such surveys.
Section 5.1.1.5 and Fish Habita	Fish The Proponent adequately identified erosion and sediment release as potential risks to fish health and suggested that a monitoring plan will be developed to identify turbidity and potential signs of frac-out during construction activities such as horizontal directional drilling but provided no details of such a plan for review.	 The MMF requires that the Proponent co-develop their erosion and sediment control plan as well as surface water quality monitoring plan with the MMF to ensure that the concerns for water quality and fish health of Red River Métis Citizens are addressed by project monitoring activities. Erosion and Sediment Control Plans should at minimum include: mitigation measures water quality thresholds for precautionary actions response actions for exceedances including communication plans for reporting incidences to the MMF in addition to any other necessary authorities. The MMF requests that the Proponent provide capacity support for the co-develop of these plans and for Red River Métis Monitors to be included



		in field work for each of these monitoring activities.
Section 5.1.1.5 Fish and Fish Habitat	The Proponent reports that they will submit a request for review (RFR) to the DFO that will describe "planned mitigation measures for the protection of fish and fish habitat for the open- cut installation of the concentrate discharge line into the East Branch Grassmere Creek Drain." This RFR was not available for review with this Environmental Assessment package, so the contents have not been reviewed by the MMF to assess whether the Proponents plans for environmental protection meet the standards of Red River Métis as stewards of the environment in the National Homeland.	The MMF recommends that any RFRs or Fisheries Act Authorizations for the project are submitted to the MMF for review with capacity support to ensure the potential Project proceeds with the Red River Métis standard of care for fish and fish habitat protection.
Section 5.1.1.5 Fish and Fish Habitat	The Proponent reports that water crossings will be installed underneath of watercourses using directional drilling to limit disturbance to fish and fish habitat and that no in-water construction will be done during the window of April 1 to June 30 to avoid interactions with spring and summer spawning fish species. The MMF are concerned that the directional drilling will still cause disturbance to fish despite that it is not "in-water work" per se. We are also concerned that fish habitat use windows may change as a result of climate	The MMF recommends that the Proponent use adaptive timing windows to avoid impacts to fish that is informed by water temperature monitoring and local knowledge of fish behaviour in the area to avoid the important spawning windows for any construction activities whether they are in water or adjacent to (underneath) water courses.



	change and therefore calendar dates are not as reliable for fish activities as local knowledge and water temperature monitoring.	
Section 5.3 Accidents and Malfunctions	The Proponent reports that they will avoid adverse effects associated with spills and releases with a list of mitigations including "Refuelling of vehicles and equipment will adhere to proper procedures and will use designated refuelling areas or will be refuelled off-site." • Emergency spill kits will be maintained on- site, and staff will be trained to properly deploy spill kit materials and cleanup spills.	The MMF recommends that the Proponent include specific mitigations to ensure machinery used in or around watercourses will not release hazardous materials. This should include the minimum setback distance that must be maintained from a watercourse or waterbody while refuelling, inspecting equipment, and repairing any malfunctions or leaks.
	 Placing sitt curtains on either side of stream crossings to be directionally drilled and monitoring pipe installation. Inspections of hydraulic and fuel systems on equipment and machinery will be undertaken on a regular basis. Leaks detected will be 	
	repaired immediately by trained personnel. The MMF is concerned with the lack of specificity in these measures that will be required to protect water and the aquatic environment from spills and releases of hazardous materials.	
Appendix A: Supplemental	In this map there appears to be three additional watercourse crossings East of Warren that were	The MMF requires that the Proponent conduct fish community and water quality assessments in



	Municipal Groundwater Supply Town of Stonewall Report, Figure 1 - Project Area	not featured on this map nor evaluated for potential impacts. The MMF is concerned that impacts to fish and fish habitat have not been characterized in these watercourses that may provide habitat for fish or other aquatic organisms including SAR.	these water courses and then provide their impact assessment for review to the MMF. Or the Proponent must provide justification and evidence to support their decision to exclude these three watercourses from their impact assessment.
Terrestrial Ecolo	ogy and the Physical Env	ironment	
	Section 4.1.5 Vegetation; Section 4.1.7 Wildlife and Wildlife Habitat; and Section 4.1.8 Species at Risk	Within Section 4 Existing Conditions, the Proponent identifies the potential presence of vegetation, wildlife and wildlife habitat, and SAR. The Proponent carried out desktop research to determine the potential presence of these species that may be impacted but did not carry out field surveys to confirm the presence or absence of the species within the PDA, LAA and RAA.	The MMF recommends the Proponent complete field surveys prior to any construction activities to confirm the presence of SAR and habitat the PDA, LAA, and RAA to develop appropriate mitigation plans. Additionally, the MMF recommends the Proponent work with Red River Métis Citizens to complete the field surveys.
	Section 5.1.3 Summary of Mitigation Measures	The Proponent states: "Utilize an approved dust suppressant and limit construction activities during high winds" as a mitigation measure. Red River Métis Citizens harvest throughout the RAA, including the PDA, and are concerned with the use of chemical dust suppressants. The MMF prioritizes the use of non-chemical dust suppressants and engineering controls over	The MMF recommends the Proponent develops a dust map to identify areas that are likely to generate dust and prioritize implementation of dust control measures. The MMF recommends the Proponent uses non-chemical dust suppressant where possible.



	chemical applications to mitigate fugitive dust emissions.	
Section 5.1.3 Summary of Mitigation Measures	The MMF appreciates the Proponents plans to re-vegetate and restore riparian areas and disturbed natural vegetation with native species. However, the MMF wants to ensure these re-vegetation and restoration plans are monitored to ensure efforts were successful	The MMF recommends the Proponent implements a monitoring plan to ensure areas undergoing re-vegetation and restoration are successful. The MMF recommends the Proponent work with Red River Métis Citizens to carry out monitoring.
Section 5.1.3 Summary of Mitigation Measures	The MMF appreciates the Proponents establishment of a 100m setback from watercourses for all fuelling and servicing activities. However, the MMF would also appreciate a setback established for riparian zones and harvesting areas.	The MMF recommends the Proponent establishes a 100m setback from riparian zones and harvesting areas for all fuelling and servicing activities.
Section 5.1.3 Summary of Mitigation Measures	The Proponent states "Contractor will band trees adjacent to the work site to prevent damage from construction activities". Banding trees is an effective measure to prevent invasion of insect pests, however it is unclear how banding will protect trees from construction damage.	Please provide further clarification regarding the process of banding trees and how it will prevent damage from construction activities. The MMF recommends erecting a physical barrier around trees as an effective measure to prevent damage.
Section 5.1.3 Summary of Mitigation Measures	The Proponent states "Workers should be aware of the potential for amphibian and reptile species to be present at the sites and apply best management practices to prevent accidental mortality during construction." While the MMF generally agrees with this statement, amphibian and reptile field surveys	The MMF recommends the Proponent complete field surveys prior to any construction activities to confirm the presence of amphibian and reptile species and develop a mitigation plan to reduce impacts. Additionally, the MMF recommends



		should be completed before any construction begins within the PDA, with a mitigation plan developed to reduce potential impacts and take appropriate measures if amphibian and reptile species are encountered.	working with Red River Métis Citizens to carry out field surveys.
Heritage Resource	es and Socio-Economic	is	
F	4.2.2. Heritage Resources	The Proponent states that "The pipeline route is in an area of low heritage concern based on current heritage resource data." The MMF acknowledges the Historic Resources Branch of the Manitoba Government as a reputable authority and partner in heritage protection. However, due to the history of colonialism within the National Homeland of the Red River Métis, many historically or archaeologically significant sites remain undocumented in formal archival records. Instead, much of this knowledge resides with the MMF and Red River Métis Citizens.	The MMF recommends that the Proponent re- evaluate the potential project impacts on heritage using a distinctions-based approach that recognizes the unique values, Métis Knowledge land use, and perspectives of the Red River Métis.
	4.2.3 First Nations	Section 4.2.3 states that "there are no First Nations or Métis Communities within the RAA. However, The National Homeland of the Red River Métis extends into areas that intersect with the RAA for this project, including a historic Métis settlement site in Stoney Mountain. As such, the Proponent has failed to adequately consider the impacts of this Project on the	The MMF requests that the historic and current presence of Red River Métis in this area both reflected properly in written assessments and considered in all following assessment, planning, and implementation efforts.



	Rights and interests of the Red River Métis. By not considering these factors, the Proponent demonstrates an incomplete assessment of the project's impacts to Red River Métis heritage.	
5.1.3 Summary of Mitigation Measures	The Proponent notes that "the Contractor will implement an HRPP on-site as recommended by the Historic Resources Branch (HRB). If heritage resources, objects, or human remains, are exposed during construction, work at that location on-site will cease and the HRB or RCMP notified for a determination for further mitigation." The MMF appreciates this approach and is eager to support the development of the HRPP to ensure the Rights and Interests, as well as the unique context of Red River Métis heritage are properly considered, and impacts are mitigated.	The MMF recommends that the Heritage Resource Protection Plan be co-developed with the MMF to ensure that the document and its approach meaningfully recognizes Rights and Interests of the Red River Métis and complies with UNDRIP. The MMF requests that the HRPP include plans for the co-development of a Red River Métis-specific chance finds protocol for archaeological material that is in line with Red River Métis heritage protocols.
4.2.1 Socio-economic	In considering the baseline socio-economic environment, the Proponent fails to adequately recognize the importance of both commercial harvesting and agricultural activity on both social and economic aspects of the Red River Métis.	As many Red River Métis Citizens produce on and harvest commercially from the lands in which the project is proposed, impacts on the socio- economic well-being of Red River Métis Citizens who use the area are of great importance to the MMF. The MMF requests that baseline information be updated to consider the presence



		of Red River Métis Citizens' land use within the Project's immediate footprint and the RAA and consider any potential impacts on harvesting Rights.
4.2.1 Socio- economics	The assessment provided by the Proponent fails to include Red River Métis-specific social organizations and institutions, such as the MMF's Stonewall local, within its baseline assessment. The report also fails to recognize Red River Métis-owned businesses; as such, it fails to determine potential impacts on these important interests of the Red River Métis.	The MMF requests that baseline information be updated to consider the presence of Red River Métis Citizens social and economic presence in the area. The MMF further requests that the report be updated to include potential impacts, both positive and negative, on Red River Métis organizations and businesses.
5.1.3 Summary of Mitigations	Section 5.1.3 fails to appropriately plan for the potential socio-economic impacts of this Project and to provide Red River Métis-specific mitigation criteria.	 It is thus essential that the Proponent develop a more detailed and Red River-specific mitigation plan that does the following: Recognizes the presence of Red River Métis socio-economic activity in the area Provides strategies mitigating potential impacts on Red River Métis commercial harvesting Includes plans and support Red River Métis conducted monitoring initiatives through which feedback on the mitigation measures can be relayed to the Proponent



	 Include Red River Métis-specific plans to bolster partnerships with Red River Métis-owned businesses and organizations, as well as plans to increase Métis participation in the Project through capacity building, employment, and training opportunities.
	All of the suggestions above must be developed through consultation with the Manitoba Métis Federation as the elected government of the Red River Métis.



7.0 References

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