



Water Management, Planning and Standards
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December 20, 2024

Our File: South Malonton Drain – 31E.07

7317434 Manitoba Ltd.
PO Box 10
St. Agathe MB R0G 1Y0

Provincial Water Infrastructure Permit to construct an outfall ditch and direct controlled flow a into South Malonton Drain

Attached is the required Provincial Water Infrastructure Permit to construct an outfall ditch and direct controlled flow into South Malonton Drain, in accordance with the Provincial Water Infrastructure Application dated May 28, 2024.

As indicated in Condition 1 of the Provincial Water Infrastructure Permit, Stan McFarlane, Senior Water Operations Technician must be contacted at either 204-430-8948 or stan.mcfarlane@gov.mb.ca at least three (3) days prior to the start of work being undertaken within the Provincial Water Infrastructure and once the construction is completed for an inspection to confirm compliance with this Permit.

Sincerely,

Nardos Kidane
Water Management Planning Technologist

Cc: Stan McFarlane, Senior Water Operations Technician

PROVINCIAL WATER INFRASTRUCTURE PERMIT

In accordance with

Subsection 15.2(1) of *The Water Resources Administration Act, C.C.S.M. c. W70 (the "Act")*

Applicant: 7317434 Manitoba Ltd.
PO Box 10
St. Agathe MB R0G 1Y0

Project Description: To construct an outfall ditch and direct controlled flow from a domestic wastewater lagoon into South Malonton Drain (the "Provincial Water Infrastructure") (the "Works").

The Applicant is granted Permit by the Minister of Transportation and Infrastructure (the "Minister"), on behalf of the Government of Manitoba ("Manitoba"), to undertake the Works as described in the Project Description (as further detailed in the May 28, 2024 Application submitted by the Applicant, a copy of which is attached as Schedule "A") subject to the following terms and conditions:

1. Stan McFarlane, Senior Water Operations Technician must be contacted at either 204-430-8948 or stan.mcfarlane@gov.mb.ca at least three (3) days prior to the start of work being undertaken within the Provincial Water Infrastructure and once the construction is completed for an inspection to confirm compliance with this Permit.
2. This Permit is valid from the Date of Issue, unless cancelled by the Minister in writing.

General Liability Conditions

3. This Permit does not create, transfer or convey to the Applicant any right or interest in land, or a license or easement or right-of-way in respect of land even if the Works may be or become affixed to the Provincial Water Infrastructure or any lands owned by Manitoba in and around the Provincial Water Infrastructure.
4. Manitoba makes no representation or warranty of any kind as to the fitness or suitability of the Provincial Water Infrastructure for the Applicant's purposes. The Applicant must ensure that the Provincial Water Infrastructure is fit and suitable for the purposes set out in the Project Description.
5. Manitoba assumes no liability of any nature for any consequence of granting this Permit, excepting the negligent acts and omissions of those that Manitoba is lawfully responsible for. The Applicant shall, and does hereby agree to, indemnify and save harmless and defend Manitoba, its Ministers, officers, employees and agents, from and against all claims, actions, damages, liability and expenses. This includes any and all legal costs arising out of bodily injury (including death) or property damage suffered by third parties in any way attributable to or resulting from the construction of the Works or their presence on or within the Provincial Water Infrastructure,

any activities undertaken by the Applicant in relation to the Works, including any act or omission of the Applicant, or anyone the Applicant is lawfully responsible for.

6. The Applicant agrees to assume all costs associated with or resulting from the Works. Manitoba must not be put to any expense as a consequence of granting this Permit. If Manitoba incurs any costs or expenses caused by, or in any way related to, the undertaking of the Works within the Provincial Water Infrastructure, the actual amount of such costs and expenses shall be charged by Manitoba to the Applicant. This includes (without limitation) costs or expenses to repair any damage to the Provincial Water Infrastructure or to any underground services or utilities on or within the Provincial Water Infrastructure. The Applicant agrees to immediately pay such amount(s) upon receiving a written invoice from Manitoba specifying the costs and expenses incurred.
7. Notwithstanding anything contained herein to the contrary, neither party shall be responsible for any indirect, special or consequential damages suffered by the other party as a consequence of the granting of this Permit.

Works Specific Liability Conditions

8. The Applicant must use this Permit in such a way so as to cause as little disturbance as possible to the Provincial Water Infrastructure (not including what is intended by the Works), and must restore any portion of the Provincial Water Infrastructure negatively impacted to its original condition, to the extent practical and reasonable to do so, to the satisfaction of Manitoba.
9. The Applicant is responsible to maintain the Works within the Provincial Water Infrastructure and address all maintenance, erosion and environmental concerns presented to the Applicant, to a condition approved by Manitoba.
10. The Applicant must ensure that appropriate safety measures are taken to keep the worksite and general public safe at all times.
11. The Applicant must advise Manitoba Transportation and Infrastructure in writing no less than ninety (90) days prior to undertaking any repairs, alterations or replacements of the Works, other than ordinary maintenance or emergency repairs. In the case of emergency repairs, the Applicant will use its best efforts to provide Manitoba with prior notice.
12. The Applicant must promptly notify Manitoba, in writing, with details of any negative incident occurring on the Provincial Water Infrastructure (whether involving personal injury or not).

Work Specific Conditions

13. The Applicant must adhere to all applicable requirements in the attached "General Environmental Requirements Manitoba Infrastructure" dated December 2023.
14. The Applicant shall adhere to standard geotechnical requirements as they relate to excavations and backfilling of all materials as shown in the attached "Excavation and Backfill Requirements for Provincial Dikes and Water Infrastructures" dated September 2023.
15. The Applicant shall install the outlet culvert based on the location plan and cross-section (see "Schedule B" and "Schedule C") provided with the Provincial Water Infrastructure application.

16. The Applicant must, at its own cost, manage, control and maintain the Works in a prudent and reasonable manner, best suited to the use of the Works. The Applicants must ensure that the Works remains free from obstructions of any kind at all times.
17. The Applicant acknowledges that the proposed design has the potential to allow water from the Provincial Water Infrastructure to backflow into the lagoon during high water events. Manitoba shall not bear any responsibility for flooding which occurs as a result of the Works.
18. The Applicant will not discharge the outfall water into the Provincial Water Infrastructure when water levels in the Provincial Waterway are within 150 millimetres (5.9 inches) of the adjacent prairie, when land downstream is flooding, during freezing conditions, or when directed not to by Manitoba.
19. Any infrastructure installed by the Applicant on the Provincial Water Infrastructure or the Provincial Water Infrastructure right-of-way is the responsibility of the Applicant to maintain as needed or as communicated to the Applicant by Manitoba, to a condition approved by Manitoba.
20. Restoration of the Provincial Water Infrastructure to pre-existing or better condition is required (unless otherwise noted in another condition of this Permit), including restoration of vegetation cover. The Applicant is obliged to provide maintenance after time of seeding to ensure viable growth of vegetation cover until the site has been restored to a condition approved by Manitoba.
21. All subsequent activity related to the Works within the Provincial Water Infrastructure right-of-way, which are not part of this permit, requires additional Provincial Water Infrastructure permits before commencement.
22. The Applicant must comply with all federal, provincial and municipal laws and regulations, and obtain all licences and permits necessary for the lawful use of the Works within the Provincial Water Infrastructure. Copies of licences and permits issued by other Provincial and Federal regulatory bodies must be made available upon request.
23. The Applicant will take all steps required to keep deleterious materials and substances from entering the Water Infrastructure and ensure all required silt control and erosion protection measures are maintained and effective.

Suspension or Cancellation Specific Conditions

24. If Manitoba determines, in its sole discretion, that maintenance and repairs, or further construction or expansion of the Provincial Water Infrastructure, require the Works to be altered, removed or relocated, the Applicant will be given the opportunity to alter, remove or relocate the Works or such part(s) thereof as Manitoba may determine, within one hundred eighty (180) days after receiving notice of same. Such alteration, removal or relocation shall be at the Applicant's cost unless otherwise agreed to by Manitoba in writing.
25. In the event of cancellation in accordance with condition 26, the Works may be ordered to be immediately removed (as Manitoba determines and at Manitoba's sole discretion). Such removal shall be at the Applicant's cost unless otherwise agreed to by Manitoba in writing.
26. This Permit may be immediately cancelled if the Applicant fails to follow any of the conditions in this Permit and fails to correct the breach within thirty (30) days of being made aware of the breach.

27. Manitoba may, but is not obligated to, fix any breach of this Permit. The Applicant will be liable to Manitoba for the cost of fixing any breach and this cost will be a debt due and owing to Manitoba.


28. If this Permit is cancelled, the Applicant will continue to be liable as set out in this Permit until the Provincial Water Infrastructure is restored to a condition approved by Manitoba.

Other Conditions

29. This Permit is not assignable by the Applicant without the prior written authorization of Manitoba. This Permit shall be binding on the Applicant’s successors and permitted assigns.

30. The Applicant must comply with all applicable laws, regulations and by-laws.

This Permit applies only to Section 15.2(1) of *The Water Resources Administration Act W70*. It does not include any other government approvals as may be required by the Applicant to undertake the replacement of the Works.

 Digitally signed by Fisaha Unduche
Date: 2024.12.20 10:15:16 -06'00'

Executive Director, Hydrologic Forecasting & Water Management
for the Minister of Manitoba Transportation and Infrastructure
being the minister under *The Water Resources Administration Act*

Date of Issue: _____



File No.

**APPLICATION FOR PERMIT
UNDER SECTION 15.2(1) OF
THE WATER RESOURCES ADMINISTRATION ACT W70**

- 15.2(1) Unless the minister has issued a permit for the activity, a person must not do any of the following:
- (a) construct, or otherwise place or establish any works or structures on, over, under, through or across provincial water infrastructure;
 - (b) place material on, or remove material from, provincial water infrastructure;
 - (c) perform any activity on or near provincial water infrastructure or use the provincial water infrastructure in a manner that
 - (i) affects or has the potential to affect its structural integrity,
 - (ii) degrades or has the potential to degrade its vegetation cover or any other covering material intended to limit erosion, or
 - (iii) has the potential to impair its function.

Applicant Name: 7317434 Manitoba Ltd. _____

Mailing Address: Box 10 St. Agathe MB R0G 1Y0 _____

E-Mail Address: victor@crystalspringhb.com _____

Telephone: 204-433-2511 _____

Signature: _____ **Date:** 5/28/2024 _____

Name of provincial infrastructure: South Malonton Drain _____

Legal description of land: SE 28-18-3E and NE 28-18-3E along the west side of Road 15E _____

Description of works to be constructed: A domestic wastewater lagoon to facilitate the development of a new Hutterite Colony. The proposed lagoon will discharge to an outfall swale connected to the South Malonton Drain on SE 28-18-3E. The outfall swale is approximately 128 meters long, graded at 0.15%, with a 1.0m wide ditch bottom and 4:1 side slopes. _____

Description of activities to be undertaken: The new outfall swale will be excavated to the design grades and will tie into the existing ditch invert where it meets the South Malonton Drain. All works will be finished with 100mm of topsoil and seeded. Please refer to BMCE Drawings - 7317434 Manitoba Ltd. Domestic Lagoon Design C1.1 through C3.3, dated April 16, 2024 for project details (emailed May 28th, 2024 at 9:44am).

Some key information regarding lagoon discharge:

At full build-out of the new colony site, the lagoon: _____

-
- Will be discharged once in June and once in September each year,
 - Will be discharged over a 2-week period,
 - Will have an average flow rate will be approximately 14 L/s. For comparison, based on the hydraulic report we submitted with our previous permit application, the average daily flow in the South Malonton Drain due to a 1:2 year storm event is 1500 L/s,
 - Is expected to discharge a maximum volume of 17,048m³ in the spring and 10,006m³ in the fall, and
 - If flooded conditions are present, the lagoon will not be discharged.

If you have any questions, please contact me directly, not the Client.

Ashley Haigh, P.Eng.

Burns Maendel Consulting Engineers

204-724-7364

a.haigh@bmce.ca

Attachments (if any): Do Not Reuse Original Name invalidOrEmpty

Date of construction: From: 8/1/2024__ To: 8/29/2025_____

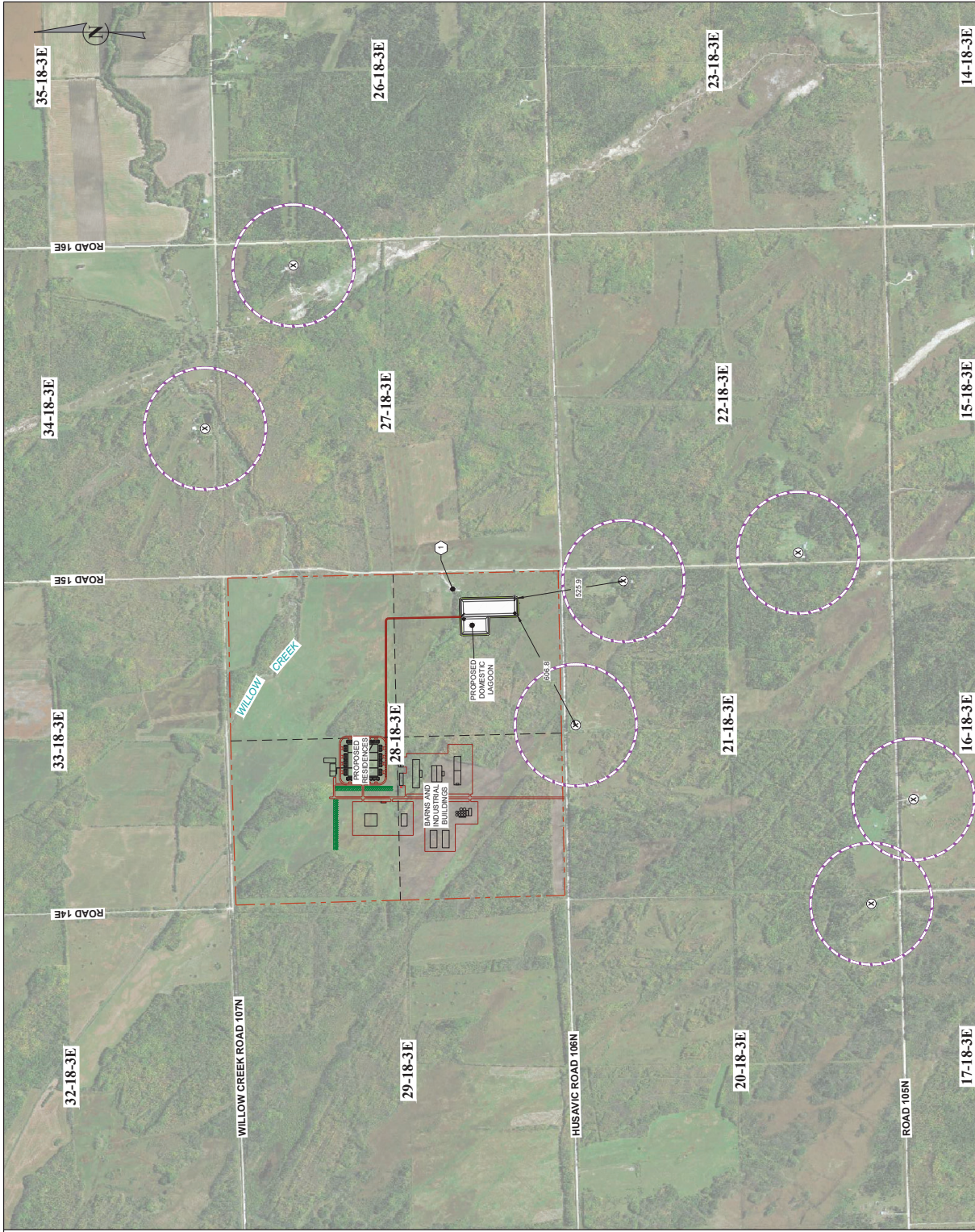
Duration of activity: From: _____ To: _____

"Schedule B"

LEGEND	
ADJACENT SINGLE RESIDENCE	(X)
SUBJECT SITE PROPERTY LINE	---
300m SETBACK TO RESIDENCE	---

KEYNOTES:

- 1 EXISTING ABANDONED RESIDENCE OWNED BY 7317434 MANITOBA LTD.



7317434 MANITOBA LTD DOMESTIC LAGOON DESIGN SE 28-18-3 EPM, RM OF ARMSTRONG, MB		LAGOON SITING PLAN	
PROJECT NUMBER: BMCE-21-011:35 DRAWING NO: C1.1		DRAWING TITLE:	
PROJECT START DATE: JAN 12, 2023 PROJECT END DATE:		PROJECT NUMBER:	
DRAWN BY: CR CHECKED BY:		PROJECT NUMBER:	
SCALE: 1:10,000		PROJECT NUMBER:	
PROJECT NUMBER:		PROJECT NUMBER:	



**ENGINEERS
GEOLOGISTS
MANITOBA**
 Certificate
 Burns Maendel Consulting
 Engineers Ltd.
 No. 4559

REVISIONS				
NO.	DATE	APP.	BY	DESCRIPTION
2	OCT 30, 2024	AH	CR	OUTLAW REVISIONS FOR MTR
1	APRIL 9, 2024	AH	CR	ISSUED FOR EAP NOTICE OF ALTERATION
0	AUGUST 17, 2023	AH	CR	ISSUED FOR EAP SUBMITTAL TO MTRP

General Environmental Requirements

Manitoba Transportation and Infrastructure

General Environmental Requirements

All construction shall be governed by the *Standard Construction Specification* set out in the contract and as modified in the Special Provisions.

Erosion and Sediment Control

1. Effective sediment and erosion control measures shall be installed before starting work near water to prevent the entry of sediment into any water course or wetland. Final erosion protection measures shall be installed progressively during the project.
2. Erosion and sediment control measures shall be inspected daily during the course of the work. Repairs or adjustments shall be made immediately if any damage is discovered or if these measures are not effective in controlling erosion and sedimentation.
3. Erosion and sediment control measures shall be maintained until complete revegetation of all disturbed areas is achieved. This period may extend beyond the duration of the construction contract, after which the monitoring of revegetation will be the responsibility of MI.
4. The duration of soil exposure shall be minimized and run-off shall be diverted away from the exposed soil.
5. Construction shall be halted during heavy rains with the exception of those works pertaining to erosion and sediment control.
6. Spoil piles shall not be placed within 30m of the ordinary high-water mark or as directed by the Engineer. Spoil piles shall be positioned and maintained in a manner not to increase sediment into the watercourse.

In-Water Work

7. No in-water work shall occur within fish bearing streams from April 1st to June 15th in Southern Manitoba or April 15th to June 30th in Northern Manitoba of any year to accommodate spawning and nursery periods, unless otherwise noted in the Special Provisions. Boundaries for Northern and Southern Manitoba are identified in the Manitoba Restricted Timing Activity Windows for the Protection of Fish and Fish Habitat (<http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/mb-eng.html>).
8. Duration of in-water work shall be minimized.
9. Where possible in-water works shall be conducted under low flow, frozen, or dry conditions to reduce impacts to fish and fish habitat.
10. If work must proceed under flowing water conditions, then the work site shall be isolated from the water while maintaining downstream flow around the isolated site unless otherwise directed by the engineer. Placement of clean rip rap does not need to be isolated.
11. Disturbance to the bed and banks of the watercourse or wetland shall be minimized and confined to the immediate work site. Unnecessary removal of riparian vegetation shall be avoided. The bed and banks of the watercourse or wetland shall be

restored to pre-disturbance conditions in accordance with the contract documents or as directed by the Engineer.

12. Unless otherwise specified in the contract documents site isolation methods shall be approved by the Engineer based on an accepted plan or design submittal.
13. Where a cofferdam shall be installed:
 - Cofferdams shall be designed to accommodate any expected high flows during the construction period.
 - Cofferdams shall be constructed using clean, non-erodible materials. Silts and clays are not acceptable materials for the surficial zone of the cofferdam.
 - Materials shall not be taken from below the ordinary high-water mark of any water body.
 - All spoil material and debris shall be removed from the isolated area prior to the removal of the cofferdam.
 - Exposed soil on the banks of the isolated area shall be stabilized before the cofferdam or sediment barrier is removed.
 - All cofferdam materials shall be removed and the watercourse shall be restored to its original shape and profile.
14. Any isolated site shall be de-watered using an appropriately sized screened pipe or other suitable method to ensure fish do not become entrained in the pipe. Pump intakes shall be sized and adequately screened to prevent debris blockage and fish mortality in accordance with the Freshwater Intake End-of-Pipe Fish Screen Guideline ([Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater \(dfo-mpo.gc.ca\)](https://www.dfo-mpo.gc.ca/interim-code-of-practice-end-of-pipe-fish-protection-screens-small-water-intakes-freshwater)).
15. Sediment laden dewatering discharge shall be pumped to a stilling basin, filtering system or through dense terrestrial vegetation a minimum of 30 metres away from the watercourse before re-entry downstream of the construction area, or as noted in the Special Provisions. All pump discharge points shall be lined with clean rock or other acceptable flow dissipating applications in order to prevent erosion and the release of suspended sediments.

Rip Rap

16. Where rock is required for rock armouring or stabilization:
 - Rock rip rap placement shall not damage the bed and/or banks of the watercourse
 - Clean rocks shall be placed by machinery operating from outside of the water.
 - No rocks shall be obtained from below the ordinary high-water mark of any water body.

Revegetation

17. Immediately following construction and decommissioning, all disturbed areas shall be covered with local top soil and seeded. If local topsoil is not available, other organic based covers may be used to allow seed germination.
18. Do not plant the following undesirable/invasive species:
 - Smooth Brome (*Bromus inermis*)
 - Downy Brome (*Bromus tectorum*)

- Crested Wheatgrass (*Agropyron cristatum*)
- Reed Canary Grass (*Phalaris arundinacea*)
- Creeping Red Fescue (*Festuca rubra*)
- Kentucky Bluegrass (*Poa pratensis*)
- Birdsfoot Trefoil (*Lotus corniculatis*)
- Yellow Sweet Clover (*Melilotus officinalis*)
- White Sweet Clover (*Melilotus alba*)
- Dutch Clover (*Trifolium repens*)
- Alsike Clover (*Trifolium hybridum*)
- Alfalfa (*Medicago sativa*)
- Meadow Foxtail (*Alopecurus pratensis*)
- Tufted/Cow/Bird Vetch (*Vicia cracca*)
- Tall Fescue (*Festuca arundinacea*)

Clearing, Grubbing and Brushing

19. Clearing and grubbing shall NOT be undertaken between April 1st and August 31st of any year unless otherwise specified in order to avoid disturbance to nesting birds and other wildlife species.
20. Where possible, grubbing shall not occur within 2 m (2.5 yards) of standing timber in order to prevent damage to root systems of adjacent standing trees and reduce the occurrence of blow down.
21. Timber stockpile sites shall be located within existing clearings or areas of non-merchantable timber. Stockpile sites shall not be located within 30 meters of a waterbody unless otherwise directed by the Engineer. All stockpiled material shall be removed by April 30 following clearing activities.
22. There shall be no bulldozing of woody debris into standing timber.
23. Existing trails, portages and other travel ways shall not be permanently blocked as a result of clearing and grubbing activities so as not to interfere with other users.
24. All cleared vegetation and debris shall be piled and/or compacted in windrows as close to the ground as possible in preparation for disposal. Windrows shall be no closer than 1 meter to the bush line.

Temporary Water Crossings/Access and Pads

25. Temporary in-water crossings, site access, and pads shall be completely removed prior to April 1st of any given year.
26. Temporary water crossings shall be constructed out of clean stone, rock or crushed rock in accordance with the contract documents or as accepted by the Engineer.
27. Culverts shall be hydraulically sized to accommodate expected flows and fish passage requirements for the duration of the installation. The culvert design must be signed and sealed by a qualified engineer.
28. The temporary crossings, site access and pads shall be removed in their entirety upon completion of the work.
29. Upon removal of the temporary crossings, site access or pads, the site shall be rehabilitated to pre-disturbance conditions.

Blasting Near a Watercourse

30. Use of explosives in or near fish habitat shall follow DFO's Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (Wright and Hopky 1998) to avoid causing serious harm to fish. This guideline is available online at ([Information archivée dans le Web | Information Archived on the Web \(publications.gc.ca\)](#)).
31. The use of ammonium nitrate-fuel oil mixtures in or near water frequented by fish shall be avoided to prevent the deposit of toxic by-products (ammonia) in water frequented by fish.

Table 1. Setback distance (m) from centre of detonation of a confined explosive to fish habitat to achieve 100 kPa guideline criteria for various substrates.

Substrate Type	Weight of Explosive Charge (kg)							
	0.5	1	2	5	10	25	50	100
	Setback Distance (m)							
Rock	3.6	5.0	7.1	11.0	15.9	25.0	35.6	50.3
Frozen Soil	3.3	4.7	6.5	10.4	14.7	23.2	32.9	46.5
Ice	3.0	4.2	5.9	9.3	13.2	20.9	29.5	41.8
Saturated Soil	3.0	4.2	5.9	9.3	13.2	20.9	29.5	41.8
Unsaturated Soil	2.0	2.9	4.1	6.5	9.2	14.5	20.5	29.0

Machinery, Fuel Storage and Handling

32. All fuel handling and storage shall comply with Storage and Handling of Petroleum Products and Allied Products Regulation 188/2001 under The Dangerous Goods Handling and Transportation Act C.C.S.M. c. D12.
33. Storage of fuel stored in drums or containers of 230 L or less shall comply with the requirements of Manitoba Fire Code.
34. Designated Area(s) shall be established for fuel storage and handling, equipment cleaning, refueling and servicing. Any Designated Area shall be located at least 100m away from any waterbody or wetland and shall be kept clear of snow and/or miscellaneous materials to allow clear access, routine inspection and leak detection.
- Machinery and equipment shall be washed, refueled and serviced in such a manner that wash water shall not contaminate surface water or be discharged into a surface water body.
 - In the event that a piece of equipment must be refueled or serviced outside a Designated Area, the fuel shall be transported in approved containers. Absorbent pads or other precautions, such as drip trays or a high density polyethylene (HDPE) groundsheet, shall be used to contain the fuel in the event of spillage.

- All mobile equipment that is not in use shall be parked within a Designated Area(s) where possible.
35. Tank vehicles used to deliver fuel to the work site and/or used to move fuel around the work site shall meet the requirements for highway tanks for the shipment of dangerous goods by road set out in CSA Standard B620-14, Highway Tanks and TC Portable Tanks for the Transportation of Dangerous Goods.
 36. All fuel storage containers and tank vehicles shall be inspected daily for leaks and spillage. Damaged or leaking fuel storage containers shall be promptly removed from site. All used petroleum products and other regulated hazardous wastes shall be collected and disposed of at a licensed facility in accordance with applicable legislative requirements.
 37. As refueling, fuel storage and equipment servicing sites are taken out of service, any required remediation shall be conducted, including the disposal of the contaminated material at an appropriate licensed facility to the satisfaction of the Department.
 38. Machinery shall arrive on site in a clean condition and shall be maintained free of fluid leaks.

Emergency Response Plan for Spills

39. Due care and caution shall be taken to prevent spills, at all times.
40. An updated list of key contacts and telephone numbers for reporting spills, problems, etc., shall be kept on-site at all times.
41. A Workplace Hazardous Materials Information System (WHMIS) file shall be maintained on-site for all hazardous materials at the work area. Prior to commencement of the Work, Material Safety Data Sheets (MSDS) shall be available on-site for all hazardous materials to be used. An updated spill response and containment plan for each dangerous good/hazardous waste shall be maintained in the work area at all times.
42. A spill kit or sufficient supply of materials for clean-up or spill containment, for example absorbent material, high density HDPE groundsheets and absorbent oil booms when working near water, shall always be available on site. If necessary, additional material shall be made available on short notice.
43. All personnel responsible for the handling of dangerous goods and hazardous wastes shall be familiar with the on-site response and containment plan.
44. Any reportable spills shall be reported to the Accident Reporting Line at (204) 944-4888 pursuant to Manitoba Regulation 439/87.
45. All spills shall be reported to the Engineer within 24 hours whether it was necessary to report the spill to Manitoba Sustainable Development or not. The spill report shall include the following:
 - personnel responding to the spill
 - material spilled
 - cause of spill
 - estimated amount of material spilled
 - estimated area and volume of soil affected by the spill

- cleanup action undertaken
 - means used to contain, transport and dispose of the materials involved
46. In the event that there is a spill onto the ground surface from any piece of equipment, such as a broken hydraulic hose, the entire affected area shall be cleaned up and all contaminated soil shall be appropriately disposed of offsite at an appropriate licensed facility. Such events shall be reported immediately to the Engineer and proof of appropriate disposal provided. Contractor field staff trained in spill containment and management shall always be on site.

Disposal

47. Dispose of all used petroleum products and other regulated hazardous wastes in accordance with the Manitoba “Dangerous Goods Handling and Transportation Act”.
48. Dispose of non-reusable demolition and construction debris at a waste disposal ground operating under the authority of a permit pursuant to Manitoba Regulation 150/91 respecting Waste Disposal Grounds. Provide proof of appropriate disposal.
49. Any waste and non-salvageable demolition materials removed from the work site shall be stabilized above the Ordinary High-Water Mark to prevent them from entering any watercourse and/or transported to a designated disposal site.
50. Dispose of all sewage and septage from on-site sanitary facilities in accordance with Manitoba Regulation 83/2003, respecting Onsite Wastewater Management Systems Regulation. Provide proof of appropriate disposal.

Dust and Particulate Control

51. All work shall be conducted in a manner that minimizes the raising of dust from construction operations.
52. Only water or approved dust suppressants shall be used for dust control. The use of waste petroleum or petroleum by-products is not allowed.
53. All vehicles used to haul materials to or from the work site shall have the load covered with a tarpaulin cover during transport to prevent material from falling out and creating dust.
54. All material stock piles or spoil piles shall be maintained as to minimize release of particulate matters. This may include, but is not limited to, covering or stabilization of material stockpiled at the work site as required.

Noise and Noise Limitations

55. All plant and equipment supplied for use on the Project shall be effectively “sound-reduced” by means of proper silencers, mufflers, acoustic linings, acoustic shields or acoustic sheds.
56. Noise By-laws of the adjacent communities and municipal authorities shall be complied with.

57. Any operation of plant or equipment outside the hours as regulated by local government shall require an exemption in writing.

Wildlife

58. Construction camps and worksites shall be kept clean and tidy. All food and garbage waste shall be stored in a secure manner to prevent access and exposure to local wildlife. All food and garbage waste shall be disposed of at an area which has been designated as an appropriate waste disposal site.
59. Nuisance wildlife shall be immediately reported to Manitoba Sustainable Developments local District Office and the Engineer.

Heritage Resources

60. Work shall immediately cease and be suspended at the location where archaeological or historic artifacts are encountered during construction activities. The discovery shall be reported to the Engineer and work at this location shall not resume unless otherwise authorized by the Engineer.

Work at the location shall be suspended until a Historic Resource Consultant can assess archaeological or historic artifacts that are encountered, and mitigation measures are confirmed with the Manitoba Historic Resources Branch.

Other

61. The disturbed area shall be minimized to the greatest extent possible and limited to the Department's right-of-way unless otherwise permitted by the Department.
62. Utilization of ditches as a heavy-machinery transportation corridor shall be minimized to the greatest extent possible.
63. Existing drainage patterns shall not be altered.
64. Should there be a need for a water source for compaction or dust suppression or related activity, a temporary authorization for any withdrawal greater than 25,000 litres or 550 gdp shall be required from the Manitoba Sustainable Development Water Use Licensing Section. Contact the Manager of Water Use Licensing Section, at (204) 945-3983 prior to the commencement of the work.
65. Any asphalt plant and temporary asphalt plant sites shall have the necessary licence/permit and shall be operated in accordance with the terms and conditions on their licence/permit.



PWI-001

EXCAVATION AND BACKFILL REQUIREMENTS FOR PROVINCIAL DIKES AND WATERWAYS

These requirements shall be complied with when routine excavations and backfills associated with Provincial Waterway Infrastructure Permits during the following activities only:

- Excavations 2.4 m in depth or less within the following areas:
 - Right-of-Way; and
 - A minimum 10 m buffer around Provincial Dikes and Provincial Waterways including but not limited to channel, drain, stream/ creek/ river, spoil pile, berm, dike, etc. This buffer may be subject to change depending on the water infrastructure under consideration.

Any other types of excavations and/ or backfilling operations through or near Provincial Dikes or Waterways shall require the Applicant provide engineered drawings, plans, and construction specifications with their Application. The detail provided in the drawings, plans, and construction specifications shall be commensurate to the work being proposed, adhere to the standard of care for engineering, and be sealed by an engineer registered in the Province of Manitoba.

Dikes and waterways by design retain and direct surface water. Surface water discharge and levels in rivers, lakes, drains, channels and the like are reactive to weather and climate, which is inherently unpredictable. These requirements do not cover activities or works that may be required if high water levels occur during construction.

1. Excavation safety shall be the responsibility of the Applicant and all activities shall be in compliance with Safe Work Manitoba's Guideline for Guide for Excavation Work.
2. Organics and topsoil must be stripped within the limits of the excavation and stockpiled separately. Large strips of organics (i.e. grass and roots) should be separated from topsoil material.
3. Excavated material that is deemed suitable for backfill can be stockpiled on site but a safe distance away from the limits of the excavation and at least the depth of the waterway, or 3 m, away from top of slope, whichever is greater. No stockpiles are permitted on the crest or slope(s) of a dike or spoil pile.
4. Limits of the excavation will need to be such that the excavation can be properly backfilled and compacted in order to re-establish the infrastructure's function and performance.
5. The excavation must not be left open for an extended period of time. Backfilling operations should commence as quickly as possible.

6. Backfilling shall occur in maximum 300 mm loose lifts compacted to a minimum 95% standard proctor or greater. Each lift must be compacted with compaction equipment appropriate for the material and compaction requirement. Where possible, backfill compaction must occur in a direction parallel to the dike/ waterway.
7. The sides of the excavation receiving backfill shall be bench cut in accordance with Manitoba Transportation and Infrastructure (MTI) Construction Specification 500(I) Grading Section 500.2.7.4.1.
8. It is imperative that lift thicknesses and extent be kept consistent in order to minimize the potential for differential and/ or excessive settlement.
9. Suitable material may be required to be imported in order to complete backfilling operations back to existing grade, to the satisfaction of MTI.
10. Once backfilling operations are complete, the area shall be graded in order to promote positive drainage. Ponded water caused by backfilling operations will not be accepted and will require follow up work that may include localized regrading or importation of additional backfill.
11. All areas impacted by excavation activities must be covered with topsoil and seeded.