



**R3 Innovations Inc. – SH IWWTF
Wastewater Transfer Request for
Notice of Alteration**

FINAL REPORT

November 25, 2021

Prepared for:

HyLife Foods Ltd./R3 Innovations Inc.

Prepared by:

Stantec Consulting Ltd.
500-311 Portage Avenue
Winnipeg, MB R3B 2B9

111440368

November 24, 2021
File: 111440368

Attention:

Director, Environmental Approvals Branch
Manitoba Conservation and Climate
1007 Century Street
Winnipeg, MB R3H 0W4

Dear Director,

Reference: NOA Request – Licence 2870 RRR R3 Innovations Inc./Town of Neepawa IWWTF Wastewater Transfer, Neepawa, MB

In accordance with Section 14(1) of *The Environment Act*, R3 Innovations Inc. and the Town of Neepawa are jointly submitting a notice of alteration request for a one-time transfer of wastewater stored in Cell #3 at the non-functioning Springhill Farms Industrial Wastewater Treatment Facility (SH IWWTF) to Cell #1 the Town of Neepawa (the Town) municipal wastewater treatment facility.


The SH IWWTF is owned by the Town and provides temporary storage for wastewater that does not meet the discharge criteria for the R3 Innovations Industrial Wastewater Treatment Facility (R3 IWWTF). The presently ongoing refurbishment work and prior temporary operational issues at the R3 IWWTF have resulted in transfers of wastewater to the SH IWWTF that have reduced its storage capacity. The proposed transfer will restore capacity in the SH IWWTF for potential future wastewater transfers from the R3 IWWTF over the coming winter months during commissioning of the refurbished equipment.

The limited remaining capacity at the SH IWWTF, compounded with the need for potential future wastewater transfers from the R3 IWWTF to the SH IWWTF, has resulted in an urgent need to proceed with the proposed project.

R3 Innovations Inc. and the Town are seeking an expedited approval to proceed with the Project to reduce the difficulty of a winter transfer from the SH IWWTF to the Town facility.

Should you require any additional information or clarifications please do not hesitate to contact Mr. Sheldon Stott, P.Ag., Senior Director of Corporate Sustainability, HyLife Foods LP, or Mr. Stephen Biswanger, P.Eng., Stantec Consulting Ltd.

Regards,



Sheldon Stott, P.Ag. Senior Director of Corporate Sustainability


Attachment: One NOA Form and Supporting Information
Two hard copies and one electronic copy of NOA

c. Stephen Biswanger, Stantec

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

This document entitled R3 Innovations Inc. – SH IWWTF Wastewater Transfer Request for Notice of Alteration was prepared by Stantec Consulting Ltd. ("Stantec") for the account of HyLife Foods Ltd./R3 Innovations Inc. (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by



(signature)

Bill Krawchuk, M.N.R.M., MCIP, RPP

Reviewed by



(signature)

Stephen Biswanger, P.Eng.



Reviewed by



(signature)

Jordan Hennig, B.Sc.



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Introduction
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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

R3 Innovations Inc. and the Town of Neepawa (the proponent) operate an Industrial Wastewater Treatment Facility (R3 IWWTF) north of Provincial Trunk Highway (PTH) 16 in the Town of Neepawa in southwestern Manitoba (Figure 1-1; Appendix A). The Town of Neepawa (the Town) also operates a municipal treatment lagoon system (northwest of the R3 IWWTF across the Whitemud River) that is presently undergoing an upgrade to an aerated lagoon with phosphorus removal while serving the municipal treatment needs of the Town as per Environment Act Licence No. 3270. The Town also owns the non-functioning former Springhill Farms Industrial Wastewater Treatment Facility (SH IWWTF) that is located immediately east of the R3 IWWTF and provides temporary wastewater storage capacity for the R3 IWWTF during periods when wastewater quality would not otherwise meet licence limits. The proponent seeks approval to proceed with a planned transfer of approximately 40,000 m³ of wastewater (the liquid contents of Cell #3) from the SH IWWTF to the Town Municipal Facility (the Project) via a temporary overland pump and transfer line system.

Section 14(1) of *The Environment Act* requires a proponent to notify the Director (for Class 1 and 2 developments) if the proponent intends to alter a licensed development so that it no longer conforms to licence conditions or has the potential to change the environmental effects (Manitoba Sustainable Development [MSD] 2016). The key consideration for assessing a Notice of Alteration (NOA) is the significance of the environmental and human health effects as a result of the alteration and whether there is sufficient detail to allow the Director to determine whether the effects of the alteration are significant, insignificant, or nonexistent (MSD 2016).

This NOA request has been prepared by Stantec Consulting Ltd. (Stantec) on behalf of the proponent and is submitted to Manitoba Conservation and Climate (MCC) in support of a request for NOA to the existing licence (2870 RRR). The existing R3 IWWTF is considered a Class 2 Development under the Classes of Development Regulation (MR 164/88).

This report documents the proposed wastewater transfer, the potential resultant environmental effects and planned mitigation measures. The works proposed would restore storage capacity at the SH IWWTF and provide a continued means of operations at the HyLife pork processing facility while ensuring that only high quality effluent is discharged to the Whitemud River from the R3 IWWTF during the presently ongoing refurbishment of the R3 IWWTF treatment trains.



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1.2 THE PROPONENT

For the purposes of development licensing, the proponent is R3 Innovations Inc. and the Town of Neepawa (hereafter “R3 Innovations”). For further information regarding the R3 Innovations IWWTF please contact the following:

Mr. Sheldon Stott
Senior Director of Corporate Sustainability
HyLife Foods
PO Box 100
La Broquerie, MB R0A 0W0

Ms. Colleen Synchyshyn, CAO
Town of Neepawa
Box 339, 275 Hamilton Street
Neepawa, MB R0J 1H0

This Notice of Alteration was prepared by Stantec Consulting Ltd. The local contact is:

Mr. Stephen Biswanger, P.Eng.
Senior Project Manager, Environmental Engineer
Stantec Consulting Ltd.
500-311 Portage Avenue
Winnipeg, MB R3B 2B9
Telephone: (204) 924-7061
Email: stephen.biswanger@stantec.com

1.3 LAND OWNERSHIP AND PROPERTY RIGHTS

The wastewater transfer line will be routed across parcels of land owned by the Town of Neepawa (i.e., the SH IWWTF, Municipal golf course, and Municipal lagoon facility) as well as land owned by R3 Innovations Inc (R3II). The line will commence at the SH IWWTF and extend west approximately 350 m to Municipal Road 86W (also known as Neepawa Road). At this point, the line will be routed north along Road 86W for approximately 500 m, before crossing the road and continuing west for approximately 250 m along a trail to the edge of the river valley. The line will then be routed downslope to the northeastern limits of the golf course and cross the Whitemud River over a golf cart bridge to continue upslope to the south side of the municipal facility’s easternmost lagoon cell, a distance of approximately 250 m. At this point, the line will be routed along the southern and western berm extents of the municipal lagoon cells for approximately 800 m, to terminate at Lagoon Cell #1 (see Figure 1-2). A more detailed description of the line and equipment is provided in Section 2.2.

The former SH IWWTF is located in the Town of Neepawa on property owned by the Town on SW35-14-15 WPM. The legal description for the subject property is described as Lot 1, Plan 23208 (NLTO). Current Certificate of Title for the property (the Site) is as noted in CT# 2065009 (Appendix B). The former IWWTF currently occupies approximately 11.2 ha.



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The existing R3 IWWTF is located in the Town of Neepawa on property owned by R3 Innovations Inc. The legal description for the subject property is described as Parcels A and B, Plan 48468 (NLTO). Current Certificates of Title for the property are for R3 Innovations Inc., as noted in CT# 2421295 and CT# 2421294 (Appendix B). The existing R3 IWWTF currently occupies approximately 2.0 ha on the site (land and buildings).

The Neepawa Golf & Country Club is located in the Town of Neepawa on property owned by the Town on NW/NE34-14-15W, part SW34-14-15W, and part SE34-14-15W. The legal description of the subject property is described as Parcel A, Plan 37707 NLTO. Current Certificates of Title for the property are for Neepawa Golf and Country Club Inc. as noted in CT# 1680840 and CT# 1722322 NLTO.

The Town of Neepawa Municipal Treatment Facility is located in the Town of Neepawa on property owned by the Town on NW/NE34-14-15W. The legal description is described as the north half of NW34-14-15W, NE34-14-15W, and Plan 4872 NLTO. Current Certificates of Title for the property are for The Town of Neepawa as noted in CT# 2764298 NLTO, CT# 1680842 NLTO, CT# 121098 NLTO and CT# 101022 NLTO.

1.4 PREVIOUS ALTERATIONS

Springhill Farms operated a pork processing plant and the dedicated SH IWWTF starting in approximately 1987. Since 2008, after acquiring the former Springhill Farms processing plant, HyLife Foods and R3 Innovations constructed, and progressively made modifications to, the R3 IWWTF, to provide replacement wastewater treatment for the non-functioning SH IWWTF. Refurbishment of the R3 IWWTF treatment trains is presently underway as approved in October 2020 (Stantec 2020a) and August 2021 (Stantec 2021a). Alterations have also occurred at the SH IWWTF, most recently with the primary cell liner replacement, approved in August 2020 (Stantec 2020b), as well as a related sludge removal/land application program in 2021. A summary of select approvals related to the R3 IWWTF and SH IWWTF operations is provided in Table 1-1.

Table 1-1 SH IWWTF Approvals and R3 Innovations IWWTF Studies 1987-2021

| Application Date | Approvals/Studies/Actions | Approvals / Study / Action Completion |
|------------------|---|---------------------------------------|
| 1987 | Springhill Farms obtained approval for operation of the SH IWWTF under Clean Environment Commission (CEC) order No. 1103VC. | July 1987 |
| 2008 | Original approval for the R3 IWWTF with a discharge capacity of 1,520 m ³ /day, replacing the SH IWWTF as the dedicated treatment facility for the HyLife pork processing plant. | February 2009 |
| 2017 | Temporary transfer of truck wash wastewater from R3 Innovations Inc. facility to Town of Neepawa municipal wastewater treatment system for period of 5-6 weeks. | March 2017 |
| 2019 | Removal of sludge solids from the primary and secondary cells of the existing SH IWWTF. | September 2019 |



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Table 1-1 SH IWWTF Approvals and R3 Innovations IWWTF Studies 1987-2021

| Application Date | Approvals/Studies/Actions | Approvals / Study / Action Completion |
|------------------|--|---------------------------------------|
| 2020 | In-place remediation of the former primary cell structure at the SH IWWTF, including liquid transfer to adjacent cells, regrading, and installation of new HDPE liner. | August 2020 |
| 2020 | Approval for new treatment buildings and equipment at the R3 IWWTF to facilitate refurbishment of the treatment trains. Provisional approval for an increase of wastewater treatment capacity to 1,960 m ³ /day upon completion of refurbishment. | October 2020 |
| 2020 | Approval for sludge removal and land application from primary and secondary SH IWWTF cells. | November 2020 |
| 2021 | Approval for an increase of wastewater generated by the HyLife pork processing plant to the R3 IWWTF to 1,911 m ³ /day. | May 2021 |

1.5 SCOPE OF THE ASSESSMENT

1.5.1 Spatial and Temporal Boundaries

The Project Site (PS) comprises the lands occupied by the existing SH IWWTF (Cell #3), the Town of Neepawa Municipal Lagoon Facility, and the transfer line and related equipment from the SH IWWTF, across R3 Innovations lands and a portion of the golf course, to cell #1 of the municipal facility. The subject properties and transfer line route are located north of PTH 16, east and west of Municipal Road 86W, and south of Municipal Road 84N, all on the east side of the Town of Neepawa. For the purposes of this environmental assessment, the Local Assessment Area (LAA) consists of a 3 km buffer around the PS (Figure 1-3). The Regional Assessment Area (RAA) consists of lands within a 10 km radius of the SH IWWTF and is consistent with the boundary as defined in Stantec 2020 (Figure 1-4). The temporal boundary for the assessment includes installation, operation, and removal of the wastewater transfer equipment, anticipated to be less than 2 weeks in total.

1.5.2 Assessment Approach

This assessment was completed to meet the requirements of a request for NOA as generally described in Manitoba Sustainable Development's Information Bulletin – Alterations to Developments with Environment Act Licences, June 2016, and includes assessing project-specific environmental effects. The assessment focuses on valued components (VCs), which are environmental components of certain value or interest to regulators and other parties and are identified based on the potentially affected biophysical and socio-economic elements as described in Section 3.0. Project-related effects on potentially affected VCs (if applicable) are then assessed sequentially in terms of direction, magnitude, geographic extent, frequency, duration and reversibility.



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VCs considered in the assessment (Section 3.0) included:

- Air quality/ Greenhouse gas emissions
- Soils/terrain
- Health and safety
- Property and land use
- Infrastructure and services
- Vegetation
- Wildlife and wildlife habitat
- Heritage resources
- Aesthetics and noise
- Surface water/ groundwater
- Employment and economy

1.6 PUBLIC ENGAGEMENT

The existing SH IWWTF, Municipal Treatment Facility, and R3 IWWTF are located on municipal and privately-owned parcels of land within appropriately zoned areas for heavy industrial land use and parks and open space (portion of the golf course lands to be traversed by the transfer line). The various facilities have been operating at the respective locations for a number of years and the proposed project is anticipated to last less than two weeks. No formal public engagement is planned beyond the placement of the NOA on the Public Registry for public review and comment if required by MCC.

1.7 FUNDING

HyLife Foods/R3 Innovations will provide funding for all undertakings related to the Project.



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2.0 PROJECT DESCRIPTION

2.1 EXISTING LICENSED DEVELOPMENT

The SH IWWTF was constructed in 1987 to exclusively treat wastewater from the former Springhill Farms pork processing facility. Occupying approximately 11.2 ha of land zoned as “MH – Industrial Heavy” under the Town of Neepawa Zoning By-law No. 3184-18, the SH IWWTF originally included a primary cell, an anoxic cell, three aerobic cells, a chlorination contact area, rock filter and blower and chlorination buildings. The SH IWWTF has not provided operational wastewater treatment for the related pork processing facility since the R3 IWWTF was constructed in 2009. Additional information on the former IWWTF operation can be found in the NOA prepared for the Town of Neepawa’s IWWTF (Earth Tech [Canada] Inc. 2008). A site layout, showing the subject northernmost cell of the former IWWTF (Cell #3), from which wastewater is proposed for transfer, is provided as Figure 2-1 (Appendix A).

The R3 IWWTF occupies approximately 2.0 ha (similarly zoned “MH – Industrial Heavy”) west of the SH IWWTF and northwest of the HyLife pork processing plant as shown on Figure 2-1. The R3 IWWTF exclusively and continually treats the HyLife pork processing plant wastewater, consistently discharging treated effluent to the Whitemud River via a wetland, at a higher (better) quality than licence limits. Management of influent flows to the R3 IWWTF from the HyLife pork processing plant is governed by the industrial services agreement between HyLife Foods LP and R3 Innovations Inc. (Appendix C). The annual average daily effluent volume generated by the R3 IWWTF is presently licensed at 1,911 m³/d and provisionally licensed at 1,960 m³/day, upon completion of the presently ongoing refurbishment project (Environment Act Licence No. 2870 RRR). Additional information on the existing treatment process can be found in Stantec 2020a.

The SH IWWTF is owned by the Town of Neepawa and is referred to as “the existing wastewater treatment lagoon at the Development” in clause 33 of Environment Act Licence 2870 RRR (the Licence) that governs the R3 IWWTF. In instances where an exceptional circumstance develops such that effluent treatment becomes, or may become, impaired and not meet licence conditions (such as during periods of process upset, hydraulic overload, excessive influent fluctuations, commissioning of new equipment and maintenance, etc.) wastewater has been transferred from the R3 IWWTF to the SH IWWTF for temporary storage. Storage capacity and freeboard in the northernmost cell (cell 3) of the SH IWWTF has progressively been reduced as a result of the transfers from the R3 IWWTF (as summarized in Table 2-1). As required in the Licence and MCC correspondence of May 7, 2021 (Appendix C) the transfers are reported to MCC.



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Table 2-2 Summary of R3 IWWTF to SH IWWTF Transfers August 2020 to October 2021

| Date of Transfer Notification to MCC | Transfer Volume (m ³) | Reason for Transfer |
|--|-----------------------------------|--|
| August 29, 2020 | 1,000 | Closely spaced 6-day production weeks |
| November 19, 2020 | 2,000 | Remembrance Day Saturday production coinciding with membrane clean |
| December 2, 2020 | 2,000 | Closely spaced 6-day production weeks |
| January 13, 2021 | 2,000 | Closely spaced 6-day production weeks |
| January 20, 2021 | 2,000 | Closely spaced 6-day production weeks |
| January 28, 2021 | 2,000 | Closely spaced 6-day production weeks |
| February 4, 2021 | 4,000 | Closely spaced 6-day production weeks |
| February 24, 2021 | 2,000 | Closely spaced 6-day production weeks |
| March 30, 2021 | 220 | Hydro Pole Burned |
| July 29, 2021 | 2,443 | Short production week, ran reduced hydraulic load to avoid upset of system |
| August 6, 2021 | 2,226 | Catch-up due to previous facility shutdown |
| August 11, 2021 | 3,700 | Membrane fouling due to biological upset (July 24 th Shutdown) |
| August 26, 2021 | 2,800 | Membrane fouling due to biological upset (July 24 th Shutdown) |
| October 21, 2021 | 6,376 | Refurbishment equipment installation |
| Source: R3 Innovations pers. comm. 2021a | | |

At the end of October 2021, R3II estimated the total wastewater volume in the SH IWWTF lagoon (Cell #3) as 42,571 m³, with 12,149 m³ of space remaining below the 1 m freeboard level (R3 pers. comm. 2021).

The wastewater in SH IWWTF Cell #3 was sampled by R3II on October 20 and November 8, 2021 and analyzed by ALS Laboratory Group. The maximum analytical results for each analysed parameter are summarized in Table 2-2 along with select comparative licence limits for the R3 IWWTF, the Town municipal treatment facility, and typical characteristics for wastewater from the HyLife pork plant that would be treated by the R3 IWWTF.

Table 2-3 Wastewater Quality

| Parameter | R3 IWWTF Licence Limit ¹ | Neepawa Municipal WWTF Licence Limit ² | Typical HyLife Wastewater Characteristics (avg day) ³ | SH IWWTF Cell #3 Wastewater Characteristics (October/November 2021) ⁴ |
|------------------|-------------------------------------|---|--|--|
| TSS (mg/L) | 25 | 25 | 1,654 | 332 |
| pH | 6.50-9.00 | | | 7.78-8.02 |
| Temperature (°C) | | | | 7.2 |



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Table 2-3 Wastewater Quality

| Parameter | R3 IWWTF Licence Limit ¹ | Neepawa Municipal WWTF Licence Limit ² | Typical HyLife Wastewater Characteristics (avg day) ³ | SH IWWTF Cell #3 Wastewater Characteristics (October/November 2021) ⁴ |
|------------------------------------|-------------------------------------|---|--|--|
| COD (mg/L) | | | 5,089 | 926 |
| CBOD (mg/L) | 25 | 25 | | 331 |
| TN (mg/L) | 15 | 10-74 | 274 | 702 |
| Nitrates (mg/L) | | | | <0.10 |
| Total Ammonia (mg/L) | 1.3-48.8 | 10-74 | | 28.1 |
| Unionized Ammonia – N (mg/L) | | 1.25 | | 0.432 |
| TP (mg/L) | 1 | 1 | 19 | 21.0 |
| Fecal Coliforms (CFU) | 200/100 mL | | | >24,200 |
| E. Coli (MPN) | 200/100 mL | 200/100 mL | | >24,200 |
| Notes: | | | | |
| 1 Environment Act Licence 2870 RRR | | | | |
| 2 Environment Act Licence 3270 | | | | |
| 3 Stantec 2021b | | | | |
| 4 R3 Innovations pers. comm. 2021b | | | | |

In comparison to the raw attenuated wastewater generated by the HyLife pork processing plant, the wastewater in Cell #3 is relatively dilute with lower TSS and COD concentrations but similar TP and higher TN concentrations (due to heterogeneity of the wastewater in the cell and grab sample collection). The Cell #3 wastewater contains elevated concentrations of TSS, CBOD, TN, TP, Fecal Coliforms, and E. Coli compared to the relevant R3 IWWTF license limits and the Town Municipal treatment facility licence limits.

2.2 PROPOSED ALTERATION

With the current refurbishment work underway to restore and maintain treatment capabilities at the R3 IWWTF, additional fluctuations in effluent quality, which could necessitate future transfers to the SH IWWTF are possible. In anticipation of such events, and to ensure uninterrupted operations of the HyLife and R3 IWWTF facilities while maintaining protection of the Whitemud River, a pre-emptive transfer of stored wastewater is proposed to restore storage capacity at the SH IWWTF.

The proposed Project is the transfer of the stored wastewater approximately 2.3 km northwest from Cell #3 at the SH IWWTF (i.e., the northernmost cell) to Cell #1 (the westernmost cell), at the Town municipal treatment facility. The Town of Neepawa has agreed to receive the wastewater transferred from R3 Innovations at the municipal facility (pending approval by MCC) for treatment and discharge to the Whitemud River via the municipal treatment system outlet.



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The wastewater would be conveyed using two 600 horse power portable diesel-fueled pumps connected by flexible collapsible 0.2 m (8-inch) diameter sections of hose (rated up to 200 psi) temporarily laid overland between the two facilities. Sections of hose will be coupled using sexless couplers.

One pump will be located at the west side of SH IWWTF Cell #3 to draw wastewater from the cell and pump it via the hose to a point on the west side of the Whitemud River where a second pump will be placed to convey the wastewater the remaining distance to Cell #1 at the Town municipal facility.

The hose will run west from the pump placed at the SH IWWTF, to Municipal Road 86W and then proceed north along the Road ditch (crossing the road either via existing culvert or on top of the road, in which case the road would be temporarily closed and detour routes are available via neighbouring section roads) and then west across a field before proceeding downslope, reaching the eastern-most golf course bridge over the Whitemud River. The hose would be routed through a secondary pipe west, across the bridge, to a second pump on the west side of the river. From the second pump, the hose would be routed along the inner southern cell berms of the Town treatment facility and overland to the inner east side of Cell #1 where the discharge is planned to occur. Figure 1-2 illustrates the planned conveyance route from the SH IWWTF to the Town receiving cell.

The Project would be completed by a licensed manure applicator engaged by R3 Innovations with regular monitoring of the line conducted by the contractor/R3II staff during the transfer. The equipment will be placed using two tractors and associated transport trucks, with equipment setup and take-down anticipated to take approximately 2 days. The transfer itself is expected to be completed within approximately 1 week.

Completion of the transfer would proceed as soon as possible, upon regulatory approval and coordination with the selected contractor. No changes to permanent infrastructure are required for the transfer. The Town of Neepawa has agreed to receive the wastewater transferred from R3 Innovations at the municipal facility as described above for treatment and discharge to the Whitemud River via the municipal treatment system outlet.

2.2.1 Project Inputs and Outputs

Expected project inputs include diesel fuel for equipment vehicles and pumps (2-3 trucks to transport the crew, tractors, pumps and equipment to the site, and 2 portable pumps) as well as the wastewater from Cell #3 at the SH IWWTF. Project outputs will include noise and emissions from the equipment vehicles and pumps and the discharge of the transferred wastewater to Cell #1 (the Primary Cell) at the Town municipal treatment facility. Pumps are expected to run continuously during the operation (approximately 1 week) with refueling conducted as necessary. No changes are proposed to the approved treatment capacity or licensed effluent quality limits of either facility. Diesel fuel will be dispensed to the pumps at the PS from truck mounted slip tanks.

No changes to chemical, electricity and natural gas usage at the R3 IWWTF are anticipated and incremental changes in terms of waste production, traffic volumes, or health and safety issues are anticipated to be negligible.



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2.3 PROJECT SCHEDULE

The proposed Project will be conducted as soon as possible in the fall of 2021, pending regulatory approval.



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Environmental Effects and Mitigation
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3.0 ENVIRONMENTAL EFFECTS AND MITIGATION

Biophysical and socio-economic VCs that could be affected through interactions of the environment and the Project were identified to scope the assessment. The rationale for for exclusion or inclusion of further assessment for each VC is explained, and potential general interactions between the Project and VCs are identified in Table 3-1.

Table 3-1 Designation of Valued Components

| Valued Component | Potential Project/ Environment Interaction | Rationale for Exclusion or Inclusion and Project Potential Effect |
|--|--|--|
| Air quality/ Greenhouse gas emissions | x | Air emissions are anticipated from wastewater transfer activities related to on-site vehicle and equipment use (e.g., 2 pumps and 4 pieces of equipment/transport vehicles). Project emissions are expected to result in a negligible increase in the context of existing site emissions and operational traffic at the HyLife and R3 facilities proximate to the PS. Air quality/greenhouse gas emissions have therefore been excluded from further assessment of environmental effects. |
| Soils/terrain | x | The limited ground pressure and size of the project equipment footprint (laydown of flexible hose and pump equipment) will result in limited disturbance of soils along the transfer route. Most of these soils have been previously disturbed/developed by the SH IWWTF, the Town municipal treatment system, and the R3 IWWTF. No excavations or changes to slopes are required for the hose transfer and soils are anticipated to be partially frozen. Accordingly, interaction with soils/terrain is considered negligible and excluded from further assessment of environmental effects. |
| Surface water/ groundwater | x | The potential adverse effects of the project on surface water and groundwater are considered to be negligible. A qualified contractor using well-maintained monitored equipment will conduct the transfer and most of the line will be routed away from surface water or along the inner cell walls at the Town treatment facility. No changes in the licensed effluent discharge rate or quality are proposed for either facility and effects on effluent and surface water quality after treatment at the Town treatment facility will be negligible. The interaction of the project with surface and groundwater will not be considered further, although accidents and malfunctions specific to effects on this VC are considered. In Section 4.0. |



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Table 3-1 Designation of Valued Components

| Valued Component | Potential Project/ Environment Interaction | Rationale for Exclusion or Inclusion and Project Potential Effect |
|-------------------------------|--|---|
| Vegetation | x | With the exception of the immediate vicinity of the river crossing, no native vegetation is present at the PS (with all lands previously developed as agricultural, golf course, roadside ditches, or industrial/wastewater treatment sites). The hose will be located across developed land and adjacent to existing treatment cells. Laydown of the transfer hose on the ground surface at the proposed time of year (late fall/early winter) is not anticipated to affect vegetation and no ground excavation is required. Vegetation is therefore excluded from further assessment of environmental effects. |
| Wildlife and wildlife habitat | x | No substantive wildlife or natural wildlife habitat is present on the PS and the temporary nature and timing (late fall/early winter) of Project construction provide mitigation for effects on wildlife and avoids potentially sensitive breeding periods. Effects on wildlife and wildlife habitat are therefore excluded from further assessment of environmental effects. |
| Property and land use | x | Project activities will occur within an existing industrial area and open space area in a location that has supported current land uses for many years. The PS is zoned for the existing land uses. Potential negative land use interactions are limited to a potential temporary short term road closure to facilitate hose crossing of Road 86W unless an existing culvert crossing is used. Due to the limited nature of the interaction (a 0.2 m hose crossing lands that are largely not undergoing significant use during the Project) no negative interaction is anticipated from the temporary use. The VC is excluded from further assessment of environmental effects. |
| Infrastructure and services | x | <p>The proposed Project will generate a negligible increase in traffic in the LAA due to the transportation and placement of required equipment (i.e., hose segments and pumps). With the potential exception of a minor closure of the northern portion of Road 86W (low traffic volume) if an existing culvert crossing is not present, there will be no need for changes in the provision of municipal infrastructure and services (i.e., external roads, sewer, water) in the PS. If the road closure is necessary to facilitate the hose crossing, detours via nearby section roads are available.</p> <p>The SH IWWTF and the Town municipal treatment system are utilities that support/provide wastewater treatment for the R3 IWWTF and the Town. The proposed wastewater transfer to the Town municipal treatment system will support the uninterrupted operation of the R3 IWWTF and is expected to have negligible effect on the capacity/treatment capability of the municipal treatment system. No significant negative interactions with infrastructure and services are anticipated and therefore further assessment of the VC is not required.</p> |



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Environmental Effects and Mitigation
November 25, 2021

Table 3-1 Designation of Valued Components

| Valued Component | Potential Project/ Environment Interaction | Rationale for Exclusion or Inclusion and Project Potential Effect |
|--|--|--|
| Employment and economy | x | A positive financial benefit to the Town of Neepawa will be realized, through the fees charged to R3II for the treatment of the transferred wastewater and local crew purchasing effects (a small contractor workforce [less than 10 persons] is expected to complete the work in less than 2 weeks). No adverse effects related to employment and economy in the LAA are anticipated from the wastewater transfer and resultant effects are not considered further. |
| Heritage resources | x | The PS is located within an existing industrial area and open space area that are already disturbed. No ground disturbances are anticipated for the Project, heritage resources are therefore not considered further in the assessment |
| Aesthetics and noise | x | The PS is located within an existing industrial area and open space area; the proposed wastewater transfer will not result in a substantial change to LAA visual aesthetics. The timing of the project mitigates visual impacts in proximity to the golf course as it will be closed at the time of the transfer. Noise will be generated by pump operations but the location of the Project and proximity to the nearest residence is expected to mitigate sound with negligible effect to residences. Otherwise, noise generation will continue to be typical of historic use in the area. No noise complaints have been received by R3II in several years of operation including during previous construction and facility expansions. The Project will not substantially affect aesthetics or noise in the LAA. Aesthetics and noise have therefore been excluded from further assessment of environmental effects. |
| Health and safety | x | Contractors engaged in the Project will be subject to worker protection standards and procedures under <i>The Workplace Safety and Health Act</i> (Manitoba). The proposed transfer is not anticipated to change the risks for worker/public Health and Safety. Health and Safety is therefore excluded from further assessment of environmental effects. |
| <p>Notes:</p> <p>x – no significant potential project/environment interaction</p> <p>✓ - potential significant project/environment interaction</p> <p>PS – Project Site (SH IWWTF Property/Town of Neepawa Municipal Lagoon Property/R3 IWWTF Property)</p> <p>LAA – Local Assessment Area (3k radius from PS)</p> | | |



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Environmental Effects and Mitigation
November 25, 2021

3.1 SUMMARY OF MITIGATION MEASURES

As the Project only involves the transfer of wastewater from one wastewater facility to another for treatment and discharge in accordance with licence requirements, the mitigation measures incorporated in the Project are primarily related to routing and placement of the transfer line, use of a qualified manure/wastewater application contractor, conducting the transfer late in the fall, and planning the transfer to be completed in a limited time.



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Accidents and Malfunctions
November 25, 2021

4.0 ACCIDENTS AND MALFUNCTIONS

Accidents and malfunctions can potentially result in harm to on-site personnel, damage to equipment, the release of contaminants and/or hazardous materials from equipment/vehicles and transfer hoses, and degradation of the environment and human health and safety. The effects of accidents and malfunctions for the Project are primarily related to the potential for transfer hose failure and/or fuel spills due to leaks or improper storage and handling. The Project will include the transfer of wastewater approximately 2.3 km from Cell #3 at the SH IWWTF, overland via pumps and hoses, across the Whitemud River via an existing golf course bridge, and along existing treatment cells to Primary Cell #1 at the Town treatment facility. R3II will engage a qualified manure applicator to conduct and monitor the transfer and mitigate the risk of spills/leakage and resultant effects on groundwater and surface water.

During operation, there exists the potential for environmental effects due to fuel spills and/or wastewater leakage from vehicles, pump equipment, transfer hoses, and accidents that can result in the release of fluids to the environment (i.e., diesel, oils, wastewater, etc.). The first 1.2 km of the transfer hose route will be across fields, or along Municipal Road 86W, away from surface water, while the section of hose that crosses the Whitemud River via the golf course bridge will also run through a secondary section of pipe to provide additional protection over the river in case of leakage. Further, the hose sections along the south side of the Town treatment facility will be routed along the inner side of the treatment cells enroute to Cell #1 so that potential leaks (if they were to develop) would flow into a treatment cell.

Pumps will be placed at the SH IWWTF and west of the bridge to maintain flow rates and line pressures. The proposed transfer hose will be placed on existing developed properties and monitored regularly for signs of leaks (pressure drop) and freeze-up (pressure increase) during operation by the contractor and/or R3II staff. The pumps can be remotely operated/shut down by the operator to ensure that flow is properly maintained, and the risk of leakage is limited.

If a notable change in pressure develops, pumping will be stopped, the line inspected to determine needed repairs or changes in operation, and the need for repairs/clean-up will be determined and implemented if necessary. Frozen surface conditions are anticipated to mitigate potential for groundwater and surface water effects and assist in leakage identification (if present). Clean-up would be completed by earth/snow moving equipment (if frozen) and/or by vacuum truck (if liquid) that would be retained by R3II if required.

During the wastewater transfer operations from the SH IWWTF, regular visual inspection of the transfer line and pump locations along the route across the subject properties will be undertaken for signs of leakage or other potential signs of wear. The implementation of, and adherence to, measures outlined above to mitigate potential effects related to accidents and malfunctions will serve to reduce the likelihood of these events occurring.

Semi-frozen conditions would reduce/limit the spread of spills and/or leaks if they were to occur, but recovery from effects of such an event on groundwater or the river could potentially be short- to medium-



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Accidents and Malfunctions
November 25, 2021

term in duration and multiple-irregular in frequency (limited to the 1-week project duration). Adverse effects on groundwater would be reversible with remediation. The relatively dilute nature of the wastewater (compared to raw wastewater) also mitigates the magnitude of the potential effects on both groundwater and surface water.

Additional measures to avoid adverse effects include the following:

- Appropriate fire extinguishers will be available on-site during operation and maintained to manufacturer's standards.
- Potentially hazardous materials will be stored and handled at dedicated areas and labelled in accordance with applicable regulatory requirements.
- Hazardous materials will be transported in accordance with the *Dangerous Goods Handling and Transportation Act* and used according to product-use instructions.
- Refueling of vehicles and equipment will adhere to proper procedures.
- Emergency spill kits will be maintained on the R3 IWWTF site and staff will be trained to properly deploy spill kit materials and cleanup spills.
- 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 transfer hose will be routed away from surface water bodies to the extent practical, including placement along the inner cell boundaries at the Town municipal treatment facility, and routing through a secondary pipe over the bridge across the Whitemud River.
- The transfer hose and diesel pumps will be regularly monitored and maintained to detect and avoid leaks and failures.
- R3II continues to maintain policies related to emergency preparedness, workplace hazardous materials information system (WHMIS) and spill response procedures.



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Conclusion
November 25, 2021

5.0 CONCLUSION

Stantec has prepared this environmental assessment report on behalf of R3 Innovations Inc. in support of the NOA application for a stored wastewater transfer from the SH IWWTF to the Town municipal treatment facility for treatment and discharge to the Whitemud River via the municipal facility outlet. The NOA application is filed in accordance with Section 14(1) of *The Environment Act* that requires a proponent to notify the Director (for Class 1 and 2 developments) if the proponent intends to alter a licensed development (MSD 2016). Potential interactions of the Project and the environment were evaluated with likely interactions examined to assess residual effects on the assumption of typical mitigation measures representative of best practices. On the basis of information available to date and as presented in this report, adverse effects of the proposed wastewater transfer to the biophysical and socio-economic environment are expected to be not significant. It is anticipated that the proposed alterations will be considered as a minor alteration to the R3 IWWTF licensed development.



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

References
November 25, 2021

6.0 REFERENCES

6.1 LITERATURE CITED

Intergovernmental Affairs. 2006. The Neepawa and Area Planning District Development Plan By-law No. 78. Community Planning Services Branch. Brandon, MB.

Manitoba Infrastructure and University of Manitoba Transport Information Group. 2020. Traffic on Manitoba Highways 2019. Manitoba Highway Traffic Information System. June 2020. Winnipeg, MB.

Manitoba Sustainable Development (MSD). 2016. Information Bulletin – Alterations to Developments with Environment Act Licences. Available at: http://www.gov.mb.ca/sd/eal/pubs/alteration_guidelines2016.pdf. Accessed December 12, 2019.

Stantec Consulting Ltd. 2020a. R3 Innovations Inc. IWWTF Refurbishment Notice of Alteration. Final Report. Prepared for HyLife Foods Ltd./R3 Innovations Inc. Neepawa, MB.

Stantec Consulting Ltd. 2020b. HyLife Foods Ltd./Town of Neepawa Former Springhill Farms IWWTF Primary Cell Liner Replacement Notice of Alteration. Prepared for HyLife Foods Ltd./Town of Neepawa. Neepawa, MB.

Stantec Consulting Ltd. 2021a. R3 Innovations Inc. IWWTF Refurbishment Modification Notice of Alteration. Prepared for HyLife Foods Ltd./R3 Innovations Inc. Neepawa, MB.

Stantec Consulting Ltd. 2021b. R3 Innovations Inc. Discharge Increase: Request for Notice of Alteration. Prepared for HyLife Foods Ltd./R3 Innovations Inc. Neepawa, MB.

The Town of Neepawa. 2018. Town of Neepawa Zoning By-law No. 3184-18, Part 6 Zoning Map. Prepared for the Neepawa and Area Planning District by WSP. November 2018. Neepawa, MB.

6.2 PERSONAL COMMUNICATION

R3 Innovations. 2021a. Email correspondence between Facility Manager, R3 Innovations and Senior Environmental Engineer, Stantec Consulting Ltd. November 5, 2021.

R3 Innovations. 2021b. Email correspondence between Facility Manager, R3 Innovations and Senior Environmental Engineer, Stantec Consulting Ltd. November 4, 2021.

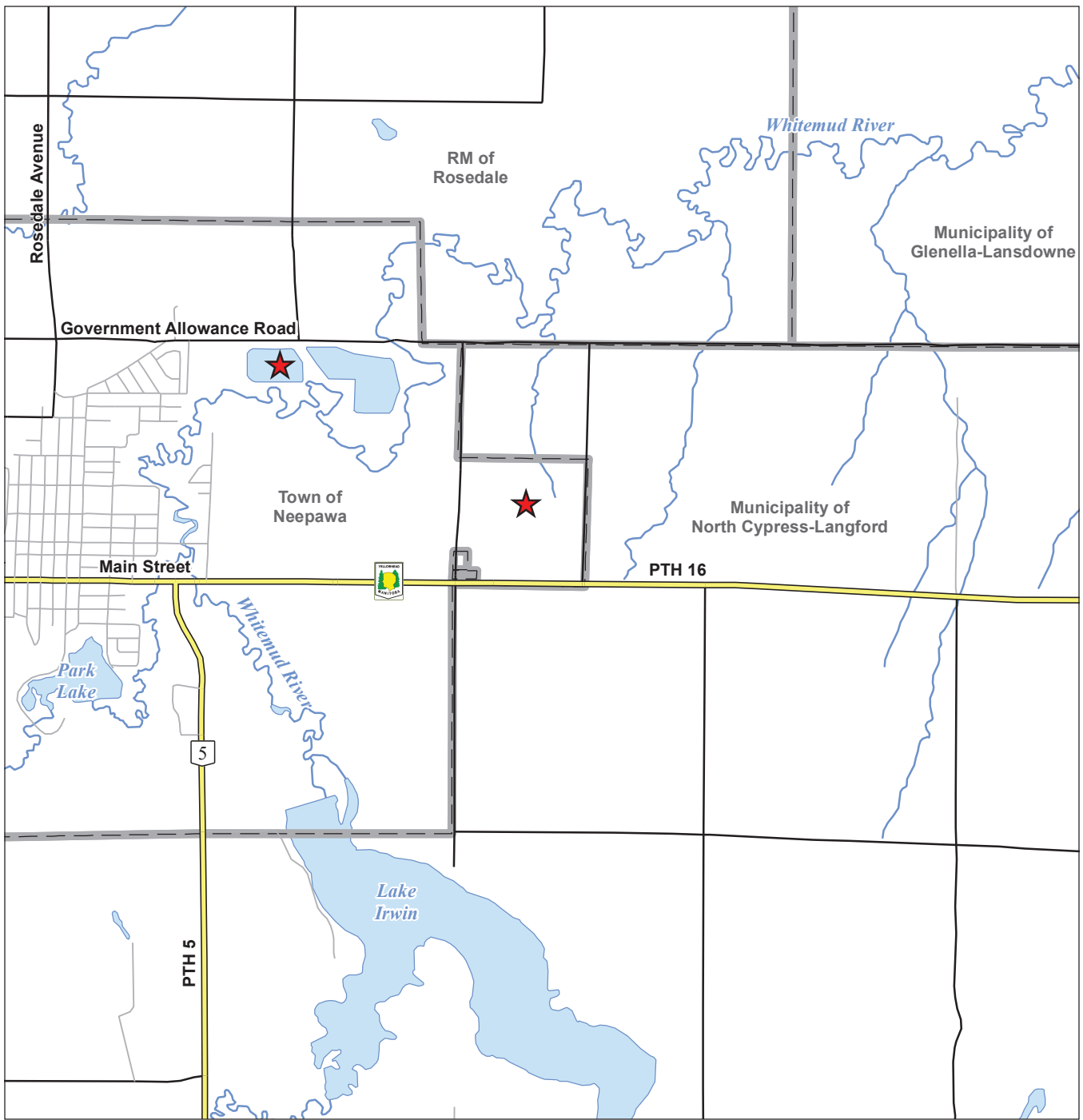


R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

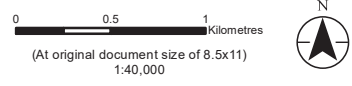
Appendix A Figures
November 25, 2021

Appendix A FIGURES





- Legend**
- Site Location
 - Major Road
 - Minor Road
 - Local Road
 - Watercourse
 - Waterbody
 - Rural Municipality



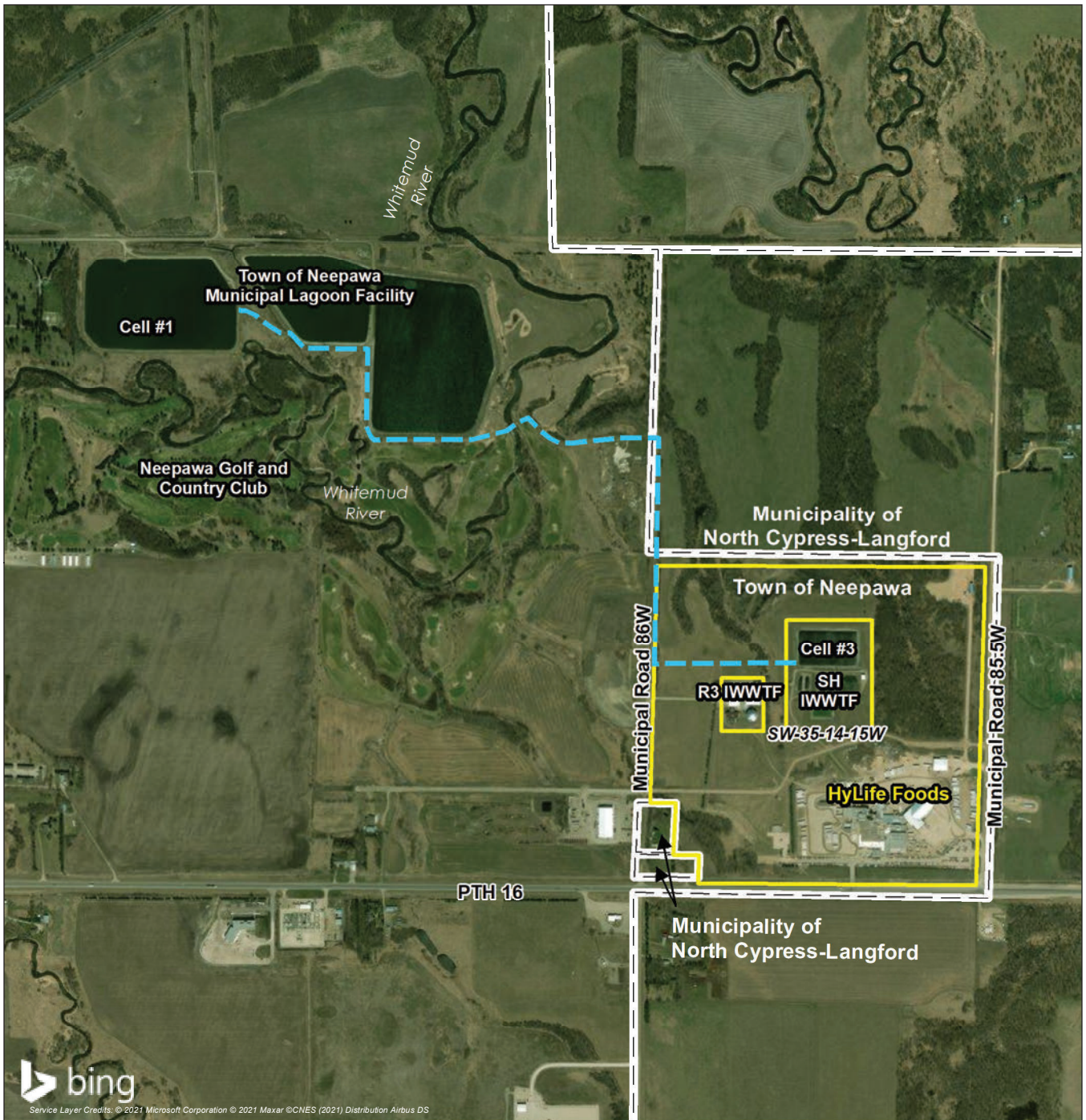
Project Location Prepared by ACampigotto on 2021-11-22
 Town of Neepawa, Manitoba Reviewed by BKrawchuk on 2021-11-22

Client/Project 111440368
 R3 Innovations Inc.
 Wastewater Transfer
 Notice of Alteration



Figure No.
1-1

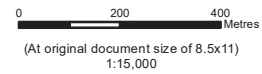
Title
Project Location

Notes
 1. Coordinate System: NAD 1983 UTM Zone 14N
 2. Base Data Sources: Government of Manitoba



Legend

-  Rural Municipality
-  Planned Transfer Hose Route



Project Location Town of Neepawa, Manitoba
 Prepared by ACampigotto on 2021-11-22
 Reviewed by BKrawchuk on 2021-11-22

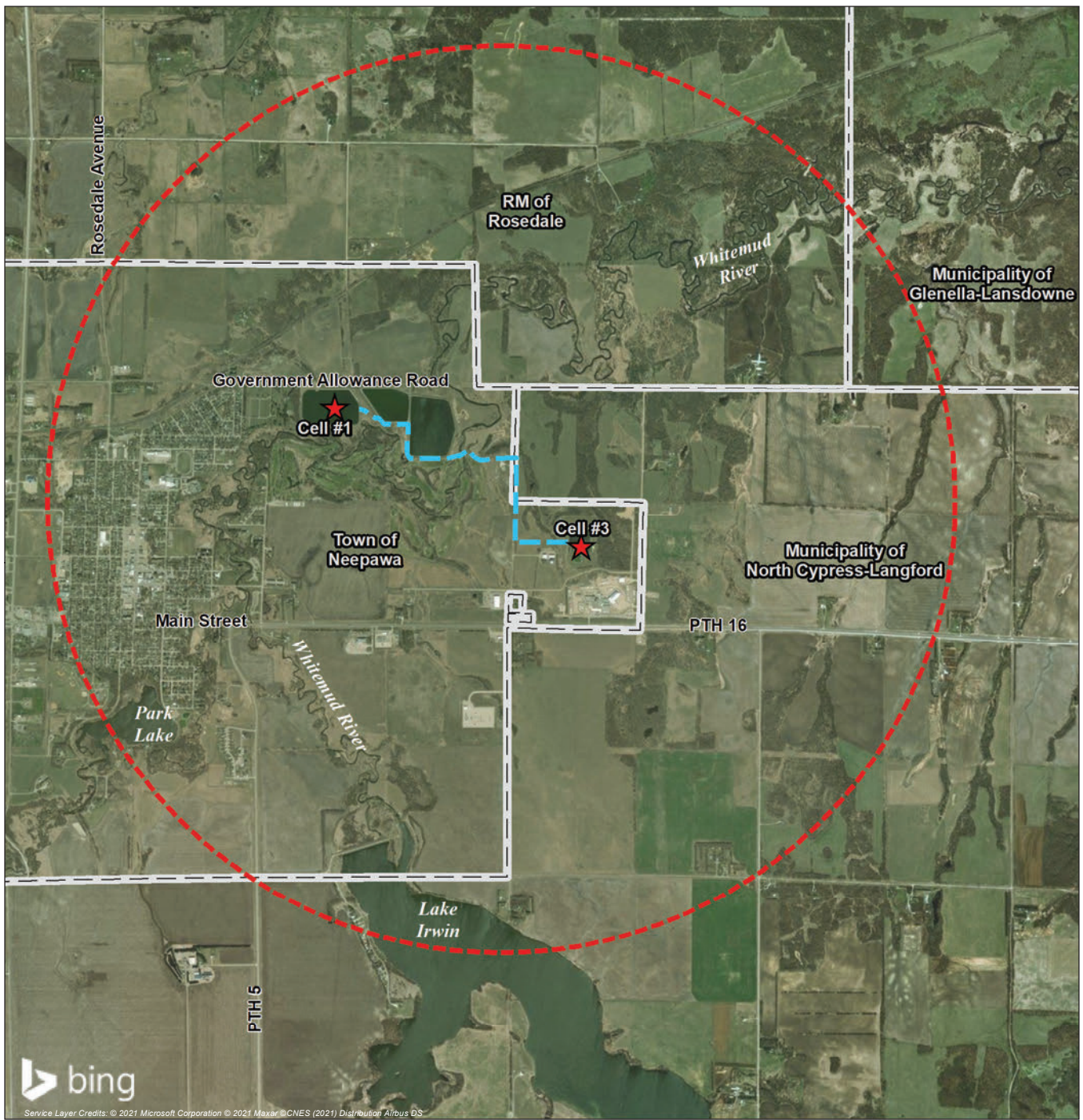
Client/Project R3 Innovations Inc.
 Wastewater Transfer
 Notice of Alteration
 111440368

Figure No.
1-2

Title
Planned Transfer Hose Route

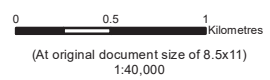
Notes

1. Coordinate System: NAD 1983 UTM Zone 14N
2. Base Data Sources: Government of Manitoba.
3. Aerial imagery Source: Microsoft product screenshot reprinted with permission from Microsoft Corporation.



Legend

- Site Location
- Planned Transfer Hose Route
- Local Assessment Area (3 km Radius)
- Rural Municipality



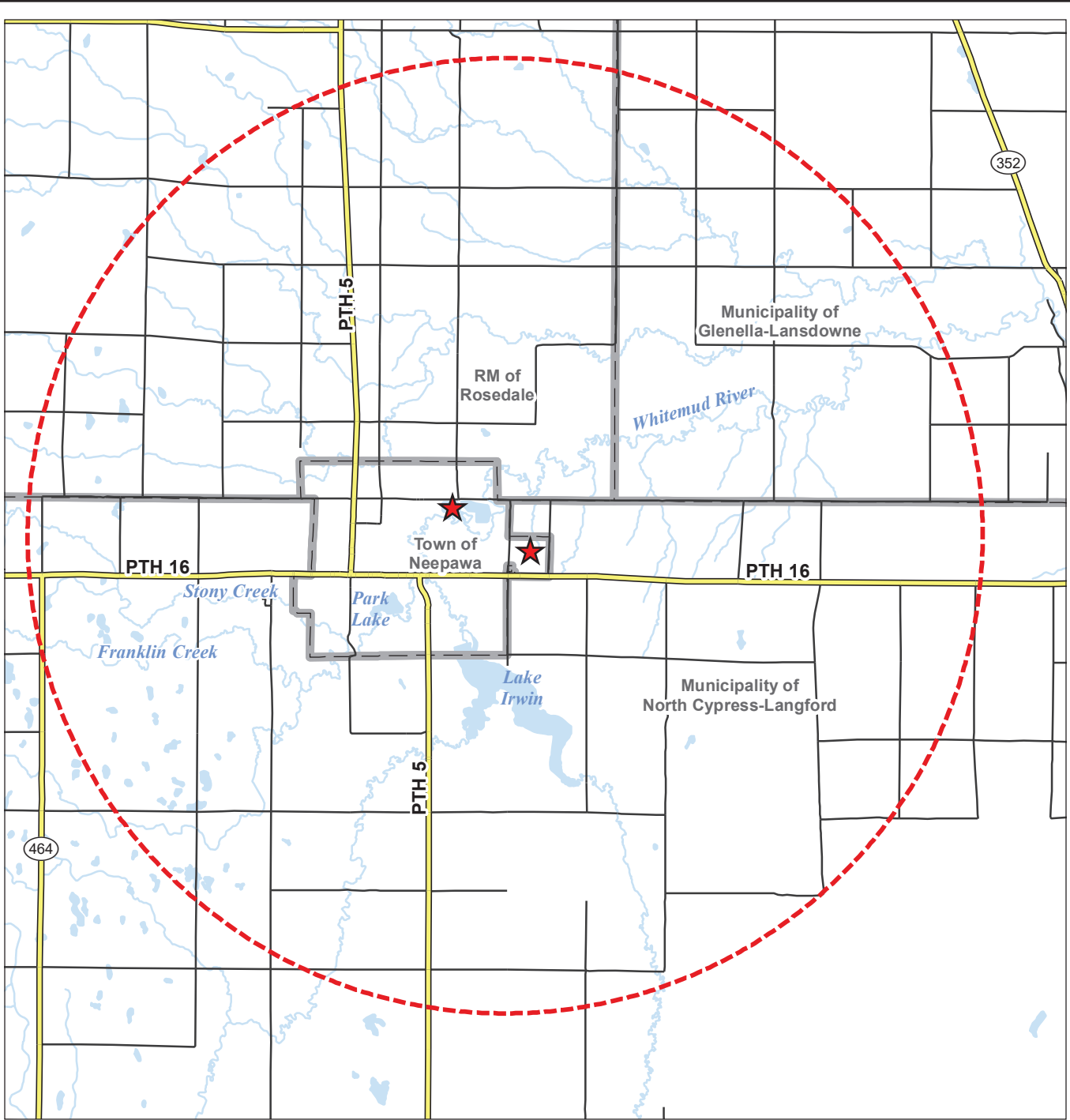
Project Location Town of Neepawa, Manitoba
 Prepared by ACampigotto on 2021-11-22
 Reviewed by BKrawchuk on 2021-11-22

Client/Project R3 Innovations Inc.
 Wastewater Transfer
 Notice of Alteration
 111440368








Figure No.
1-3

Title
**Local Assessment Area
 (3 km Radius)**

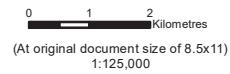
Notes
 1. Coordinate System: NAD 1983 UTM Zone 14N
 2. Base Data Sources: Government of Manitoba
 3. Orthoimagery: Microsoft screen shot reprinted with permission from Microsoft Corporation



Legend

-  Site Location
-  Major Road
-  Minor Road
-  Watercourse
-  Waterbody
-  Rural Municipality
-  Regional Assessment Area (10 km Radius)

Notes
 1. Coordinate System: NAD 1983 UTM Zone 14N
 2. Base Data Sources: Government of Manitoba.

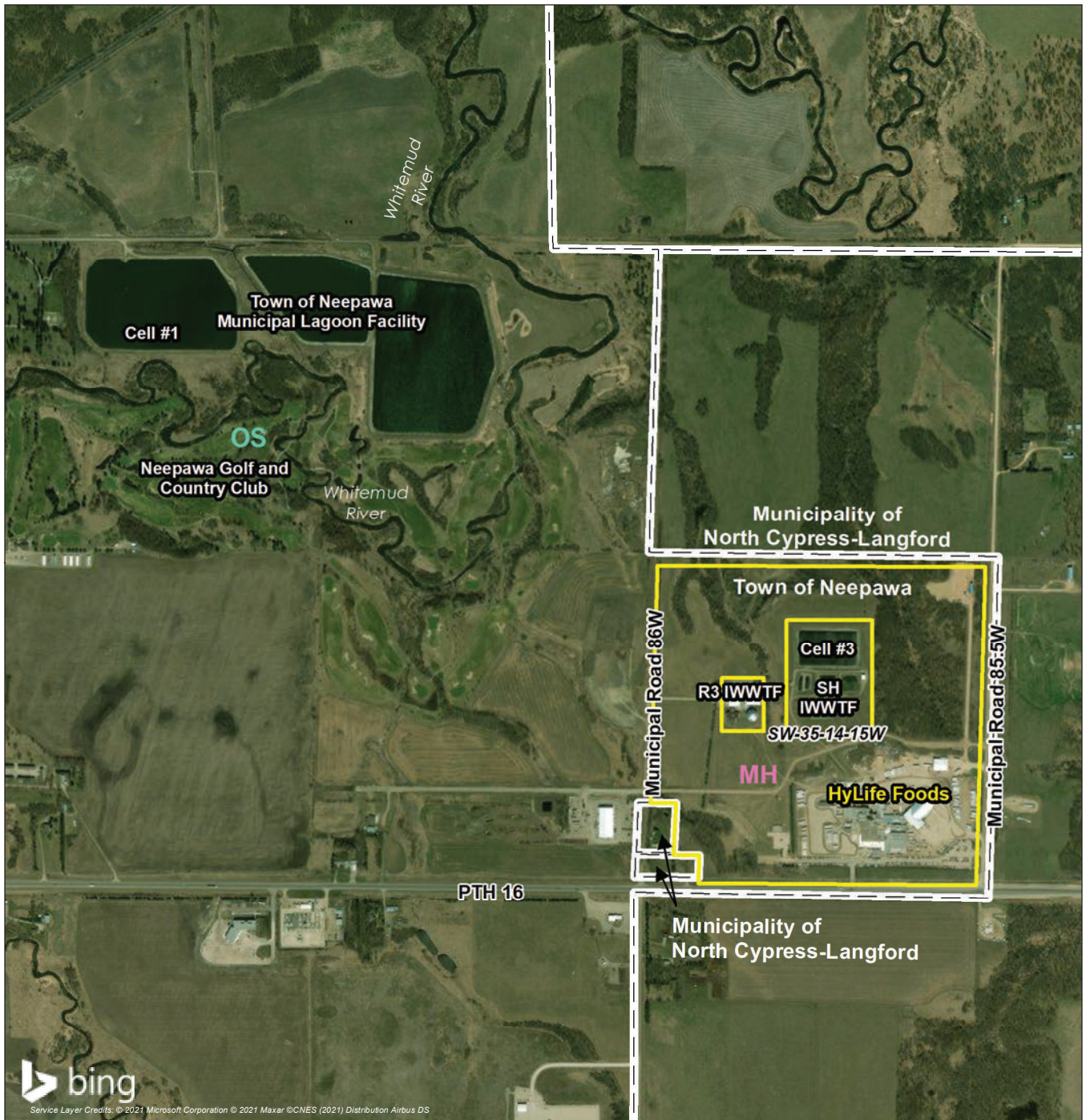


Project Location Town of Neepawa, Manitoba
 Prepared by ACampigotto on 2021-11-22
 Reviewed by BKrawchuk on 2021-11-22





Client/Project R3 Innovations Inc. Wastewater Transfer Notice of Alteration
 111440368

Figure No. 1-4

Regional Assessment Area (10 km Radius)

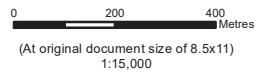


Legend

-  Rural Municipality
-  Industrial Heavy Zone
-  Open Space Zone
-  HyLife Foods (Approximate)

Notes

1. Coordinate System: NAD 1983 UTM Zone 14N
2. Base Data Sources: Government of Manitoba.
3. Aerial imagery Source: Microsoft product screenshot reprinted with permission from Microsoft Corporation.



Project Location Town of Neepawa, Manitoba
 Prepared by ACampigotto on 2021-11-19
 Reviewed by BKrawchuk on 2021-11-19

Client/Project R3 Innovations Inc. Wastewater Transfer Notice of Alteration
 111440368

Figure No.
2-1

Title
Site Layout

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix B Certificates of Title
November 25, 2021

Appendix B CERTIFICATES OF TITLE



R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix B Certificates of Title
November 25, 2021

SH IWWTF



STATUS OF TITLE

Title Number **2065009/5**
Title Status **Accepted**
Client File **Bill Krawchuk - 111440368**



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

TOWN OF NEEPAWA

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

AT NEEPAWA AND BEING:
LOT 1 PLAN 23208 NLTO
IN SW 1/4 35-14-15 WPM

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **30550/5**
Instrument Status: **Accepted**

Registration Date: 1952-08-01
From/By: CROWN TRUST COMPANY
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **85-3172/5**
Instrument Status: **Accepted**

Registration Date: 1985-05-27
From/By: MANITOBA TELEPHONE SYSTEM
To:

Amount:
Notes: AFF: PART
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-1191/5**
Instrument Status: **Accepted**

Registration Date: 1986-03-21
From/By: THE TOWN OF NEEPAWA
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-2833/5**
Instrument Status: **Accepted**

Registration Date: 1986-06-24
From/By: THE RM OF LANGFORD
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-5122/5**
Instrument Status: **Accepted**

Registration Date: 1986-11-14
From/By: MANITOBA HYDRO-ELECTRIC BOARD
To:

Amount:
Notes: No notes
Description: No description

3. ADDRESSES FOR SERVICE

TOWN OF NEEPAWA
BOX 339
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate Produced for: HOLD FOR PROD OF DUPL CT NO(S)
215354

7. FROM TITLE NUMBERS

215354/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title - Internal**
Registration Number: **1042371/5**

Registration Date: 2005-01-19
From/By: THE TOWN OF NEEPAWA
To:
Amount:

10. LAND INDEX

Lot 1 Plan 23208
IN SW 35-14-15W

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 2065009/5

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix B Certificates of Title
November 25, 2021

R3 IWWTF



STATUS OF TITLE

Title Number **2421295/5**
Title Status **Accepted**
Client File **general**

The Property Registry

A Service Provider for the Province of Manitoba



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

R3 INNOVATIONS INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

PARCEL "A" PLAN 48468 NLTO
IN SW 1/4 35-14-15 WPM

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **30550/5**
Instrument Status: **Accepted**

Registration Date: 1952-08-01
From/By: CROWN TRUST COMPANY
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-1191/5**
Instrument Status: **Accepted**

Registration Date: 1986-03-21
From/By: THE TOWN OF NEEPAWA
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-2833/5**
Instrument Status: **Accepted**

Registration Date: 1986-06-24
From/By: THE RM OF LANGFORD
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-5122/5**
Instrument Status: **Accepted**

Registration Date: 1986-11-14
From/By: MANITOBA HYDRO-ELECTRIC BOARD
To:

Amount:
Notes: No notes
Description: No description

3. ADDRESSES FOR SERVICE

R3 INNOVATIONS INC.
BOX 10000, 623 MAIN ST. EAST
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

2357476/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Transfer Of Land**
Registration Number: **1076408/5**

Registration Date: 2009-12-17
From/By: SPRINGHILL FARMS INC.
To: R3 INNOVATIONS INC.
Consideration: \$1.00

10. LAND INDEX

Lot A Plan 48468
IN SW 35-14-15W

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 2421295/5

STATUS OF TITLE

Title Number **2421294/5**
Title Status **Accepted**
Client File **general**

The Property Registry

A Service Provider for the Province of Manitoba



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

R3 INNOVATIONS INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

PARCEL "B" PLAN 48468 NLTO
IN SW 1/4 35-14-15 WPM

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **30550/5**
Instrument Status: **Accepted**

Registration Date: 1952-08-01
From/By: CROWN TRUST COMPANY
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-1191/5**
Instrument Status: **Accepted**

Registration Date: 1986-03-21
From/By: THE TOWN OF NEEPAWA
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-2833/5**
Instrument Status: **Accepted**

Registration Date: 1986-06-24
From/By: THE RM OF LANGFORD
To:

Amount:
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-5122/5**
Instrument Status: **Accepted**

Registration Date: 1986-11-14
From/By: MANITOBA HYDRO-ELECTRIC BOARD
To:

Amount:
Notes: No notes
Description: No description

3. ADDRESSES FOR SERVICE

R3 INNOVATIONS INC.
BOX 10000, 623 MAIN ST. EAST
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

2357477/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Transfer Of Land**
Registration Number: **1076409/5**

Registration Date: 2009-12-17
From/By: SPRINGHILL FARMS INC.
To: R3 INNOVATIONS INC.
Consideration: \$1.00

10. LAND INDEX

Lot B Plan 48468
IN SW 35-14-15W

**CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 2421294/5**

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix B Certificates of Title
November 25, 2021

NEEPAWA GOLF & COUNTRY CLUB



STATUS OF TITLE

Title Number **1680840/5**
Title Status **Accepted**
Client File **Bill Krawchuk - 111440368**



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

NEEPAWA GOLF AND COUNTRY CLUB INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

AT NEEPAWA AND BEING:
PARCEL A PLAN 37707
IN E 1/2 34-14-15 WPM

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **85-3166/5**
Instrument Status: **Accepted**

Registration Date: 1985-05-27
From/By: MANITOBA TELEPHONE SYSTEM
To:

Amount:
Notes: AFF: PART SE 1/4
Description: No description

Instrument Type: **Caveat**
Registration Number: **86-1189/5**
Instrument Status: **Accepted**

Registration Date: 1986-03-21
From/By: THE TOWN OF NEEPAWA
To:

Amount:
Notes: AFF: SE 1/4
Description: No description

Instrument Type: **Caveat**
Registration Number: **88-4821/5**
Instrument Status: **Accepted**

Registration Date: 1988-11-08
From/By: THE TOWN OF NEEPAWA
To:

Amount:
Notes: AFF: SE 1/4
Description: No description

Instrument Type: **Miscellaneous**
Registration Number: **1008686/5**
Instrument Status: **Accepted**

Registration Date: 2000-05-04
From/By: NEEPAWA GOLF & COUNTRY CLUB
To:

Amount:
Notes: LOCATION ONLY NOT ENCUMBR
Description: BRIDGE DEPOSIT RE. NAVIGABLE WATERS PROTECTION ACT

Instrument Type: **Mortgage**
Registration Number: **1070740/5**
Instrument Status: **Accepted**

Registration Date: 2009-03-23
From/By: NEEPAWA GOLF AND COUNTRY CLUB INC.
To: BEAUTIFUL PLAINS CREDIT UNION LIMITED

Amount: \$950,000.00
Notes: No notes
Description: No description

3. ADDRESSES FOR SERVICE

NEEPAWA GOLF AND COUNTRY CLUB
BOX 1119
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

1680835/5 All

1680831/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title - Internal**

Registration Number: **1005321/5**

Registration Date: 1999-10-15

From/By: NEEPAWA GOLF AND COUNTRY CLUB INC.

To:

Amount:

10. LAND INDEX

Lot A Plan 37707
IN E 1/2 34-14-15W

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 1680840/5

STATUS OF TITLE

Title Number **1722322/5**
Title Status **Accepted**
Client File **Bill Krawchuk - 111440368**



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

NEEPAWA GOLF AND COUNTRY CLUB INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

AT NEEPAWA AND BEING:

PARCEL 1: S 1/2 OF NW 1/4 34-14-15 WPM

PARCEL 2: NLY 150 FEET OF WLY 800 FEET
OF SW 1/4 34-14-15 WPM

PARCEL 3: WLY 604 FEET OF N 1/2 OF NW 1/4 34-14-15 WPM
EXC: NLY 964 FEET

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**
Registration Number: **23392/5**
Instrument Status: **Accepted**

Registration Date: 1942-07-17
From/By: MANITOBA POWER COMMISSION
To:

Amount:
Notes: AFF: ELY 20' OF PARCEL 1
Description: No description

Instrument Type: **Caveat**
Registration Number: **26211/5**
Instrument Status: **Accepted**

Registration Date: 1950-07-17
From/By: MANITOBA POWER COMMISSION
To:

Amount:
Notes: AFF: PART
Description: No description

Instrument Type: **Caveat**
Registration Number: **36018/5**
Instrument Status: **Accepted**

Registration Date: 1962-01-18
From/By: MANITOBA HYDRO-ELECTRIC BOARD
To:

Amount:
Notes: AFF: PART
Description: No description

Instrument Type: **Caveat**
Registration Number: **36037/5**
Instrument Status: **Accepted**

Registration Date: 1962-01-23
From/By: MANITOBA TELEPHONE SYSTEM
To:

Amount:
Notes: AFF: PART
Description: No description

Instrument Type: **Mortgage**
Registration Number: **1070740/5**
Instrument Status: **Accepted**

Registration Date: 2009-03-23
From/By: NEEPAWA GOLF AND COUNTRY CLUB INC.
To: BEAUTIFUL PLAINS CREDIT UNION LIMITED

Amount: \$950,000.00
Notes: No notes
Description: No description

Instrument Type: **Caveat**
Registration Number: **1093898/5**
Instrument Status: **Accepted**

Registration Date: 2012-06-04
From/By: MTS INC.
To:

Amount:
Notes: AFF: WLY 12MP OF PCL 2
Description: EASEMENT AGREEMENT 2012/02/07 BY AGT BRENDA MATTE

3. ADDRESSES FOR SERVICE

NEEPAWA GOLF AND COUNTRY CLUB
BOX 1119
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

228160/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title - Internal**
Registration Number: **1008708/5**

Registration Date: 2000-05-04
From/By: NEEPAWA GOLF AND COUNTRY CLUB INC.
To:
Amount:

10. LAND INDEX

NW 34-14-15W
S 1/2 & PART OF N 1/2

SW 34-14-15W
NLY 150 FEET OF WLY 800 FEET

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 1722322/5

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix B Certificates of Title
November 25, 2021

TOWN OF NEEPAWA MUNICIPAL FACILITY



STATUS OF TITLE

Title Number **1680842/5**
Title Status **Accepted**
Client File **Bill Krawchuk - 111440368**



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

THE TOWN OF NEEPAWA

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

AT NEEPAWA AND BEING:
NE 1/4 34-14-15 WPM
EXC: PLANS 4872 AND 37707 NLTO

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

No active instruments

3. ADDRESSES FOR SERVICE

TOWN OF NEEPAWA
BOX 339
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate Produced for: TAYLOR LAW OFFICE
P.O. BOX 309
NEEPAWA MB
R0J 1H0

7. FROM TITLE NUMBERS

153495/5 Balance

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title - Internal**

Registration Number: **1005322/5**

Registration Date: 1999-10-15

From/By: TOWN OF NEEPAWA

To:

Amount:

10. LAND INDEX

NE 34-14-15W

EX PLANS 4872 & 37707

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 1680842/5

STATUS OF TITLE

Title Number **2764298/5**
Title Status **Accepted**
Client File **Bill Krawchuk - 111440368**



1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

THE TOWN OF NEEPAWA

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

ALL THAT PORTION OF THE N 1/2 OF THE NW 1/4 OF SECTION 34-14-15 WPM DESCRIBED AS FOLLOWS: COMMENCING AT THE NW CORNER OF THE NW 1/4 OF SAID SECTION 34 THENCE ELY ALONG THE NORTHERN LIMIT THEREOF 604 FEET THENCE SLY PARALLEL WITH THE WESTERN LIMIT OF SAID 1/4 SECTION 964 FEET THENCE WLY PARALLEL WITH THE SAID NORTHERN LIMIT THEREOF 604 FEET MORE OR LESS TO THE SAID WESTERN LIMIT THEREOF THENCE NLY ALONG SAID WESTERN LIMIT THEREOF 964 FEET MORE OR LESS TO THE PLACE OF COMMENCEMENT

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

2. ACTIVE INSTRUMENTS

No active instruments

3. ADDRESSES FOR SERVICE

TOWN OF NEEPAWA
BOX 339
NEEPAWA MB
R0J 1H0

4. TITLE NOTES

No title notes

5. LAND TITLES DISTRICT

Neepawa

6. DUPLICATE TITLE INFORMATION

Duplicate not produced

7. FROM TITLE NUMBERS

4794/5 All

8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS

No real property application or grant information

9. ORIGINATING INSTRUMENTS

Instrument Type: **Request To Issue Title - Internal**

Registration Number: **1111728/5**

Registration Date: 2015-01-27

From/By: TOWN OF NEEPAWA

To:

Amount:

10. LAND INDEX

NW 34-14-15W

PART N 1/2

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE
SYSTEM OF TITLE NUMBER 2764298/5

R3 INNOVATIONS INC. – SH IWWTF WASTEWATER TRANSFER REQUEST FOR NOTICE OF ALTERATION

Appendix C Licence and Correspondence
November 25, 2021

Appendix C LICENCE AND CORRESPONDENCE



File No.: 2755.20

May 7, 2021

Sheldon Stott
R3 Innovations Inc.
Box 1000
623 Main Street
Neepawa MB R3C 1A5

Dear Sheldon Stott:

Re: R3 Innovations Inc. – Environment Act Licence No. 2870 RRR – Notice of Alteration

Receipt of your March 15, 2021 submission and April 1, 2021 additional information is acknowledged as a notice of alteration in accordance with Section 14 of The Environment Act.

The requested change to the Development as Licensed is an interim increase in wastewater treatment capacity at the R3 Innovations Inc. industrial wastewater treatment facility due to a proposed interim production rate increase at the HyLife meat processing facility (submitted separately as a notice of alteration). The interim wastewater production limit increase is requested prior to the completion of the already approved expansion and refurbishment of the industrial wastewater treatment facility.

Specifically, the request is for an increase of wastewater generated by the HyLife meat processing plant to the industrial wastewater treatment facility to a maximum of 1911 m³/day from 1570 m³/day.

The potential environmental effect of the requested changes to the Development as Licensed is insignificant and considered to be a minor alteration in accordance with Section 14(2) of The Environment Act. Approval is hereby granted for the interim increase in wastewater influent capacity the Development as described in your March 15, 2021 submission and April 1, 2021 additional information and subject to the following conditions in addition to Environment Act Licence No. 2870 RRR:

- 1) The Licencee shall notify the assigned Environment Officer, a minimum of 48 hours in advance, prior to any wastewater discharge to the on-site industrial wastewater

lagoons. The notification must include a detailed explanation of the reason for the discharge.

- 2) The Licencee shall prepare and submit a monthly report to the assigned Environment Officer with the following information, and additional information as required:
 - a) an update on all activities undertaken for the upgrade and expansion of the industrial wastewater treatment facility;
 - b) planned activities related to the industrial wastewater facility upgrade for the following month;
 - c) the total volume of wastewater transferred back from the industrial wastewater lagoon to the wastewater treatment facility for treatment and discharge;
 - d) the total number of wastewater transfers to the industrial wastewater lagoon, the dates and duration of each transfer, the total volume of wastewater transferred and a detailed explanation of the reason for the wastewater transfer; and
 - e) the estimated remaining capacity of the industrial wastewater lagoon and remaining freeboard.

- 3) The Licencee shall, in addition to the reporting requirements of Environment Act Licence No. 2870 RRR or any subsequent revised Licence, record and report the monthly rolling average of the wastewater effluent flow rate at the industrial wastewater treatment facility.

If you have any questions, please contact Jennifer Winsor, P.Eng., Senior Environmental Engineer, Environmental Approvals Branch, at Jennifer.Winsor@gov.mb.ca or 204-945-7012.

Yours sincerely,

A solid black rectangular box used to redact the signature of Shannon Kohler.

for Shannon Kohler, Director
Environment Act

cc: Kristal Harman, Yvonne Hawryliuk – Environmental Compliance and Enforcement Branch
Laura Pyles, Siobhan Burland Ross, Jennifer Winsor – Environmental Approvals Branch
Public Registry



Sustainable Development

Environmental Stewardship Division
Environmental Approvals Branch
1007 Century Street, Winnipeg, Manitoba R3H 0W4
T 204 945-8321 F 204-945-5229
www.gov.mb.ca/sd

File: 2755.20

July 12, 2019

Sheldon Stott
R3 Innovations Inc.
Box 100
La Broquerie, MB R0A 0W0

Dear Mr. Stott:

Re: R3 Innovations Inc./Town of Neepawa IWWTF –Environment Act Licence No. 2870 RRR

Please find enclosed Environment Act Licence No. 2870 RRR issued to R3 Innovations Inc. and the Town of Neepawa for the operation of the Development being a wastewater collection system and 1570 m³/day hydraulic capacity industrial wastewater treatment facility (IWWTF) located at SW 35-14-15WPM in the Town of Neepawa.

Environment Act Licence No. 2870 RR has been rescinded; the revised licence amends Clause 25 to reflect the annual average of the hydraulic loading.

If you have any questions, please contact Jennifer Winsor, P.Eng. at 204-945-7012.

Yours sincerely,

“original signed by”

Cordella Friesen
Director
The Environment Act

- c. Scott Davies, A/Director, Environmental Compliance and Enforcement
Yvonne Hawryliuk – Environmental Compliance and Enforcement

LICENCE

| | |
|-------------------------------|---|
| Licence No./Licence n° | <u>2870 RRR</u> |
| Issue Date/Date de délivrance | <u>December 18, 2014</u> |
| Revised / Révisé | <u>May 31, 2019</u> <u>July 12, 2019</u> |

In accordance with The Environment Act (C.C.S.M. c. E125)/
Conformément à la Loi sur l'environnement (C.P.L.M. c. E125)

Pursuant to Sections 11(1) /Conformément au Paragraphes 11(1)

THIS LICENCE IS ISSUED TO:/CETTE LICENCE EST DONNÉE À:

R3 INNOVATIONS INC.
AND
THE TOWN OF NEPAWA;
“the Licencees”

for the operation of the Development, being a wastewater collection system and 1570 m³/day hydraulic capacity industrial wastewater treatment facility (IWWTF) located at SW 35-14-15WPM in the Town of Neepawa with discharge of treated effluent to the effluent outfall pipeline with final discharge to the Whitemud River in accordance with the Proposal dated June 12, 2013 and subsequent information provided on November 25, 2013 and a May 3, 2019 notice of alteration and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

“**accredited laboratory**” means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation and Water Stewardship to be equivalent to the SCC, or be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

“**acute lethality**” means a toxic effect resulting in death produced in an organism by a substance or mixture of substances within a short exposure period (usually 96 hours or less);

“**affected area**” means a geographical area, excluding the property of the Development;

“**approved**” means approved by the Director or assigned Environment Officer in writing;

“**biosolids**” means accumulated organic solids, resulting from wastewater treatment processes. that have received adequate treatment to permit the material to be recycled;

“**calibrate**” means to determine, check, or rectify the graduation of any instrument giving quantitative measurement;

“**composite sample**” means a quantity of undiluted effluent composed of a minimum of 24 sequential series of discrete equal volumes of effluent collected at a rate proportionate to the flow rate of the effluent over a period of 24 consecutive hours;

“**day**” or “**daily**” means any period of 24 consecutive hours;

“**Director**” means an employee so designated pursuant to The Environment Act;

“**effluent**” means treated wastewater flowing or pumped out of the wastewater treatment facility;

“**Environmental Management System (EMS)**” means the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy;

“**Environment Officer**” means an employee so appointed pursuant to The Environment Act;

“**Escherichia coli (*E.coli*)**” means the species of bacteria in the fecal coliform group found in large numbers in the gastrointestinal tract and feces of warm-blooded animals and man, whose presence is considered indicative of fresh fecal contamination, and is used as an indicator organism for the presence of less easily detected pathogenic bacteria;

“**fecal coliform**” means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5° C, and associated with fecal matter of warm blooded animals;

“**final discharge point**” means the effluent monitoring location past the UV disinfection facility of the wastewater treatment plant, or the actual end-of-pipe outfall location for the effluent following the wastewater treatment plant at or near the banks of the Whitemud River, unless otherwise re-designated in writing by the Director;

“**five-day biochemical oxygen demand (BOD₅)**” means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within five days at a temperature of 20°C;

“five-day carbonaceous biochemical oxygen demand (CBOD₅)” means that part of the oxygen demand usually associated with biochemical oxidation of carbonaceous organic matter within five days at a temperature of 20°C, excluding the oxygen demand usually associated with the biochemical oxidation of nitrogenous organic matter;

“flow proportional composite sample” means a combination of not less than ten individual samples of equal volumes of wastewater taken at equal increments of wastewater flow over a specified period of time;

“grab sample” means a quantity of wastewater taken at a given place and time;

“hog processing facility” means the HyLife Foods LP hog processing facility operating under Environment Act Licence No. 1102 RRR or subsequent revised licence and all the supporting facilities located on that same property;

“Industrial Services Agreement” means a signed and legally binding agreement, arrived at between the Licencees and HyLife Foods LP which outlines clear limits respecting the maximum daily and maximum weekly flow rates, as well as maximum daily and maximum weekly loading limits on such physical, chemical and biological parameters as may be requested by the Licencees or HyLife Foods LP;

“influent” means all the untreated hog processing wastewater and sanitary sewage from the hog processing facility and the associated truck wash facility, being directed into the wet well prior to the fine screening stage;

“IWWTF” means the industrial wastewater treatment facility which includes the wastewater collection system, the wastewater treatment plant and the wastewater treatment lagoons;

“kg/d” means kilograms per day;

“mg/L” means milligrams per litre;

“MPN index” means the most probable number of coliform organisms in a given volume of wastewater or effluent which, in accordance with statistical theory, would yield the observed test result with the greatest frequency;

“noise nuisance” means an unwanted sound, in an affected area, which is annoying, troublesome, or disagreeable to a person:

- a) residing in an affected area;
- b) working in an affected area; or
- c) present at a location in an affected area which is normally open to members of the public;

if the unwanted sound

- d) is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director and within a 90-day period, from 5 different persons falling within clauses a), b) or c), who do not live in the same household; or
- e) is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses a), b) or c) and the Director is of the opinion that if the unwanted sound had occurred in a more densely

populated area there would have been at least 5 written complaints received within a 90-day period, from 5 different persons who do not live in the same household;

“odour nuisance” means a continuous or repeated odour, smell or aroma, in an affected area, which is offensive, obnoxious, troublesome, annoying, unpleasant or disagreeable to a person:

- a) residing in an affected area;
- b) working in an affected area; or
- c) present at a location in an affected area which is normally open to members of the public;

if the odour, smell or aroma

- d) is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director and within a 90-day period, from 5 different persons falling within clauses a), b) or c) who do not live in the same household; or
- e) is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses a), b) or c) and the Director is of the opinion that if the odour, smell or aroma had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90-day period, from 5 different persons who do not live in the same household;

“Operator” means a person certified to operate the IWWTF and employed by the Licencees to manage the functional day-to-day operation of the IWWTF within the constraints of this Licence;

“pollutant” means a pollutant as defined in The Environment Act;

“process wastewater” means all wastewater from the hog processing facility, including sanitary sewage and wastewater from the associated truck wash facility;

“record drawings” means engineering drawings complete with all dimensions which indicate all features of the Development as it has actually been built;

“sludge” means accumulated solid material containing large amounts of entrained water, which has separated from wastewater during processing;

“Standard Methods for the Examination of Water and Wastewater” means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation;

“thirty-day rolling average” means the arithmetic average of any daily reported data and the preceding 29 consecutive days of reported data;

“undiluted” means free of extraneous sources of water which could feasibly be prevented from mixing with effluent streams prior to their discharge at their designated final discharge point(s), and not having water added for the purposes of meeting any effluent quality limits specified in this Licence;

“UV disinfection” means a disinfection process for treating wastewater using ultraviolet radiation;

"**UV germicidal dose**" means the unit of intensity of ultra violet light that is required to kill bacteria and viruses present in the wastewater effluent;

"**wastewater**" means the spent or used water of a community or industry which contains dissolved and suspended matter;

"**wastewater collection system**" means the sewer and pumping system used for the collection and conveyance of domestic, commercial and industrial wastewater;

"**wastewater treatment lagoon**" means the component of this development which consists of an impoundment into which wastewater is discharged for treatment and storage;

"**wastewater treatment plant**" means the central facility of wastewater treatment facilities which contains all treatment processes exclusive of the collection system;

"**week**" or "**weekly**" means any period of 7 consecutive days; and

"**WHMIS**" means Workplace Hazardous Materials Information System.

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencees in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

Retain Copy of Licence

1. The Licencee shall at all times maintain a copy of this licence at the Development or at the premises from which the Development's operations are managed.

Future Sampling

2. In addition to any of the limits, terms and conditions specified in this Licence, the Licencees shall, upon the request of the Director:
 - a) sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
 - b) determine the environmental impact associated with the release of any pollutant(s) from the Development;
 - c) conduct specific investigations in response to the data gathered during environmental monitoring programs; or
 - d) provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used,

bioassay data, flow rate measurements and such other information as may from time to time be requested.

3. The Licencees shall, unless otherwise specified in this Licence:
 - a) carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in the most current edition of Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the Director;
 - b) carry out all sampling of, and preservation and analyses on, soil and air samples in accordance with methodologies approved by the Director;
 - c) have all analytical determinations undertaken by an accredited laboratory; and
 - d) report the results to the Director within 60 days of the samples being taken.
4. The Licencees shall actively participate in any future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the Whitemud River and/or associated waterways and watersheds.

Reporting Format

5. The Licencees shall submit all information required to be provided to the Director or Environment Officer under this Licence, in writing, in such form (including number of copies) and of such content as may be required by the Director or Environment Officer, and each submission shall be clearly labeled with the Licence Number and Client File Number associated with this Licence.

Equipment Breakdown

6. The Licencees shall, in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.
7. The Licencees shall, following the reporting of an event pursuant to Clause 6,
 - a) identify the repairs required to the mechanical equipment;
 - b) undertake all repairs to minimize unauthorized discharges of a pollutant;
 - c) complete the repairs in accordance with any written instructions of the Director; and
 - d) submit a report to the Director about the causes of breakdown and measures taken, within one week of the repairs being done.

Safety and Security

8. The Licencees shall continually maintain an up-to-date inventory of any process and cleaning chemicals used and/or stored on-site that would be captured by any applicable federal/provincial WHMIS regulations and protocols, and make this information and applicable MSDS sheets available to an Environment Officer upon request.

9. The Licencees shall prepare, within 90 days of the date of issuance of this Licence, and maintain an emergency response contingency plan in accordance with the Canadian Centre for Occupational Health and Safety “Emergency Response Planning Guide” or other emergency planning guidelines acceptable to the Director.
10. The Licencees shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.
11. The Licencees shall implement and continually maintain in current status, an Environmental Management System (EMS) for the Development which is acceptable to the Director.
12. The Licencees shall:
 - a) install or utilize existing security fencing, acceptable to the Director, to enclose the wastewater treatment plants or components thereof, that are not enclosed in a building with a security system acceptable to the Director; and
 - b) maintain the security system in a manner acceptable to the Director.

Certification

13. The Licencees shall obtain and maintain classification of the Development pursuant to Manitoba Regulation 77/2003 respecting Water and Wastewater Facility Operators or any future amendment thereof and maintain compliance with all requirements of the regulation including, but not limited to, the preparation and maintenance of a Table of Organization, Emergency Response Plan and Standard Operating Procedures.
14. The Licencees shall carry out the operation of the Development with individuals properly certified to do so pursuant to Manitoba Regulation 77/2003 respecting Water and Wastewater Facility Operators or any future amendment thereof.

Industrial Services Agreement

15. The Licencees shall:
 - a) prepare and execute a current comprehensive and enforceable Industrial Services Agreement, which is acceptable to the Director, for the purposes of defining maximum daily and maximum weekly influent limits respecting volume and pollutant loading rates which would protect the operational integrity of the IWWTF in terms of the design capability and/or in consideration of the actual performance of the IWWTF relative to the effluent quality limits as specified in this Licence, or any revision thereof;
 - b) provide the Director with a copy of the Industrial Services Agreement upon being signed by all parties; and
 - c) provide the Director with a copy of any future revised Industrial Services Agreement.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Respecting Construction

16. The Licencees shall notify the assigned Environment Officer not less than two weeks prior to beginning construction at the Development. The notification shall include the intended starting date of construction and the name of the contractor and contact person responsible for the construction.
17. The Licencees shall obtain all necessary federal, provincial and/or municipal licences, authorizations, permits and/or approvals for construction of relevant components of the Development prior to commencement of construction.
18. The Licencees shall dispose of non-reusable construction debris from the Development at a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 150/91 respecting Waste Disposal Grounds, or any future amendment thereof, or a Licence issued pursuant to The Environment Act.
19. The Licencees shall locate fuel storage and equipment servicing areas established for the construction and operation of the Development a minimum distance of 100 metres from any waterbody, and shall comply with the requirements of Manitoba Regulation 188/2001 respecting Storage and Handling of Petroleum Products and Allied Products or any future amendment thereof.
20. The Licencees shall, during construction of the Development, operate, maintain and store all materials and equipment in a manner that prevents any deleterious substances (fuel, oil, grease, hydraulic fluids, coolant, paint, uncured concrete and concrete wash water, etc.) from entering the discharge route and associated watercourses, and have an emergency spill kit for in-water use available on site during construction.
21. The Licencees shall not permit any pollutants to be directed into, or transported by, any surface drainage route leading off the property of the Development.
22. The Licencees shall pressure test the integrity of the connections of any new underground piping of the Development, which is intended to transport wastewater under pressure, before such pipe connections are backfilled with earth and make repairs as required.
23. The Licencees shall:
 - a) clearly mark all those existing groundwater monitoring wells located on the property of the Development which have the potential to be disturbed by any construction activity involving the expansion and modification of the Development; and
 - b) decommission any existing groundwater monitoring well(s) which are planned to be terminated or relocated (in the course of the construction activities) in a manner consistent with any applicable guidelines or requirements administered by the Manitoba Conservation and Water Stewardship.

Respecting Operation of the Development

24. The Licencees shall not accept wastewater, liquid sludge or manure into the IWWTF from any source other than the HyLife Foods hog processing facility and truck wash facility, except for seed as may be required by the IWWTF upon the start-up of the IWWTF modifications or to recover from a treatment process upset.
25. The Licencees shall operate and maintain the IWWTF in such a manner that, when measured immediately following the flow attenuation tank:
 - a) the hydraulic loading does not exceed 1,570 cubic metres over any 24-hour period based on an annual average; and
 - b) the organic loading does not exceed 6,023 kilograms of five-day biochemical oxygen demand over any 24-hour period.
26. The Licencees shall:
 - a) stage the ramp-up of the operation of the IWWTF in accordance with the written instructions of the Operator of the IWWTF;
 - b) limit the wastewater being directed into the IWWTF to only that wastewater which is generated at the HyLife Foods hog processing plant and truck wash facility while operating at a hog processing rate not exceeding 40,000 hogs per week averaged over any 12 month period; and
 - c) continually monitor and manage the quality and quantity of the raw wastewater streams from the HyLife Foods hog processing facility and truck wash facility relative to the design limitations of the IWWTF and consistent with maintaining ongoing compliance with the limits, terms and conditions set out in this Licence.
27. The Operator of the IWWTF shall:
 - a) provide written instructions to HyLife Foods, when necessary, with respect to managing the quality and quantity of any wastewater streams being directed from the hog processing facility and the truck wash facility to the IWWTF, clearly indicating the necessity for the instruction(s) and any critical timing associated with executing the instruction(s); and
 - b) copy the Director on any written authorizations or instruction provided to HyLife Foods concerning the commissioning of the altered IWWTF and the ongoing management of the quality and quantity of any influent wastewater streams being directed into the wet well at the front of the IWWTF.
28. The Licencees shall install and maintain adequate instrumentation to provide constant monitoring of the UV process to ensure compliance with the disinfection requirements. Such instrumentation shall include but not be limited to the following:
 - a) a UV sensor to monitor lamp intensity;
 - b) an appropriate alarm;
 - c) a lamp monitoring system to identify the location of individual lamp failures;
 - d) an hour meter which cannot be reset to display actual hours of UV lamp operation; and
 - e) protective circuits for overcurrent and ground current leakage detection.
29. The Licencees shall utilize UV lamps that have a rated output of at least 254 nanometres (nm) capable of delivering a UV germicidal dose in excess of 30,000 microwatt seconds/sq cm.

30. The Licencees shall operate and maintain the UV units to give a germicidal dose of 80% or more of the design germicidal dose, at the end of the lamp life.
31. The Licencee shall submit, to the Director for approval within 90 days of issuance of this Licence, an operational plan for the existing wastewater treatment lagoon, including plans to seal and/or decommission the discharge outlet from the facility.
32. The Licencees shall maintain a 1.0 metre freeboard at the existing wastewater treatment lagoon cells at all times.
33. The Licencees shall:
 - a) transfer wastewater to the existing wastewater treatment lagoon at the Development, only under exceptional circumstances, for temporary wastewater storage purposes only;
 - b) transfer the stored wastewater from the existing wastewater treatment lagoon to the wastewater treatment plant for treatment and discharge only through the final discharge point; and
 - c) notify the Environment Officer on each occasion when the transfer of wastewater to the existing wastewater treatment lagoon occurs and keep a record of each transfer.

Respecting Effluent Releases from the Development

34. The Licencees shall release effluent from the Development only through the final discharge point which leads to the Whitemud River.
35. The Licencees shall not release any effluent from the Development if the quality of the effluent is such that:
 - a) the organic content in the effluent, as indicated by the five-day carbonaceous biochemical oxygen demand, is in excess of 25 mg/L, as determined from any composite sample of the effluent;
 - b) the total suspended solids content in the effluent, is in excess of 25 mg/L, as determined from any composite sample of the effluent;
 - c) the fecal coliform content in the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
 - d) the E. coli content in the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
 - e) the concentration of total nitrogen in the effluent on any day is in excess of 15.0 milligrams per litre, as determined by the 30-day rolling average;
 - f) the concentration of total phosphorus in the effluent on any day is in excess of 1.0 milligrams per litre, as determined by the 30-day rolling average; or
 - g) the total ammonia is in excess of the concentration specified in Schedule 1 of this Licence, as determined by the pH of the effluent.
36. The Licencees shall not, on any day, release a quality of effluent from the Development which:
 - a) causes, or contributes to, the mixing zone for the effluent in the Whitemud River being acutely lethal to aquatic life passing through the mixing zone; or

- b) which can be demonstrated to be acutely lethal to fish within the mixing zone for the effluent in the Whitemud River using a 96-hour static acute lethality test which results in mortality to more than 50 percent of the test fish exposed to 100 percent strength effluent, with the test carried out in accordance with the protocol outlined in Environment Canada's "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout: EPS/1/RM/13 Second Edition – December 2000", or any future amendment thereof, or by another toxicity testing method approved by the Director.

37. The Licencees shall not direct wastewater to the Town of Neepawa municipal wastewater treatment lagoon.

Respecting Groundwater Protection

38. The Licencees shall:

- a) develop and submit to the Director, for approval, a Groundwater Monitoring Program to encompass all groundwater zones that could potentially be impacted at the site of the Development by losses of untreated or partially treated wastewater or any spilled liquid chemicals or petroleum fuel; and
- b) submit an annual report to the Director each year on the findings of the approved Groundwater Monitoring Program.

39. The Licencees shall, upon learning that the approved Groundwater Monitoring Program has identified evidence of probable or certain groundwater contamination;

- a) file an action plan with the Director, as soon as possible, to identify and isolate the source(s) of the groundwater contamination; and
- b) implement remediation measures, to the satisfaction of the Director, and to the extent necessary to restore the impacted groundwater.

40. The Licencees shall, upon the suspicion or detection of any leaking or ruptured wastewater collection pipe or forcemain, immediately undertake an investigation, and upon confirmation of a leak or rupture, terminate or otherwise re-route all inputs to the pipe or forcemain until the necessary repair has been completed.

Respecting Air Emissions

41. The Licencees shall not cause or permit an odour nuisance to be created as a result of the construction, operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate an odour nuisance.

42. The Licencees shall not cause or permit a noise nuisance to be created as a result of the construction, operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.

43. The Licencees shall prepare and maintain and make available to an Environment Officer upon request:
- a) an updated greenhouse gas inventory respecting the Development, by addressing carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride emissions; and
 - b) a greenhouse gas management plan for the Development, including reduction strategies and targets.

Respecting Solid Wastes

44. The Licencees shall not undertake any on-site burning of solid waste.
45. The Licencees shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
46. The Licencees shall not deposit solid waste into the environment except into a waste disposal ground operating under the authority of an Environment Act Licence or a permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereof, where the operator of that facility has agreed to accept the solid waste.

Respecting the Management of Sludge and Biosolids

47. The Licencees shall transport all of the dewatered sludge and biosolids from the development:
- a) to an approved facility operating under a valid Environment Act Licence or permit; and
 - b) in containers in such a manner to prevent the loss of sludge and biosolids or entrained fluids to the satisfaction of an Environment Officer.
48. The Licencees shall return all centrate resulting from the dewatering of the sludge and biosolids by centrifuges to the flow attenuation tank for treatment.

Respecting the Effluent Monitoring Station

49. The Licencees shall:
- a) construct and make available for use by an Environment Officer, at locations acceptable to the Director, secured and heated monitoring stations with direct access to:
 - i) the IWWTF wastewater influent pipelines; and
 - ii) the IWWTF wastewater effluent pipeline; and
 - b) make the monitoring stations accessible to an Environment Officer at all times;
 - c) install and maintain a continuous flow measuring devices, equipped with an interface compatible with departmentally owned ISCO sampler, at the monitoring stations or at a location acceptable to the Director which is capable of measuring the volume of effluent with an accuracy of ± 2 percent;
 - d) have the flow measuring device re-calibrated every two years or on the request of an Environment Officer;
 - e) submit to the Director a certificate of calibration, signed by a person qualified to calibrate the flow measuring device, for each flow measuring device within two weeks of the completion of

- each calibration, identifying the plus or minus percent error associated with each calibrated flow measuring device; and
- f) equip the monitoring stations with a flow-proportional sampling device equipped to function with the flow measuring device and have the sampling device available on request for use by an Environment Officer.

Respecting Monitoring, Record Keeping and Reporting of Effluent Releases

50. The Licencees shall:

- a) continuously measure and record the daily and total monthly volume (cubic metres) of effluent released from the final discharge point of the Development to an accuracy within ± 2 percent;
- b) once every week, on a full production day, collect a composite sample of the effluent at the final discharge point of the Development, and analyze it for:
- i) pH;
 - ii) temperature (field);
 - iii) suspended solids (mg/L);
 - iv) five-day carbonaceous biochemical oxygen demand (mg/L); and
 - v) ammonia nitrogen (expressed as mg/L of N); and
- c) once each day collect a composite sample of the effluent from the Development and analyze it for:
- i) total nitrogen (as N); and
 - ii) total phosphorus (as P);
- d) once each day at equal time intervals for a minimum of three (3) consecutive days per week, collect a grab sample of the effluent from the final discharge point of the Development and analyze it for:
- i) fecal coliform (expressed as MPN per 100 millilitres of sample); and
 - ii) E. coli (expressed as MPN per 100 millilitres of sample); and
- determine and record the monthly geometric mean for each of the fecal coliform and the E. coli counts based on all the data collected during each month for each coliform type;
- e) determine and record the loadings of:
- i) ammonia nitrogen (as kg/d of N);
 - ii) total nitrogen (as kg/d of N); and
 - iii) total phosphorus (as kg/d of P);
- released to the Whitemud River on each sampling date; and
- f) once every six months, collect a grab sample of the effluent at the final discharge point and have the sample analyzed by means of appropriate analytical methodologies to identify and quantify the presence of:
- i) Cryptosporidium;
 - ii) Giardia;
 - iii) heavy metals;
 - iv) organochlorines;
 - v) active pharmaceutical ingredients (particularly suspected endocrine disrupting compounds) which may be associated with pork processing operations; and
 - vi) such other parameter(s) as may be requested by the Director;
- until or unless otherwise specified by the Director.

51. The Licencees shall:
- a) take two flow proportional composite samples of effluent from the wastewater treatment plant over a 24 hour period every three months each year with a minimum separation time of 90 days between samples;
 - b) have one bioassay sample of the effluent analyzed at 100 percent concentration for acute lethality in accordance with the protocol outlined in Environment Canada's "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout: EPS 1/RM/13 Second Edition – December 2000", or any future amendment thereof; and
 - c) report the results to the Director within 30 days of the end of the month during which the samples were taken.
52. The Licencees shall submit monthly reports on applicable analytical values and information determined and recorded pursuant to Clauses 50 and 51 of this Licence, to the Director, in writing and in an electronic format acceptable to the Director, no later than 30 days after the end of the month during which the information was collected or compiled.
53. The Licencees shall during each year maintain the following records and retain them for a minimum period of five calendar years:
- a) wastewater sample dates;
 - b) original copies of laboratory analytical results of the sampled wastewater;
 - c) a summary of laboratory analytical results;
 - d) monthly effluent discharge volumes;
 - e) maintenance and repairs; and
 - f) a summary of any sanitary sewer overflows / combined sewer overflows.
54. The Licencees shall submit an annual report to the Environment Officer by February 28 of the following year including all records required by Clause 33 and Clause 53 of this Licence.

Record Drawings

55. The Licencees shall:
- a) prepare updated "record drawings" for the Development and shall label the drawings "Record Drawings"; and
 - b) provide to the Director, within six months from the date of this Environment Act Licence, two electronic copies of the "record drawings".

REVIEW OR REVOCATION

- A. This Licence replaces Environment Act Licence No. 2870 RR which is hereby rescinded.
- B. If, in the opinion of the Director, the Licencees have failed or are failing to comply with any of the specifications, limits, terms or conditions set out herein, the Director may, temporarily or permanently, revoke this Licence.

- C. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of The Environment Act.

“original signed by”

Cordella Friesen
Director
The Environment Act

File: 2755.20

Schedule 1 to Environment Act Licence No. 2870 RR

Maximum Total Ammonia - Acute Toxicity Limits pursuant to Clause 35 (g)

| Effluent pH | Total Ammonia (mg/L) |
|-------------|----------------------|
| 6.50 | 48.83 |
| 6.60 | 46.84 |
| 6.70 | 44.57 |
| 6.80 | 42.00 |
| 6.90 | 39.16 |
| 7.00 | 36.09 |
| 7.10 | 32.86 |
| 7.20 | 29.54 |
| 7.30 | 26.21 |
| 7.40 | 22.97 |
| 7.50 | 19.89 |
| 7.60 | 17.03 |
| 7.70 | 14.44 |
| 7.80 | 12.14 |
| 7.90 | 10.13 |
| 8.00 | 8.41 |
| 8.10 | 6.95 |
| 8.20 | 5.73 |
| 8.30 | 4.71 |
| 8.40 | 3.88 |
| 8.50 | 3.20 |
| 8.60 | 2.65 |
| 8.70 | 2.20 |
| 8.80 | 1.84 |
| 8.90 | 1.56 |
| 9.00 | 1.32 |



Box 10000, 623 Main Street, Neepawa, Manitoba R0J 1H0
p: 1.204.476.3393 f: 1.204.476.3791 www.hylife.com

March 2, 2021

Ms. Kayla Hagenson, B.Env.Sc.
Environment Officer
Manitoba Conservation and Climate
Environmental Compliance and Enforcement, Western Region
27-2nd Ave SW
Dauphin, MB R7N 3E5

Dear Ms. Hagenson,

Further to discussions in the meeting between HyLife Foods, Stantec Consulting., and Manitoba Conservation and Climate's, Environmental Approvals Branch on January 27, 2021, HyLife wishes, by way of this letter, to provide additional clarification regarding historical use of the existing former wastewater treatment lagoon with a summary of the causes and planned action to manage the future use of the former Springhill Farms Industrial Wastewater Treatment Facility (SH IWWTF).

As MCC is aware, R3 Innovations Inc. and the Town of Neepawa operate the dedicated R3 Innovations Industrial Wastewater Treatment Facility (R3 IWWTF) that exclusively serves the HyLife Foods pork processing plant. License 2870 RRR, originally dated December 18, 2014, is the current *Environment Act* License for the facility. Under the terms of the license, the R3 IWWTF discharges treated effluent to the Whitemud River via a dedicated outfall that discharges to an existing low-lying wetland adjacent to the Whitemud River, northwest of the pork processing plant.

Conditions for the use of the former IWWTF (Springhill Farms) for temporary wastewater storage are included in Clause 33 of Environment Act License No. 2870 RRR as follows:

"33. The Licensees shall:

- a) transfer wastewater to the existing wastewater treatment lagoon at the Development, only under exceptional circumstances, for temporary wastewater storage purposes only;*
- b) transfer the stored wastewater from the existing wastewater treatment lagoon to the wastewater treatment plant for treatment and discharge only through the final discharge point; and*
- c) notify the Environment Officer on each occasion when the transfer of wastewater to the existing wastewater treatment lagoon occurs and keep a record of each transfer."*

There have been seven exceptional circumstance events over the past year where wastewater was transferred to the SH IWWTF for temporary storage. As per the terms of the License, each transfer incident was reported to the Environment Officer when they happened, as summarized in the table below:

Table 1: Summary of Transferred Wastewater

| Date of Transfer | Approximate Volume Transferred | Cause for Transfer |
|-------------------------|---------------------------------------|--|
| August 29, 2020 | 1,000 m ³ | Closely spaced 6-day production weeks |
| November 19, 2020 | 2,000 m ³ | Remembrance Day Saturday production coinciding with membrane clean |
| December 2, 2020 | 2,000 m ³ | Closely spaced 6-day production weeks |
| January 13, 2021 | 2,000 m ³ | Closely spaced 6-day production weeks |
| January 20, 2021 | 2,000 m ³ | Closely spaced 6-day production weeks |
| January 28, 2021 | 2,000 m ³ | Closely spaced 6-day production weeks |
| February 4, 2021 | 4,000 m ³ | Closely spaced 6-day production weeks |

On each wastewater transfer occasion, the R3 IWWTF would have been unable to meet the required effluent quality limits to allow discharge to the Whitemud River, therefore the effluent was transferred for temporary storage to the former SH IWWTF primary cell. Upon examination it has been determined that production surges at the pork processing plant resulted in hydraulic overloading of the treatment facility. The production surges have been reviewed and were found to generally correspond to the effect of compounded additional weekend processing days. The consecutive Saturday processing days overwhelmed the flow attenuation system and there was not sufficient capacity to fully treat the excess wastewater at the R3 IWWTF. While the R3 IWWTF can accommodate more than 5 days/week of hog processing wastewater from the HyLife plant, it has been determined that having more than one additional weekend processing day in a period of less than approximately four weeks can result in a hydraulic overload and a risk of non-compliant effluent requiring transfer to the SH IWWTF for temporary storage. The forthcoming refurbishment upgrade at the R3 IWWTF is expected to address the issue through increased hydraulic capacity and reduce the frequency of occurrence of this issue once it is completed (anticipated Q1 2022).

For clarity, pressures to increase production, including increased frequency of Saturday production, have developed from a backlog of live/larger animals that has developed as a result of COVID-19 related processing delays and challenges in the supply chain. These challenges have put pressure on the space in live hog facilities

where there is insufficient capacity within this system to accommodate the additional live hogs created by the reduced processing capacity in the industry. This, coupled with processing capacity uncertainty related to slaughter plant production through COVID, make it imperative that processing increases are realized where possible so that live hogs achieve their end purpose in a sustainable, humane manner.

As an immediate action, HyLife will address the hydraulic overloading issue by making an alteration to their formal process schedule. Changes will be made to ensure that there is sufficient time (a minimum of four weeks) to provide the required attenuation capacity for process wastewater at the R3 IWWTF between Saturday HyLife processing operations. Accordingly, the Industrial Services Agreement for Wastewater Treatment between R3 Innovations Inc. and HyLife Foods LP has been amended to formally reflect this change (copy attached). This is expected to reduce the need for resultant temporary wastewater transfers to the SH IWWTF. High quality wastewater treatment at R3 and mitigation of water quality effects on the Whitemud River will continue as a result while at the same time accommodating flows from the HyLife Foods pork processing plant. The SH IWWTF represents an important contingency measure, in place to provide protection to both the Whitemud River and the continued operation of the HyLife Foods facility.

We trust the foregoing is sufficient to address any remaining concerns that MCC may have with the use of the former IWWTF. Should you require any additional clarification please do not hesitate to contact the undersigned.

Regards,



Guy Baudry,

President, R3 Innovations Inc.

HyLife

p 204-424-2313 m 204-355-7775

INDUSTRIAL SERVICES AGREEMENT FOR WASTEWATER TREATMENT

BETWEEN:

R3 INNOVATIONS INC.
(“R3”)

- and -

HYLIFE FOODS LP,
by its general partner, HYLIFE FOODS INC.
(“HyLife”)

WHEREAS:

- A. HyLife owns and operates a hog slaughter and processing plant (the “**Plant**”) located on the lands legally described as:

SW 1/4 35-14-15WPM
EXC FIRSTLY: SP 7402 NLTO
SECONDLY: PLAN 23208 NLTO AND 48468 NLTO
AND THIRDLY: ROAD PLAN 4611 NLTO

- B. R3 owns and operates the wastewater treatment facility (the “**IWWTF**”) located on the land legally described as:

PARCEL “A: PLAN 48468 NLTO
IN SW ¼ 35-14-15 WPM

And

PARCEL “B: PLAN 48468 NLTO
IN SW ¼ 35-14-15 WPM

- C. The Plant is licensed pursuant to *The Environment Act* (Manitoba) by virtue of License No. 1102RRR;
- D. The IWWTF is licensed pursuant to *The Environment Act* (Manitoba) by virtue of License No. 2870RRR (the “**IWWTF Licence**”);
- E. The wastewater produced at the Plant has been discharged to the IWWTF since R3 acquired the IWWTF, and the parties desire to reduce to writing the terms of their agreement with respect to the discharge of such wastewater and the services related thereto which are performed by R3 for HyLife, as set out herein.

NOW THEREFORE for good and valuable consideration the receipt and sufficiency of which is hereby acknowledged by each party to this Agreement, and subject to the terms and conditions hereinafter set out, the parties agree as follows:

ARTICLE 1 - DEFINITIONS

1.1 In addition to terms expressly defined elsewhere in this Agreement and unless the context otherwise requires, all capitalized terms in this Agreement shall have the following meanings:

“**Agreement**” means this Industrial Services Agreement between R3 and HyLife.

“**Claims**” means all suits, actions, administrative or legal proceedings and all other claims.

“**Effective Date**” means February 1, 2021.

“**Wastewater Flow Rate**” means the volume of wastewater discharged to the IWWTF by HyLife over a period of time.

“**Environment**” means the environment or natural environment as defined in any Environmental Laws including without limitation, air, surface water, groundwater, land surface, soil and subsurface strata.

“**Environmental Laws**” means all Laws relating in full or in part to the protection of the Environment, use or occupation of land and employee and public health and safety and includes, without limited, those laws relating to the refinement, transfer, production, storage, generation, use, handing, manufacture, processing, transportation, treatment, Release and disposal of hazardous substances and shall include, without limitation, to the extent such legislation is applicable, *The Environment Act*, the *Canadian Environmental Protection Act*, *The Dangerous Goods Handling and Transportation Act* and *The Workplace Safety and Health Act*.

“**Government Authorities**” means all federal, provincial, municipal or local government, quasi-governmental, judicial, public or statutory authorities, commissions, tribunals, agencies, departments, ministries, corporations, boards, bodies or other entities.

“**Plant**” has the meaning given to it in the preamble to this Agreement.

“**IWWTF**” has the meaning given to it in the preamble to this Agreement.

“**IWWTF Licence**” has the meaning given to it in the preamble to this Agreement.

“**Laws**” means all approvals, laws, rules, statutes, codes, standards, by-laws, ordinances, orders, permits, notices, directions, judgments, licenses, regulations and any other requirements of all Government Authorities which are or come in force.

“**Losses**” means all Claims, liabilities, charges, liens, privileges, demands, losses, costs, damages and expenses including, without limitation, legal fees on a solicitor and client basis and disbursements.

“**Related Parties**” has the meaning given to it in Section 4.1.

“**Release**” shall have the meaning prescribed in any Environmental Law and includes, without limitation, any releases, spill, leak, pumping, pouring, emission, emptying, discharge, injection, escape, leaching, disposal, dumping, deposit, spraying, burial, abandonment, incineration, seepage or placement.

“**Upset Condition**” means a state in which the IWWTF is not in compliance with its effluent discharge limits, as those limits may be changed from time to time by Government Authorities.

ARTICLE 2 - SCOPE OF SERVICES RE: IWWTF

2.1 During the term of this Agreement, R3 shall:

- (a) be the owner and the operator of the IWWTF;
- (b) accept for treatment the wastewater effluent from HyLife’s operations at a Wastewater Flow Rate that does not exceed an average of 1,570 cubic metres per day at any time based on the immediately preceding 365-day average at such time, subject to Section 2.3 of this Agreement;
- (c) Operate the IWWTF in accordance with applicable Environmental Laws and the IWWTF Licence;
- (d) provide HyLife with ongoing information with respect to operations, influent and effluent data, as may be required in order to meet its obligations under this Agreement or as may be desirable for operation of the Plant;
- (e) pay and discharge, on a cost recovery basis from HyLife, all expenses incurred in the operation of the IWWTF during the term hereof;

- (f) use its best efforts to operate the IWWTF in a manner that minimizes operating costs;
- (g) provide HyLife with copies of all groundwater monitoring well results and effluent discharge monitoring data for the IWWTF; and
- (h) in the event of an Upset Condition, give expedient attention thereto and cooperate fully with HyLife to reasonably assist in rectifying the Upset Condition.

2.2 During the term of this Agreement, HyLife shall:

- (a) ensure that the Wastewater Flow Rate does not exceed an average of 1,570 cubic metres per day at any time based on the immediately preceding 365-day average at such time unless an amount exceeding 1570 cubic meters per day is approved by R3 in advance;
- (b) limit the biochemical oxygen demand loading to 6,023 kg over any 24-hour period, unless an amount exceeding 6,023 kg is approved by R3 in advance;
- (c) limit six-day production weeks at the Plant to a frequency not exceeding once every four weeks, provided that six-day production weeks used to offset four-day work weeks due to general holidays observed at the Plant in accordance with its collective bargaining agreement with the United Food and Commercial Workers Union shall be permitted as an exception to the foregoing, unless the frequency greater than every four weeks of six-day production weeks is approved by R3 in advance;
- (d) limit the wastewater loading to the IWWTF to concentration levels compliant with the IWWTF License;
- (e) in the event of an Upset Condition, give expedient attention thereto and cooperate fully with R3 to reasonably assist in rectifying the Upset Condition; and
- (f) carry out the maintenance and repair of the IWWTF as directed by the R3, in accordance with generally accepted industry standards and practices to accomplish the desired result in a manner consistent with law, regulation, reliability, safety and environmental protection and as R3 may reasonable require.

2.3 R3 shall have the right to refuse acceptance of effluent discharges in excess of the limits set out in Section 2.2.

ARTICLE 3 - PAYMENT OF COSTS

3.1 HyLife will pay R3 an amount to be determined and invoiced monthly during the term of this Agreement equal to the sum of R3's actual operating costs on account of supplies consumed and services provided in connection with the operation of the IWWTF (collectively, the "**Operating Costs**").

3.2 Invoices for compensation will be prepared by R3 and billed monthly and payment will be made by HyLife within thirty (30) days of receipt of invoice.

ARTICLE 4 - INDEMNIFICATION AND INSURANCE

4.1 In so far as may arise from, under or related to the terms, conditions or covenants under this Agreement:

- (a) Each party covenants and agrees that, to the extent arising out of its negligent or willful act or omission or the negligent or willful act or omission of its officers, directors, consultants, employees, representatives, agents or contractors ("**Related Parties**"), it shall be liable for any Losses, including any damage to the property, of the other party and any bodily injury to or death of a Related Party of the other Party.
- (b) Each party covenants and agrees to indemnify and hold harmless the other party from and against all Losses whatsoever which may be brought against or suffered by the other party or which such other party may sustain, pay or incur, as a result of, in respect of, in relation to or arising out of its non-fulfilment of a term, condition or covenant or breach of representation, or warranty under this Agreement or its negligent or, willful act or omission or the negligent or willful act or omission of any of its Related Parties in carrying out or performing its obligations, duties, liabilities or responsibilities under this Agreement.

4.2 During the term of this Agreement the R3 and HyLife shall maintain such policies of insurance as a reasonably prudent person would maintain.

ARTICLE 5 - TERM AND TERMINATION

5.1 The term of this Agreement shall commence on the Effective Date and, unless terminated earlier pursuant to this Agreement, shall continue until the first

anniversary thereof. This Agreement shall automatically renew for successive one-year periods unless either party provides written notice of termination to the other party not less than thirty (30) days prior to the end of the first year of the term or any renewal period.

ARTICLE 6 - GENERAL

6.1 All time limits stated in this Agreement are of the essence of this Agreement.

6.2 In this Agreement, words importing the singular number shall include the plural number, and vice versa, as the context so requires and words importing the use of any gender shall include the masculine, feminine or neuter genders, as the context so requires.

6.3 The division of this Agreement into paragraphs, articles and general conditions and the insertion of headings are for convenience of reference only and shall not affect its construction or interpretation in any way.

6.4 The terms, conditions and covenants of this Agreement, including, without limitation, Article 4 of this Agreement, which by their nature are intended to survive the completion or other termination of this Agreement, shall survive such completion or other termination.

6.5 This Agreement sets forth the entire understanding of the parties, and supersedes all previous negotiations, representations, or agreements, either written or oral, between the Parties relating in any manner to the subject matter of this Agreement.

6.6 All modifications to this Agreement shall be in writing and duly executed by the Parties.

6.7 This Agreement shall enure to the benefit of, and shall be binding upon, the parties and their respective successors and permitted assigns, as the case may be.

6.8 This Agreement shall be governed and construed in accordance with the laws of Manitoba and the laws of Canada applicable therein. The parties agree to submit and attorn to the jurisdiction of the courts of Manitoba. Any reference in this Agreement to any statute will include such statute as amended.

6.9 Subject to the other terms, conditions and covenants of this Agreement, the parties acknowledge and agree that HyLife and R3 shall each undertake and perform their respective obligations, duties, responsibilities, and liabilities under this

Agreement as an independent contractor and not as an agent or representative of the other party. It is further acknowledged and agreed that nothing in this Agreement nor in any of the acts or omissions of the parties shall be deemed to create a joint venture or partnership relationship between the parties, such relationship being expressly denied.

6.10 Notices

(a) Unless otherwise expressly provided in this Agreement, any notice, request, demand or other communication (collectively and individually referred to as “**Notice**”) to be given pursuant to this Agreement shall be in writing and shall be delivered personally, sent by reputable overnight courier, sent by prepaid registered mail (except during a postal disruption or threatened postal disruption), or faxed to the intended recipient as follows:

(i) to R3 at: c/o HyLife Ltd.
5 Fabas Street
La Broquerie, MB
R0A 0W0
Attention: CEO
Fax No.: (204) 424-6061

(ii) to HyLife_at: 623 Main Street East
Neepawa, MB
R0J 1H0
Attention : Chief Operating Officer, Foods
Division
Fax No.: (204) 476-7624
With a copy to: Legal@Hylife.com

(b) Any Notice personally delivered shall be deemed to have been validly and effectively given on the date of such delivery provided that such day is a day that is not a statutory holiday in the Province of Manitoba (“**Regular Working Day**”). If such day is not a Regular Working Day, then delivery shall be deemed to have been received on the next Regular Working Day following such day. Any Notice sent by reputable overnight courier shall be deemed to be validly and effectively given on the next Regular Working Day following the day on which it was sent out by reputable overnight courier unless such courier must transport the Notice across a national boundary or provincial boundary, in which case the Notice shall be deemed to have been delivered on the second Regular Working Day after the Notice was given to the reputable overnight courier. Any Notice sent by prepaid registered mail shall be deemed to have been validly and effectively given on the fourth Regular Working Day following the day on which it was mailed provided that any day during which there is any occurrence which interferes with

normal mail service shall not be considered a Regular Working Day. Any Notice sent by fax shall be deemed to have been validly and effectively given on the Regular Working Day next following the day on which it was sent.

- (c) By giving the other party at least five Regular Working Days notice thereof, any party may, at any time and from time to time, change its address and/or fax number for delivery for the purposes of this Agreement.

6.11 This Agreement may be executed by the parties in separate counterparts, and may be delivered by facsimile or other electronic transmission, each of which, when so executed and delivered, shall be deemed to constitute an original, but all of which together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered as of the date first above written.

R3 INNOVATIONS INC.

By:  _____
Name: Guy Dauray
Title: President & Secretary

**HYLIFE FOODS LP, by its general partner,
HYLIFE FOODS INC.**

By:  _____
Name: Howard Siemens
Title: CFO

By:  _____
Name: Grant Lazaruk
Title: President & CEO