

KEYYASK TRANSMISSION PROJECT WATERCOURSE CROSSINGS
POST-CONSTRUCTION MONITORING REPORT – 2018

March 2019

Prepared for:

Manitoba Hydro

Prepared By:



North/South Consultants Inc.
Aquatic Environment Specialists

83 Scurfield Blvd. Tel.: (204) 284-3366
Winnipeg, Manitoba, R3Y 1G4 Fax: (204) 477-4173
Website: www.nscons.ca E-mail: nscons@nscons.ca

EXECUTIVE SUMMARY

As outlined in *The Environment Act* Licence for the Keeyask Transmission Project (Licence No. 3106), construction, operation, and maintenance of the Project will adhere to mitigation found within the EIS and supporting materials, as well as Environmental Protection Plans (EnvPP). Included in the Project EnvPP is an obligation to monitor the effectiveness of mitigation measures. This report provides documentation of site visits conducted at 46 watercourse crossing sites located along the 138 kV AC temporary (two sites) and Construction Power Line (five sites), four 138 kV AC Unit Transmission lines (seven sites), and three 138 kV AC Generation Outlet Transmission lines (32 sites) during spring 2018.

The stage of construction varied between and within each component. Both the Construction Power Line (KN36) and the temporary Construction Power Line (KR1T) were complete. The right-of-way (RoW) and riparian buffer zones were cleared along the full extent of the Generation Outlet Transmission lines (KR) but only one of the three Generation Outlet Transmission lines was completed (KR1 line). Towers were present at all of the KR2 and KR3 sections of the Generation Outlet Transmission line but no conductors were strung. Clearing of the RoW and riparian buffer zones as well as the completion of tower footings was complete for the four Unit Transmission Lines.

Of the 46 crossing sites assessed, no mitigation measures were deemed not in compliance. KR2-Aqua-128, KR3-Aqua-129 and KR1-Aqua-130 had been identified in 2015 because the riparian buffer zone had been cleared to ground level. As a result, closer inspections took place in 2016, 2017 and again in 2018 in order to monitor re-vegetation and erosion. Small shrubs and forbes were observed growing along the stream banks and no active sedimentation of the stream has been noted since being identified in 2015. Due to the naturally occurring re-vegetation and the marginal nature of the stream to fish, no further remediation is recommended.

The 2018 stream crossing assessment was the final year of monitoring of the Construction Power Line (KN36) and the temporary Construction Power Line (KR1T). Further monitoring of the Keeyask Generation Outlet Transmission lines (KR1, KR2, and KR3) as well as the Unit Transmission lines (KE1, KE2, KE3, and KE4) will occur annually until their completion.

ACKNOWLEDGEMENTS

Manitoba Hydro is thanked for the opportunity to conduct this project.

TABLE OF CONTENTS

	page
1.0 INTRODUCTION	1
2.0 STUDY AREA	1
3.0 METHODS	3
4.0 RESULTS	4
Site Visits.....	4
KR Lines.....	4
KN36 Lines.....	5
KE Lines	5
5.0 MAPS.....	7
6.0 PHOTOS	12

LIST OF TABLES

Table 1.	Summary of stream crossings on the Generation Outlet Transmission lines (KR), temporary (KR1T) and Construction Power lines (KN36), and Unit Transmission lines (KUL) where non-compliance to mitigation was observed in previous monitoring years.	6
----------	--	---

LIST OF MAPS

Map 1.	Watercourse crossing locations for the proposed Unit Transmission Line (KE), temporary (KR1T) and Construction Power lines (KN36) and the western section of the Generation Outlet Transmission Lines (KR), 2018.	8
Map 2.	Watercourse crossings along the Construction Power Line (KN36), 2018.	9
Map 3.	Watercourse crossings along the west-central section of the Generation Outlet Transmission Line (KR), 2018.....	10
Map 4.	Watercourse crossings along the eastern section of the Generation Outlet Transmission Line (KR), 2018.....	11

LIST OF PHOTOS

Photo 1. KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib. of the Butnau River).
Un-mitigated stream crossing June 21, 2016 (top) and state on June 25, 2018
(bottom).13

Photo 2. Site visit photo from KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib.
of the Butnau River) showing regrowth, June 25, 2018.....14

Photo 3. Site visit photos from KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib.
of the Butnau River) showing regrowth and watercourse, June 25, 2018.14

LIST OF APPENDICES

7.0 APPENDIX 1: Stream Crossing Compliance Summary15

1.0 INTRODUCTION

As outlined in *The Environment Act* Licence for the Keeyask Transmission Project (Licence No. 3106), construction, operation, and maintenance of the Project will adhere to mitigation found within the EIS and supporting materials as well as Environmental Protection Plans (EnvPP). Included in the Project EnvPP is an obligation to monitor the effectiveness of mitigation measures. Stream crossing monitoring consists of a minimum of one site visit to each identified stream crossing in the first spring and/or summer following construction and subsequent site visits as required. This report provides documentation of site visits conducted at 46 watercourse crossings located along the 138 kV AC temporary and Construction Power Line, three 138 kV AC Generation Outlet Transmission lines, and four 138 kV Unit Transmission lines during spring 2018 (Maps 1-4).

2.0 STUDY AREA

The Keeyask Transmission Project Study Area (approximately 600 km²) is found within the Nelson River watershed basin and the Lower Nelson River sub-basin. It includes the Nelson River from Gull Rapids and the southern shore of Stephens Lake east to the Kettle Generating Station. In addition, the study area includes the land south of these waterbodies to and beyond Butnau Lake.

The land bordering Stephens Lake includes areas of poor, moderate and well-drained soils, dominated by black spruce forest in upland areas and black spruce bogs, peatland and fens in low lying areas. Sand, gravel, cobble, and areas of organic material dominate the shoreline, with much of the shoreline being prone to erosion. Riparian vegetation typically includes willow and alder, black spruce, tamarack, and scattered stands of trembling aspen typically found where there is well drained soil. Typical of the Lower Nelson River sub-basin the study area consists of a large number of small round lakes, marsh and bog areas and numerous ephemeral and perennial tributaries.

Of the Project components, the Unit Transmission lines and the Construction Power Line cross the Nelson River at the base of Gull Rapids. Fish habitat sensitivity was assigned 'moderate/high'; numerous forage fish species and larger bodied species such as Freshwater Drum, Goldeye, Lake Sturgeon, Lake Whitefish, Longnose Sucker, Mooneye, Northern Pike, Sauger, Walleye, White Sucker and Yellow Perch have been documented in this region.

Two medium-sized perennial rivers are present within the study area; the Butnau and the Kettle rivers. The Butnau River was diverted away from Stephens Lake through Cache Lake and into the Kettle River when the Kettle Generating Station was constructed. Similar to the smaller creeks in the area, habitat in the upper reaches of the Butnau and Kettle rivers are characterized by low water velocities, soft substrates, and abundant cover. Lower reaches of the Kettle River

and the Butnau River Diversion Channel are shallow, with moderate water velocity, and rocky substrate.

Fish habitat within the Butnau and Kettle rivers is considered to be of 'moderate' and 'moderate/high' sensitivity, respectively. Both rivers were found to be used extensively by Northern Pike for various life stages including spawning. Relatively uncommon, Walleye occur in both rivers and suitable spawning habitat is present in the Butnau River Diversion Channel and the lower Kettle River. White and Longnose sucker are also known to spawn in both rivers. Although documented in the Kettle/Butnau river system, Lake Whitefish were found to be uncommon.

The Generation Outlet Transmission lines and Construction Power Line each cross the Butnau River once. The Kettle River is crossed at three locations by the three Generation Outlet Transmission lines.

3.0 METHODS

Stream crossing sites were evaluated using Manitoba Hydro's Daily Inspection Reports and site visits in the spring of 2018 to assess the adherence to prescribed mitigation. Mitigation measures included those prescribed in the Keeyask Transmission Project Aquatic Environment Technical Report (2012) and the Keeyask Transmission Project Construction Environmental Protection Plan (2014) for the Construction Power, Generation Outlet, and Unit Transmission Lines and Stations.

Daily Inspection Reports on Manitoba Hydro's Environmental Protection Information Management System (EPIMS) were reviewed to identify where mitigation compliance was documented during construction and to focus field studies.

Field studies consisted of aerial reconnaissance at each site along the Construction Power, Generation Outlet and Unit transmission lines. If a stream crossing site was identified to be in non-compliance it was evaluated further. Stability of stream banks and floodplain was visually evaluated from the air and rutting, slumping, or other damage to the ground noted. The presence of slash or disturbed sediment within the buffer was noted, as well as any evidence of erosion. If landing was necessary, buffer widths from the stream or floodplain were visually evaluated and compared to the width prescribed, as well as evaluating the amount of vegetation left in the buffer and the clearing method used. Any erosion and sedimentation observed within the watercourse was documented and measured using an Analite NEP-160 turbidity meter (McVan Instruments Pty Ltd. Scoresby, Australia).

Vehicle crossings were evaluated for appropriate grade and angle across the stream, and the presence of any organic debris remaining from temporary bridge crossings. If any erosion control measures were in place (blankets, silt fences) their effectiveness was evaluated. Tower locations were assessed to determine if they adhered to prescribed mitigation. Photos of sites were taken to capture the overall state of the sites as well as any particular concerns. Any further reclamation needed to meet the prescribed mitigation was noted as well as the requirement for a follow-up site visit for further monitoring of reclamation.

4.0 RESULTS

Manitoba Hydro is currently constructing several components of the Keeyask Transmission Project. This report focuses on three of the components. Once completed, three 138 kV AC KR lines (KR lines formerly named KGOT) will transmit power from the new Keeyask Switching Station to the existing Radisson Converter Station over a distance of 38 km in a single corridor approximately 200 m wide. The KR lines cross ten watercourses, including the Kettle and Butnau rivers, and consist of 32 crossing sites. The completed 138 kV Construction Power Transmission Line (KN36) extends from the existing 138 kV KN36 transmission line in the south to the new construction power station located north of the Keeyask Generating Station. This line is approximately 21 km long, with a RoW 60 m wide along most of its length (except for the locations where the line shares the RoW with KR lines), crosses five watercourses and includes five distinct crossing sites. Two additional sites at the Nelson River include the temporary Construction Power lines. To transmit power from the Keeyask Generating Station to the new Keeyask Switching Station four 138 kV AC Unit Transmission Lines (KE) will be erected in a single corridor 4 km long and 265 m wide, across two watercourses and includes seven crossing sites in total.

Site visits to stream crossings were conducted on June 25, 2018. The stage of construction varied between components (Appendix 1). At the time of the monitoring, construction of the temporary line (KR1T) and the Construction Power Line (KN36) was complete. Clearing of the RoW and riparian buffer zones was complete at all watercourse crossings along the KR and Unit Transmission lines (KE), though only towers for the KR1 line had conductors strung and were fully completed. Towers were in place for the KR2 and KR3 lines at the time of monitoring but conductors had not been strung. For the Unit Transmission lines, the clearing of the RoW and riparian buffer zones as well as the placement of tower footings was complete.

Site Visits

Aerial surveys were conducted at 46 stream crossing sites. A ground survey was conducted at KR1-Aqua-128, KR2-Aqua-130, and KR3-Aqua-129 due to excessive riparian clearing reported in 2015. Construction at all stream crossings was compliant with prescribed mitigation where applicable, depending on the stage of construction. A summary of compliance with mitigation for all sites is available in Appendix 1.

KR Lines

Thirty-two sites at ten watercourse crossings were evaluated along the KR line. Non-compliance with respect to the prescribed mitigation was not observed at any of the 32 sites.

In 2015 a riparian buffer was not established during clearing at KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 resulting in erosion and sedimentation of the stream. No mitigation measures have been implemented since 2015 but re-vegetation is occurring naturally (Photos 1-2). Small

shrubs and forbes were observed growing along the banks of the stream and no sedimentation was observed during the ground survey in 2018 (Photo 3). It is expected the vegetation will continue to grow and stabilize the banks and riparian zone. No further remediation is recommended (Appendix 1).

KR1T and KN36 Lines

Two watercourse crossing sites were evaluated for compliance to mitigation along the temporary Construction Power Line (KR1T-Aqua-100 and 101) as well as five sites along the Construction Power Line (KN36-Aqua-100 to 104). Compliance with respect to the prescribed mitigation was observed at both KR1T sites and all five KN36 sites (Appendix 1).

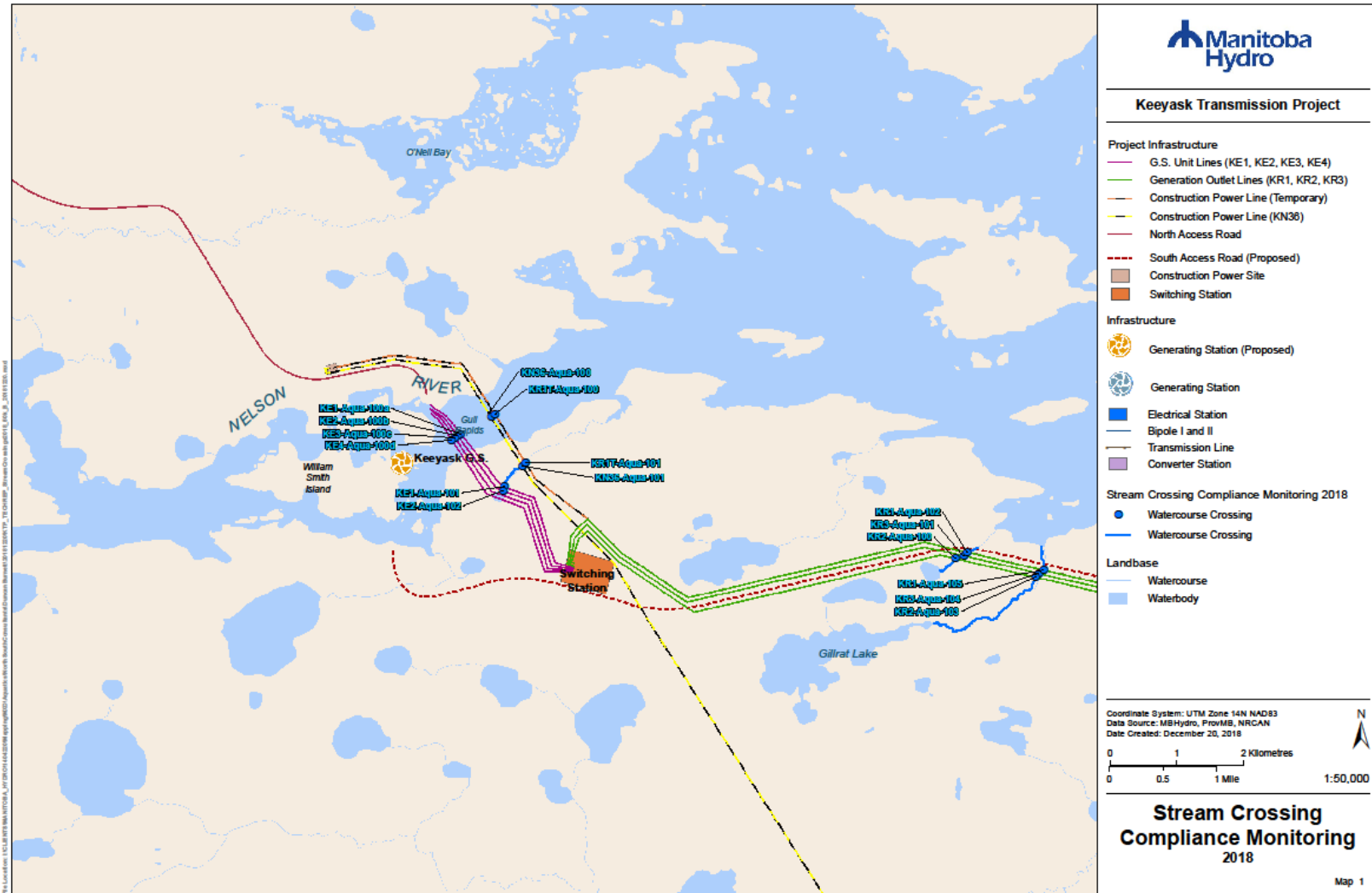
KE Lines

The seven watercourse crossing sites along the 4 km long Unit Transmission Line were evaluated in 2018 and non-compliance with respect to the prescribed mitigation was not observed (Appendix 1).

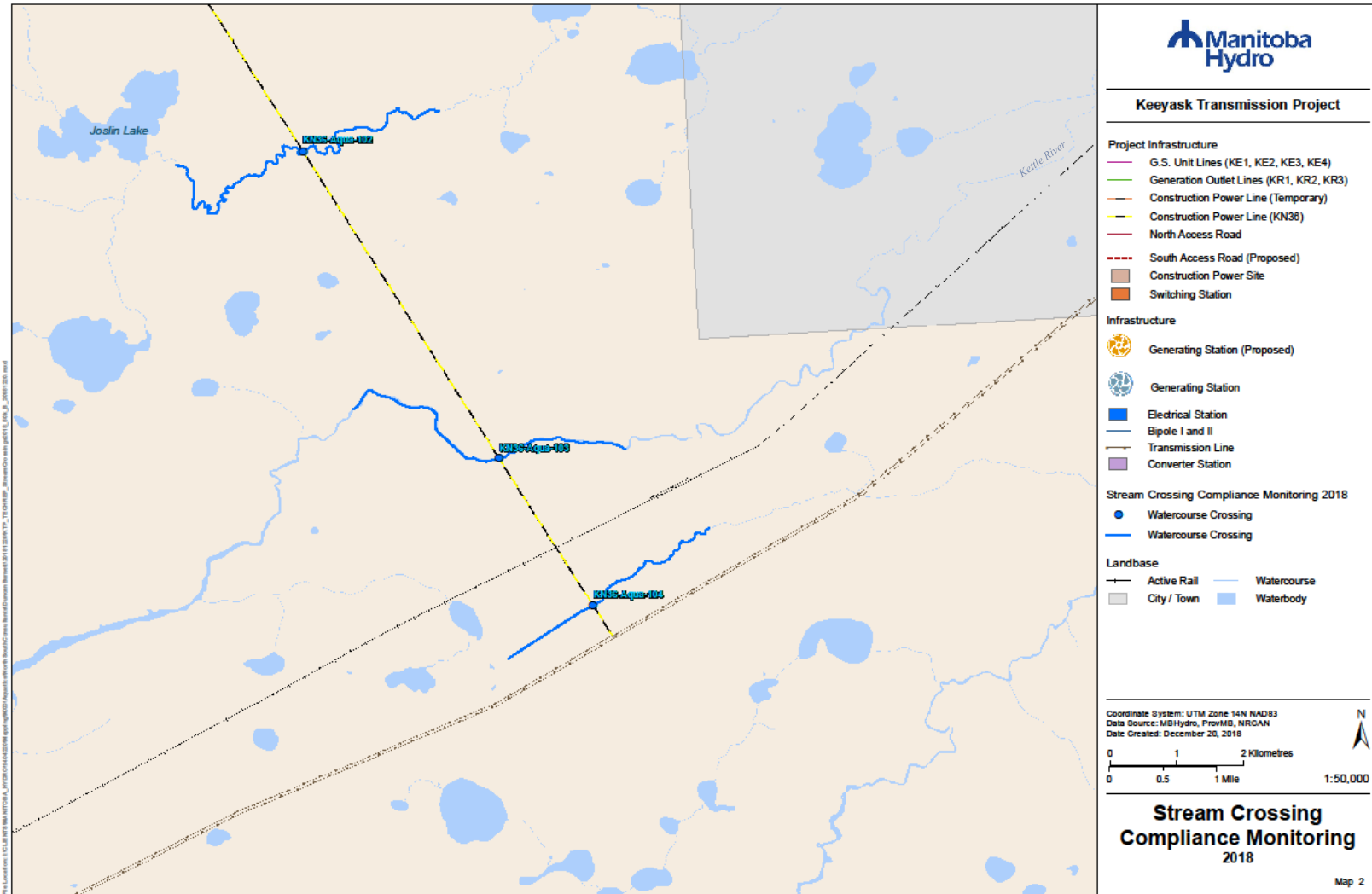
Table 1. Summary of stream crossings on the Generation Outlet Transmission lines (KR), temporary (KR1T) and Construction Power lines (KN36), and Unit Transmission lines (KUL) where non-compliance to mitigation was observed in previous monitoring years.

Segment	ESS ID	Name	Easting	Northing	Habitat Class	Compliance in 2016	Issue	Mitigation	Compliance in 2018
KR	KR1-Aqua-100, KR3-Aqua-101, KR2-Aqua-102	Unnamed tributary	371556 371691 371759	6244280 6244305 6244351	N/A	N	Vehicle crossing; when access likely available via extant road	None recommended	Y
KR	KR1-Aqua-128, KR3-Aqua-129, KR2-Aqua-130	Unnamed tributary	382229	6244240	N/A	N	Excessive clearing of riparian buffer	None recommended	Y
KR1T	KR1T-Aqua-100	Nelson River	364883	6247024	N/A	N	Excessive clearing of riparian buffer	None recommended; rock armouring appears to be effective	Y

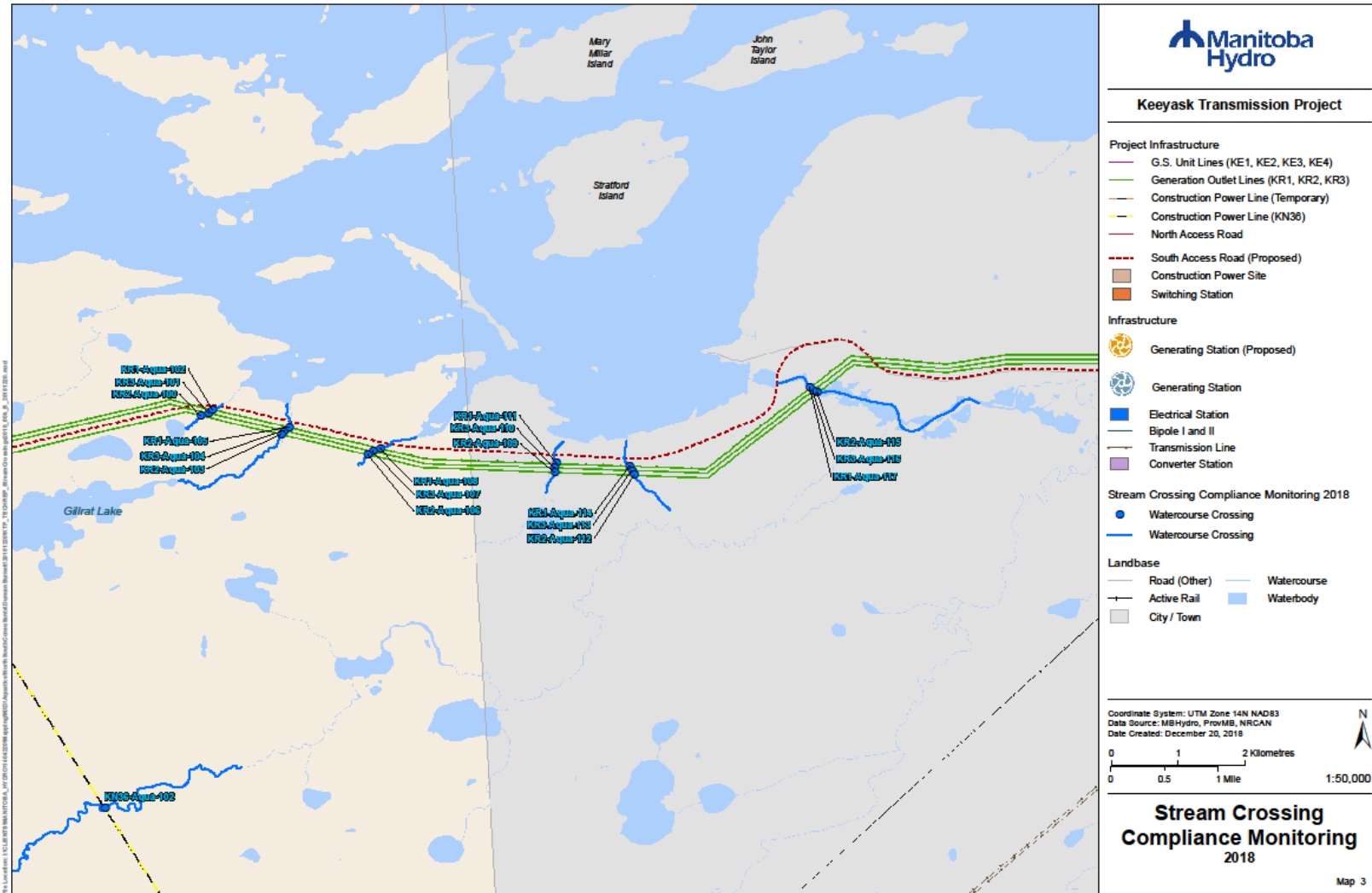
5.0 MAPS



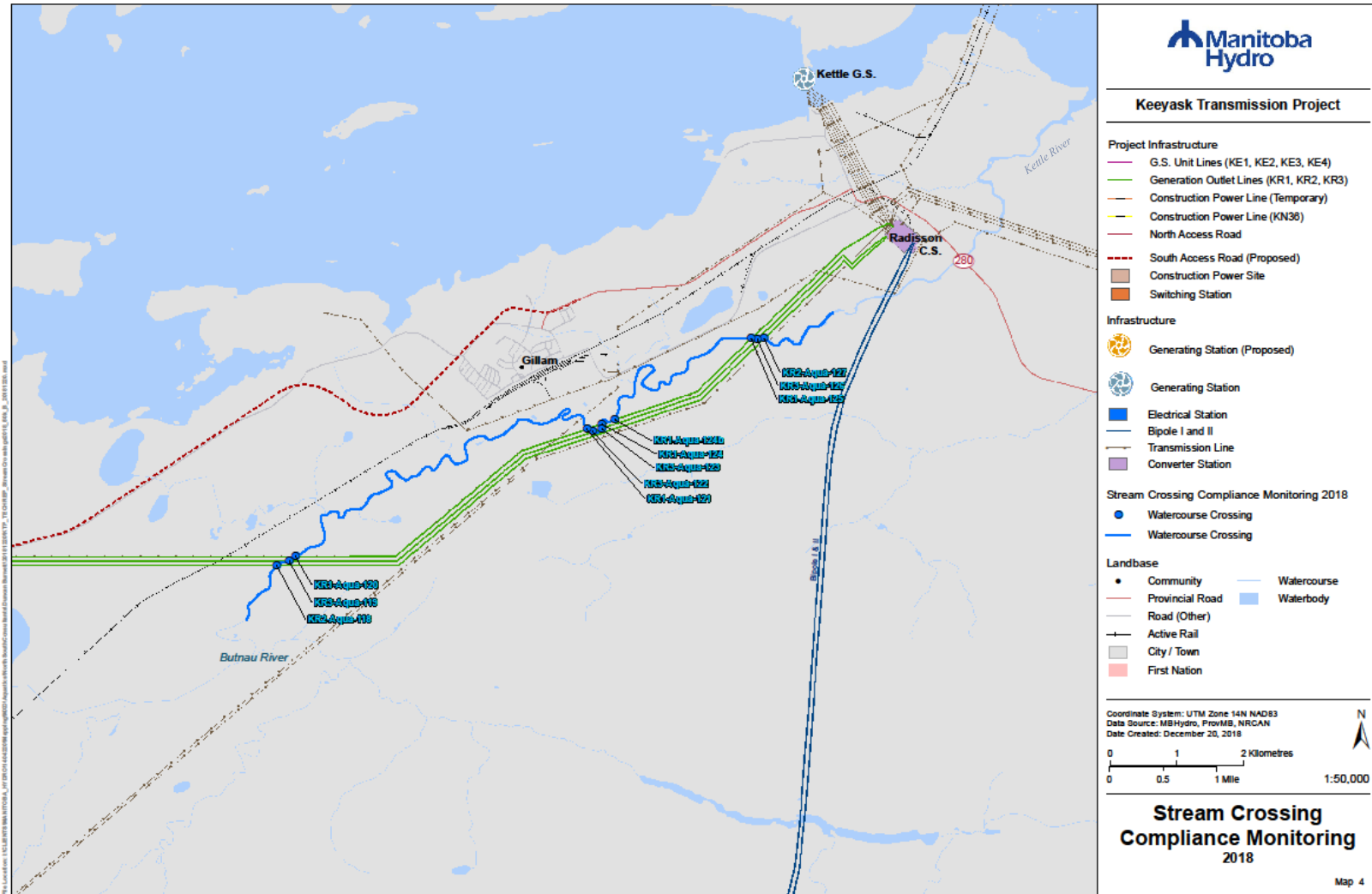
Map 1. Watercourse crossing locations for the proposed Unit Transmission Line (KE), temporary (KR1T) and Construction Power lines (KN36) and the western section of the Generation Outlet Transmission Lines (KR), 2018.



Map 2. Watercourse crossings along the Construction Power Line (KN36), 2018.



Map 3. Watercourse crossings along the west-central section of the Generation Outlet Transmission Line (KR), 2018.



Map 4. Watercourse crossings along the eastern section of the Generation Outlet Transmission Line (KR), 2018.

6.0 PHOTOS



Photo 1. KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib. of the Butnau River). Un-mitigated stream crossing June 21, 2016 (top) and state on June 25, 2018 (bottom).



Photo 2. Site visit photo from KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib. of the Butnau River) showing regrowth, June 25, 2018.



Photo 3. Site visit photos from KR1-Aqua-128, KR3-Aqua-129, and KR2-Aqua-130 (trib. of the Butnau River) showing regrowth and watercourse, June 25, 2018.

**7.0 APPENDIX 1:
STREAM CROSSING COMPLIANCE SUMMARY**

Table A1. Compliance with 21 mitigation measures for stream crossings on the 138 kV Generation Outlet (KR) and Unit Transmission lines (KE) as well as the 138 kV temporary (KR1T) and Construction Power lines (KN36), June 2018.

ESS	Name	Construction Status 2018	Cross Perpendicular to Channel	Structures Above Tree Line	Riparian Ground Cover Remain	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Intact	Slash Above the Tree Line	Revegetate Disturbed Areas	Erosion Sediment Control Implemented	Temp. Crossings Only As Needed	Appropriate Temp. Crossing Design	Existing Access Used	Temp. Crossings Perpendicular	Clean Material for Temp. Crossing Removed	One-time Fording	Timing Window for Instream Work	Fording Under Acceptable Conditions	Stream Bank Protection	Temp. Bridge As Needed	Follow-up Site Inspection 2019
<i>Watercourse Crossings of the three 138 kV AC Generation Outlet Transmission Lines</i>																								
KR2-Aqua-100	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR3-Aqua-101	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR1-Aqua-102	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR2-Aqua-103	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR3-Aqua-104	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR1-Aqua-105	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR2-Aqua-106	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR3-Aqua-107	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR1-Aqua-108	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR2-Aqua-109	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR3-Aqua-110	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR1-Aqua-111	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR2-Aqua-112	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR3-Aqua-113	Unnamed Trib.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR1-Aqua-114	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KR2-Aqua-115	Butnau R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N

Table A1. Continued.

ESS	Name	Construction Status 2018	Cross Perpendicular to Channel	Structures Above Tree Line	Riparian Ground Cover Remain	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Intact	Slash Above the Tree Line	Revegetate Disturbed Areas	Erosion Sediment Control Implemented	Temp. Crossings Only As Needed	Appropriate Temp Crossing Design	Existing Access Used	Temp. Crossings Perpendicular	Clean Material for Temp. Crossing Removed	One-time Fording	Timing Window for Instream Work	Fording Under Acceptable Conditions	Stream Bank Protection	Temp. Bridge As Needed	Follow-up Site Inspection 2019
KR3-Aqua-116	Butnau R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-117	Butnau R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR2-Aqua-118	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR3-Aqua-119	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-120	Kettle R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-121	Kettle R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR3-Aqua-122	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR3-Aqua-123	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-124	Kettle R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-124b	Kettle R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-125	Kettle R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR3-Aqua-126	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR2-Aqua-127	Kettle R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1-Aqua-128	Unnamed Trib. To the Butnau R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR3-Aqua-129	Unnamed Trib. To the Butnau R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR2-Aqua-130	Unnamed Trib. To the Butnau R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	

Table A1. Continued.

ESS	Name	Construction Status 2018	Cross Perpendicular to Channel	Structures Above Tree Line	Riparian Ground Cover Remain	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Intact	Slash Above the Tree Line	Revegetate Disturbed Areas	Erosion Sediment Control Implemented	Temp. Crossings Only As Needed	Appropriate Temp. Crossing Design	Existing Access Used	Temp. Crossings Perpendicular	Clean Material for Temp. Crossing Removed	One-time Fording	Timing Window for Instream Work	Fording Under Acceptable Conditions	Stream Bank Protection	Temp. Bridge As Needed	Follow-up Site Inspection 2019	
<i>Watercourse Crossings of the Construction Power Line and the Temporary Construction Power Line</i>																									
KR1T-Aqua-100	Nelson R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KR1T-Aqua-101	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KN36-Aqua-100	Nelson R.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KN36-Aqua-101	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KN36-Aqua-102	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KN36-Aqua-103	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KN36-Aqua-104	Unnamed Trib.	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
<i>Watercourse Crossings of the four Unit Transmission Lines</i>																									
KE-Aqua-100	Unnamed Trib.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE1-Aqua-101	Unnamed Trib.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE2-Aqua-102	Unnamed Trib.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE1-Aqua-100a	Nelson R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE2-Aqua-100b	Nelson R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE3-Aqua-100c	Nelson R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
KE4-Aqua-100d	Nelson R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	

Compliance: Y- compliant; N - non-compliant; NA - not applicable; U - uncertain

Construction Status 2016: NC - no clearing; CL - center line only cleared; RI - riparian buffer incomplete; RC -RoW clearing complete; TF- tower footprint cleared; TA - tower anchors installed; TW - towers complete; C - construction complete
Other: R. - river; Temp. - temporary; Trib. - tributary