

**BIPOLE III**  
**TRANSMISSION LINE WATERCOURSE CROSSINGS**  
**POST-CONSTRUCTION MONITORING REPORT - 2016**

October 2016

**Prepared for:**

Manitoba Hydro

**Prepared By:**

## EXECUTIVE SUMMARY

As outlined in *The Environment Act* Licence for the Bipole III Transmission Project (Licence No. 3055), 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 on 397 watercourse crossings along the four 230 kV AC collector lines between Keewatinohk CS and Henday CS, the 230 kV AC Collector Line from Keewatinohk CS to Long Spruce CS and segments N1-N4, C1, C2, S1 and S2 of the 500 kV Transmission Line from Keewatinohk CS to the Riel CS during summer 2016. Follow-up inspections at 14 sites recommended in the 2015 stream crossing monitoring report are also documented.

Stage of construction varied between and within each of the segments. Of the 397 stream crossing sites inspected, clearing the riparian buffer zone of trees and tall shrubs was complete at most crossings, with the notable exception of a 7 km section of segment C1 from the Sclater River to the Garland River and a smaller section in S1. S2 had not been cleared according to a report provided by Manitoba Hydro March 2016. However, vegetation at the majority of the crossings on S2 and S1 was comprised primarily of grasses and forbes within an agricultural landscape and did not require clearing. Tower anchors were installed in the majority of the 230 kV AC Collector Lines, and in portions of each segment of the 500 kV Transmission Line with the exception of segment S1.

Twenty one mitigation measures were identified within the EnvPP and supporting material. Of these, stream crossing construction was in compliance with 19 mitigation measures at all sites where applicable, depending on the stage of construction. Of the sites that were non-compliant (17), remediation in 2016 is recommended at 14 sites and monitoring without remediation at three sites.

The mitigation measure most frequently in non-compliance was the presence of slash, debris, and/or accumulation of sediments instream which may inhibit water flow and prevent the free movement of fish (11 sites). The removal of the instream blockage from eight sites is recommended. The second most frequent measure in non-compliance was exposed soil within the RBZs either actively eroding or at risk of erosion and/or bank slumping where insufficient erosion and sediment controls were implemented (six sites). Recommendations include the application of erosion control measures at four of the six sites and continued monitoring of two of the sites to ensure bank stability. Three sites are described, where an issue was noted, but were still deemed compliant with all 21 mitigation measures. Of the 14 sites requiring mitigation or continued monitoring, seven were originally noted in 2015.

## **ACKNOWLEDGEMENTS**

Manitoba Hydro is thanked for the opportunity to conduct this project. Prairie Helicopters Inc. provided air support.

## TABLE OF CONTENTS

	<u>page</u>
1.0 INTRODUCTION.....	1
2.0 STUDY AREA.....	1
3.0 METHODS.....	3
4.0 RESULTS.....	4
Site Visits.....	4
AC Collector Lines .....	5
500 kV DC Transmission Line .....	5
Segment N1.....	5
Segment N2.....	6
Segment N3.....	8
Segment N4.....	9
Segment C1 .....	9
Segments C2, S1 and S2 .....	10
5.0 MAPS.....	13
6.0 PHOTOS.....	99

## LIST OF TABLES

Table 1.	Summary of stream crossings on Bipole III segments ACCL, N1-N4, C1, C2, S1 and S2 where non-compliance to prescribed mitigation was observed, June 2016 .....	11
----------	---	----

## LIST OF MAPS

Map Index.	Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line stream crossings.....	14
Map 100-1.	Bipole III 203 kV AC Collector Line stream crossings. ....	15
Map 100-02.	Bipole III 230 kV AC Collector Line stream crossings. ....	16
Map 100-03.	Bipole III 230 kV AC Collector Line and Construction Power Line stream crossings.....	17
Map 100-04.	Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	18
Map 100-05.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	19

Map 100-06.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	20
Map 100-07.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	21
Map 100-08.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	22
Map 100-09.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	23
Map 100-10.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	24
Map 100-11.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	25
Map 100-12.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	26
Map 100-13.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	27
Map 100-14.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	28
Map 100-15.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	29
Map 100-16.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	30
Map 100-17.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	31
Map 100-18.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.....	32
Map 100-19.	Bipole III 500 kV Transmission Line (Final Preferred Route; segments N1 and N2) stream crossings.....	33
Map 100-20.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	34
Map 100-21.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	35
Map 100-22.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	36
Map 100-23.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	37
Map 100-24.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	38
Map 100-25.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	39
Map 100-26.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	40

Map 100-27.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	41
Map 100-28.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	42
Map 100-29.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	43
Map 100-30.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	44
Map 100-31.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	45
Map 100-32.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	46
Map 100-34.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.....	47
Map 100-35.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	48
Map 100-36.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	49
Map 100-37.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	50
Map 100-38.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	51
Map 100-39.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	52
Map 100-42.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	53
Map 100-43.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	54
Map 100-44.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	55
Map 100-45.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	56
Map 100-46.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.....	57
Map 100-47.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	58
Map 100-48.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	59
Map 100-49.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	60
Map 100-51.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	61

Map 100-52.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	62
Map 100-54.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	63
Map 100-55.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	64
Map 100-56.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	65
Map 100-57.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	66
Map 100-58.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	67
Map 100-59.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.....	68
Map 100-62.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	69
Map 100-63.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	70
Map 100-64.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	71
Map 100-66.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	72
Map 100-67.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	73
Map 100-68.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	74
Map 100-69.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.....	75
Map 100-73.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.....	76
Map 100-74.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.....	77
Map 100-75.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.....	78
Map 100-76.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.....	79
Map 100-77.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.....	80
Map 100-78.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	81
Map 100-79.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	82

Map 100-80.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	83
Map 100-81.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	84
Map 100-82.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	85
Map 100-83.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	86
Map 100-84.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	87
Map 100-85.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.....	88
Map 100-86.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	89
Map 100-87.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	90
Map 100-88.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	91
Map 100-89.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	92
Map 100-90.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	93
Map 100-91.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	94
Map 100-92.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	95
Map 100-93.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	96
Map 100-94.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.....	97
Map 100-95.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment RGEL) stream crossings.....	98

## LIST OF PHOTOS

Photo 1.	CL-Aqua-104 (Brooks Creek). Woody debris accumulated instream at the vehicle crossing, June 2016.....	100
Photo 2.	N1-Aqua-129 (Limestone River). Channel within RoW is subject to erosion, June 2015.	100
Photo 3.	N1-Aqua-129 (Limestone River). Channel within RoW is subject to erosion, June 2016.	101

Photo 4.	N1-Aqua-133 (unnamed tributary of South Moswakot River). Channel runs within the riparian buffer zone in the RoW, prone to erosion, June 2015. ....	101
Photo 5.	N1-Aqua-133 (unnamed tributary of South Moswakot River). Channel runs within the riparian buffer zone in the RoW, prone to erosion, June 2016. ....	102
Photo 6.	N1-Aqua-173 (Burntwood River). Erosion in RBZ and slumping of southern bank (segment N1), June 2015. ....	102
Photo 7.	N1-Aqua-173 (Burntwood River). Erosion/slumping of the southern bank (segment N1) at the downstream side of the RoW, June 2016. ....	103
Photo 8.	N1-Aqua-173 (Burntwood River). Erosion/slumping of the southern bank (segment N1) at the upstream side of the RoW, June 2016. ....	103
Photo 9.	N1-Aqua-135 (unnamed tributary of South Moswakot River). Woody debris in channel at the vehicle crossing, June 2016. ....	104
Photo 10.	N1-Aqua-156 (unnamed tributary of Assean Lake). Woody debris in channel immediately downstream of the vehicle crossing, June 2016. ....	104
Photo 11.	N1-Aqua-167 (unnamed tributary of the Burntwood River). Woody debris in channel at the vehicle crossing, June 2016. ....	105
Photo 12.	N1-Aqua-172 (unnamed tributary of the Burntwood River). Woody debris in channel at the vehicle crossing, June 2016. ....	105
Photo 13.	N1-Aqua-169 (unnamed tributary of Odei River). Temporary crossing remains in place, June 2015. ....	106
Photo 14.	N1-Aqua-169 (unnamed tributary of Odei River). Temporary crossing remains in place, June 2016. ....	106
Photo 15.	N2-Aqua-103 (unnamed tributary of Brannigan Creek). Woody debris in channel at the vehicle crossing, June 2016. ....	107
Photo 16.	N2-Aqua-119 (unnamed tributary of Partridge Crop Lake). Bucked wood in channel creating a partial blockage to water flow, June 2016. ....	107
Photo 17.	N2-Aqua-112 (Isbister Creek). Sediment accumulation instream and large plank functioning as a temporary bridge creating a partial blockage to water flow, June 2016. ....	108
Photo 18.	N2-Aqua-160 (unnamed pond) Channel encroaching on tower anchor (1349), east of the crossing, June 2016. ....	108
Photo 19.	N3-Aqua-102 bypass road (tributary of the Mitishto River). Woody debris observed instream of a small tributary along the bypass road , June 2016. ....	109
Photo 20.	N2-Aqua-166 (unnamed tributary of Gormley Creek). Woody debris accumulated against supports of bridge immediately downstream of the RoW, June 2016. ....	109
Photo 21.	N3-Aqua-103 (Mitishto River). Excessive clearing in RBZ and exposed soil prone to erosion protected by erosion control matting, June 2015. ....	110
Photo 22.	N3-Aqua-103 (Mitishto River). Shrubs and forbes becoming established on the steep eastern bank through erosion control matting, June 2016. No erosion was detected..	110
Photo 23.	N3-Aqua-134 (Saskatchewan River). Excessive vegetation clearing in the RBZ, June 2015. ....	111

Photo 24.	N3-Aqua-134 (Saskatchewan River). Shrubs and forbes becoming well established on the southern bank, June 2016. Slumping does not appear to have increased since June 2015. ....	111
Photo 25.	N4-Aqua-112 (tributary of Lake Winnipegosis). Woody debris and an accumulation of sediment observed instream within the RoW, June 2016.....	112
Photo 26.	C1-Aqua-125 (German Creek). Erosion of the stream at the vehicle and cattle crossing, June 2016. ....	112
Photo 27.	S1-Aqua-112 (Whitemud River). Woody debris accumulated against supports of bridge immediately downstream of the RoW, June 2016. ....	113
Map Index.	Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line stream crossings.....	14
Map 100-1.	Bipole III 203 kV AC Collector Line stream crossings. ....	15
Map 100-02.	Bipole III 230 kV AC Collector Line stream crossings. ....	16
Map 100-03.	Bipole III 230 kV AC Collector Line and Construction Power Line stream crossings.....	17
Map 100-04.	Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	18
Map 100-05.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	19
Map 100-06.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	20
Map 100-07.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	21
Map 100-08.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	22
Map 100-09.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	23
Map 100-10.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	24
Map 100-11.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	25
Map 100-12.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	26
Map 100-13.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	27
Map 100-14.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	28
Map 100-15.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	29
Map 100-16.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings. ....	30

Map 100-17.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.	31
Map 100-18.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.	32
Map 100-19.	Bipole III 500 kV Transmission Line (Final Preferred Route; segments N1 and N2) stream crossings.	33
Map 100-20.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	34
Map 100-21.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	35
Map 100-22.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	36
Map 100-23.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	37
Map 100-24.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	38
Map 100-25.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	39
Map 100-26.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	40
Map 100-27.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	41
Map 100-28.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	42
Map 100-29.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	43
Map 100-30.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	44
Map 100-31.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	45
Map 100-32.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	46
Map 100-34.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.	47
Map 100-35.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	48
Map 100-36.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	49
Map 100-37.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	50
Map 100-38.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	51

Map 100-39.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	52
Map 100-42.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	53
Map 100-43.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	54
Map 100-44.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	55
Map 100-45.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	56
Map 100-46.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.	57
Map 100-47.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	58
Map 100-48.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	59
Map 100-49.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	60
Map 100-51.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	61
Map 100-52.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	62
Map 100-54.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	63
Map 100-55.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	64
Map 100-56.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	65
Map 100-57.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	66
Map 100-58.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	67
Map 100-59.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.	68
Map 100-62.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	69
Map 100-63.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	70
Map 100-64.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	71
Map 100-66.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	72

Map 100-67.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	73
Map 100-68.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	74
Map 100-69.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.	75
Map 100-73.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.	76
Map 100-74.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.	77
Map 100-75.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.	78
Map 100-76.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.	79
Map 100-77.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.	80
Map 100-78.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	81
Map 100-79.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	82
Map 100-80.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	83
Map 100-81.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	84
Map 100-82.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	85
Map 100-83.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	86
Map 100-84.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	87
Map 100-85.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.	88
Map 100-86.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	89
Map 100-87.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	90
Map 100-88.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	91
Map 100-89.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	92
Map 100-90.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	93

Map 100-91.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	94
Map 100-92.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	95
Map 100-93.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	96
Map 100-94.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.	97
Map 100-95.	Bipole III 500 kV Transmission Line (Final Preferred Route; segment RGEL) stream crossings.	98

## **LIST OF APPENDICES**

7.0	APPENDIX 1: Stream Crossing Compliance Summary .....	114
-----	--	-----

## 1.0 INTRODUCTION

As outlined in *The Environment Act* Licence for the Bipole III Transmission Project (Licence No. 3055), 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 June 2016 at 397 watercourse crossings intersected by the AC Collector lines between the Keewatinohk CS, Henday CS and the Long Spruce GS and along the 500 kV Transmission Line extending from Keewatinohk CS to its terminus at the Riel CS outside of Winnipeg (Maps 100-01 to 100-95). Initial site visits occurred on segments S1 and S2 (n = 89).

## 2.0 STUDY AREA

The northern terminus of the 500 kV Transmission Line and the Collector Lines and Construction Power Line fall within the Nelson River drainage basin. From there the 500 kV line traverses the Saskatchewan River and Lake Manitoba basins.

The Nelson River watershed includes four sub-basins (Lower Nelson River, Burntwood River, Grass River, and upper Nelson River) and includes almost half of the project's watercourse crossings extending from Goose Creek, a tributary of the lower Nelson River, to south of Wekusko Lake.

The Lower Nelson River sub-basin includes the Nelson River and numerous small and medium-sized tributaries such as the Limestone River and Goose Creek. The Construction Power, AC Collector and Segment N1 of the 500 kV line lie within the lower Nelson River sub-basin.

The Burntwood River sub-basin includes segment N2 and is the largest sub-basin contributing drainage along the 500 kV line and begins approximately at Rat Lake, flows southeast to Wuskwatin Lake, and then flows northeast joining the Nelson River at Split Lake. The predominant watercourse in the Burntwood River sub-basin is the Churchill River Diversion (CRD), which enters from the north via the Rat River. Diversion flows extend down the Burntwood River through Wuskwatin, Opegano, Birch Tree, and Apussigamasi lakes before converging with the Nelson River at Split Lake.

The Grass River sub-basin lies south of the Burntwood River sub-basin and includes parts of segments N3 and N4. This sub-basin begins in the west near Cranberry Portage and, similar to the Burntwood River sub-basin, flows northeast converging with the Nelson River at Split Lake. Waterbodies in this sub-basin include numerous lakes and rivers; notably, the Grass, Missipisew, and Wuskatasko rivers and Wekusko, Herblet, Snow, and Tramping lakes.

The Saskatchewan River basin originates near Flin Flon along the Saskatchewan border and flows southeast to Cedar Lake. The 500 kV line intersects two sub-basins (Clearwater Lake/Moose Lake and Cedar Lake) and extends from Cedar Lake, south of The Pas and includes segments N3 and N4. The Clearwater Lake/Moose Lake sub-basin includes tributaries such as Frog Creek and Little Frog Creek, and the majority of crossing sites in this basin are located on unnamed tributaries of Little Frog Creek. The Cedar Lake sub-basin includes the Saskatchewan River, which flows eastward across Saskatchewan and Manitoba and empties into Lake Winnipeg.

The Lake Manitoba basin extends from the Lake Winnipegosis sub-basin in the north, south through the escarpment region of Manitoba to the Whitemud River sub-basin and includes part of segment N4, segment C1, C2 and S1. Within the Lake Manitoba basin, the 500 kV line intersects five sub-basins (Lake Winnipegosis, Swan Lake, Duck Mountain, Lake Manitoba West, and Whitemud River). The right of way (RoW) extends north of Red Deer Lake to southwest of Portage La Prairie and parallels both Lake Winnipegosis and Lake Manitoba.

The northern portion of the Lake Winnipegosis sub-basin is characterized by the Overflowing River, Red Deer Lake, and Red Deer River and includes segment N4. Further south, the small lakes and streams on top of the Porcupine Mountains flow northeast to Lake Winnipegosis through the Bell and Steeprock rivers and Cork Cliff Creek. The Duck Mountain sub-basin (in association with the Valley River and Turtle River basins) collects water from the eastern sides of the Duck and Riding mountains and enter Lake Winnipegosis either directly or via Dauphin Lake and the Mossy River and includes segment C1. Characteristic of the escarpment, streams in the three sub-basins have elevated water velocity and coarse stream substrate. Once on the lowland areas adjacent to lakes Winnipegosis, Swan, and Manitoba, water velocity slows and substrates shift to fine silts and organics. Shoreline vegetation is generally a combination of birch, dogwood, grass/sedge, poplar, or willow. Segment C2 is contained within the Lake Manitoba West and Whitemud River sub-basins.

The 500 kV line then passes through the Assiniboine and Red River Basins from the west to the east and includes segments S1 and S2. Five sub-basins (Central Assiniboine, La Salle River, Morris River, Seine River and Cooks/Devils Creek) are

intersected by the right of way which crosses the Assiniboine, Red River, Marsh and Rat rivers. The line turns northwest of Steinbach, crossing the Seine River and Fish Creek before extending westward from Springfield (Cooks/Devils Creek sub-basin) to its terminus at the Riel station east of Winnipeg. The majority of watercourses crossed are man-made agricultural drains, often lacking trees or shrubs in the riparian zone, are dominated by grasses and other forbes, and are generally intermittent with soft substrates and grown-in with emergent vegetation. Natural and man-made watercourses in these sub-basins tend to be dominated by fine, soft substrates and low water velocity. The Red and Assiniboine rivers, ultimately draining into Lake Winnipeg, are the largest rivers crossed, characterized by soft substrates, higher flow and riparian buffer zones consisting of forested strips which include Manitoba Maple, cottonwood, aspen, elm, ash and birch, willow, and a variety of shrubs.

### 3.0 METHODS

Stream crossing sites were evaluated using Manitoba Hydro's Daily Inspection Reports and site visits in the summer of 2016 to assess the adherence to prescribed mitigation. Mitigation measures included those prescribed in the Bipole III Transmission Project Aquatic Environment Technical Report and the Bipole III Transmission Project Construction Environmental Protection Plans for the AC Collector Lines, Construction Power Line and Station, segments N1, N2, N3, N4, C1, C2, S1 and S2.

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 an aerial reconnaissance at each site on the 500 kV Transmission Line and the 230 kV AC Collector Lines. Stream crossing sites rated as 'important/moderate' fish habitat were chosen for closer examination to obtain an overall evaluation of the state of the site. Once at the site, buffers were evaluated by measuring their width from the stream or floodplain and comparing to the width prescribed, as well as evaluating the amount of vegetation left in the buffer and the clearing method used. Stability of stream banks and floodplain were evaluated visually and rutting, slumping, or other damage to the ground noted. The presence of slash or disturbed sediment within the buffer and below the tree line/high water mark (HWM) was noted, as well as any evidence of erosion.

Vehicle crossings were evaluated for appropriate grade and angle across the stream, and the presence of any organic debris remaining from a bridge. If any erosion control measures were in place (e.g., ice/snow bridges, 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 and if a follow-up site visit was needed for further monitoring of reclamation this was also noted.

## 4.0 RESULTS

Manitoba Hydro is constructing four 230 kV AC Collector Lines (K61H, K62H, K63H, K64H) from the Keewatinohk CS to the Henday CS. These Collector Lines will run along a length of approximately 27.4 km. A fifth 230 kV AC Collector Line (L61K) will also run in a northerly direction from Long Spruce GS to Keewatinohk CS along a length of approximately 53.2 km. A Construction Power Line (KN36) runs from Limestone Construction Power Station to the Keewatinohk Construction Power Station along a length of approximately 28.8 km. A 1380 km 500 kV DC Transmission Line is being constructed from the Keewatinohk CS to its terminus in the south at the Riel CS.

Site visits to stream crossings were conducted between June 20 and June 23, 2016. At the time of the monitoring, construction was at various stages of completion in each segment. Construction of the Construction Power Line (KN36) was complete, whereas clearing of the RoW was complete along the route of all five Collector Lines with most tower foundations and anchors installed and towers erected between Keewatinohk CS and Henday CS. Along the 500 kV Transmission Line, clearing of the riparian buffer zones (RBZ) was complete for the majority of segments N1 through N4, C1, C2 and S1, with the exception of a 7 km section of C1 from the Sclater River to the Garland River and a smaller section in S1. According to a progress report provided by Manitoba Hydro, March 2016, segment S2 had not been cleared at all, though the majority of the crossings in S2 and S1 lacked vegetation of a size requiring removal, consisting primarily of grasses and forbes within an agricultural landscape. Tower foundations and anchors have been installed adjacent to the majority of crossings in segments N1, N2 and C2. Tower foundations and anchors were also noted adjacent to 37 to 45 percent of crossings in segments C1, N3, N4 and S2. No tower footings were noted in segment S1. Eight towers had been erected in the vicinity of Isbister Creek, segment N2.

### Site Visits

Aerial surveys were conducted at 397 stream crossings with ground surveys at a subset of sites with the focus on higher quality fish habitat or sites with notable non-compliance. Construction at most stream crossings was compliant with prescribed mitigation where applicable, depending on the stage of construction. Of the sites that were non-compliant (17), remediation, monitoring and/or follow-up in 2017 is

recommended at 14 sites. The primary issue requiring remediation is the presence of slash, woody debris and/or sediments accumulating in-channel. Secondary issues include erosion or slumping banks and small tributaries formed within the vehicle tracks at the crossings. Where tower siting could not meet prescribed mitigation, Manitoba Hydro obtained an exemption from Manitoba Sustainable Development and these sites were therefore considered compliant with prescribed tower mitigation. A summary of sites where non-compliance was observed is found in Table 1 and a summary of compliance with mitigation for all sites is available in Appendix 1.

#### *AC Collector Lines*

Clearing of the Collector Line RoWs was complete with partial completion of tower footing and anchor construction at the time of the inspection. Of the 32 watercourse crossings, compliance was observed at all but one site (Table 1). Woody debris was observed accumulating instream at the vehicle crossing at Brooks Creek (CL-Aqua-104) (Photo 1). Removal of the debris from the channel is recommended, followed by an inspection in 2017, as this stream has been identified as important fish habitat.

#### *500 kV DC Transmission Line*

##### *Segment N1*

Construction on the N1 segment included completion of clearing of the RBZs at all but one of the 67 watercourse crossings, an unnamed tributary of the Burntwood River which is characterized by steep valley walls (N1-Aqua-167). Of the 67 watercourse crossings evaluated, non-compliance was recorded at eight sites, for which remediation and follow-up monitoring in 2017 is recommended (Table 1). In 2015, nine sites were identified as requiring remediation and a follow-up visit in 2016. These sites are discussed below together with the new sites where non-compliance was observed.

##### Erosion and Sediment Control

In 2015 erosion control measures were recommended to stabilize mineral soils exposed along the vehicle road crossings at McMillan Creek (N1-Aqua-118) and North Moswakot River (N1-Aqua-131). In 2016, slash was used at both sites to stabilize the exposed mineral soils. No further remediation or follow-up is necessary for either site.

Erosion control measures were also recommended where naturally formed drainage channels were identified in the RoW across the vehicle track and draining into the main watercourse at the Limestone River (N1-Aqua-129; photos 2 and 3) and an

unnamed tributary of the South Moswakot River (N1-Aqua-133; photos 4 and 5), both considered important habitat for fish. Although no erosion control measures appeared to have been implemented, the channels have not increased in size and were dry at the time of the visit. Vegetation appears to be growing within the channels which will provide erosion protection. Erosion control measures are recommended in addition to continued monitoring and a follow-up visit in 2017.

Bank slumping was noted on the southern bank of the Burntwood River (N1-Aqua-173) in 2015. The slumping was more prevalent within the RoW than outside of it. Erosion control measures were recommended for the Burntwood River where the slumping was severe and where a plume of turbid water was seen entering into the river within the RoW. During the 2016 site visit, it was noted that, although dry, the extent of the slumping had increased slightly since June 2015 and there was no evidence that erosion control measures had been implemented (photos 6, 7 and 8). Re-vegetation appears to be slow and is insufficient to stabilize the bank. Erosion control measures and a follow-up visit in 2017 are recommended.

#### Instream materials (slash/sediment/other)

The removal of slash from below the HWM was recommended for sites N1-Aqua-137 and 148, in the 2015 report. The watercourses were clear of woody debris when visited in 2016. No further mitigation or follow up is required.

Felled trees and/or slash were observed instream at four sites. Removal of the trees/slash from the stream channel and a follow up site inspection in 2017 is recommended at sites N1-Aqua-135, 156 and 167 due to the potential for impairment of water flow and fish movements (photos 9, 10 and 11). At site N1-Aqua-172 the affected portion of the stream is of low/no importance to fish and as such remediation is not required. The fifth site is discussed below (Photo 12).

#### Temporary Crossing

The temporary stream crossing on the road within the RoW at site N1-Aqua-169 was not removed following construction in 2015 and remained intact at the time of the site visit in 2016. The temporary crossing consists of a thick layer of wood slash and debris and if allowed to remain in the stream may restrict water flow and fish movements as well as alter fish habitat (photos 13 and 14). Although the stream is not considered important fish habitat, removal of the temporary crossing is recommended as well as a site inspection in 2017.

#### *Segment N2*

Construction on segment N2 included the completion of the clearing of the RoW and the RBZs as well as the installation of the tower foundations/anchors at all watercourse crossings. Completed towers were observed at eight crossings in the vicinity of Isbister Creek. Of the 67 crossings evaluated, three sites were in non-compliance with respect to the prescribed mitigation measures (Table 1). Two sites identified in 2015 were re-visited. One site was flagged as a potential issue not necessarily a result of Manitoba Hydro's clearing activities.

#### Instream materials (slash/sediment/other)

Woody debris was observed instream at the vehicle crossing at sites N2-Aqua-103 (Photo 15) and N2-Aqua-119 (Photo 16). To avoid the potential for the restriction of water flow and lack of fish passage it is recommended the debris be removed and placed above the HWM at site N2-Aqua-103. Due to the lack of fish habitat and the high degree of beaver activity in the vicinity of the area affected by the blockage of at N2-Aqua-119, no remediation is required.

Sediment accumulation within the channel at the vehicle crossing of Isbister Creek, as well as a large plank placed across the stream as a temporary bridge adjacent to it (likely by local resource users), was observed partially blocking the channel of Isbister Creek at vehicle crossing N2-Aqua-112 (Photo 17). Removal of the plank and continued monitoring in 2017 is recommended to determine if excavation is necessary following the 2017 spring run-off which is expected to clear the channel naturally.

#### Erosion and Sediment Control

Monitoring was also recommended for bank erosion and slumping at N2-Aqua-110 in 2015. No further action is recommended for this site as no erosion or further slumping was observed and the banks appeared stable and well vegetated.

In 2015, water levels were high and new channels were identified beneath the tower east of the N2-Aqua-160 crossing. It was recommended by the Manitoba Hydro Environmental Inspector in 2015 that the drainage be monitored and erosion control measures implemented. The lower water levels in June 2016 revealed a channelized stream encroaching on the southeastern most anchor of tower 1349 (Photo 18). Although no erosion control measures were observed during the 2016 site visit, the extent of beaver activity in the area and the small nature of the stream suggest significant erosion is unlikely. Further erosion it is not expected to be a concern for fish and fish habitat.

### Sites of Note

Bucked logs and other woody debris was observed accumulating against the supports of a rail bridge immediately downstream of the RoW at N2-Aqua-166 on an unnamed tributary of Gormley Lake (Photo 19). The presence of the accumulation of woody debris may, in time, disrupt water flow and fish passage. It is unclear if the debris was the result of the clearing of the RoW or originated further upstream and is a natural annual occurrence. As such, it is not considered subject to the prescribed mitigation measures.

#### *Segment N3*

Construction on segment N3 included the completion of RoW and RBZ clearing and the installation of approximately half the tower foundations and anchors located near watercourse crossings. Of the 39 watercourse crossings evaluated, non-compliance was recorded at a single new site. Three sites were re-visited in response to recommendations in 2015, including continued monitoring of the southern bank at the Saskatchewan River (N3-Aqua-134) and the banks at the Mitishto River (N3-Aqua-103) (Table 1).

#### Instream materials (slash/sediment/other)

Woody debris was observed instream along the vehicle crossing on the bypass route at site N3-Aqua-102 and 103 (Photo 20). To avoid the potential for the restriction of water flow it is recommended the debris be removed and placed above the HWM. Due to the low importance of this tributary to fish a follow-up inspection will not be required.

#### Erosion and Sediment Control

Active re-vegetation of the banks at N3-Aqua-103 was recommended in 2015 to augment the erosion control measures (i.e. straw matting) already in place on the steep banks of the Mitishto River. Shrubs and forbes are slowly re-vegetating the banks through the matting but growth remains sparse (photos 21 and 22). No erosion was noted during the site visit in 2016. Continued monitoring of the site for bank stability and state of re-vegetation is recommended in 2017.

Bank slumping was noted on the southern bank of the Saskatchewan River (N3-Aqua-134) in 2015. Slumping was more prevalent within the RoW than outside of it. Monitoring of the bank and re-vegetation by planting of willow stems was recommended for the Saskatchewan River crossing in 2015. The site visit in 2016 showed a significant growth of shrubs and forbes along the bank which may provide

sufficient stability to mitigate against further slumping (photos 23 and 24). A follow-up visit in 2017 is recommended to monitor bank stability.

Monitoring was recommended for bank erosion and slumping at N3-Aqua-137 in the 2015 report. Based on site visits in 2016 no further monitoring is required as there is no evidence of erosion or further slumping and the banks appear stable and well vegetated.

#### *Segment N4*

Of the 41 watercourse crossings evaluated in segment N4, clearing of the RBZ was incomplete at three crossings (N4-Aqua-106, 108 and 116). Tower anchors were installed in the vicinity of approximately 1/3<sup>rd</sup> of the watercourse crossings. Non-compliance with respect to prescribed mitigation measures was recorded at a single site (Table 1). No follow-up monitoring was recommended in this segment for 2016.

#### Instream materials (slash/sediment/other)

An accumulation of sediment and woody debris was noted in the channel within the RoW at N4-Aqua-112, an unnamed tributary of Lake Winnipegosis considered to be important habitat for fish (Photo 25). Although water flow was not completely blocked, removal of the woody debris and excavation of the sediment is recommended to avoid the possibility that it may develop into a barrier of sufficient size to prevent fish movement in the future. A follow up visit in 2017 is recommended for this site as it is considered important fish habitat.

#### *Segment C1*

Of the 27 watercourse crossings evaluated in segment C1, clearing of the RBZs had been completed with the exception of a segment between the Sclater River and the Garland River where only the center line was cleared or where no work appears to have occurred. Tower anchors were installed at approximately 1/3rd of the watercourse crossings. Non-compliance with respect to the prescribed mitigation was observed at a single site. No follow-up monitoring was recommended in this segment for 2016.

#### Erosion and Sediment Control

Erosion and sediment accumulation resulting in the widening or alteration of the channel path at the vehicle crossing at German Creek (C1-Aqua-125) was brought to Manitoba Hydro's attention in early June 2016 (Photo 26). The "Expectation is the crossing will be repaired/re-habilitated to the original design and specifications as described in the DFO approval granted for this specific crossing" – June 9, 2016

Geoff Nollette. As indicated by the environmental inspector, due to the increased erosion observed on the west bank in the spring of 2016, remediation and a follow up visit in 2017 is recommended.

#### *Segments C2, S1 and S2*

All stream crossings on segments C2, S1 and S2, where construction occurred and streams were crossed, were compliant with the prescribed mitigation measures outlined in the EPP.

The stage of construction varied in these segments. At the time of the monitoring, clearing of the RBZs had been completed at all 35 watercourse crossings of segment C2.

Of the 32 watercourse crossings evaluated on segment S1, the RBZs required no clearing at the majority of the crossings due to the lack of trees and tall shrubs. Of those sites with trees large enough to require removal (14), clearing of the RBZ was incomplete at Bagot and Rat creeks and showed no signs of clearing from sites S1-Aqua-104 to 109, between Langruth and Woodside. No tower anchors had been installed at the time of the visit.

All but six of the 57 crossings in segment S2 lacked vegetation of a sufficient height to require clearing, as they consisted mainly of agricultural drains. Of those six (Red, Marsh, Rat and Seine rivers, a tributary of the Marsh River and an agricultural drain (S1-Aqua-153)), clearing appeared to have occurred only at S2-Aqua-153. Tower anchors/footings had been installed from S2-Aqua-134 (Manning Canal) to the last crossing before its terminus at the Riel Station (S2-Aqua-158). It was not clear if the watercourses had been crossed or accessed from either side using existing roads and culvert crossings to access the tower footings.

#### Sites of Note

Bucked logs and other woody debris was observed accumulating against the supports of a vehicle bridge immediately downstream of the RoW on the Whitemud River (S1-Aqua-112; Photo 27). The source of the debris is unknown but it may, in time, disrupt water flow and fish passage.

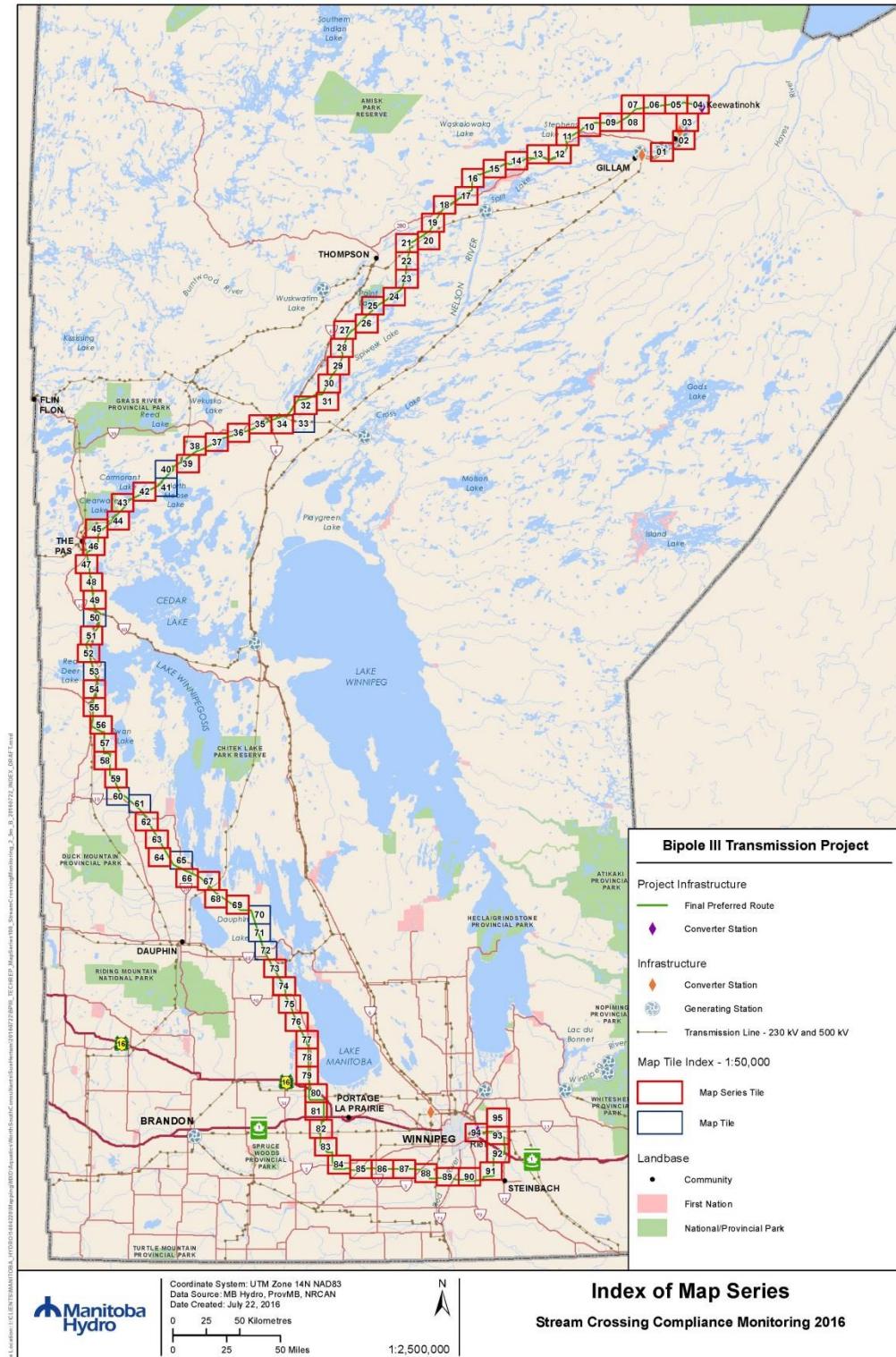
Table 1. Summary of stream crossings on Bipole III segments ACCL, N1-N4, C1, C2, S1 and S2 where non-compliance to prescribed mitigation was observed, June 2016.

Segment	ESS ID	Name	Easting	Northing	Habitat Class	Compliance	Issue	Additional Mitigation	2017 Site Visit
CL	CL-Aqua-104	Brooks Creek	797159	6261608	Important	N	Trees/slash in channel	Remove trees/slash	Y
N1	N1-Aqua-129	Limestone River	728318	6276582	Important	N	Small channel runs within road in RZ, subject to erosion	Install erosion control; monitor for further erosion	Y
N1	N1-Aqua-133	unnamed tributary of South Moswakot River	713966	6262984	Important	N	Small channel runs within road in RZ, subject to erosion	Install erosion control; monitor for further erosion	Y
N1	N1-Aqua-135	unnamed trib. of South Moswakot River	713868	6259787	Marginal	N	Trees/slash in channel	Remove trees/slash	Y
N1	N1-Aqua-156	unnamed tributary of Assean Lake	643387	6233758	Marginal	N	Trees/slash in channel	Remove trees/slash	Y
N1	N1-Aqua-167	unnamed tributary of the Burntwood River	621912	6215061	Marginal	N	Trees/slash in channel	Remove trees/slash	Y
N1	N1-Aqua-169	unnamed tributary of Odei River	619430	6211533	Marginal	N	Temporary crossing in place	Remove temporary crossing	Y
N1	N1-Aqua-172	unnamed tributary of Burntwood River	617341	6208379	No Fish Habitat	N	Trees/slash in channel	No remediation; no fish habitat	N

Segment	ESS ID	Name	Easting	Northing	Habitat Class	Compliance	Issue	Additional Mitigation	2017 Site Visit
N1	N1-Aqua-173	Burntwood River	616194	6206740	Important	N	Slumping and erosion of SW bank	Install erosion control	Y
N2	N2-Aqua-103	unnamed tributary of Brannigan Creek	609674	6196997	Marginal	N	Trees/slash in channel	Remove trees/slash	Y
N2	N2-Aqua-112	Isbister Creek	596654	6185761	Important	N	Sediment accumulation and plank in channel	Remove plank and monitor for blockage in 2017	Y
N2	N2-Aqua-119	unnamed tributary of Partridge Crop Lake	594113	6172024	Marginal	N	Trees/slash in channel	None. Beaver Impacted	N
N3	N3-Aqua-102 (bypass)	Mitishto River (bypass)	479218	6050354	Marginal	N	Trees/slash in trib to Mitishto along bypass	Remove trees/slash	N
N3	N3-Aqua-103	Mitishto River	479131	6050324	Important	NA	Steep banks with erosion control matting; slow vegetative regrowth	Monitor for veg growth and erosion 2017	Y
N3	N3-Aqua-134	Saskatchewan River	363605	5970575	Important	N	South bank prone to erosion	Monitor for erosion 2017	Y
N4	N4-Aqua-112	unnamed tributary to Lake Winnipegosis	357088	5880463	Important	N	Accumulation of sediment and woody debris in channel	Removal of sediment and woody debris	Y
C1	C1-Aqua-125	German Creek	444003	5711804	Important	N	Erosion of channel	Re-establish and stabilize the channel	Y

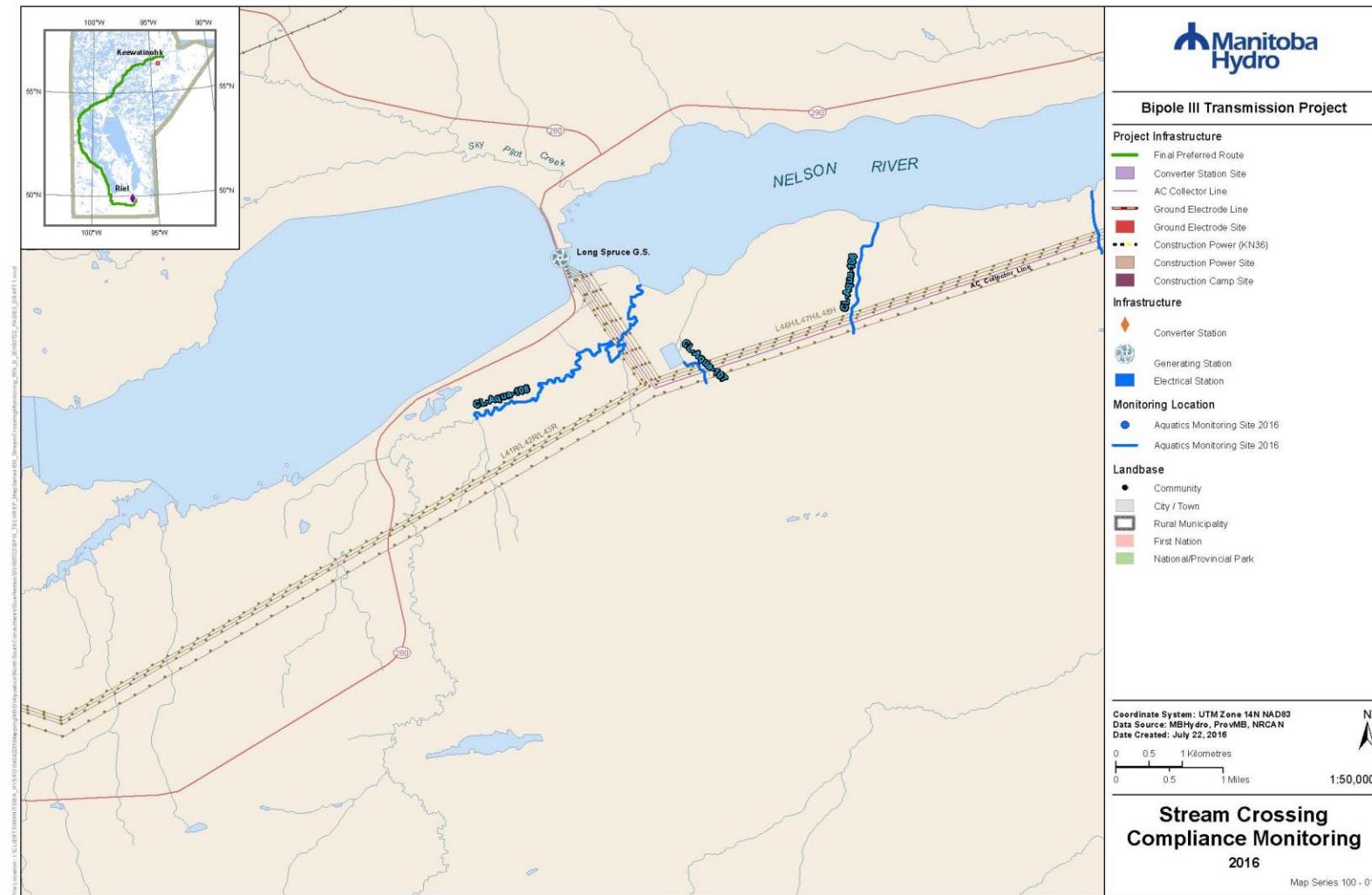
RZ = riparian buffer zone; MFZ = machine free zone; HWM = high water mark/tree line

## 5.0 MAPS

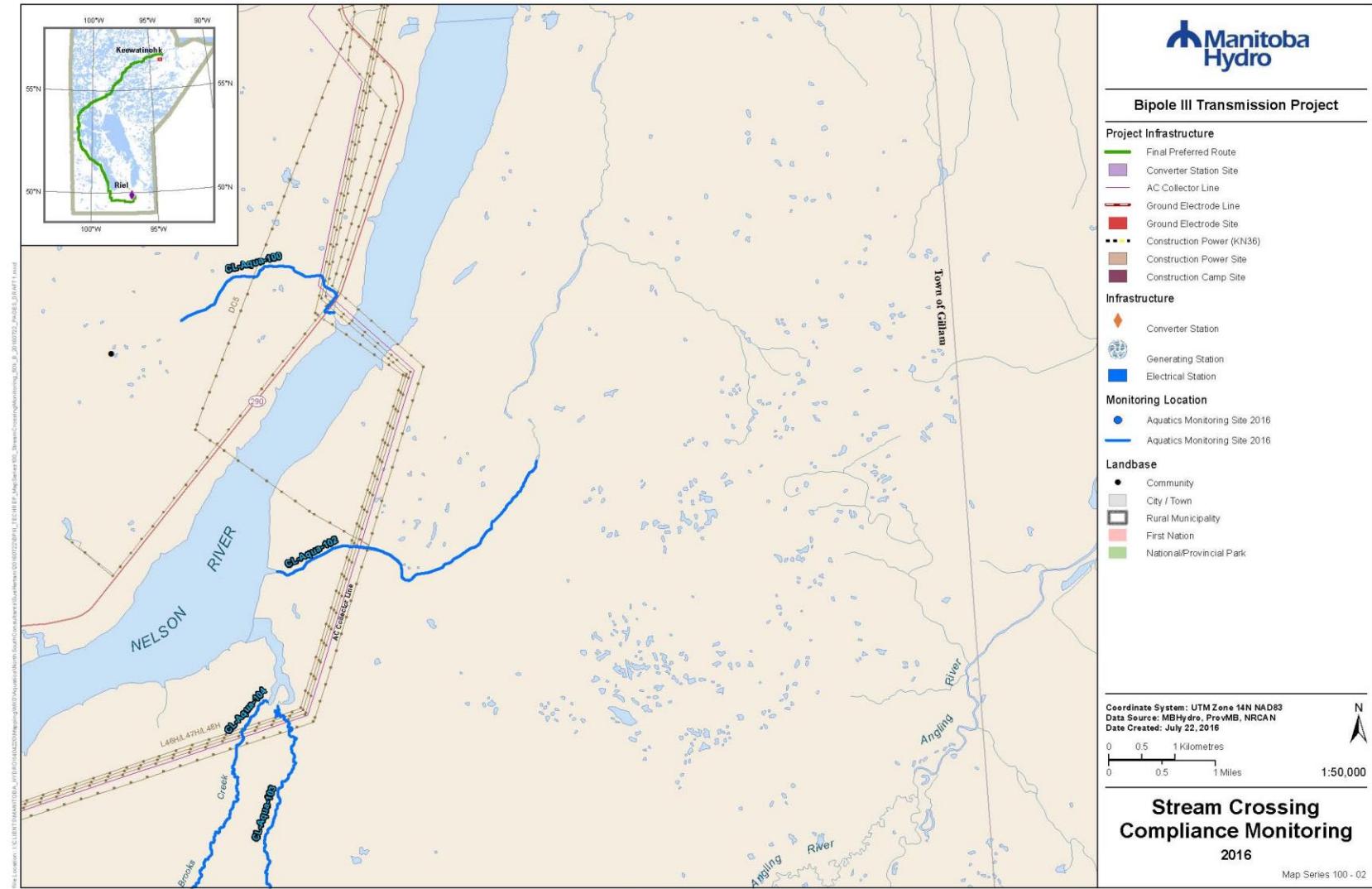


Map Index.

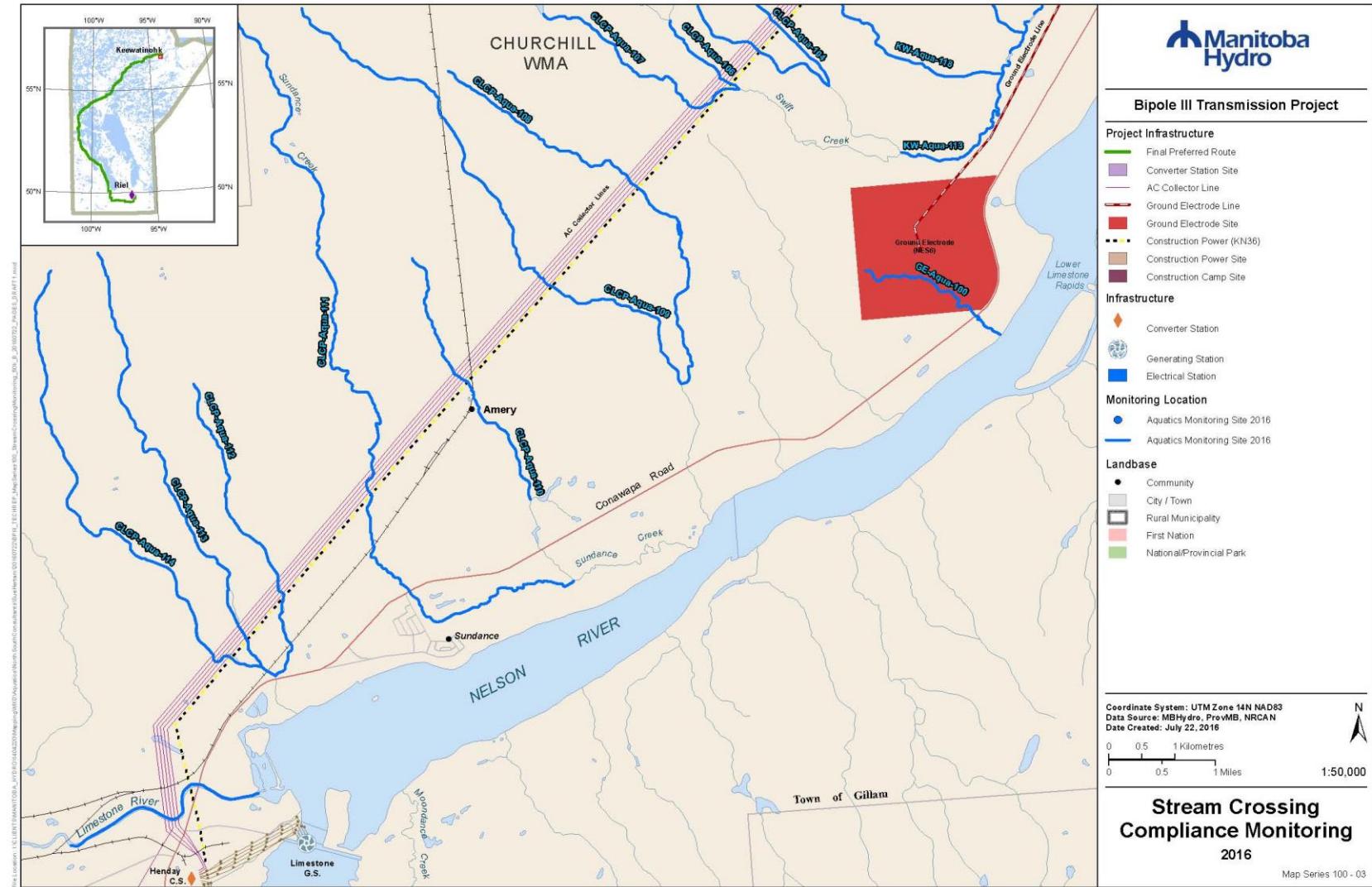
Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line stream crossings.



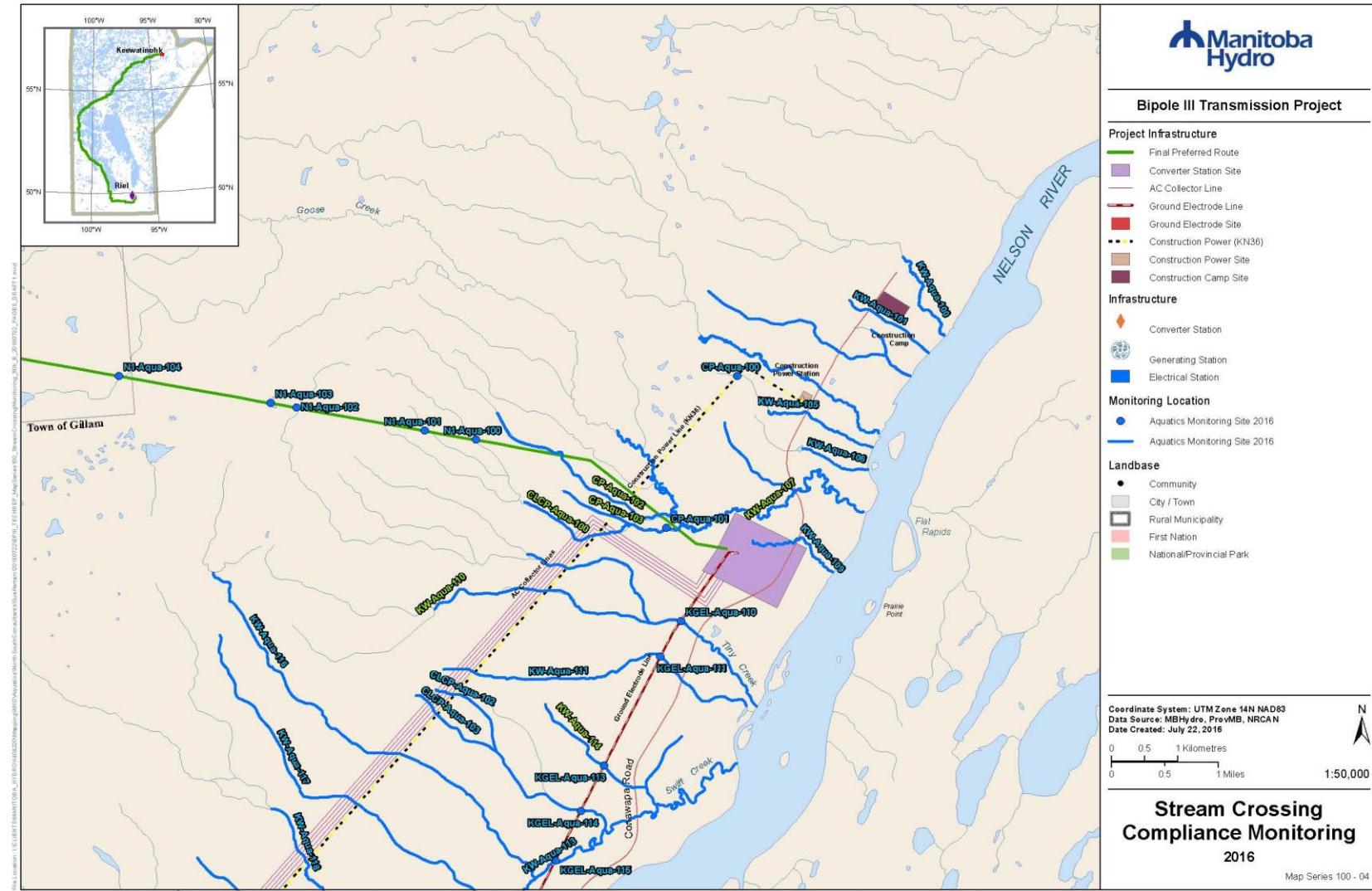
Map 100-1. Bipole III 203 kV AC Collector Line stream crossings.



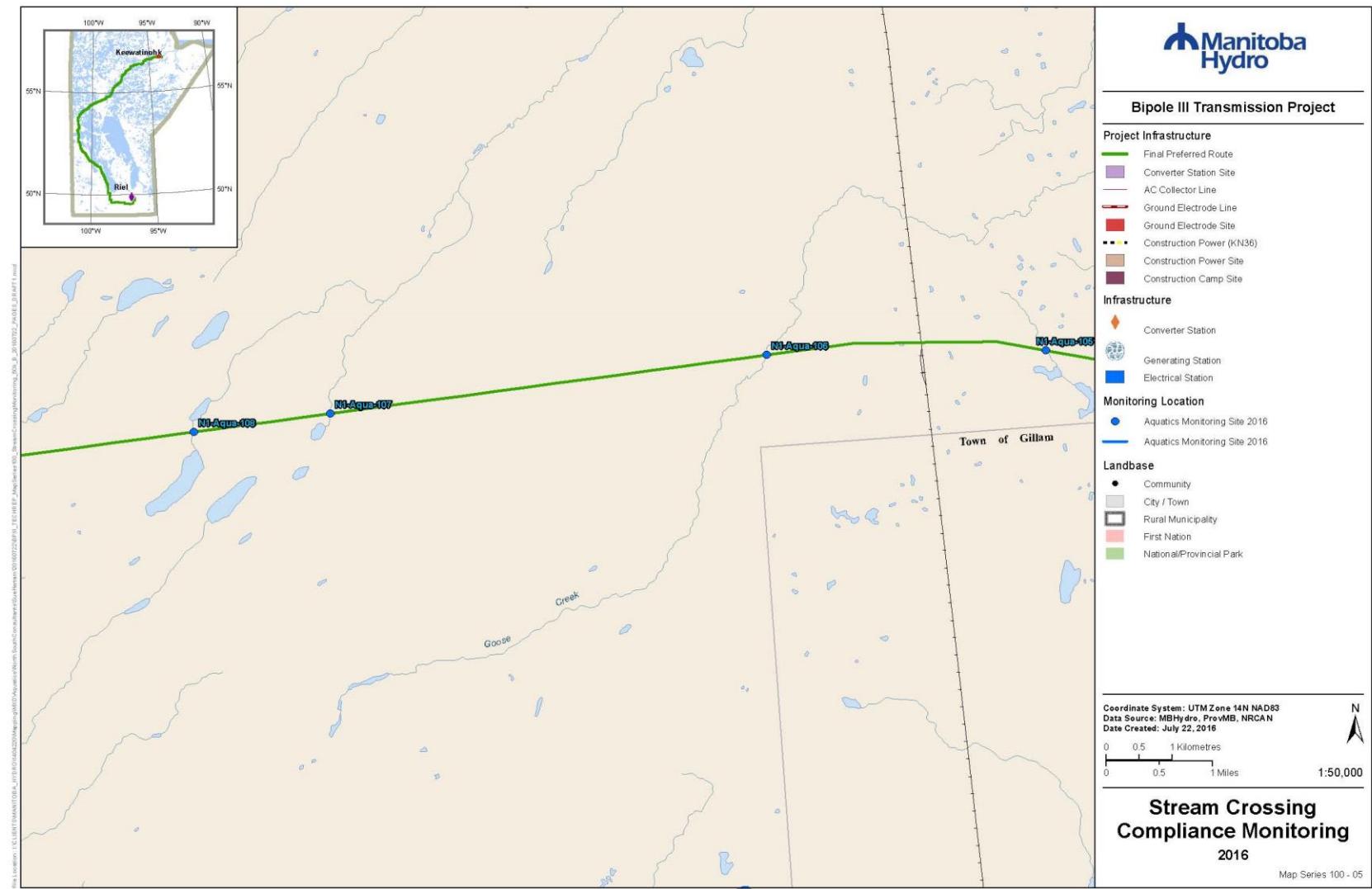
Map 100-02. Bipole III 230 kV AC Collector Line stream crossings.



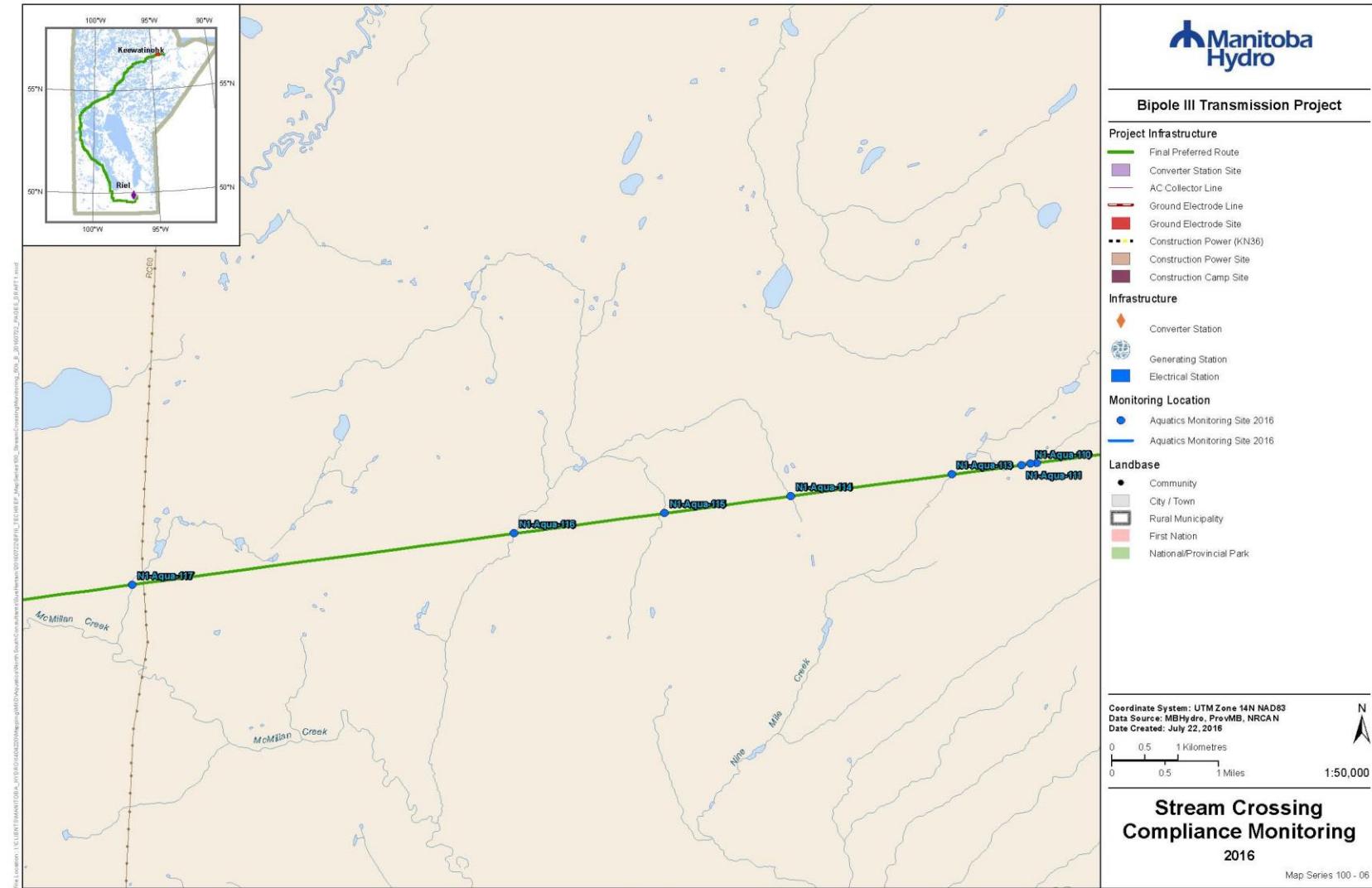
Map 100-03. Bipole III 230 kV AC Collector Line and Construction Power Line stream crossings.



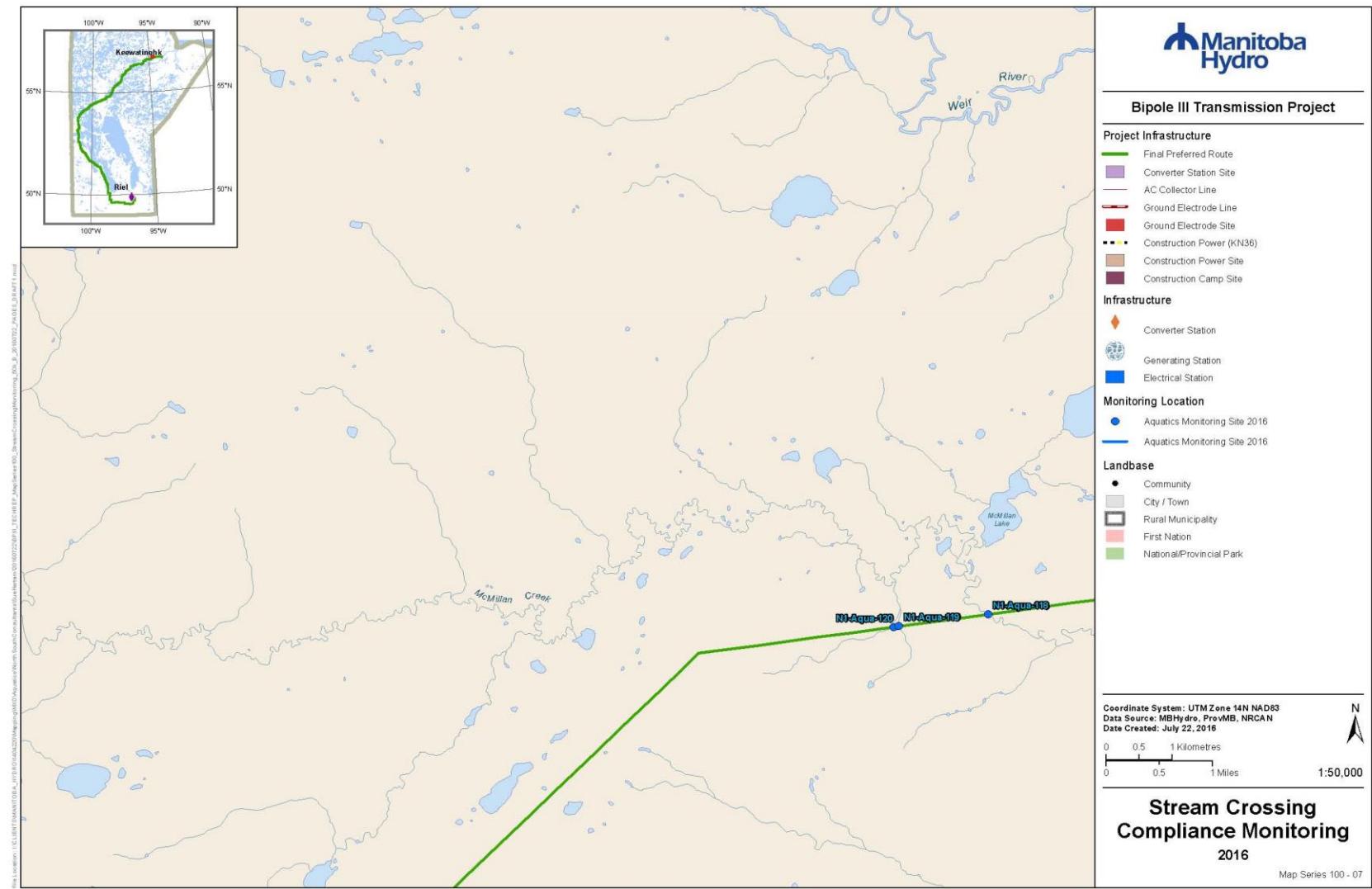
Map 100-04. Bipole III 230 kV AC Collector Line, Construction Power Line and 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



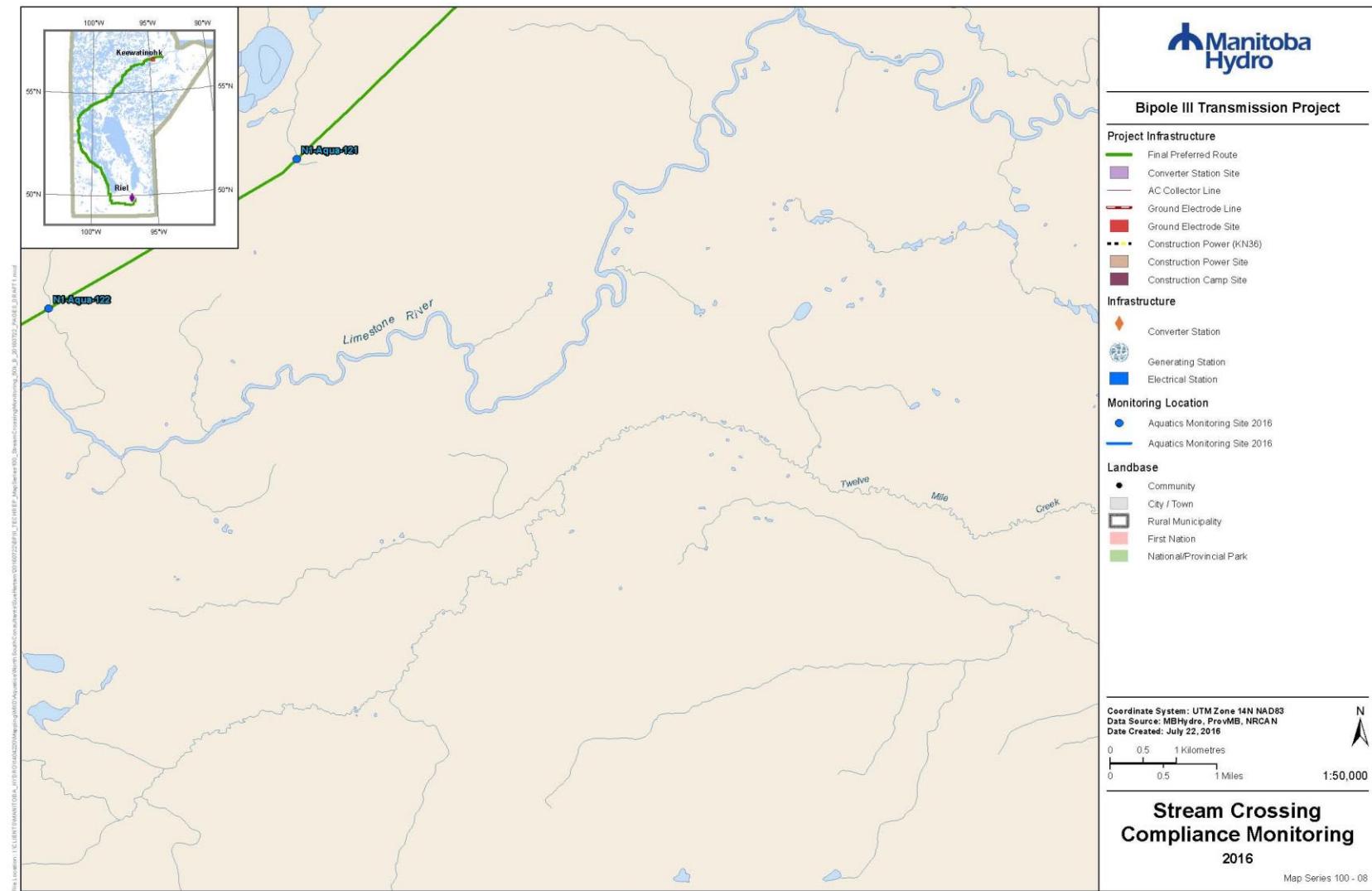
Map 100-05. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



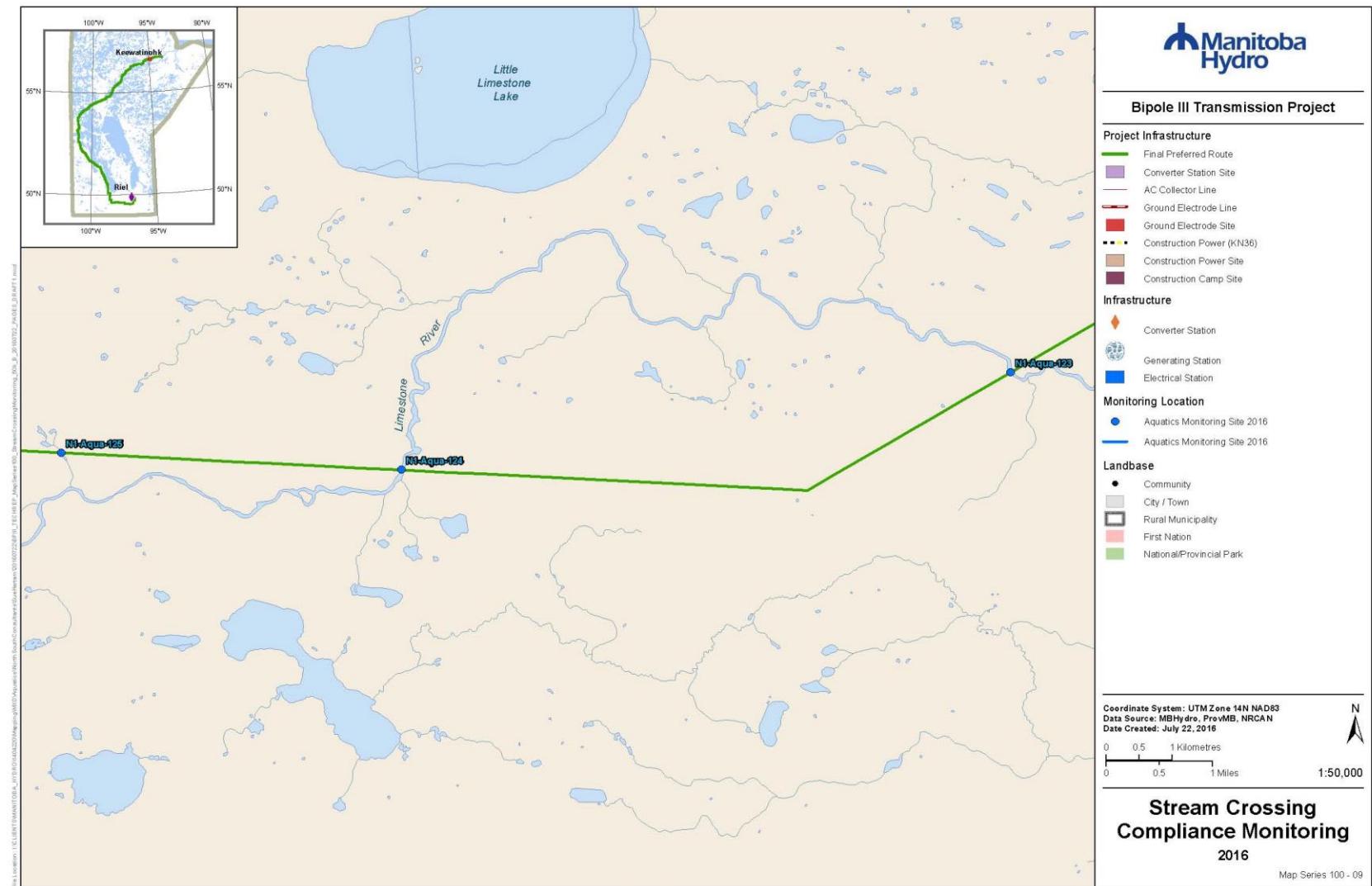
Map 100-06. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



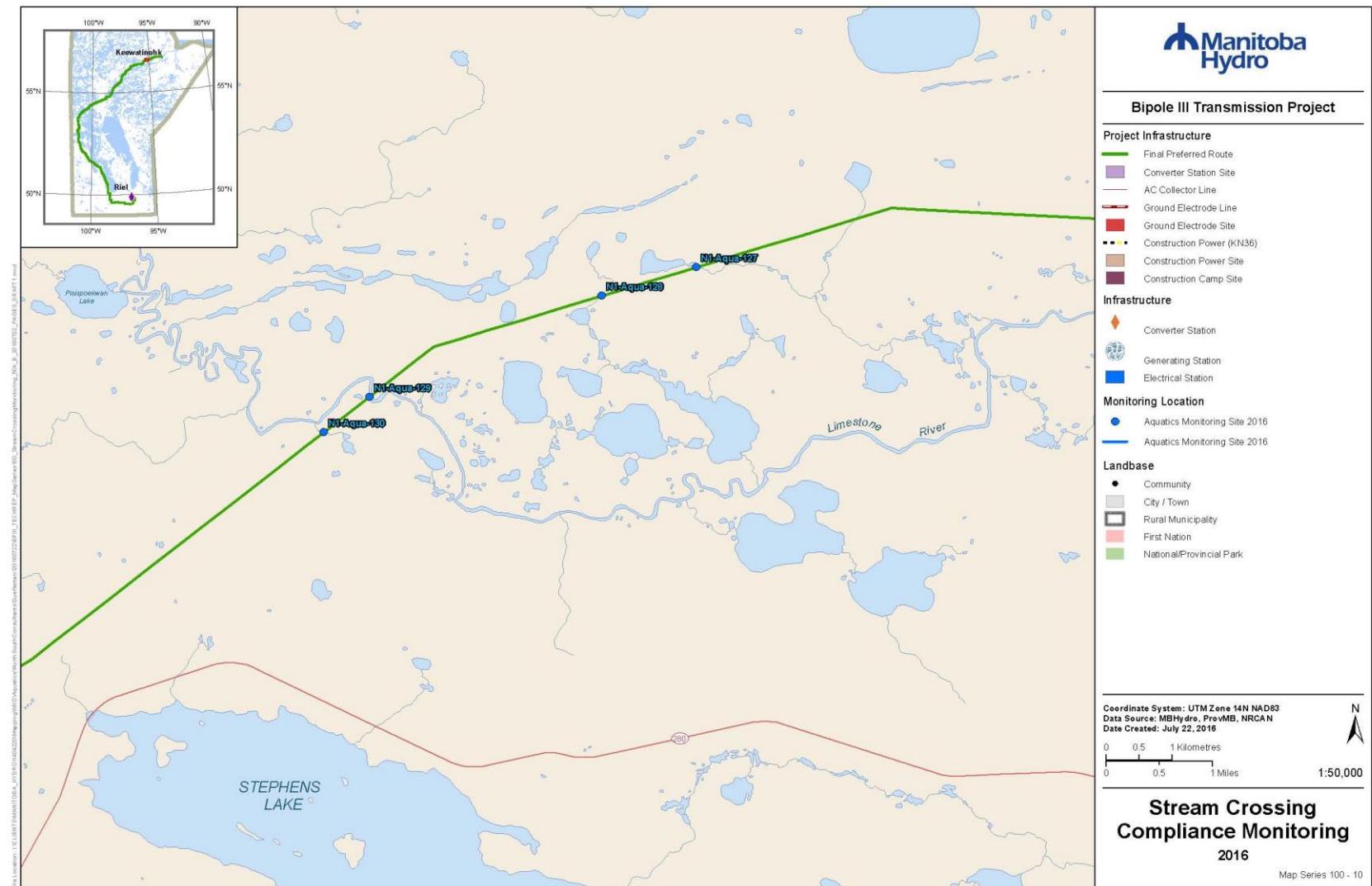
Map 100-07. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



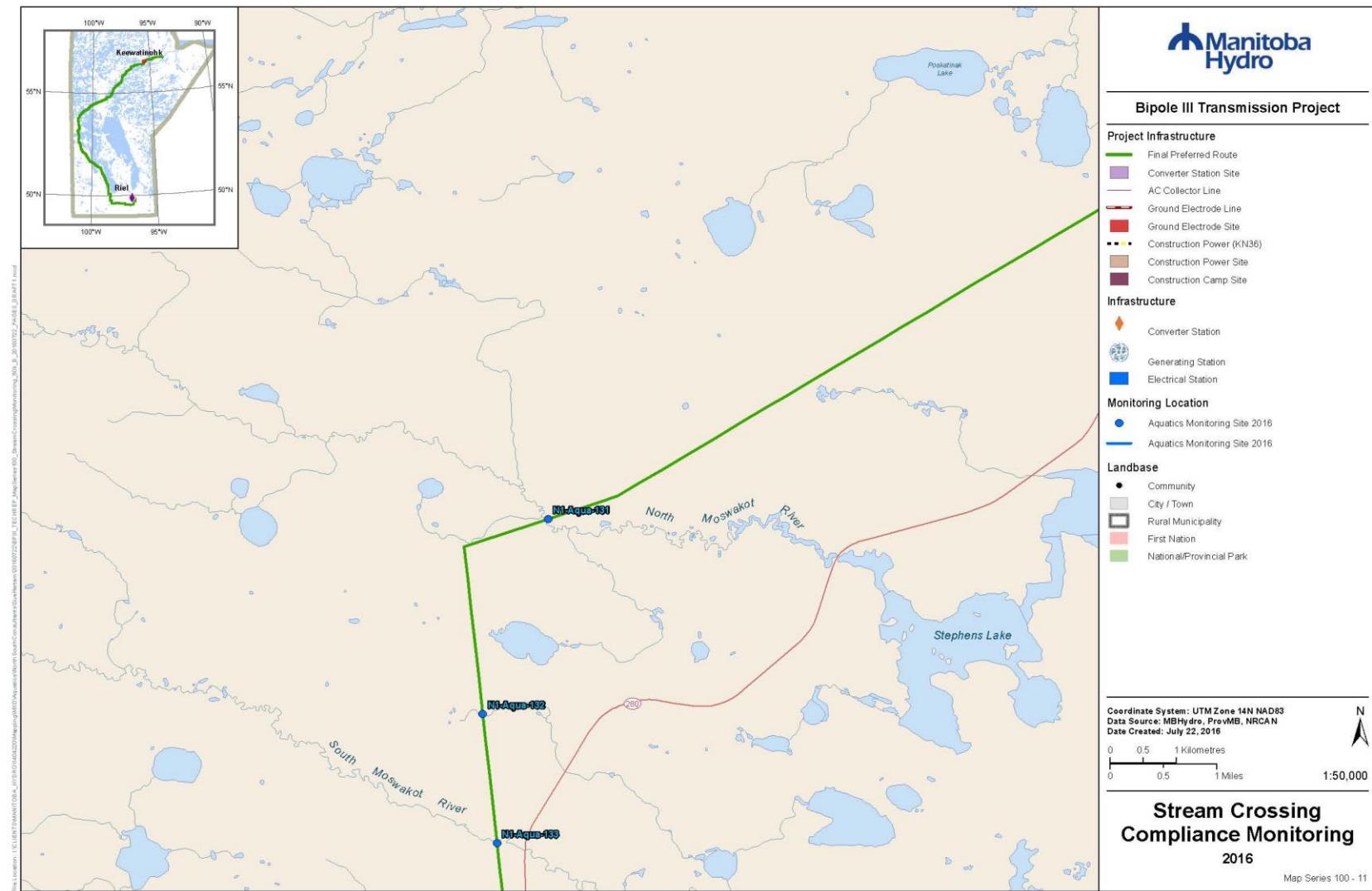
Map 100-08. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



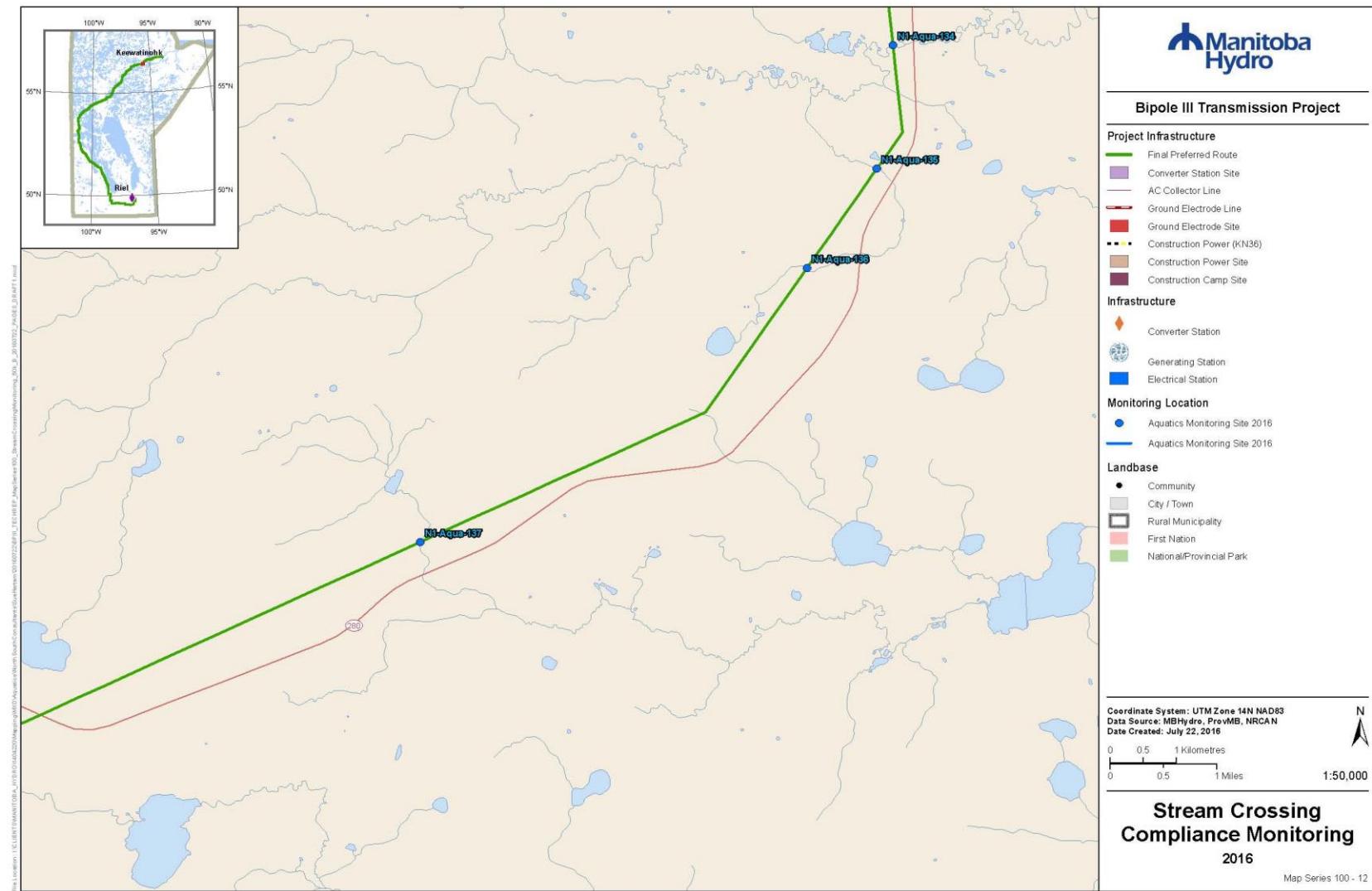
Map 100-09. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



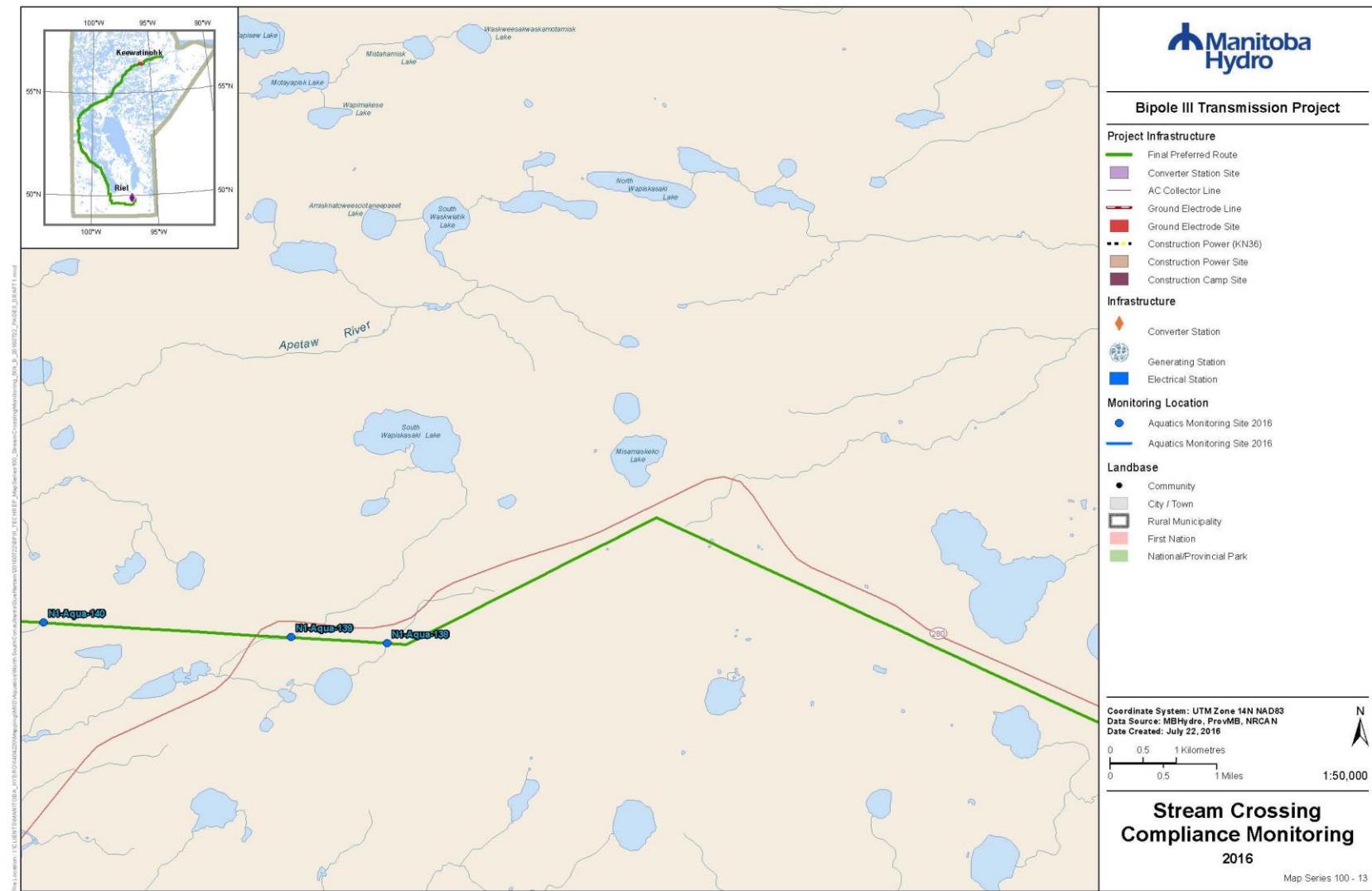
Map 100-10. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



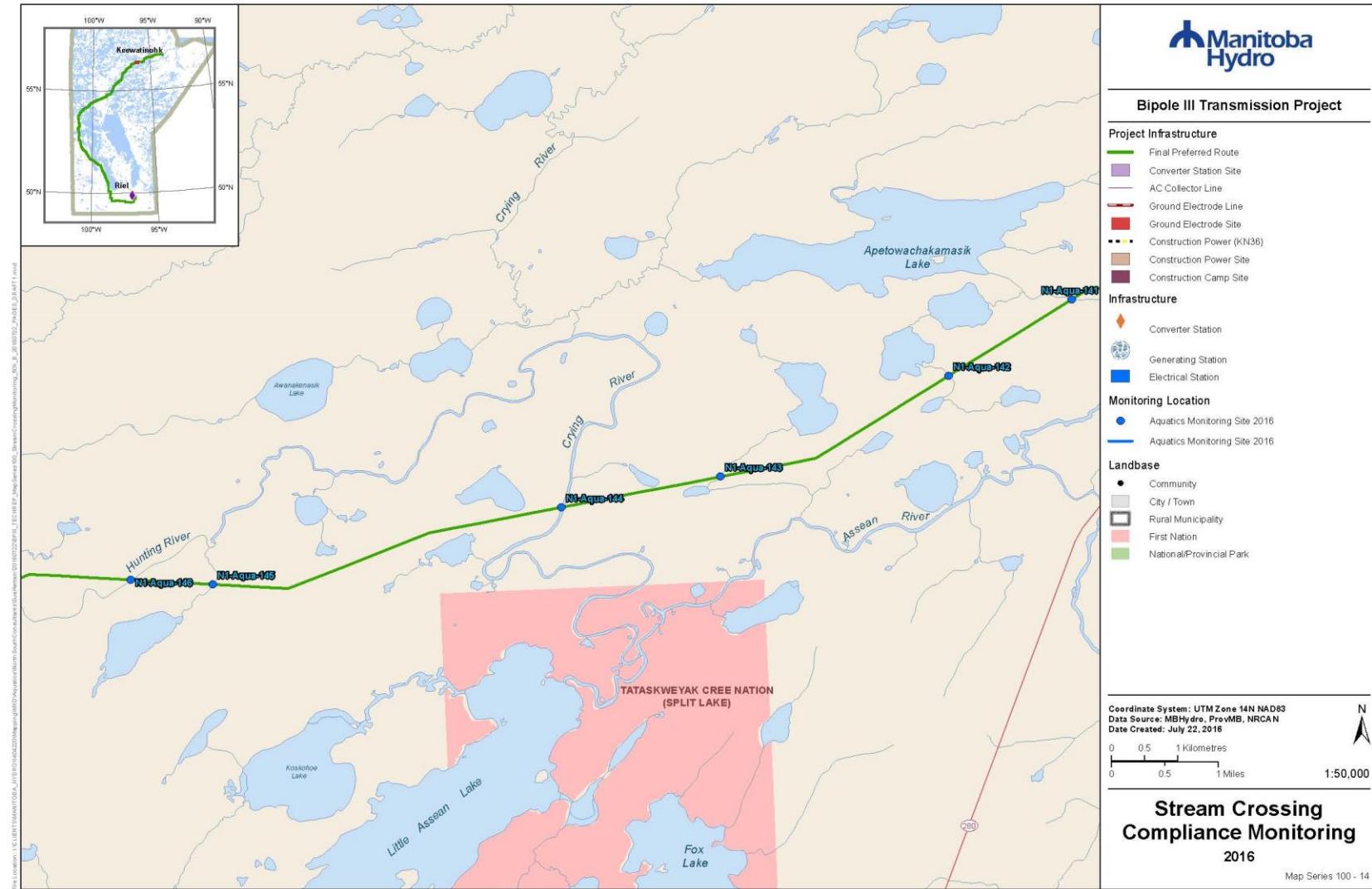
Map 100-11. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



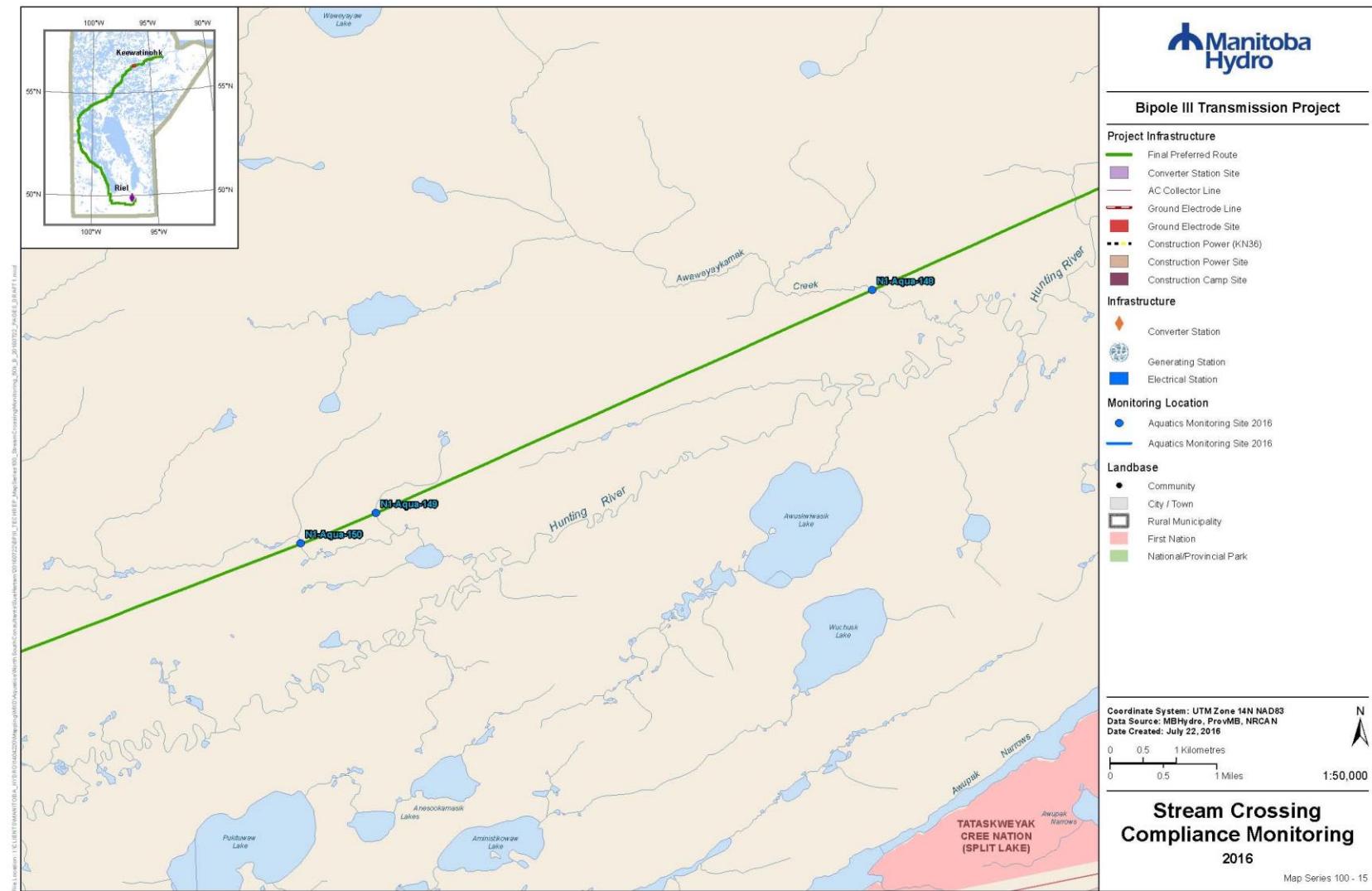
Map 100-12. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



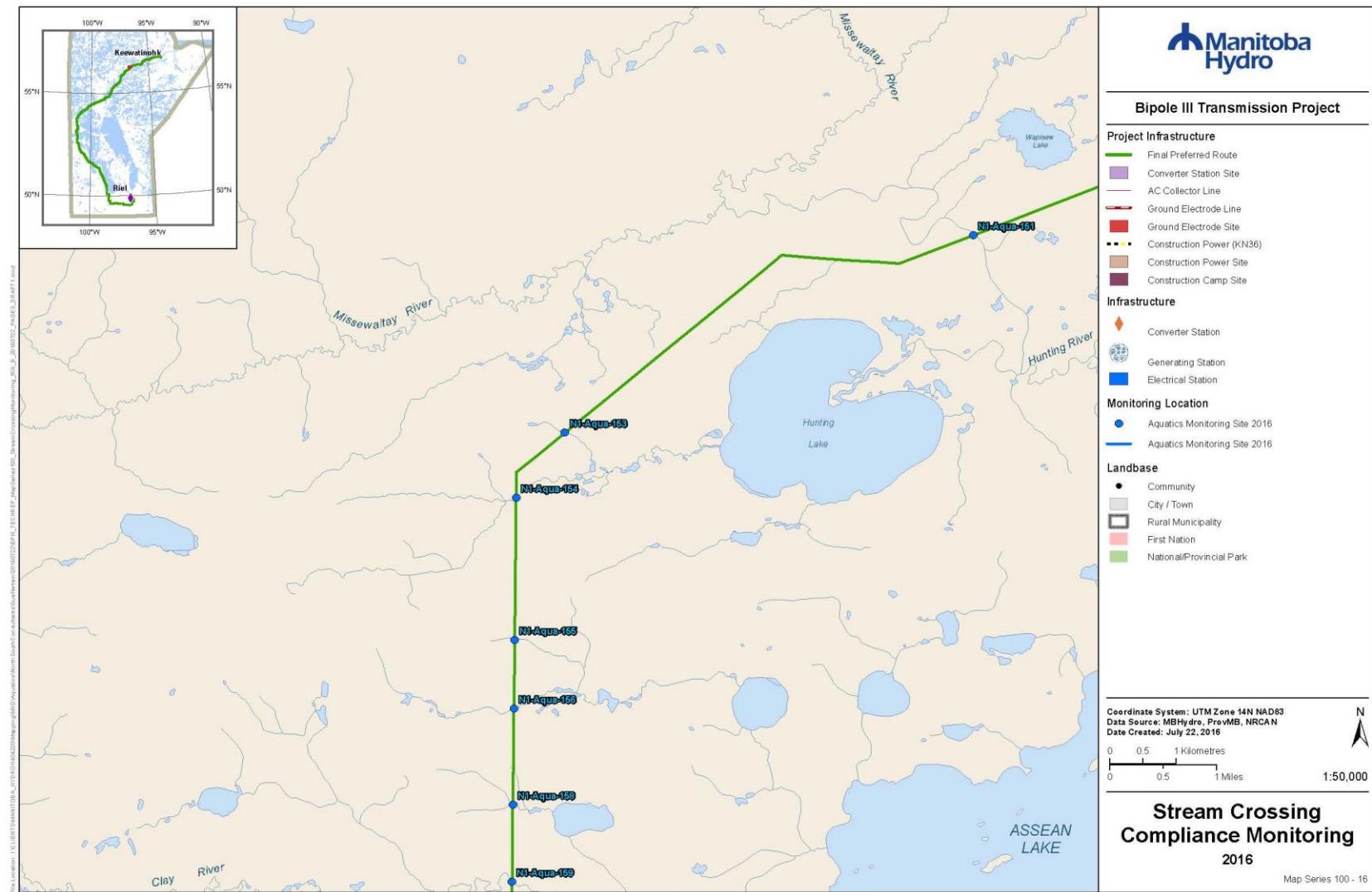
Map 100-13. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



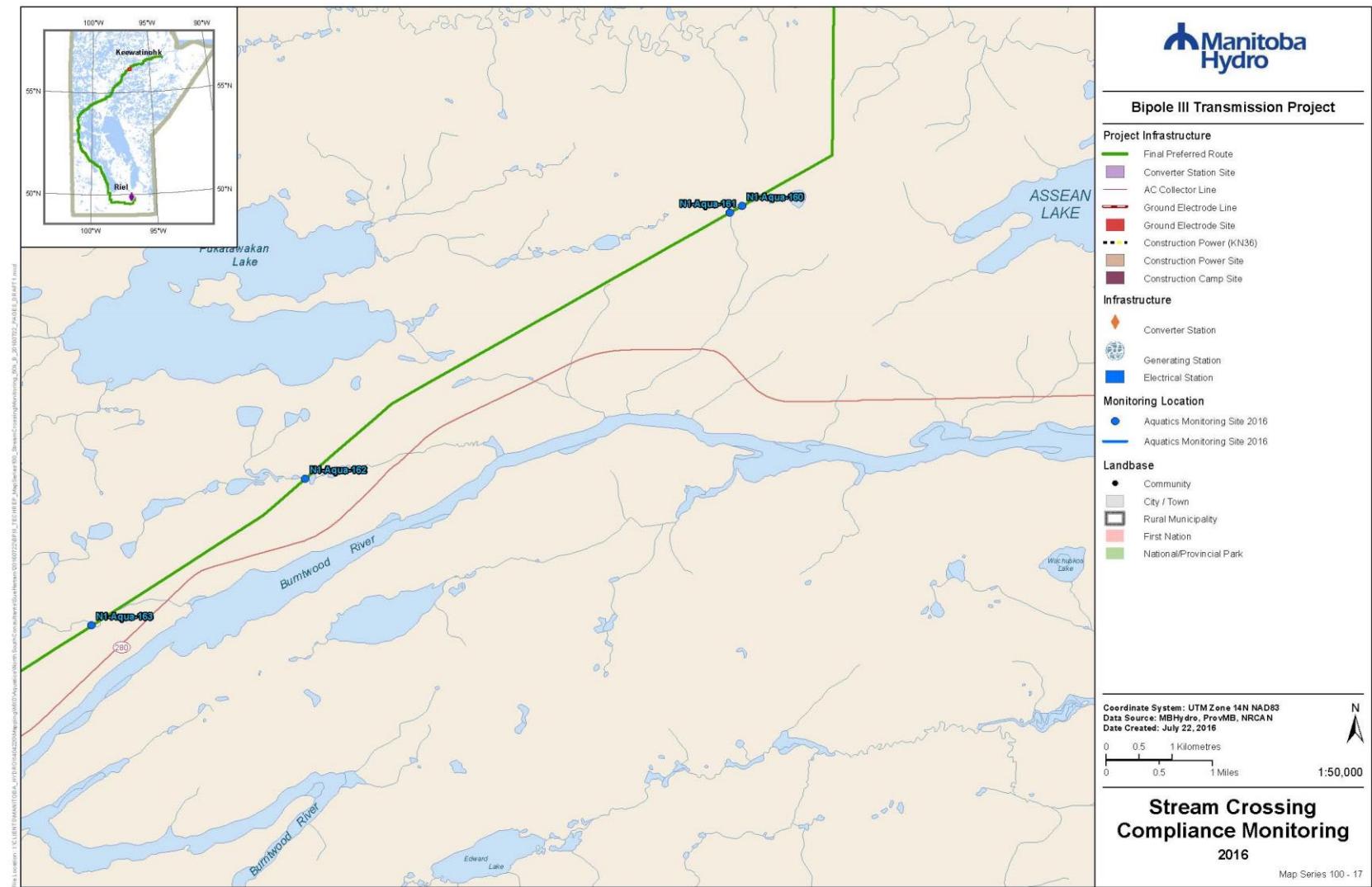
Map 100-14. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



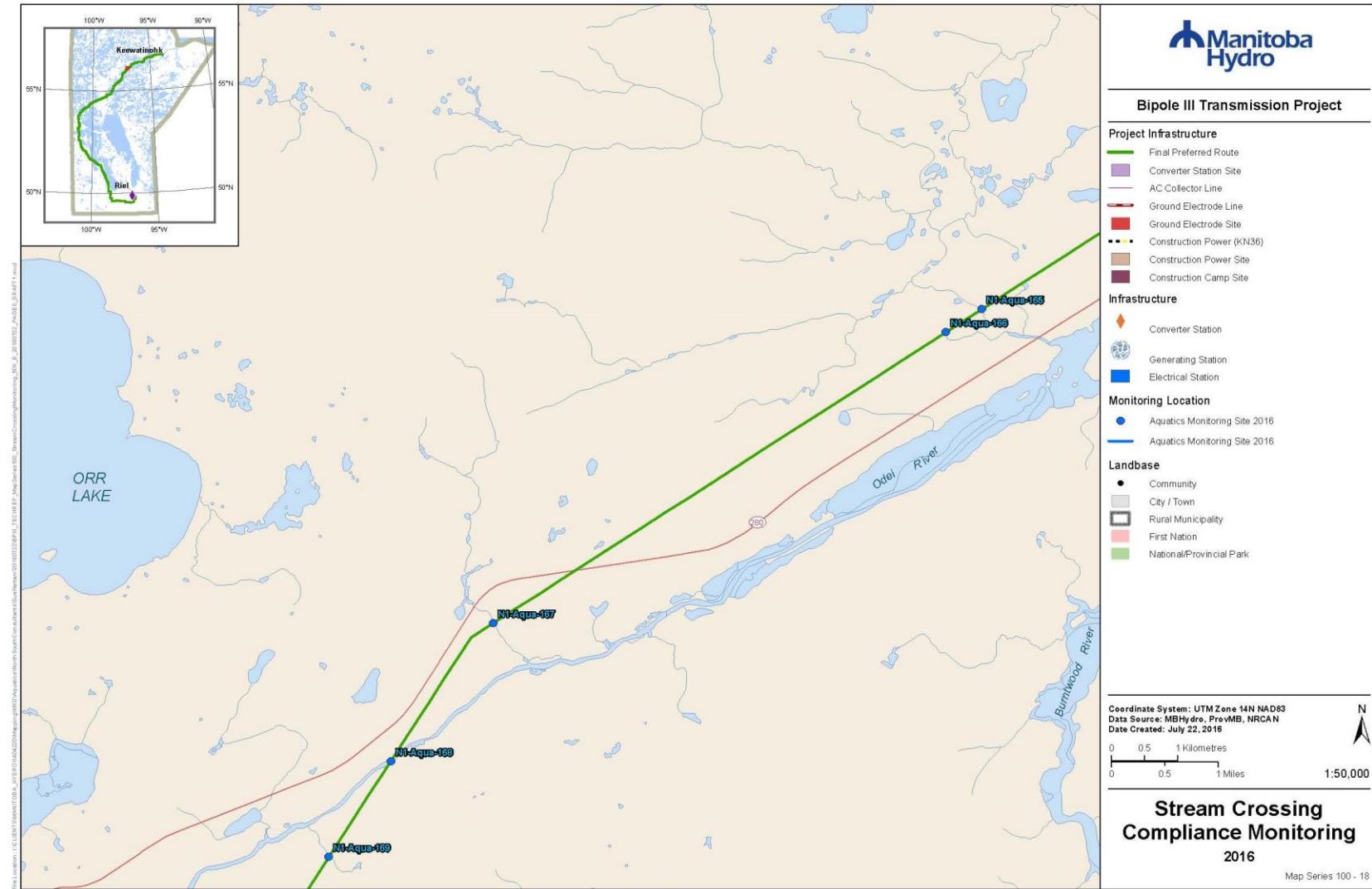
Map 100-15. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



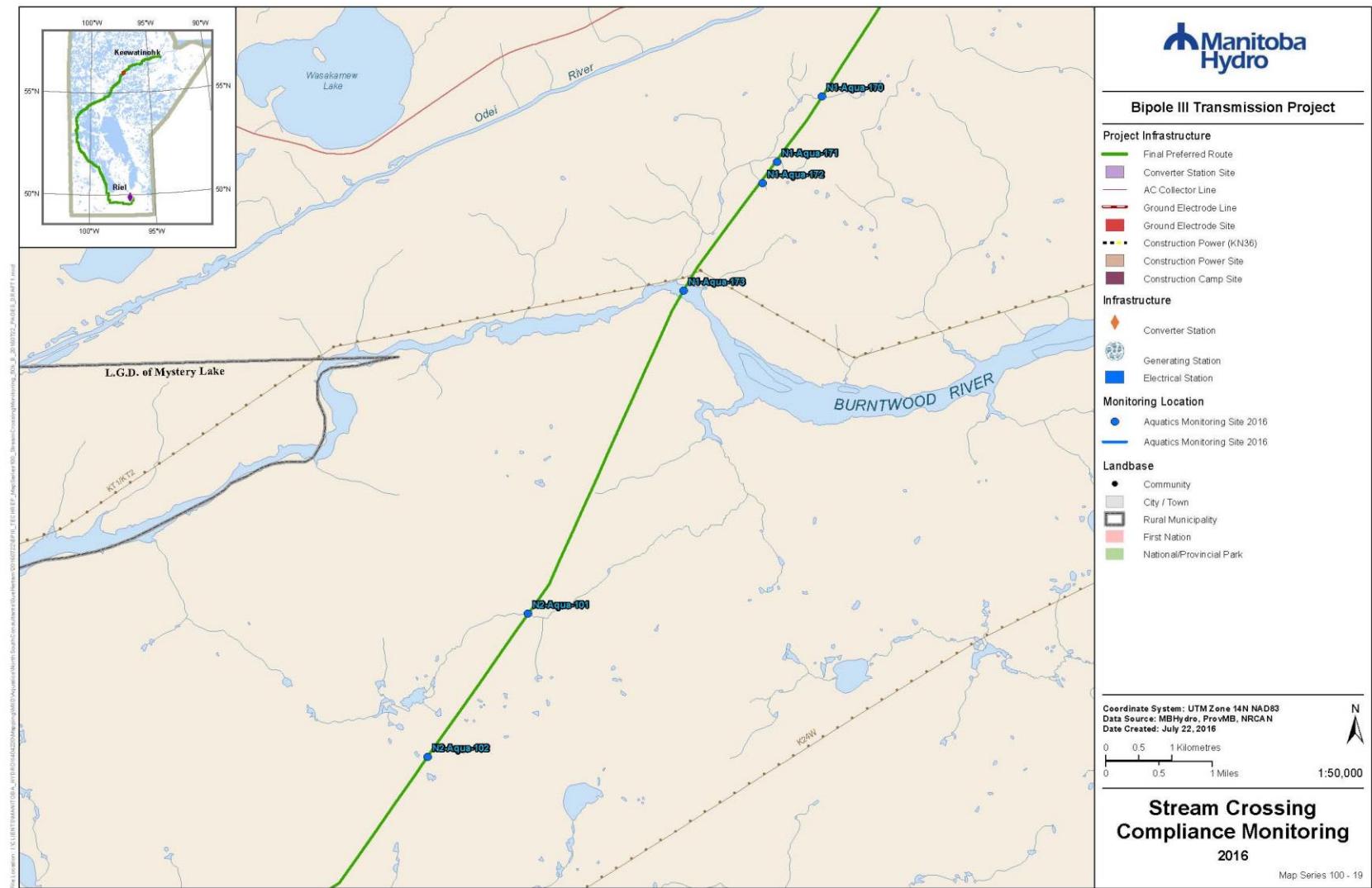
Map 100-16. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



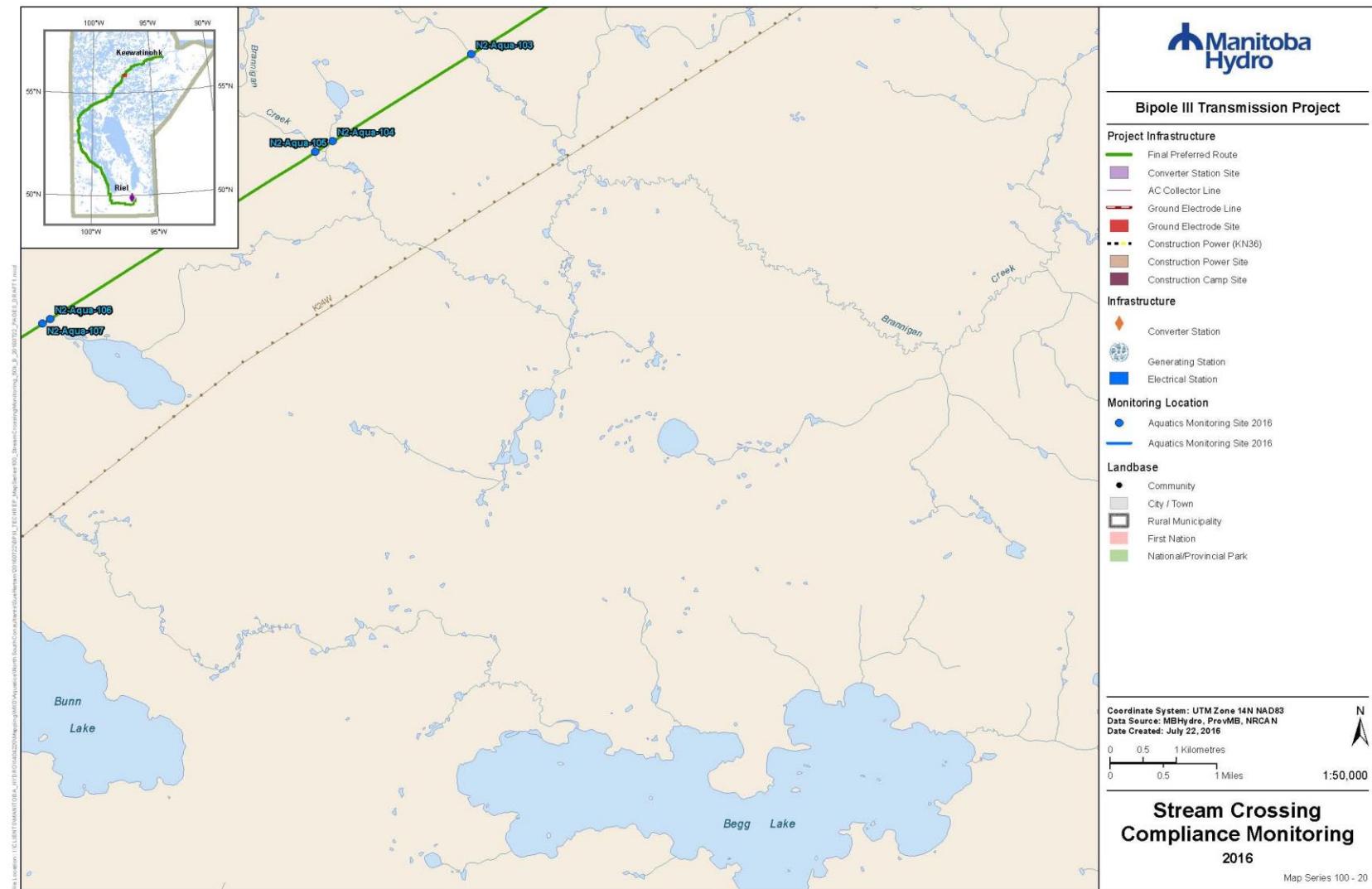
Map 100-17. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



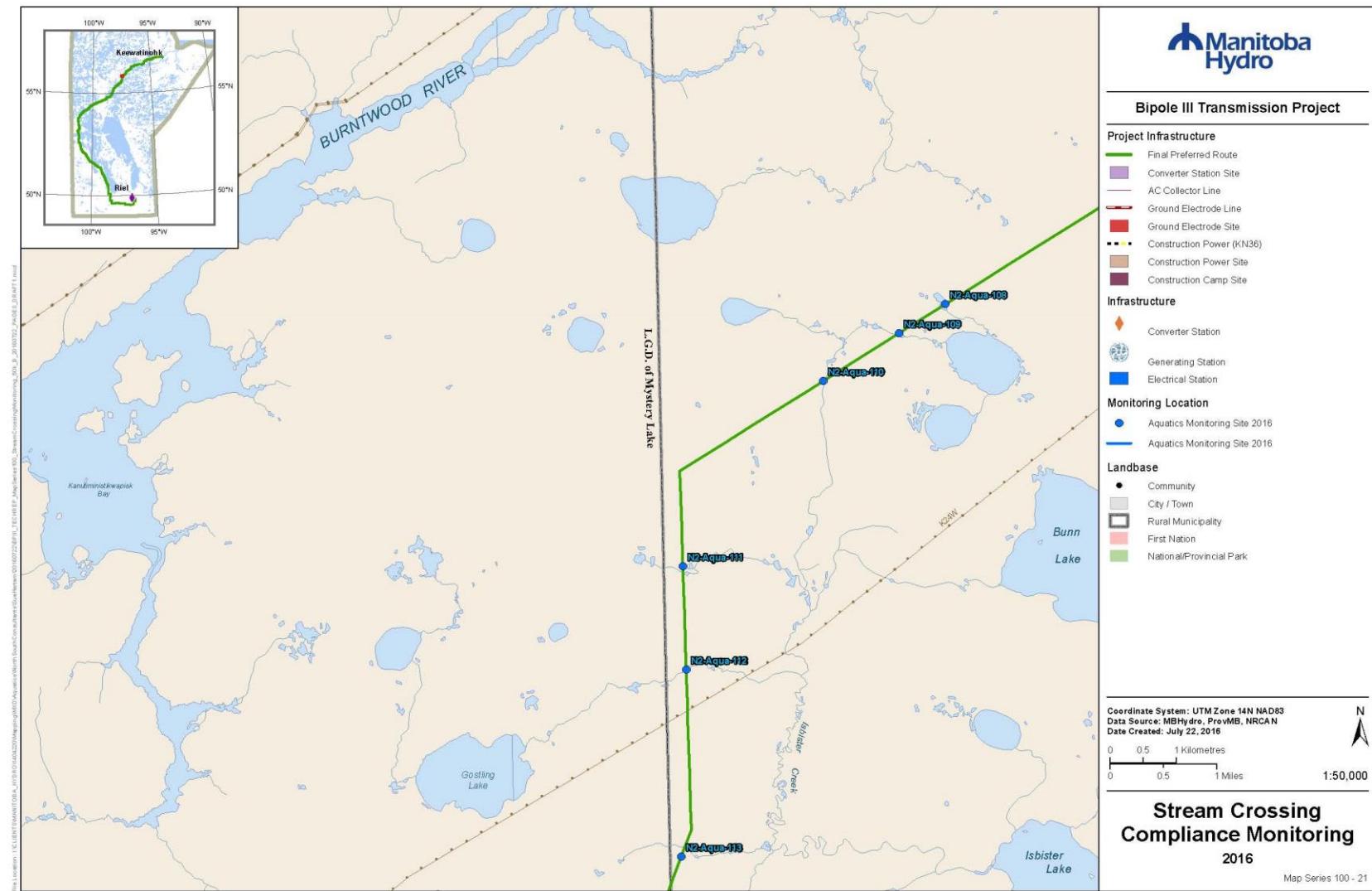
Map 100-18. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N1) stream crossings.



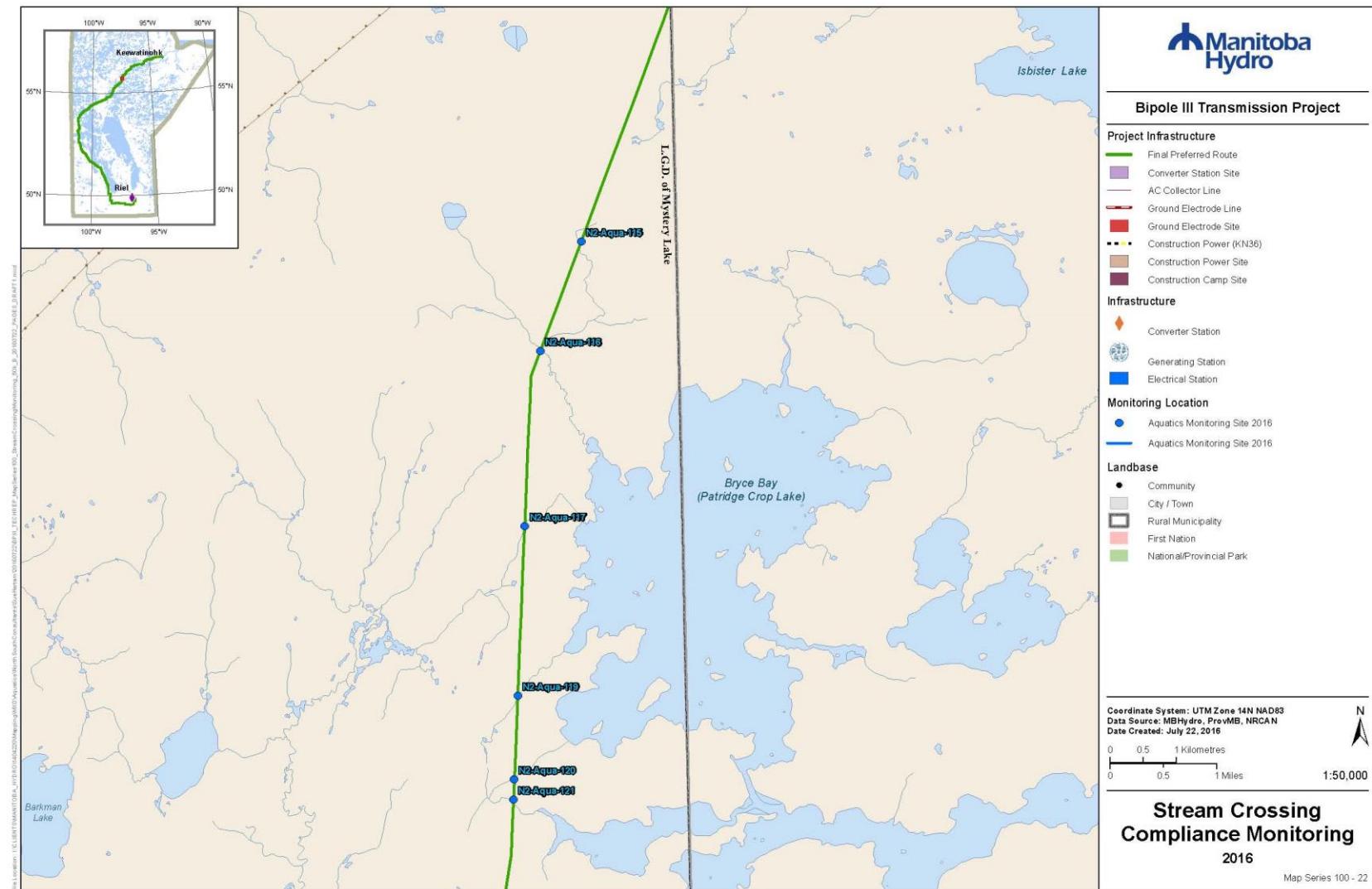
Map 100-19. Bipole III 500 kV Transmission Line (Final Preferred Route; segments N1 and N2) stream crossings.



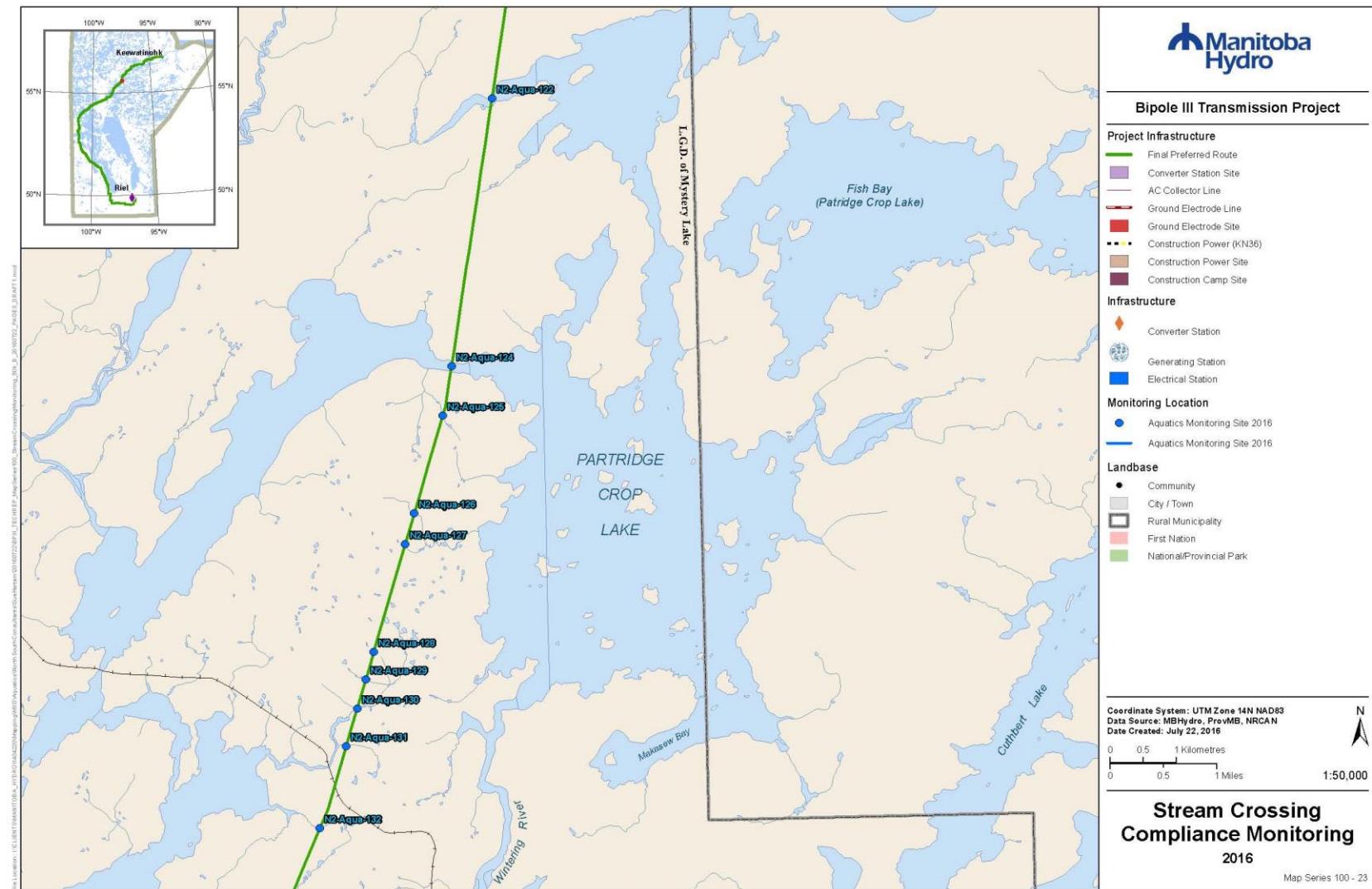
Map 100-20. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



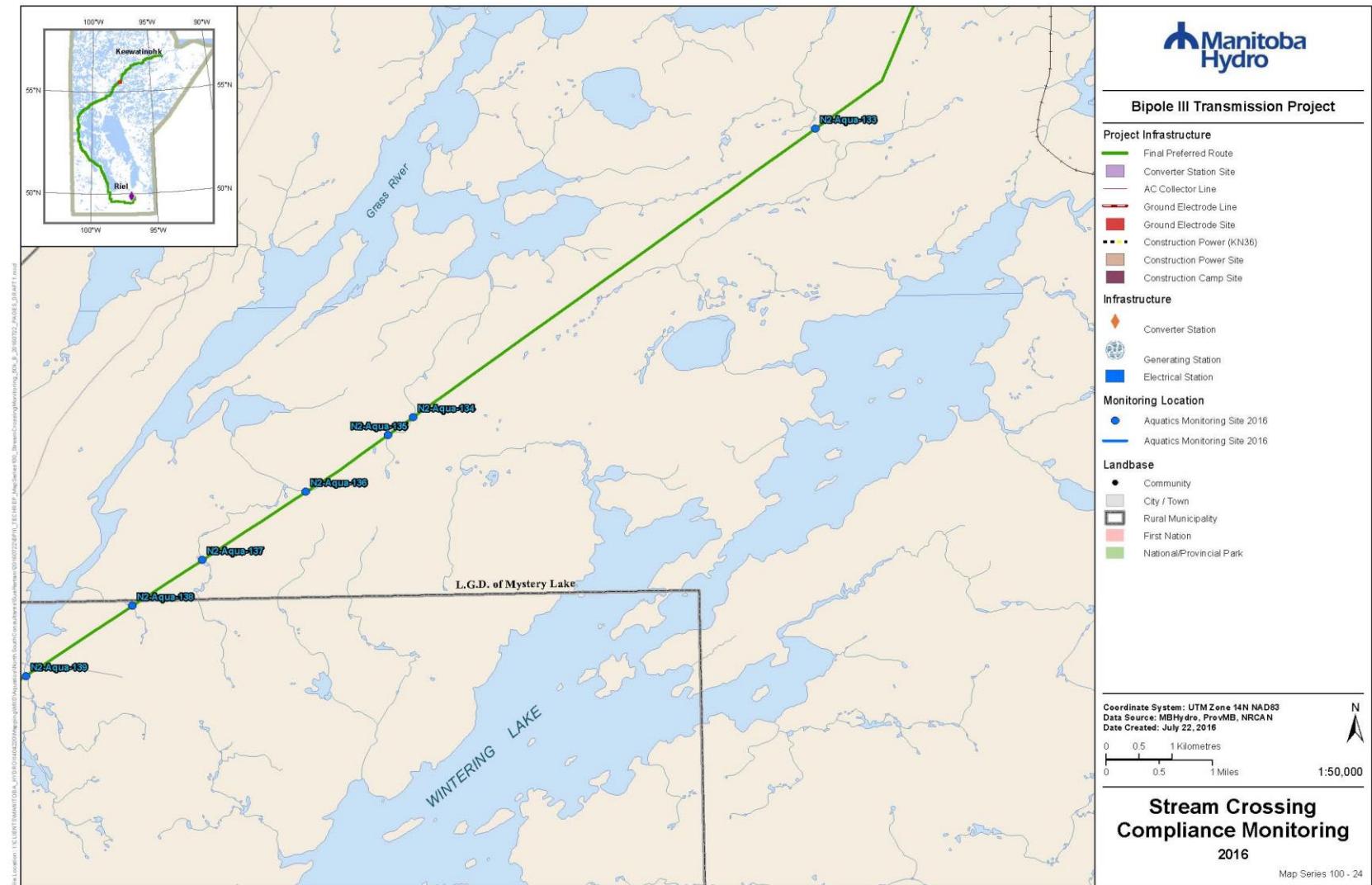
Map 100-21. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



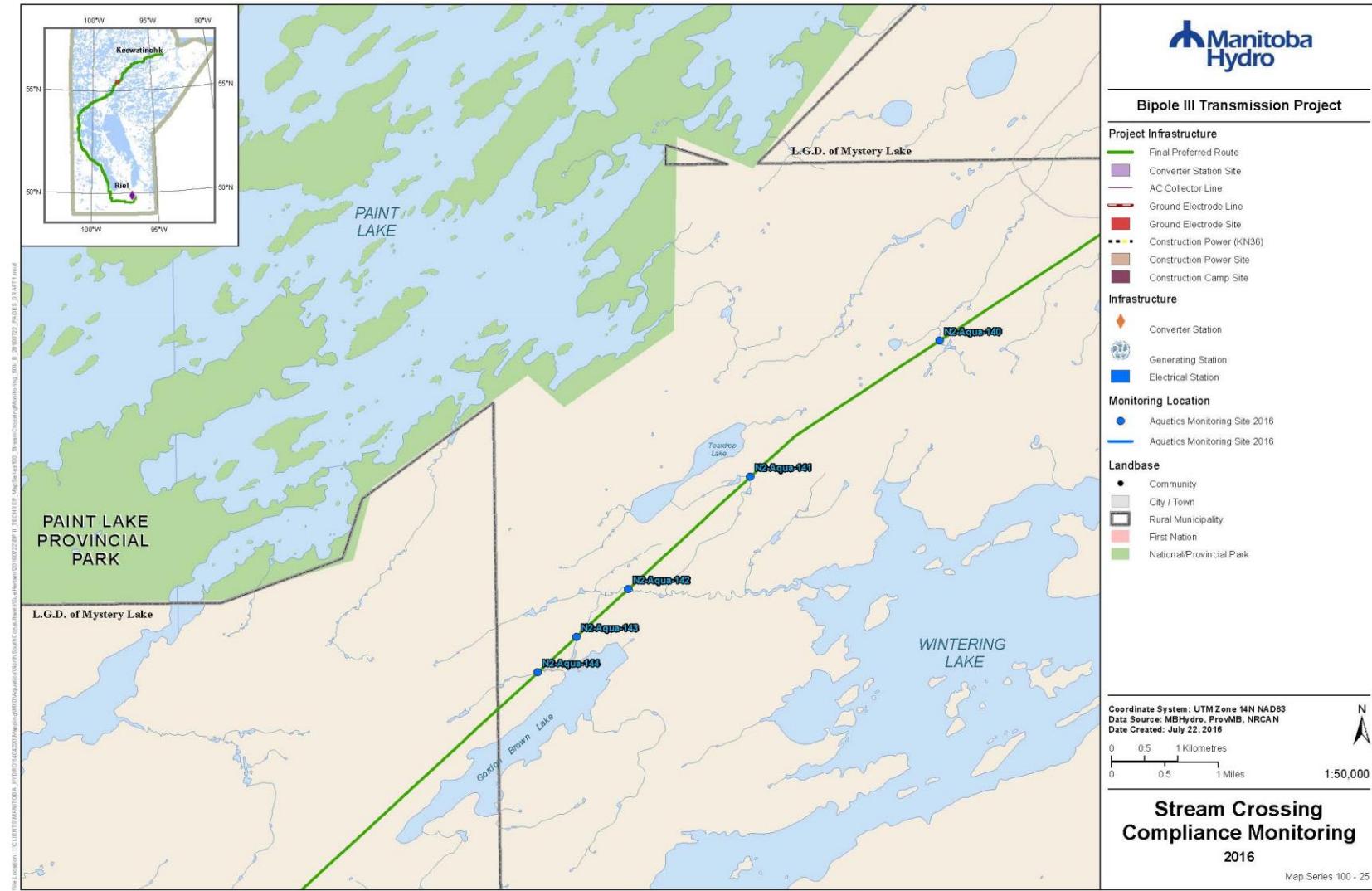
Map 100-22. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.

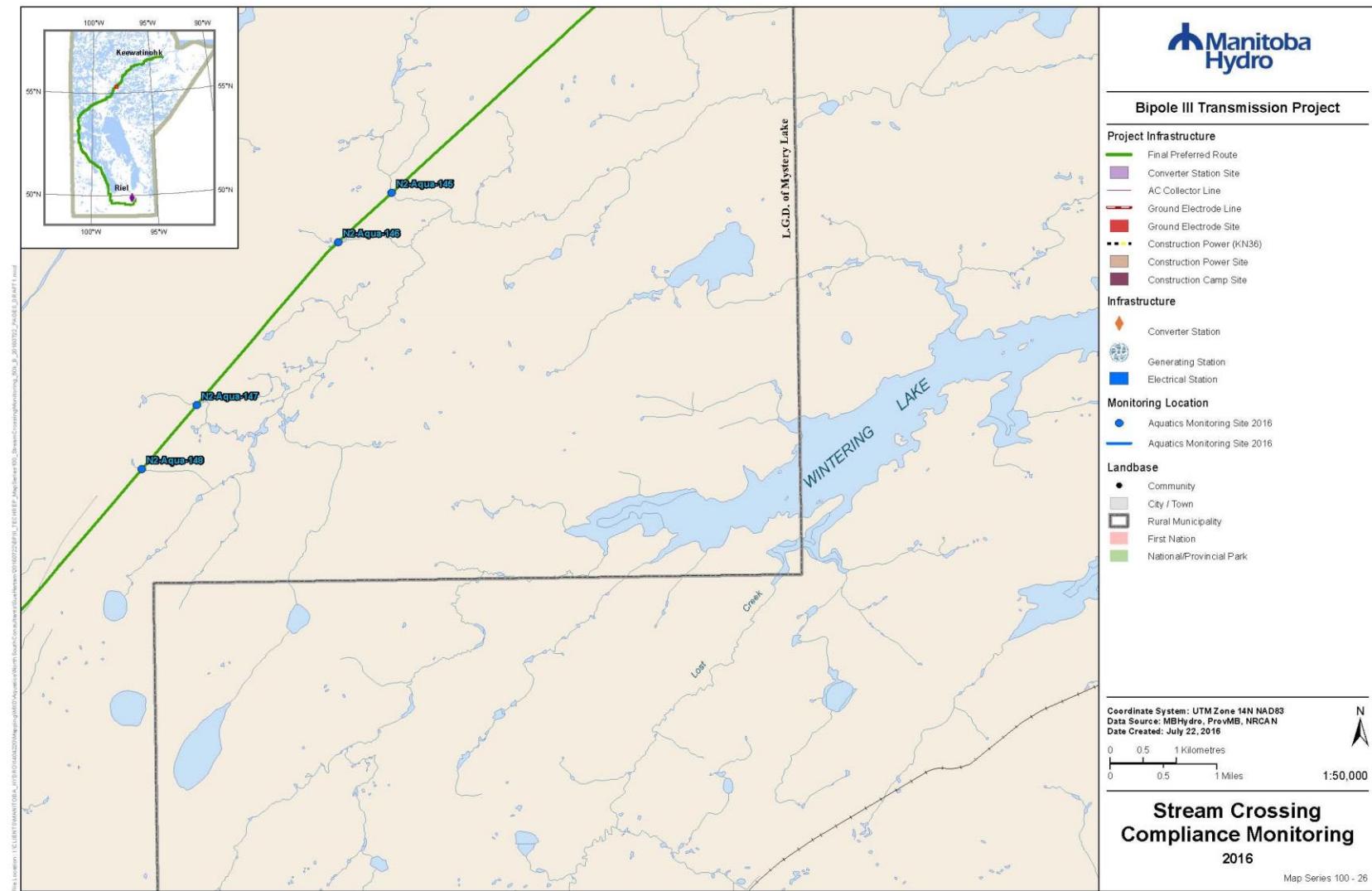


Map 100-23. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.

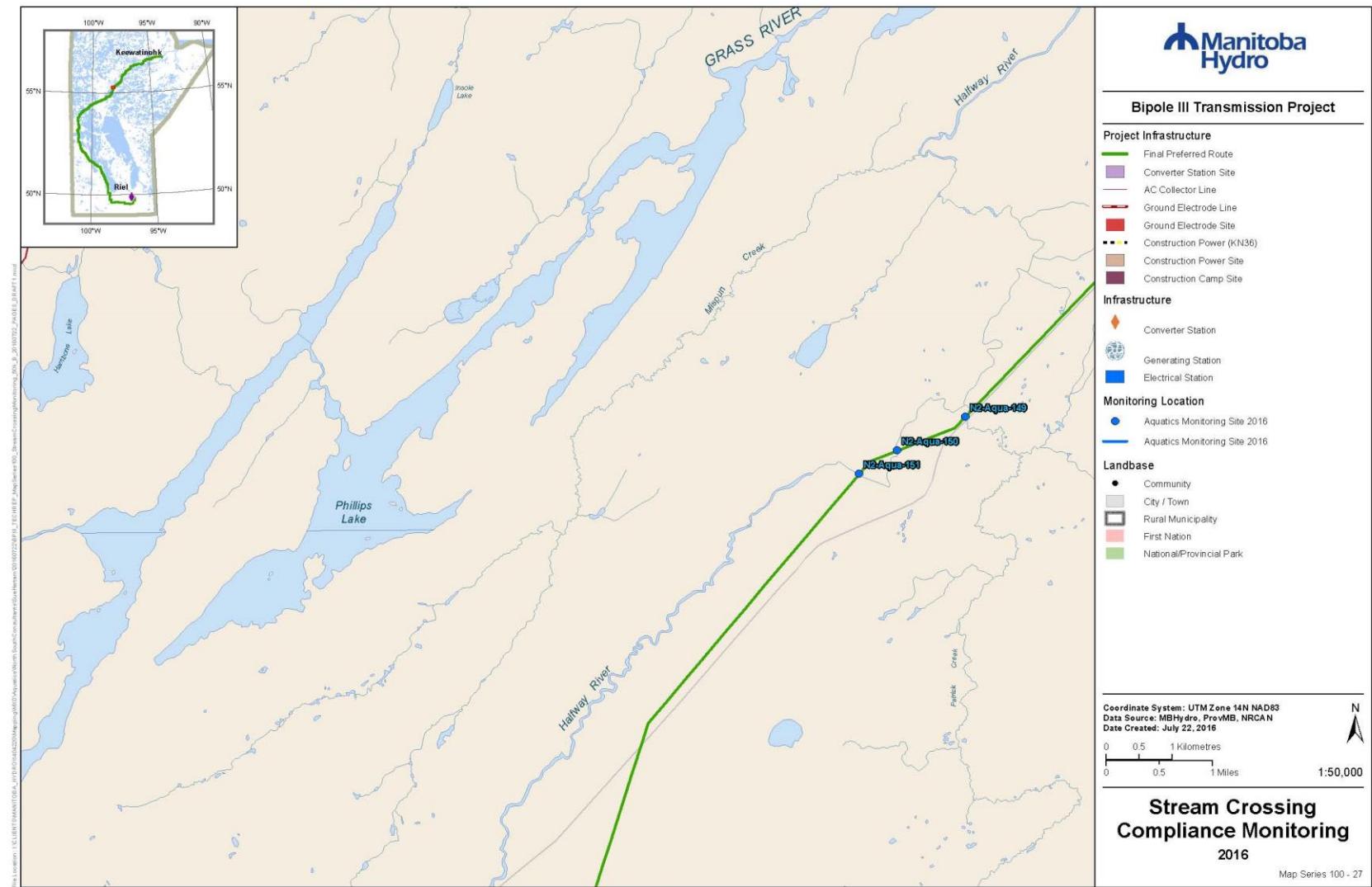


Map 100-24. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.

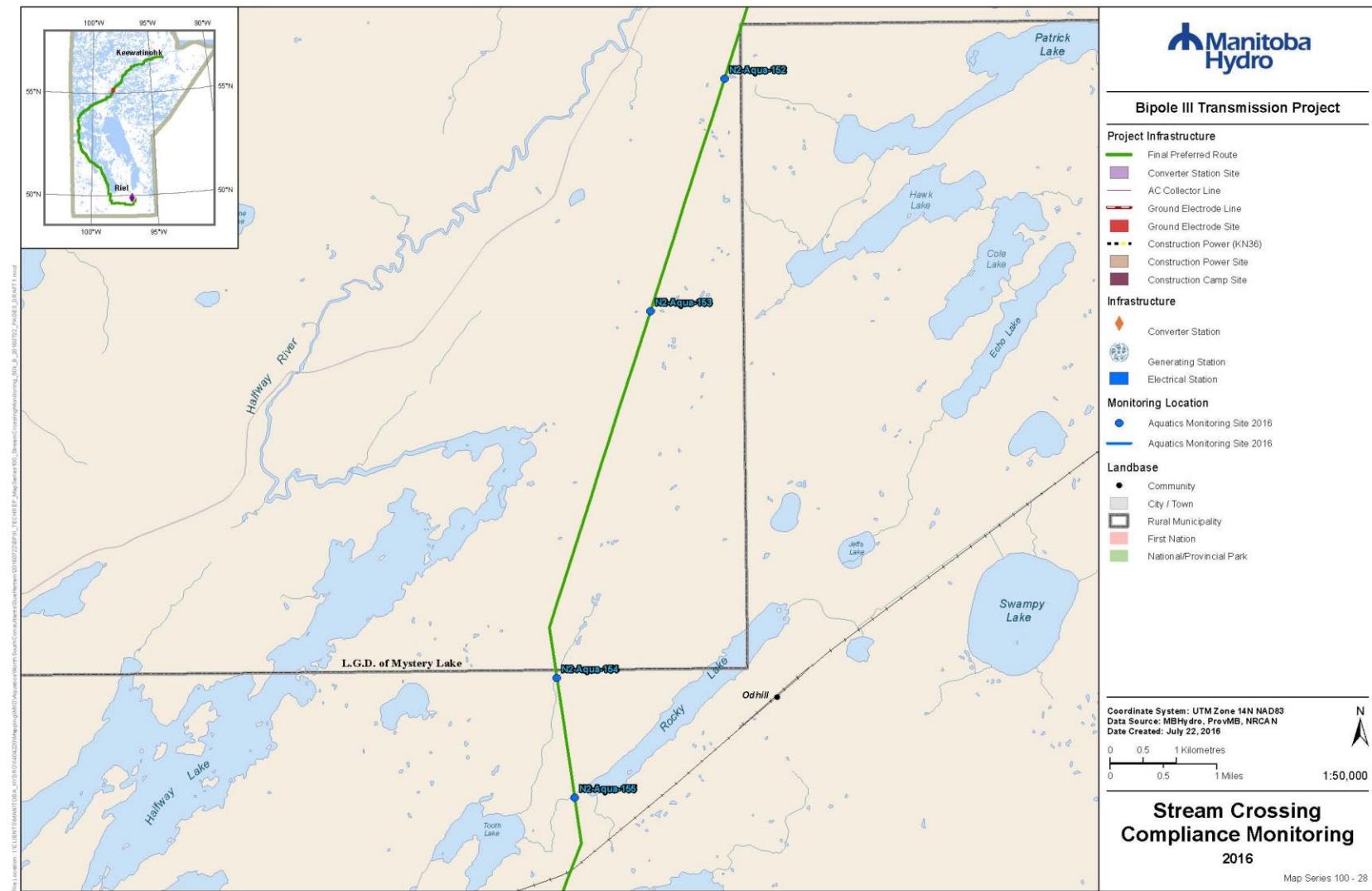




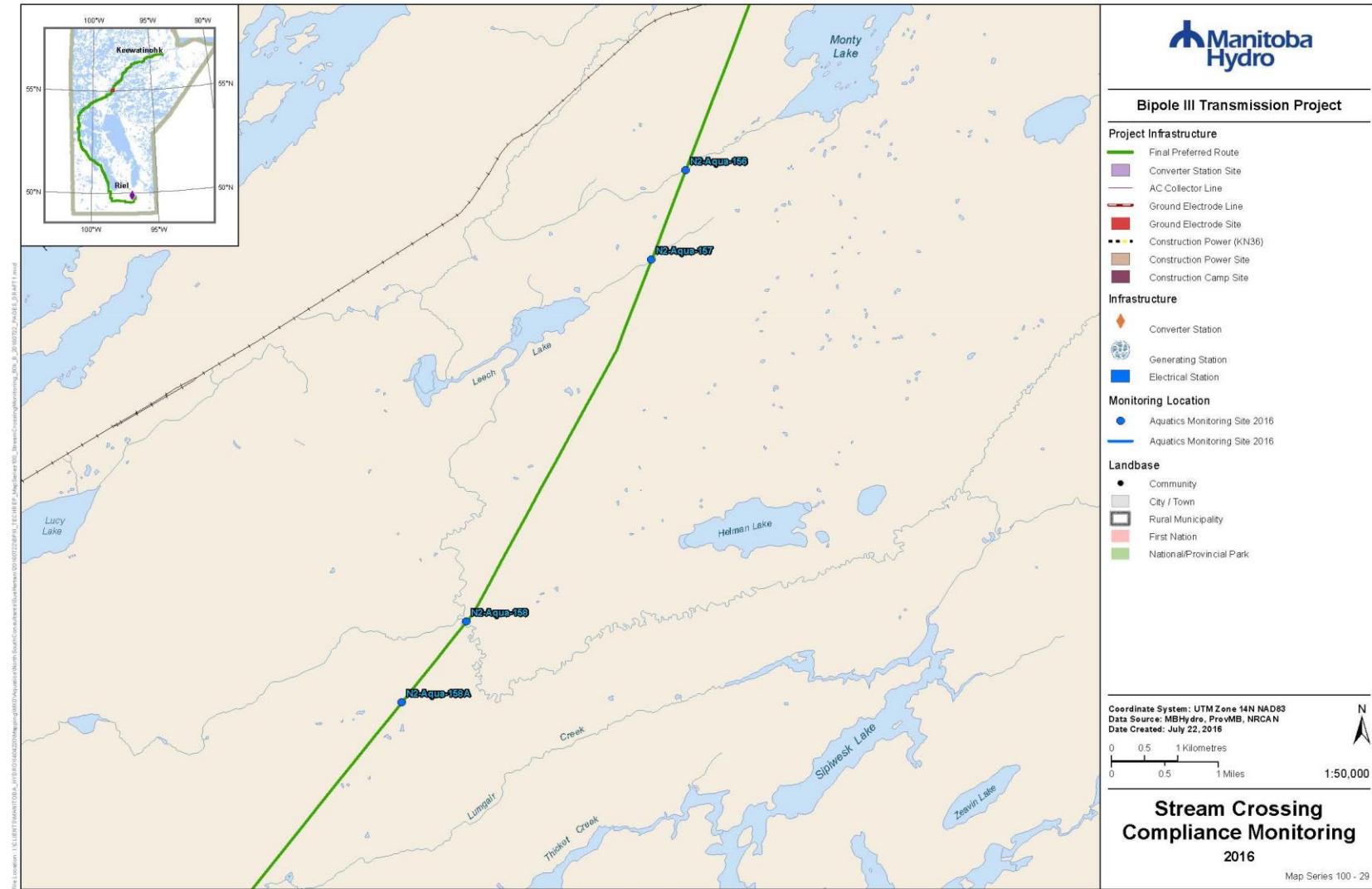
Map 100-26. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



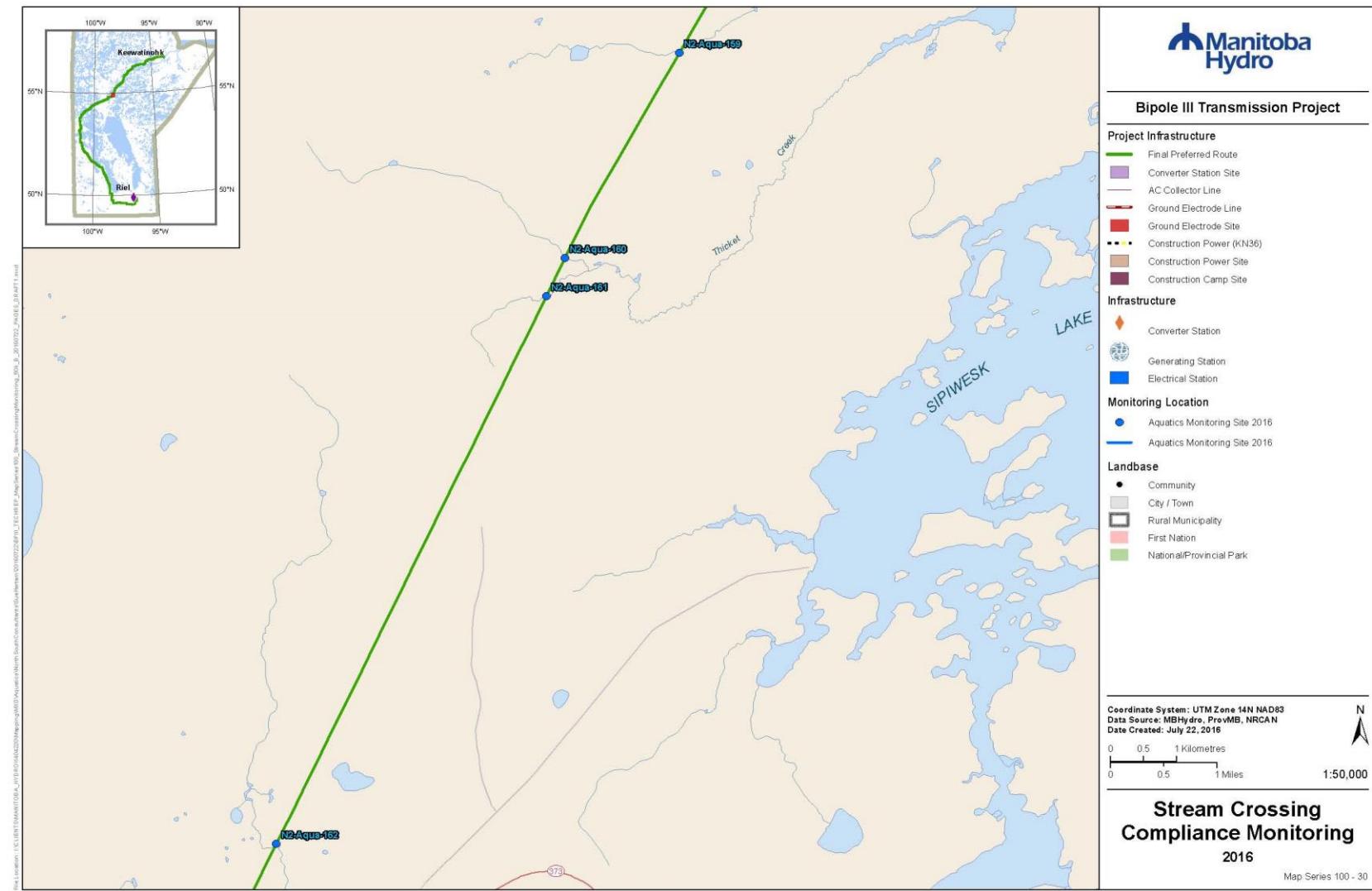
Map 100-27. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



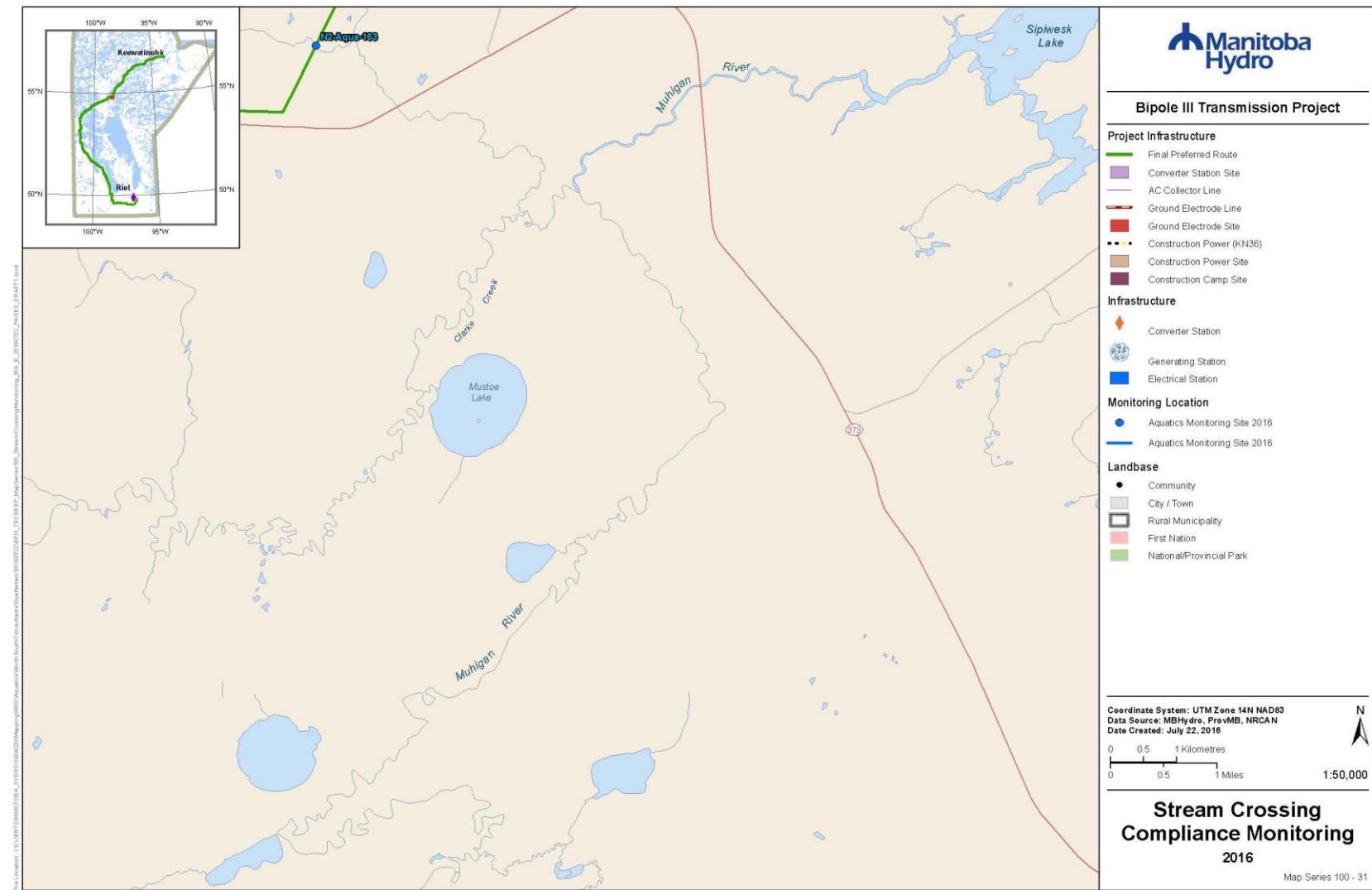
Map 100-28. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



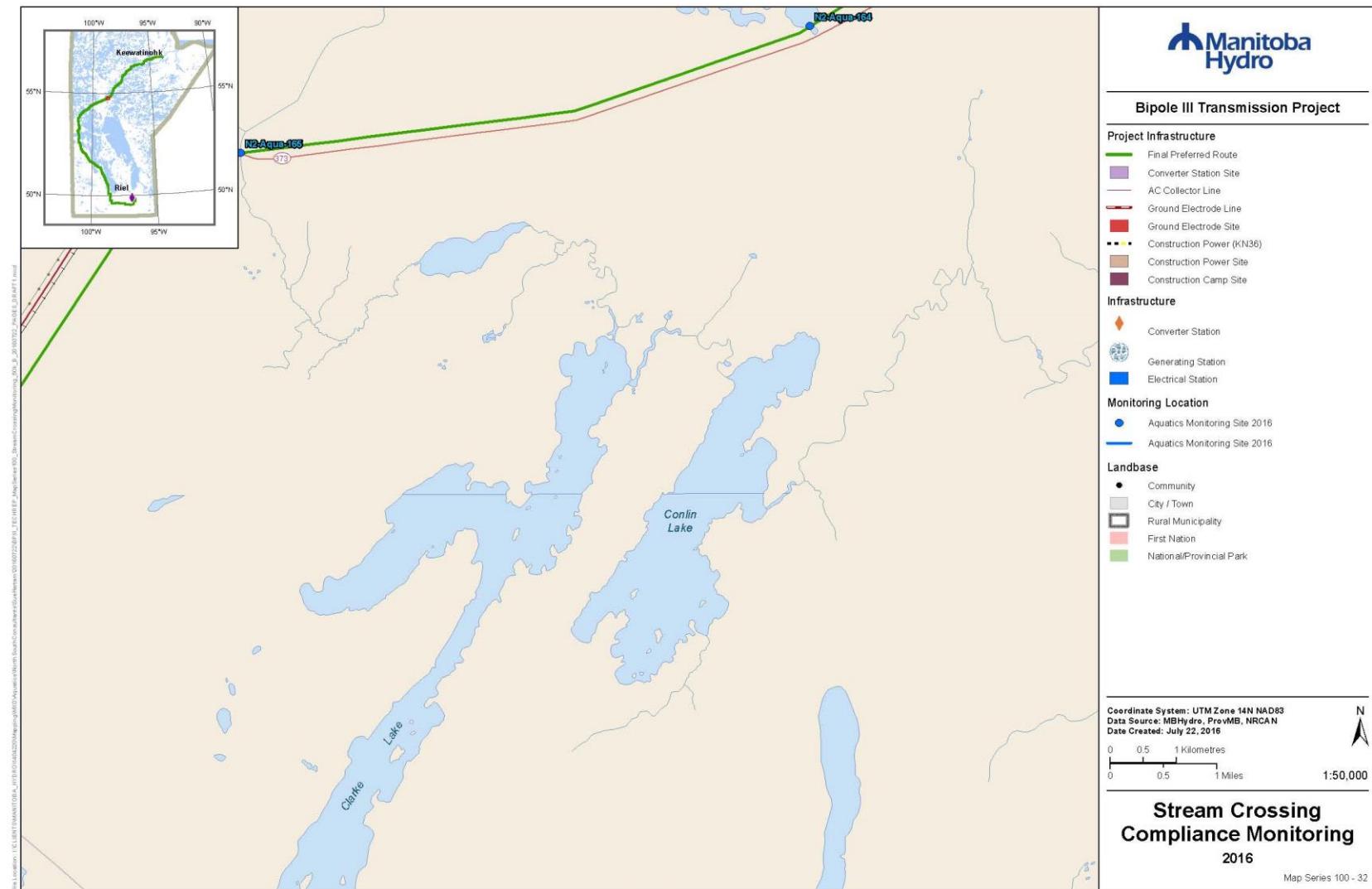
Map 100-29. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



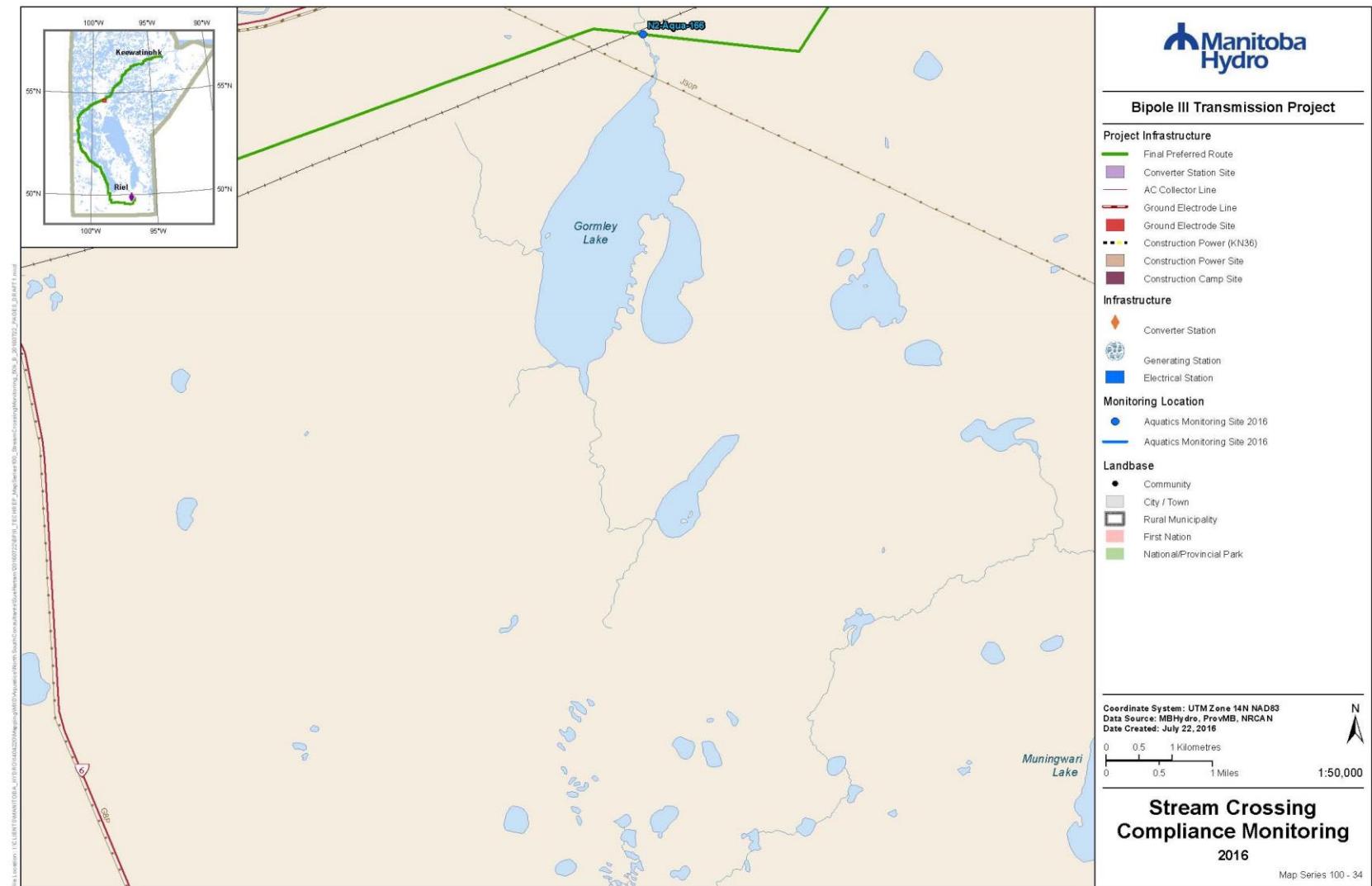
Map 100-30. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



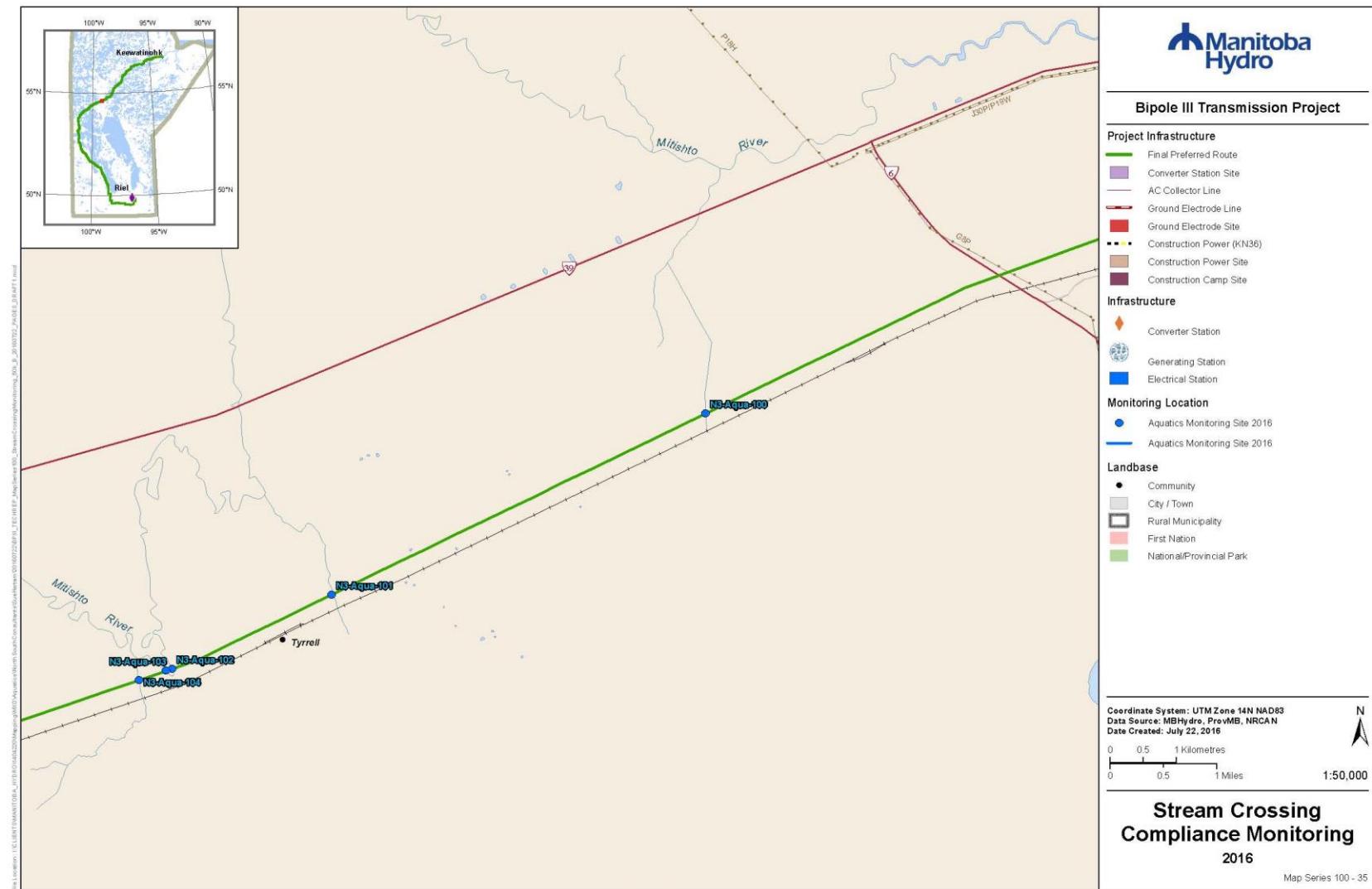
Map 100-31. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



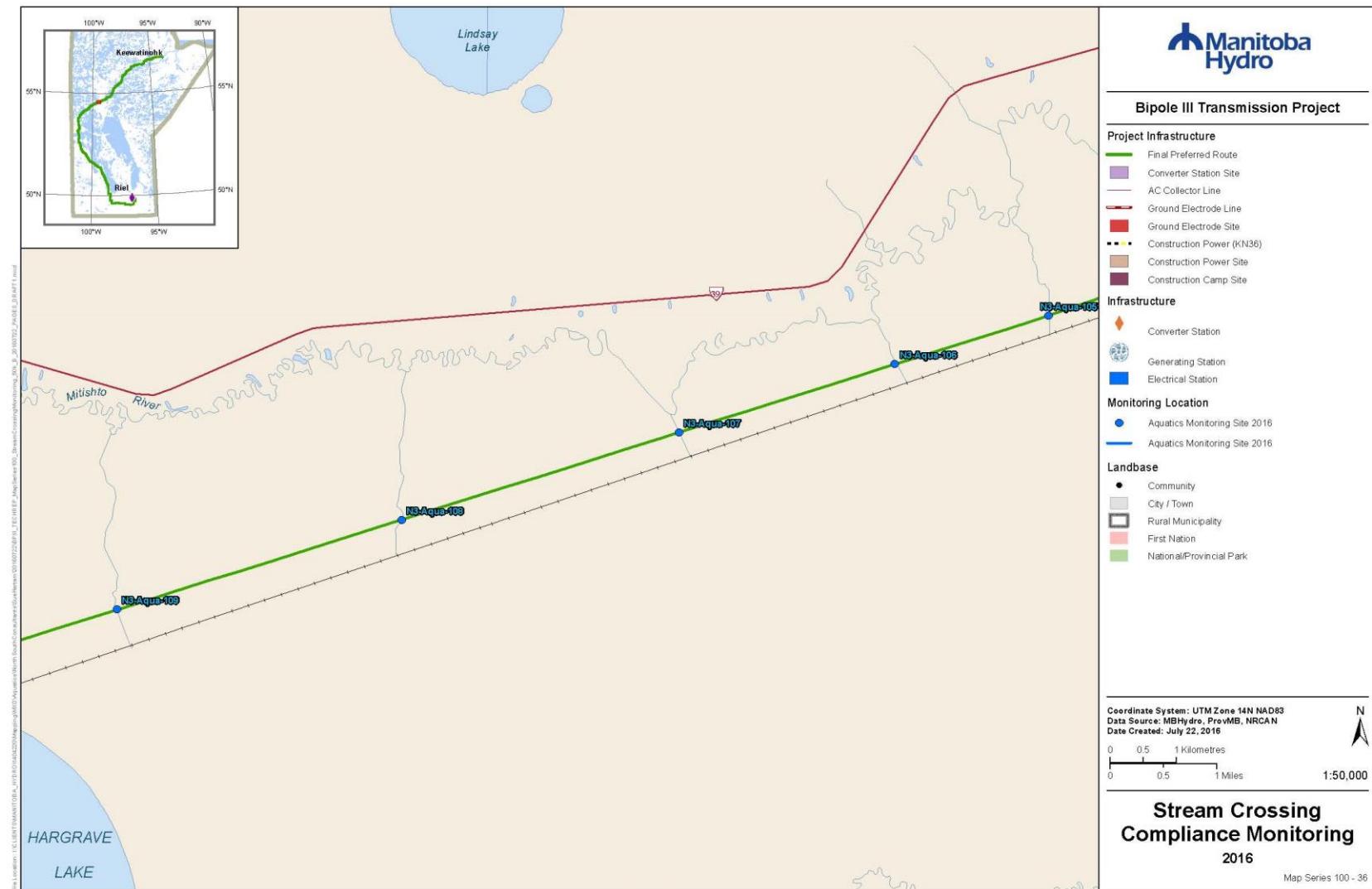
Map 100-32. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



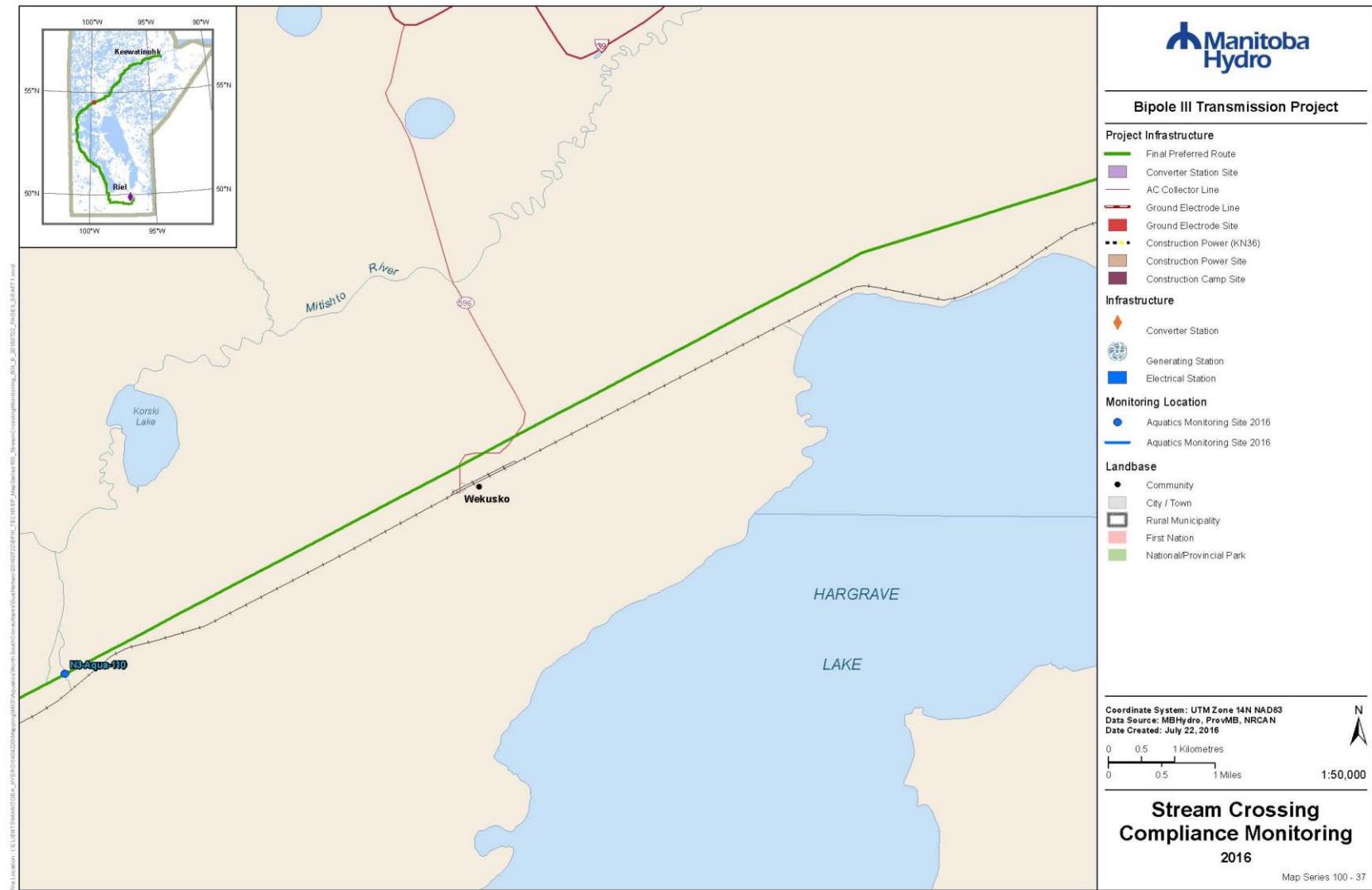
Map 100-34. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N2) stream crossings.



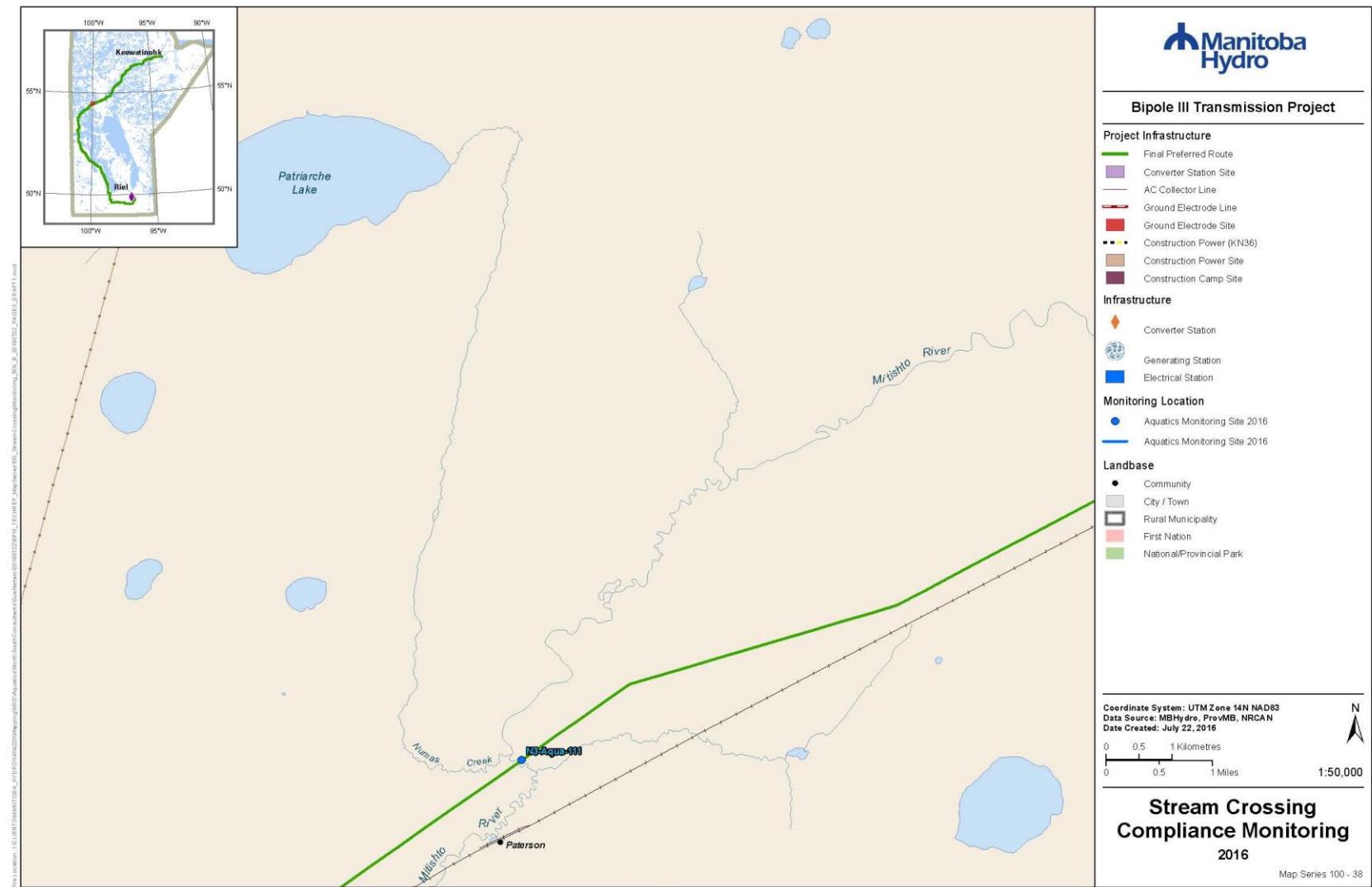
Map 100-35. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



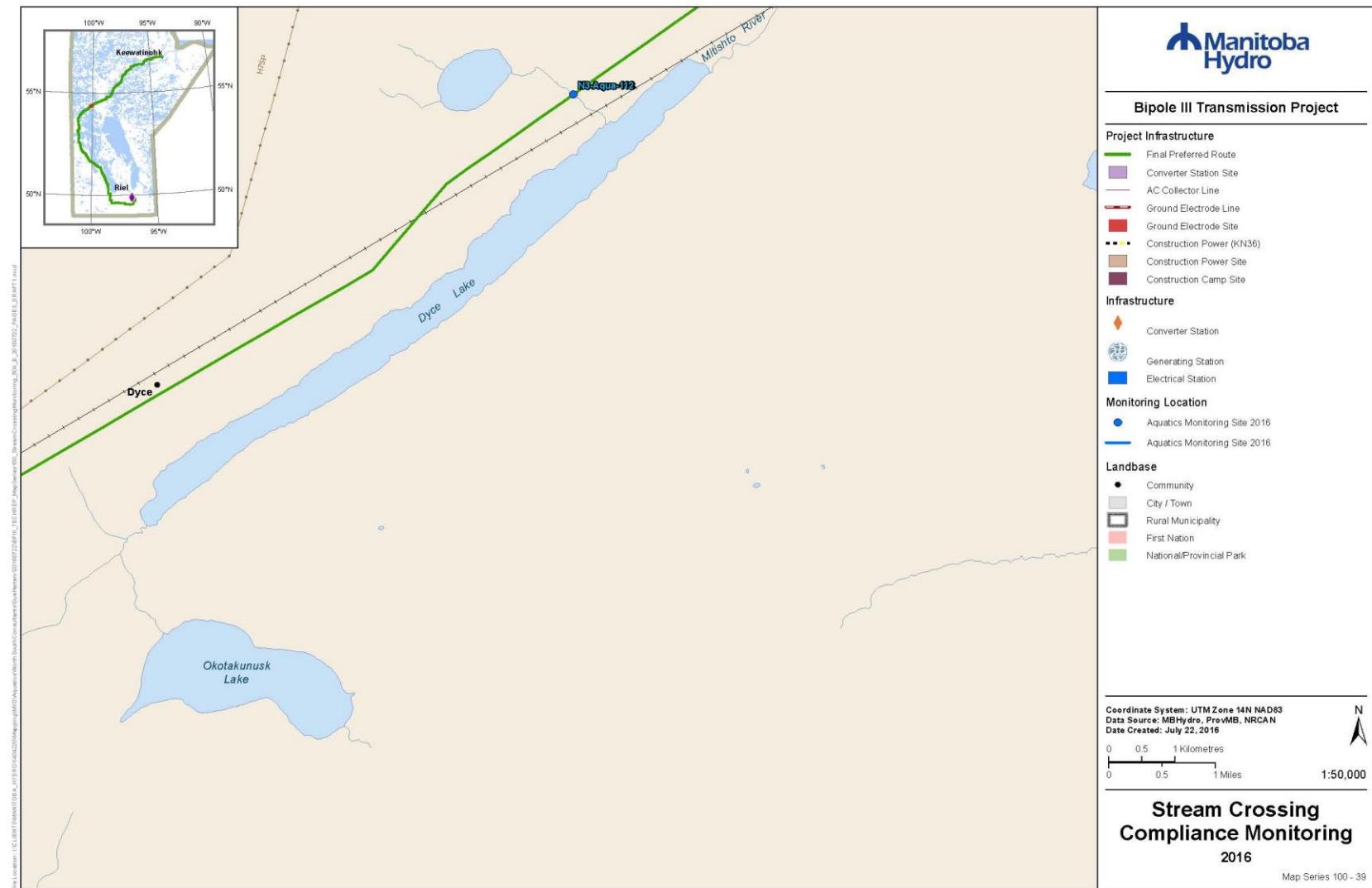
Map 100-36. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



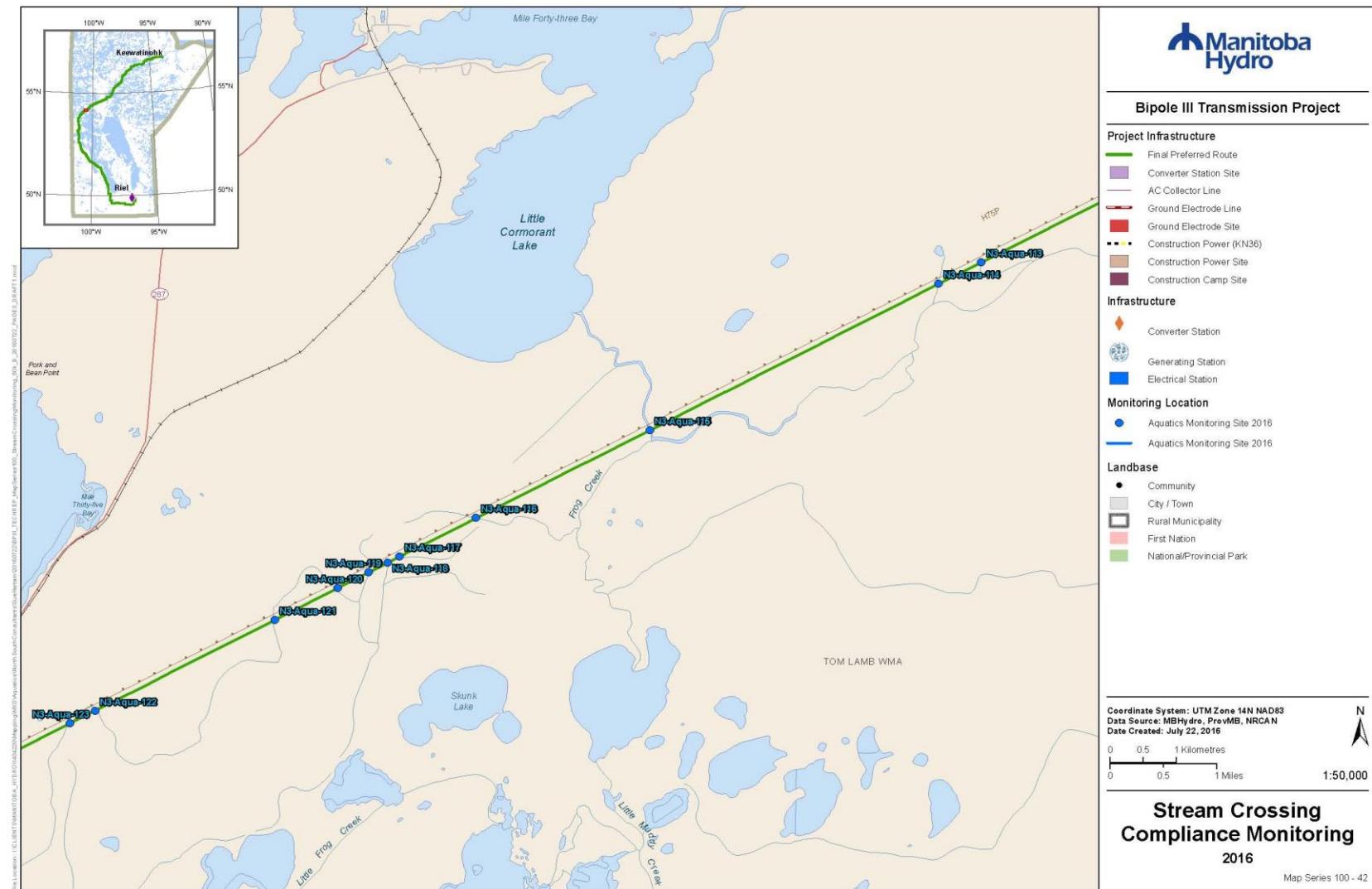
Map 100-37. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



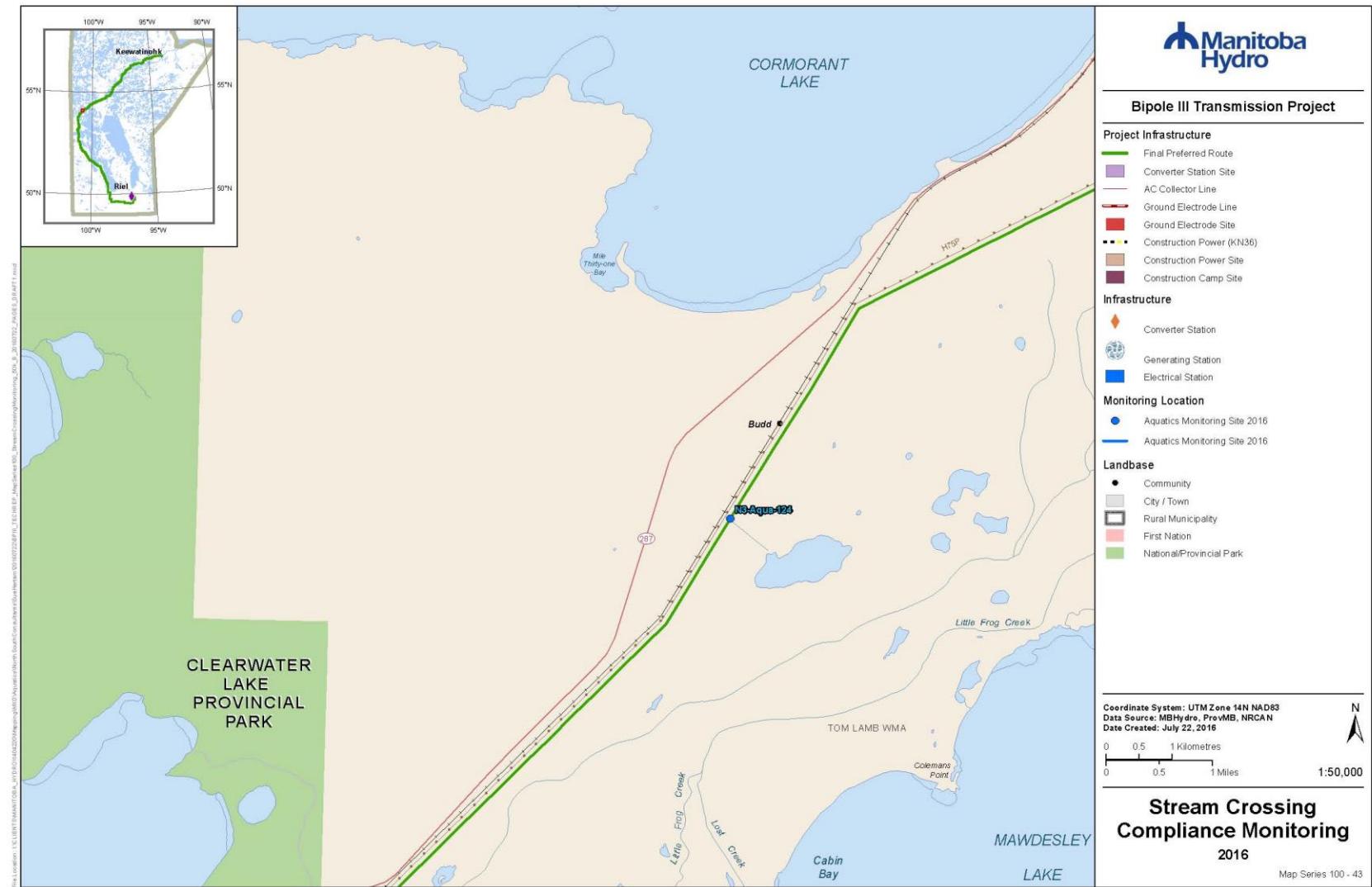
Map 100-38. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



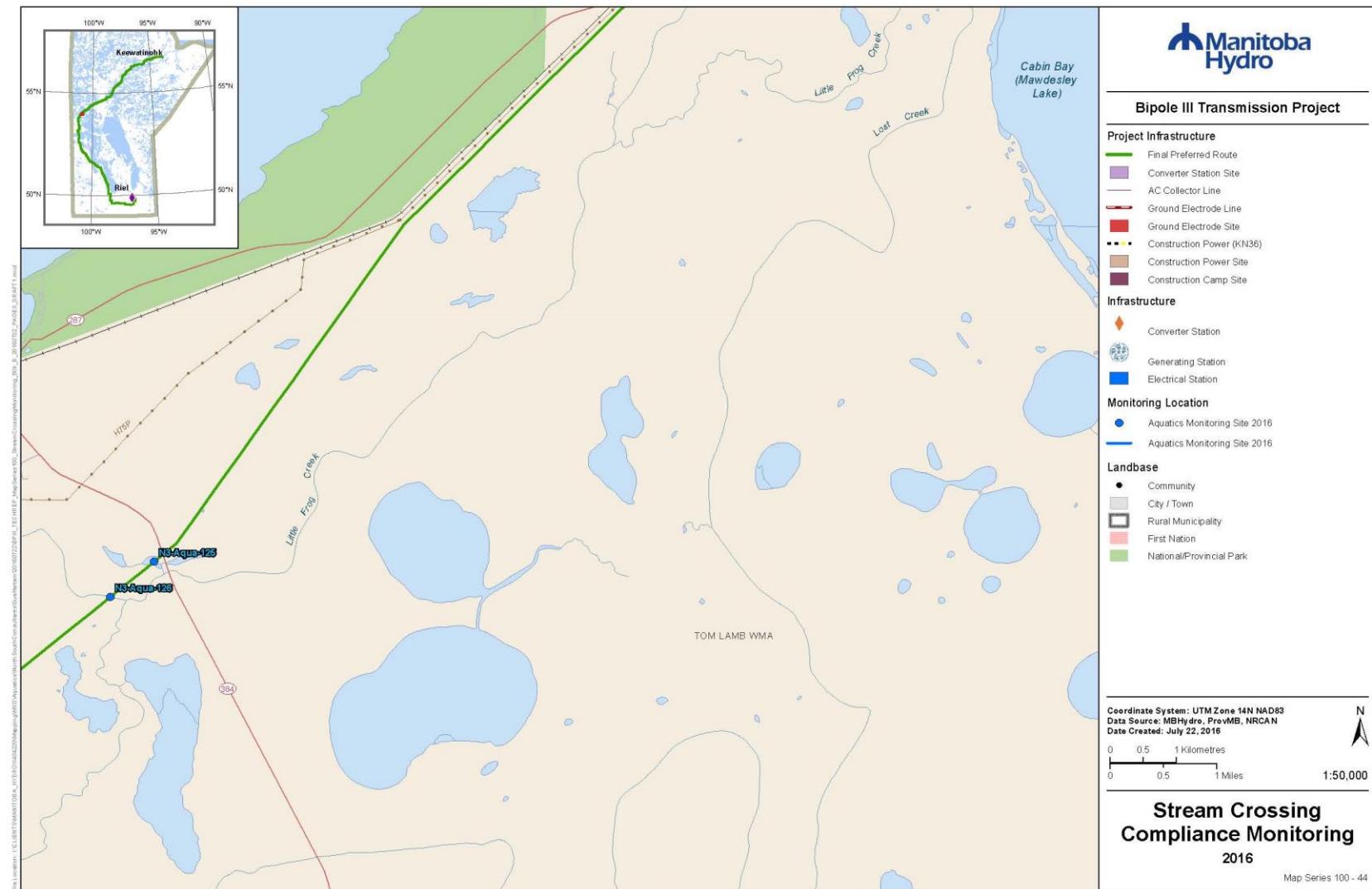
Map 100-39. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



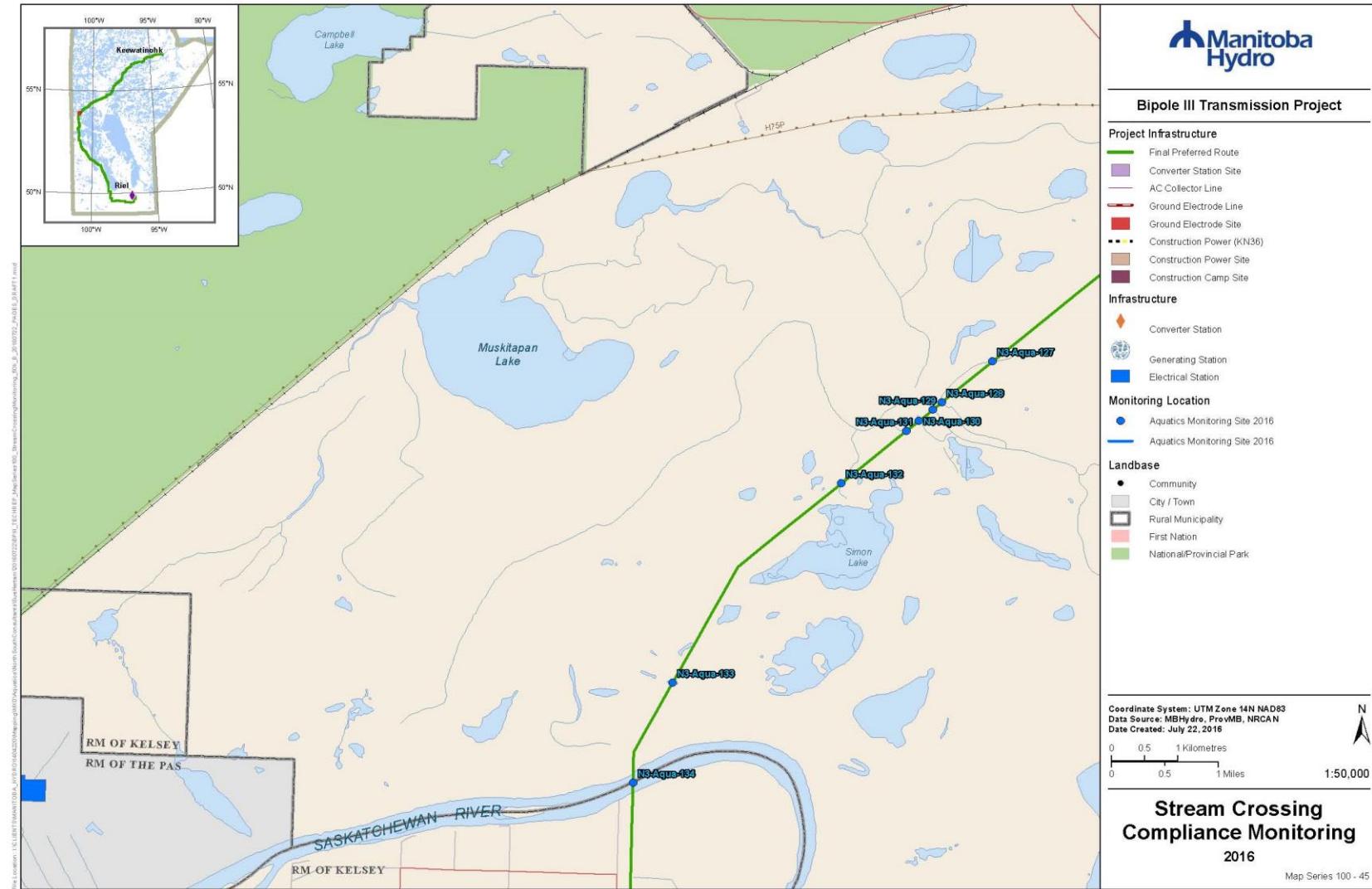
Map 100-42. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



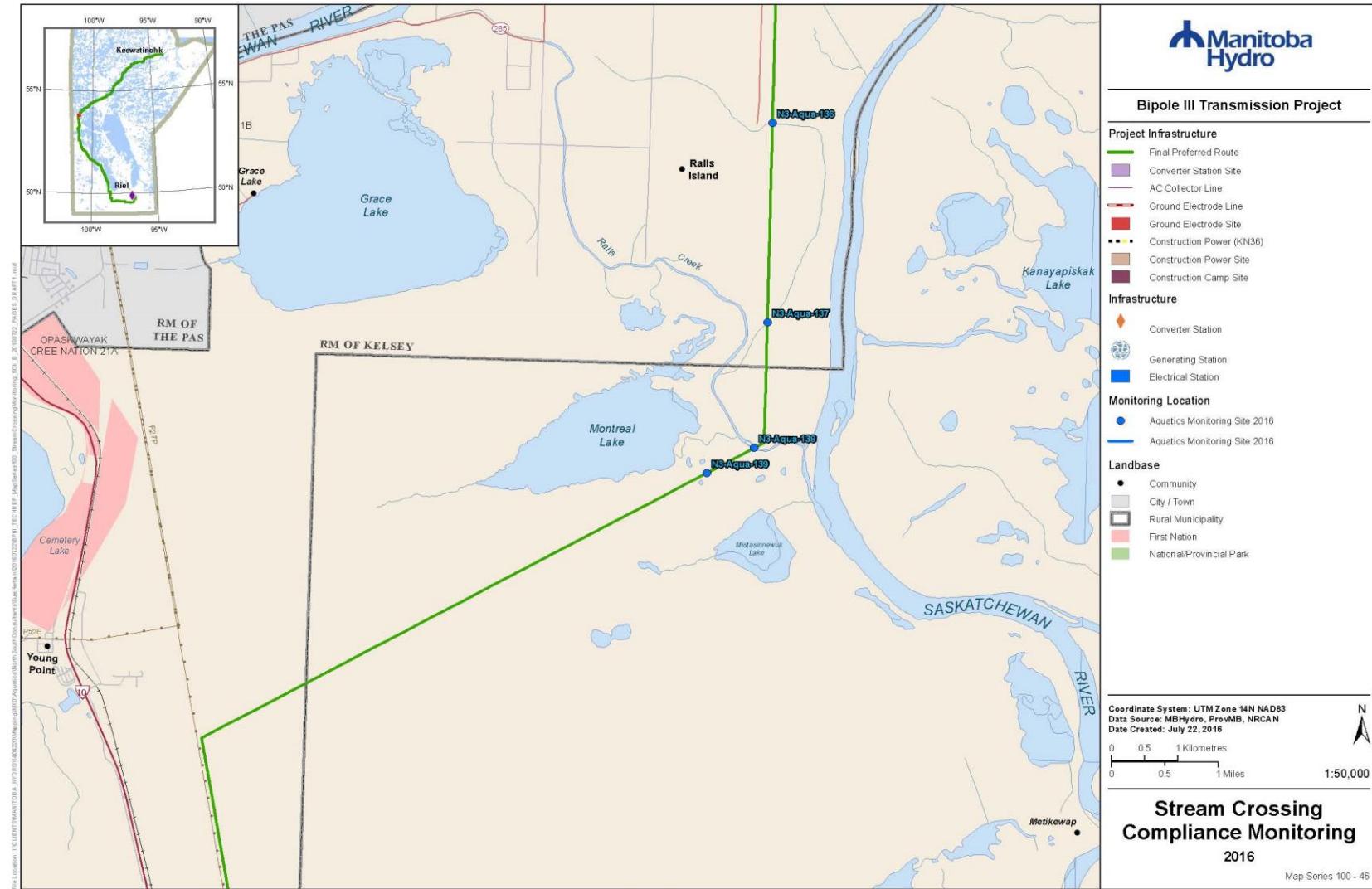
Map 100-43. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



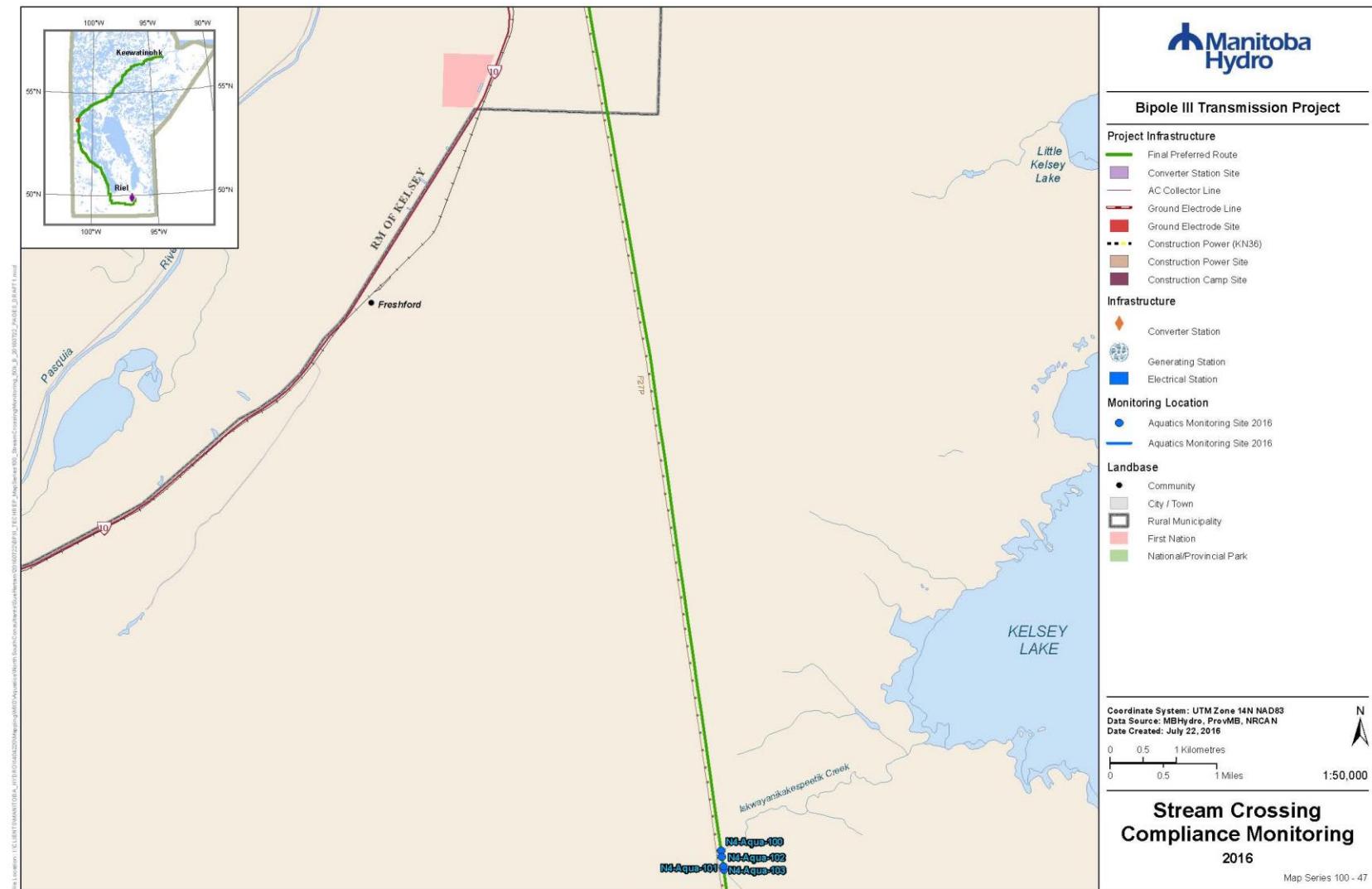
Map 100-44. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



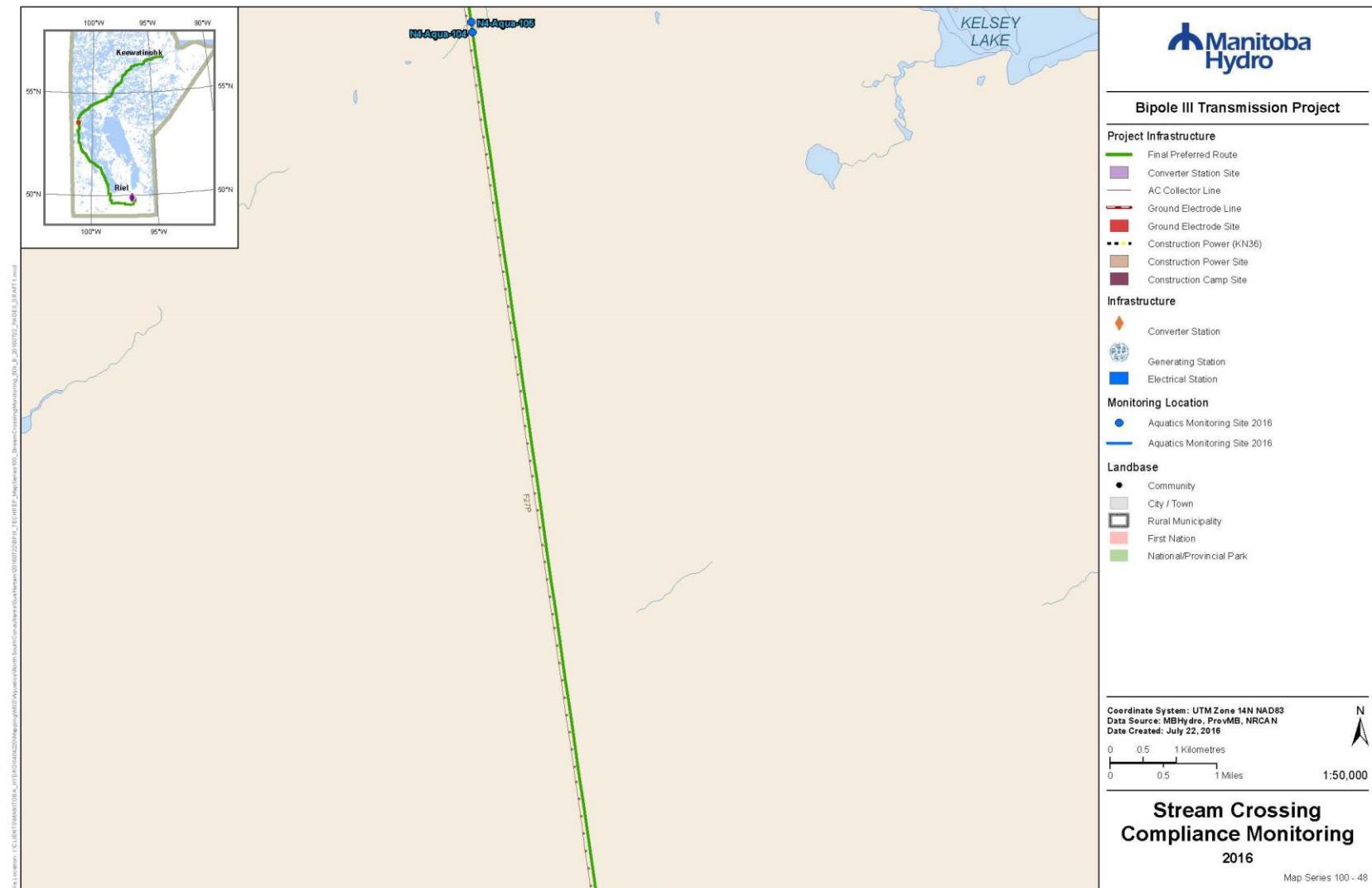
Map 100-45. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



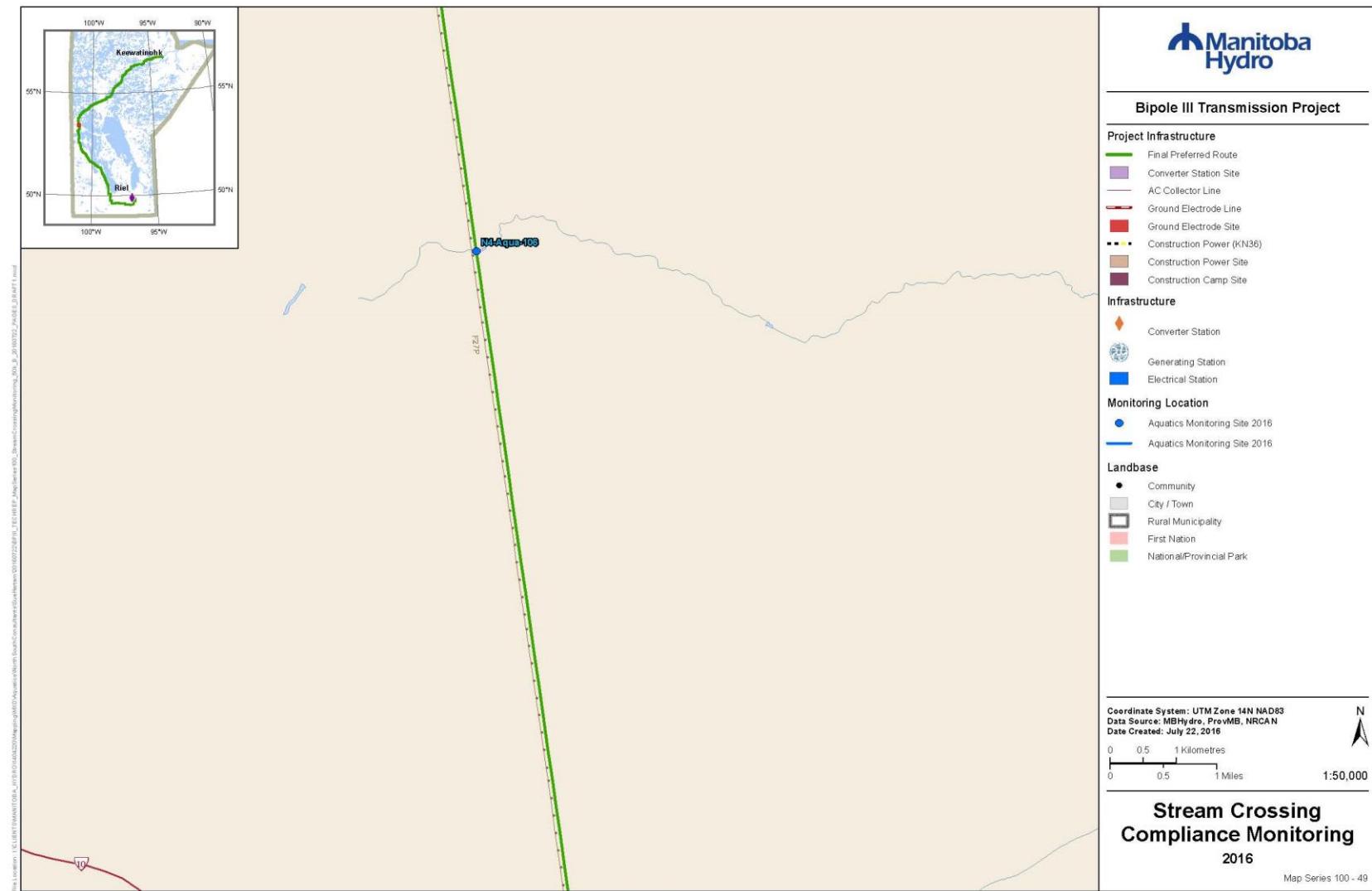
Map 100-46. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N3) stream crossings.



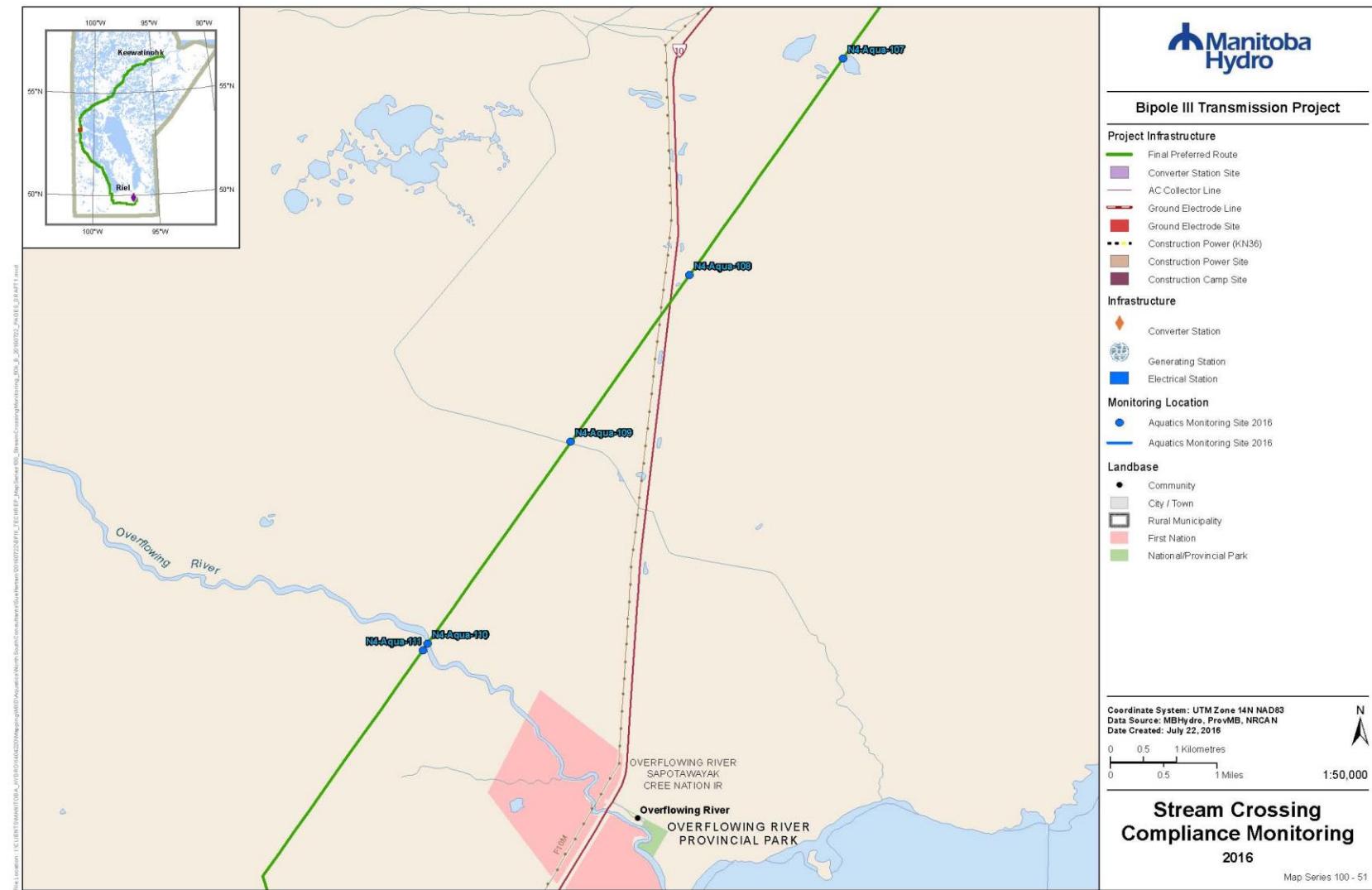
Map 100-47. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.

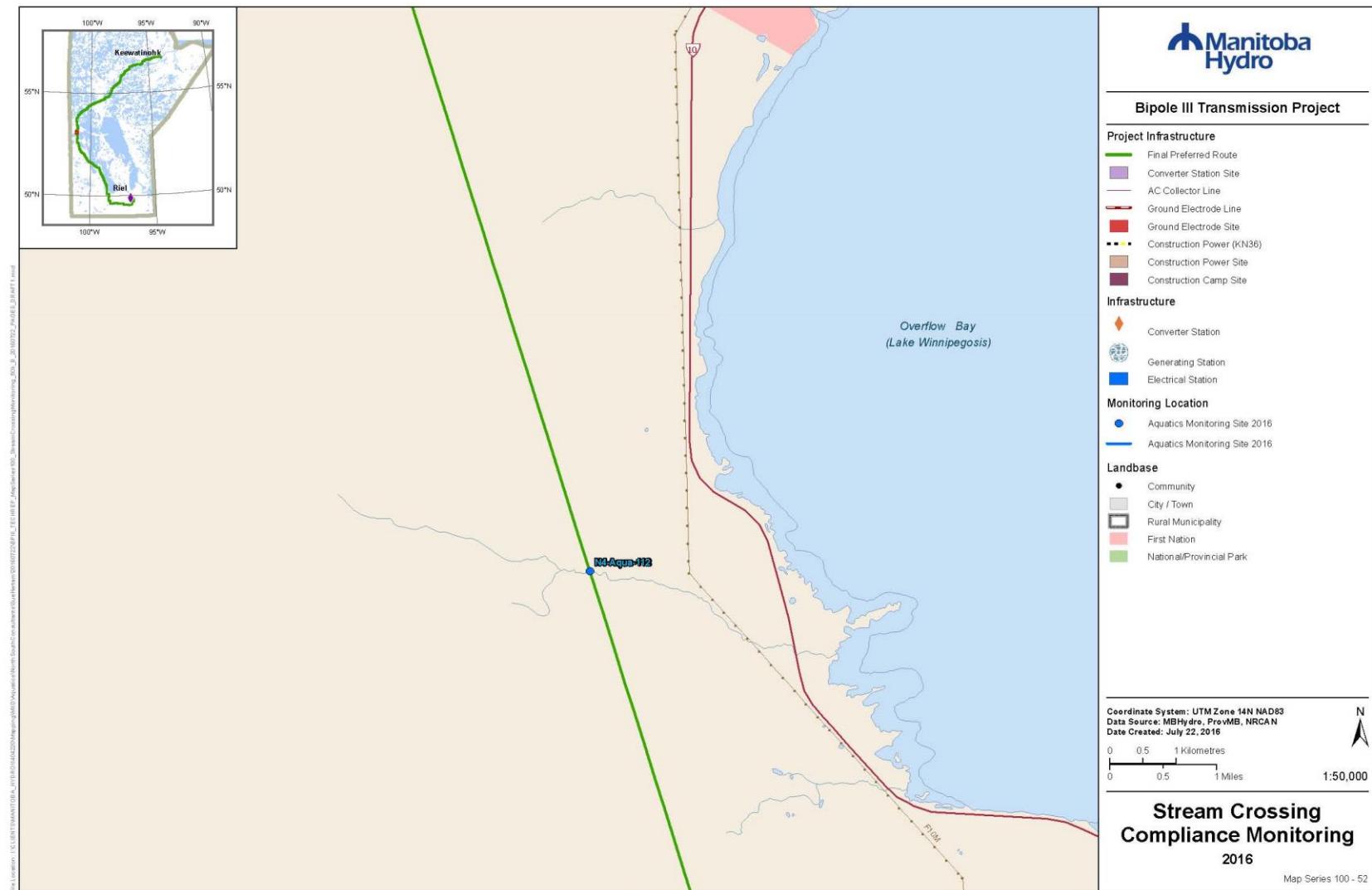


Map 100-48. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.

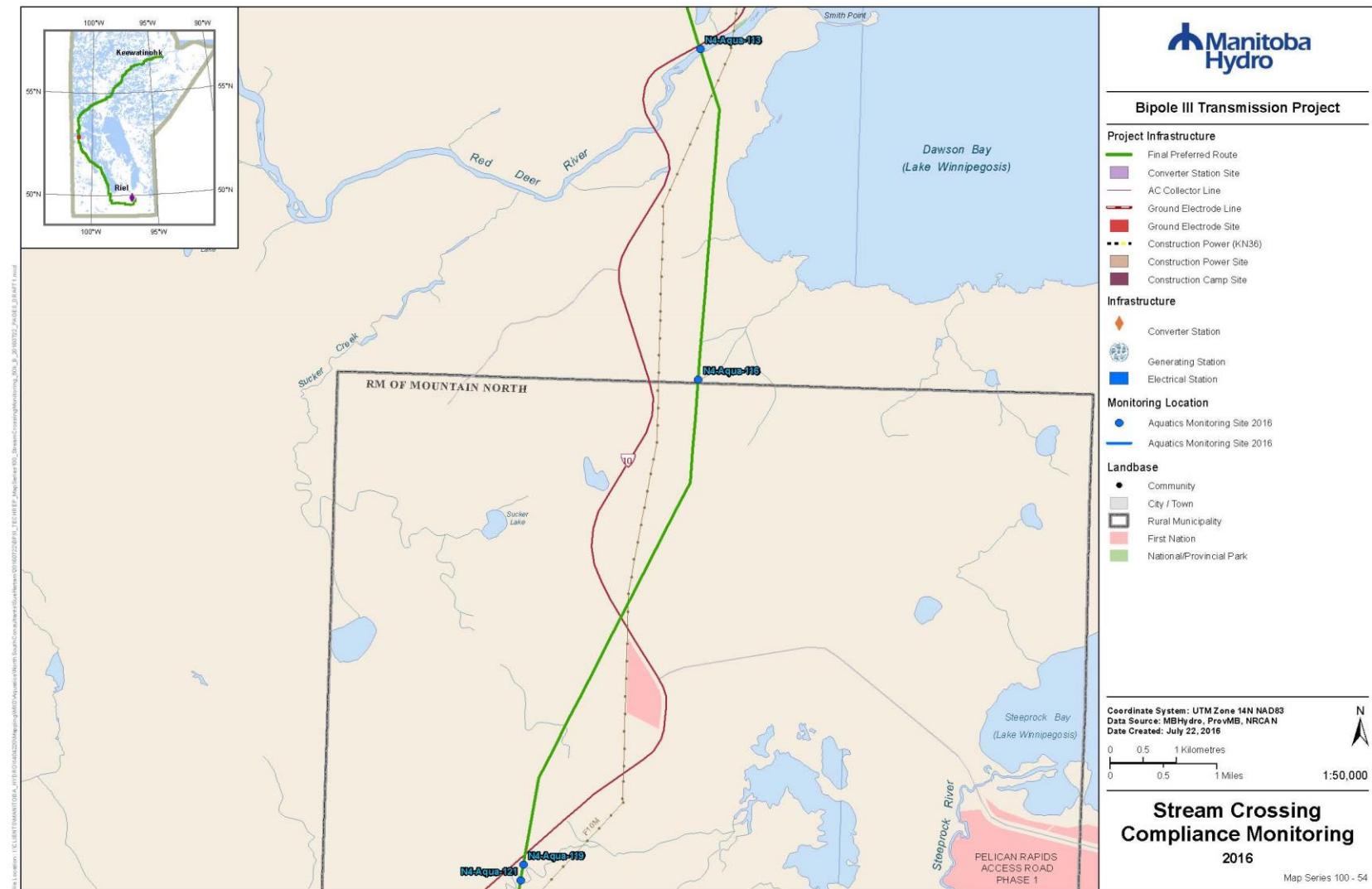


Map 100-49. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.

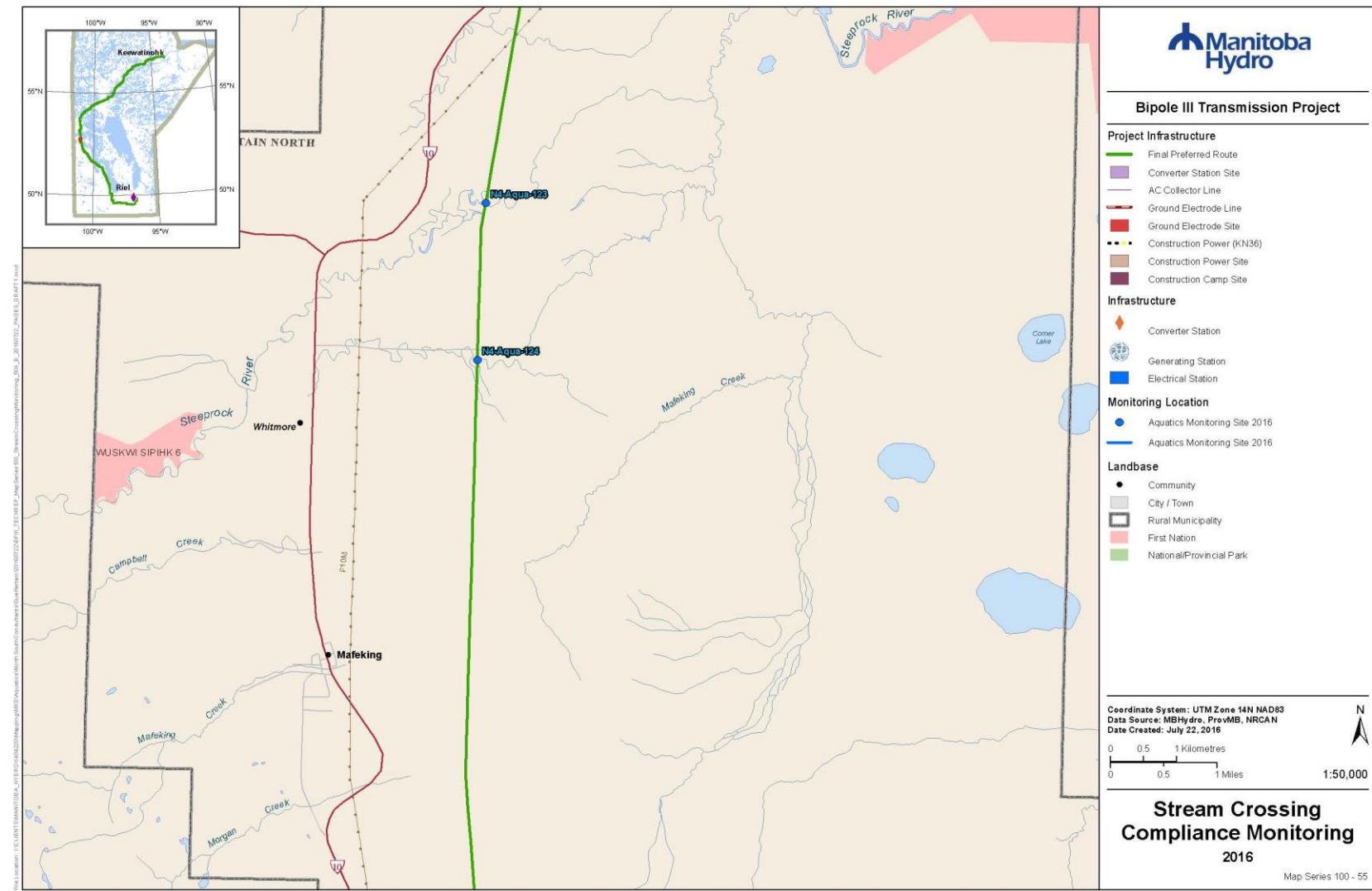




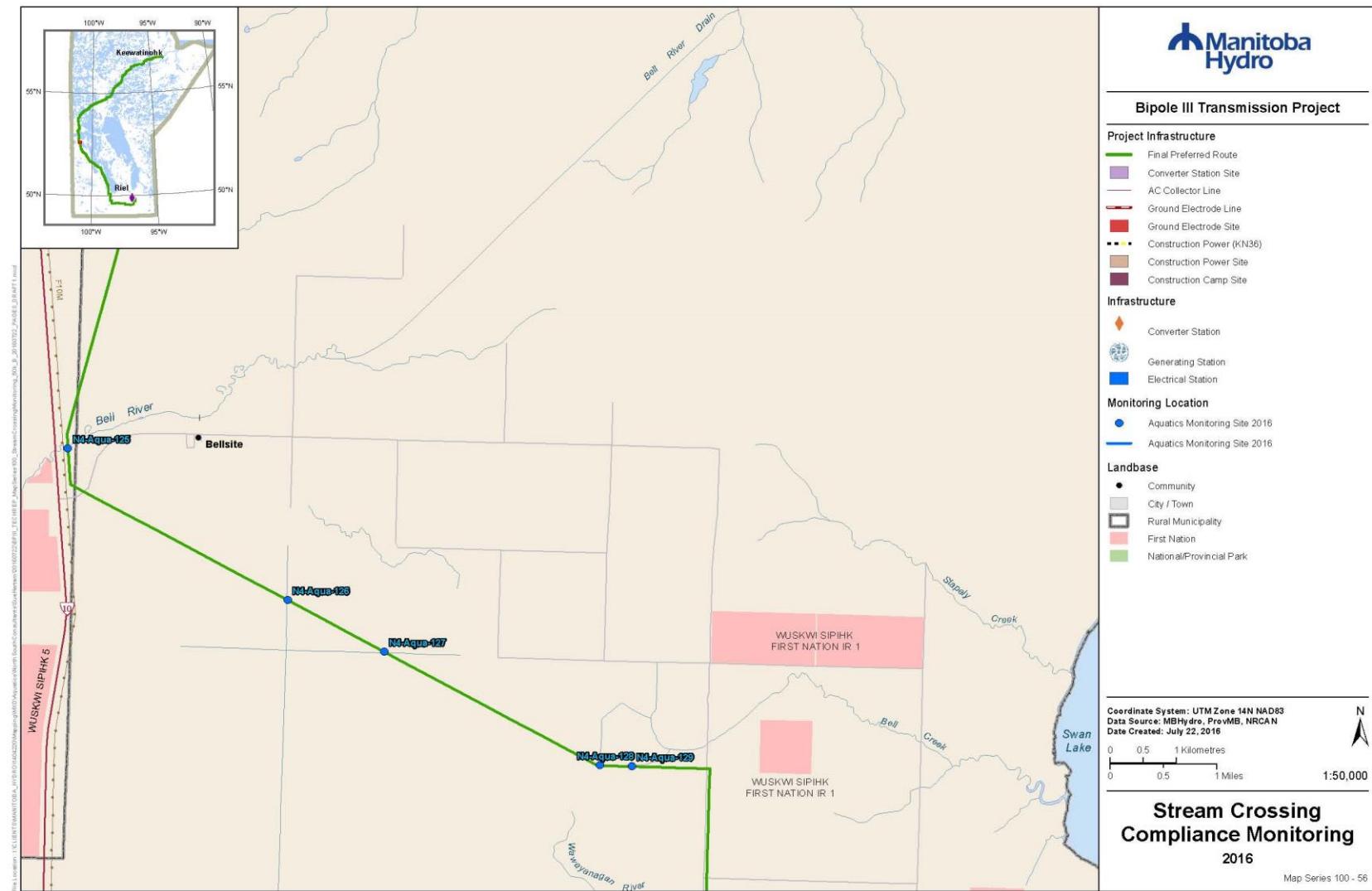
Map 100-52. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



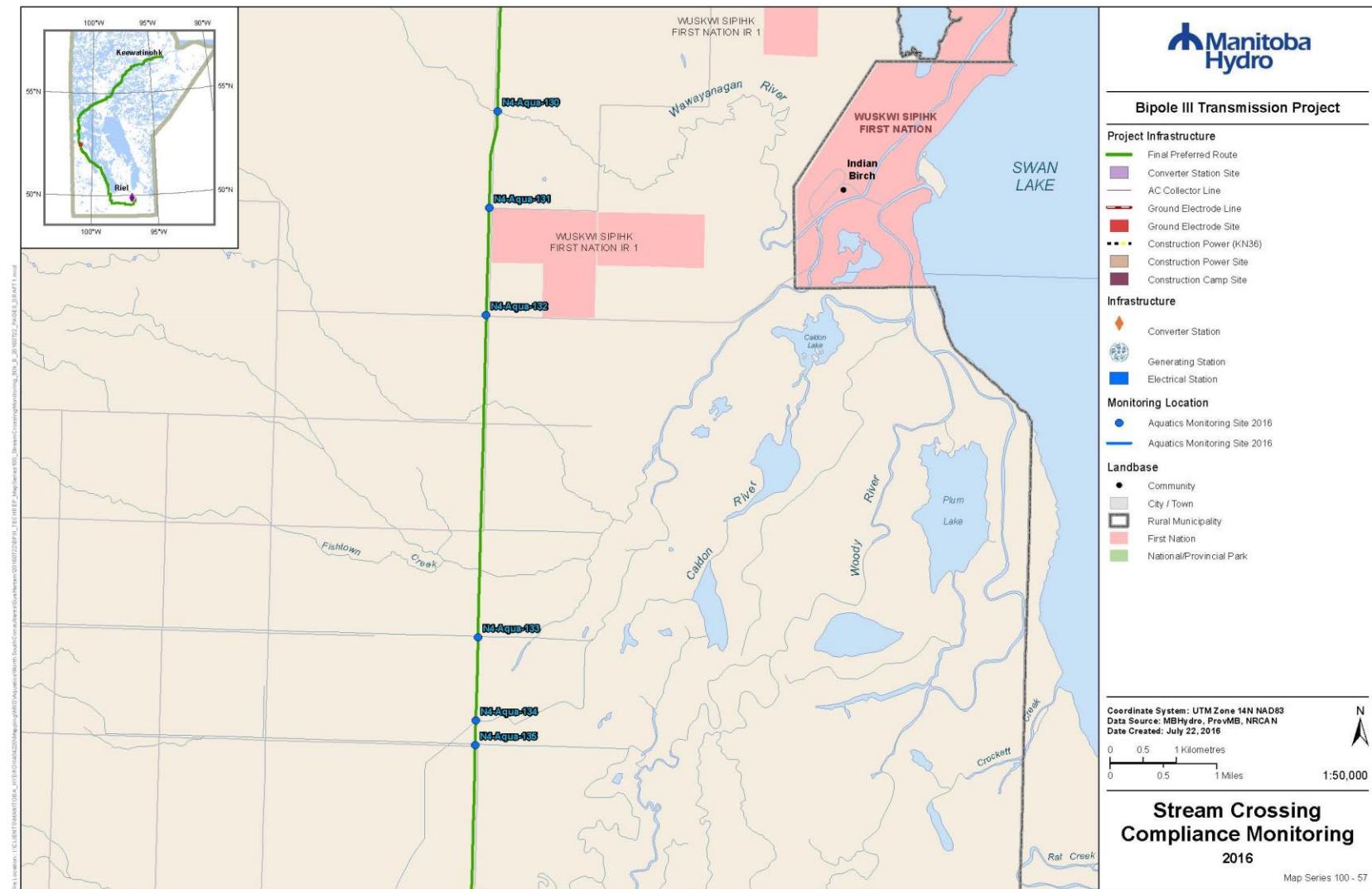
Map 100-54. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



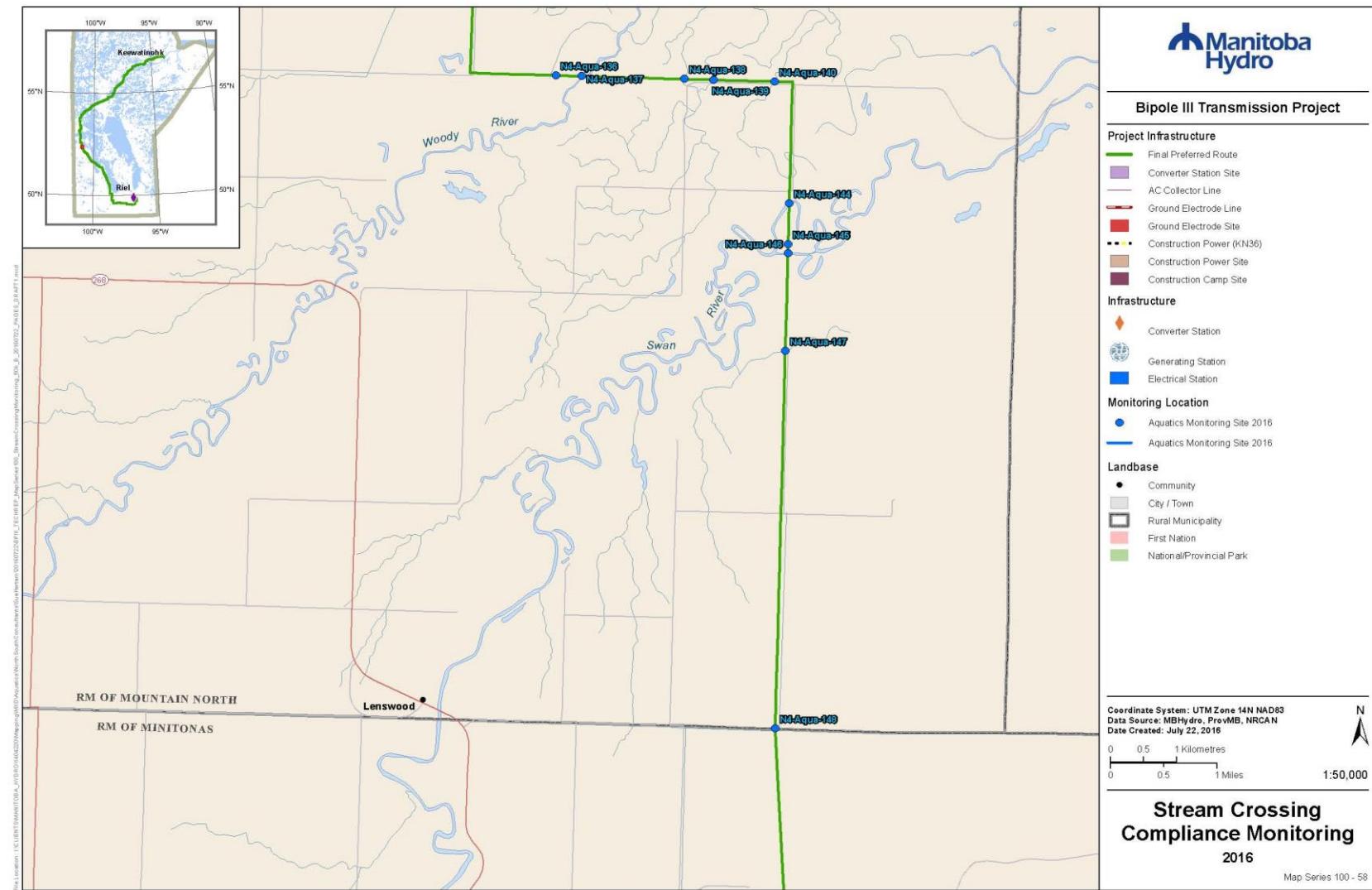
Map 100-55. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



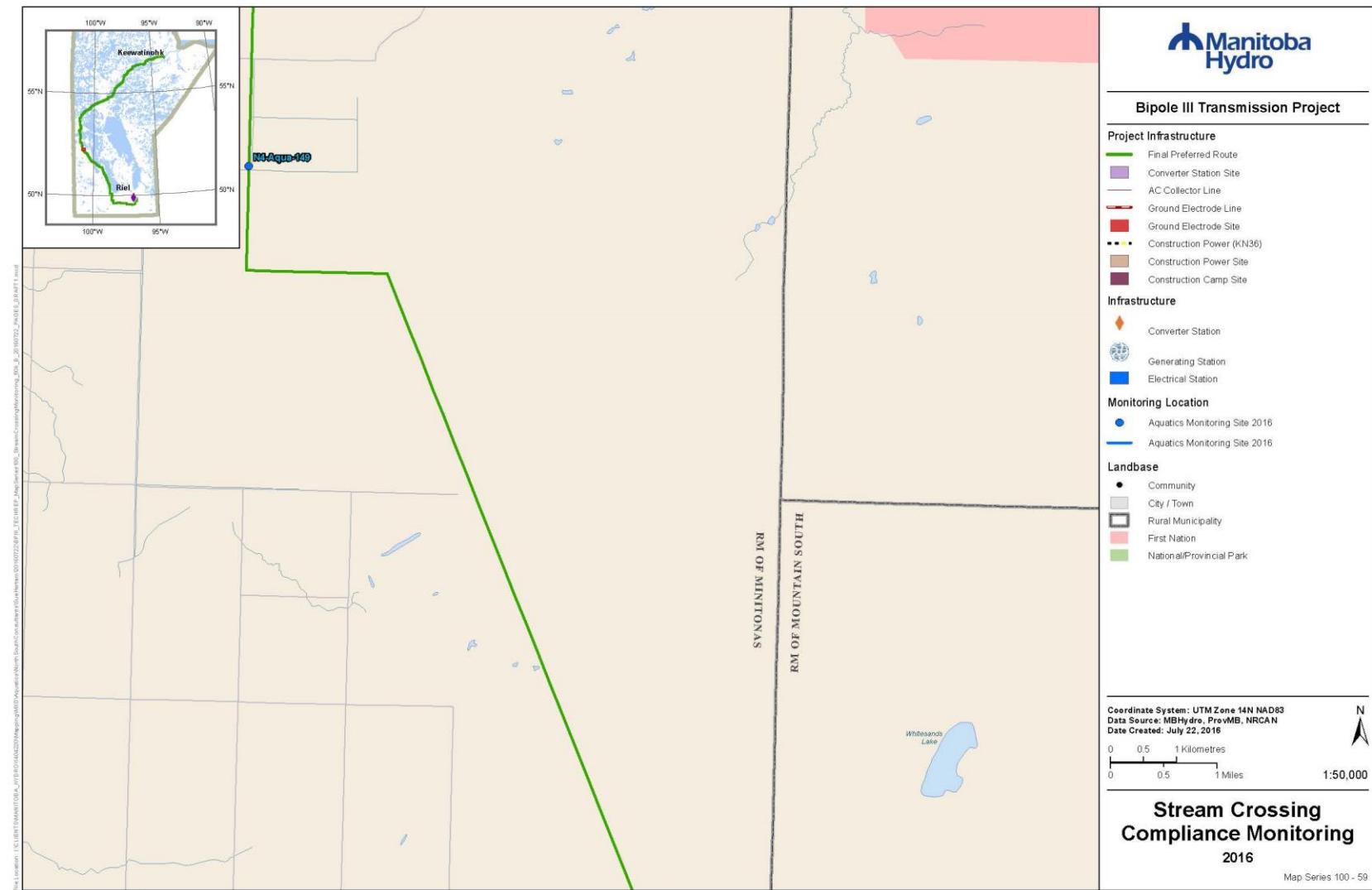
Map 100-56. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



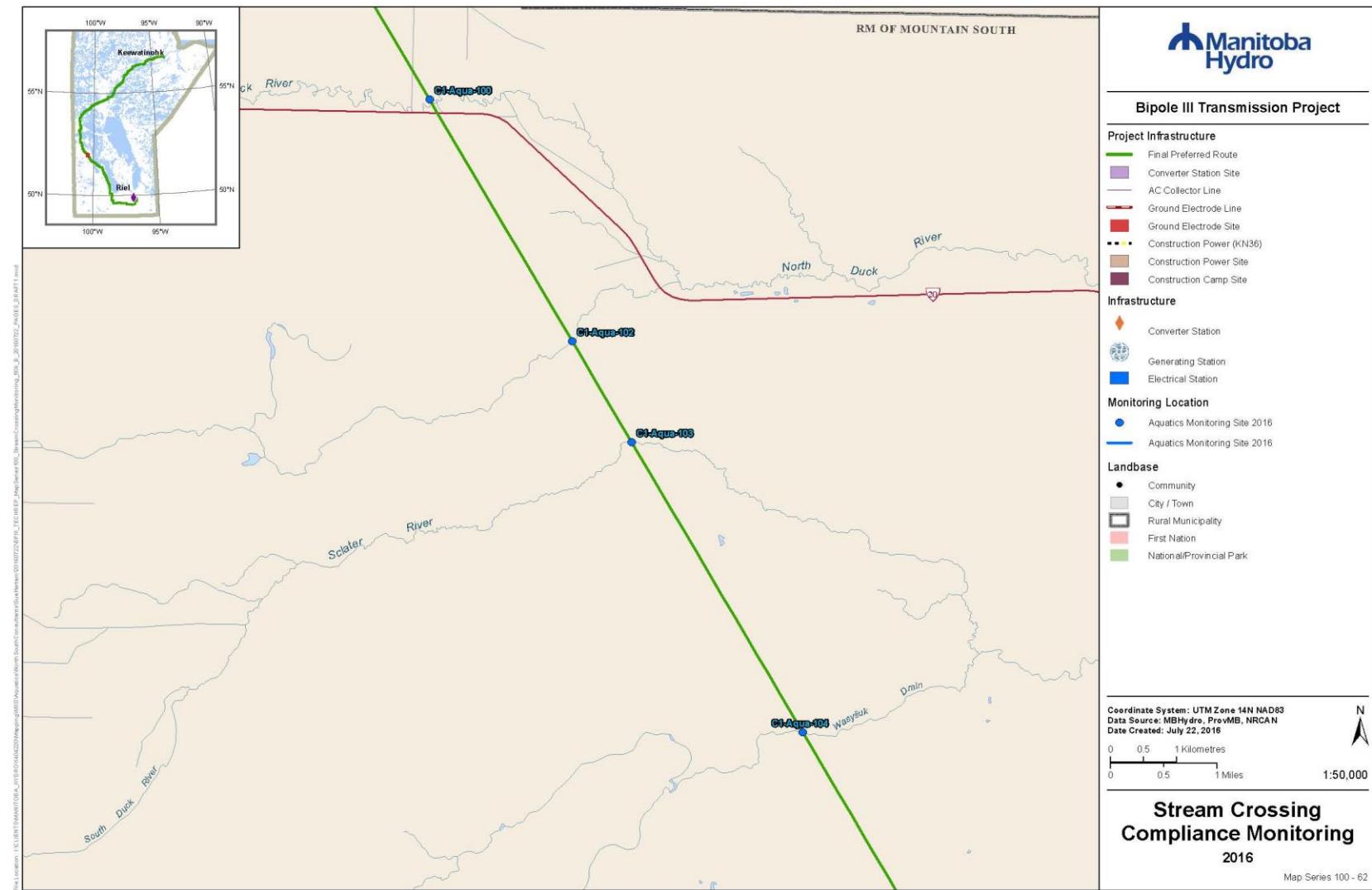
Map 100-57. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



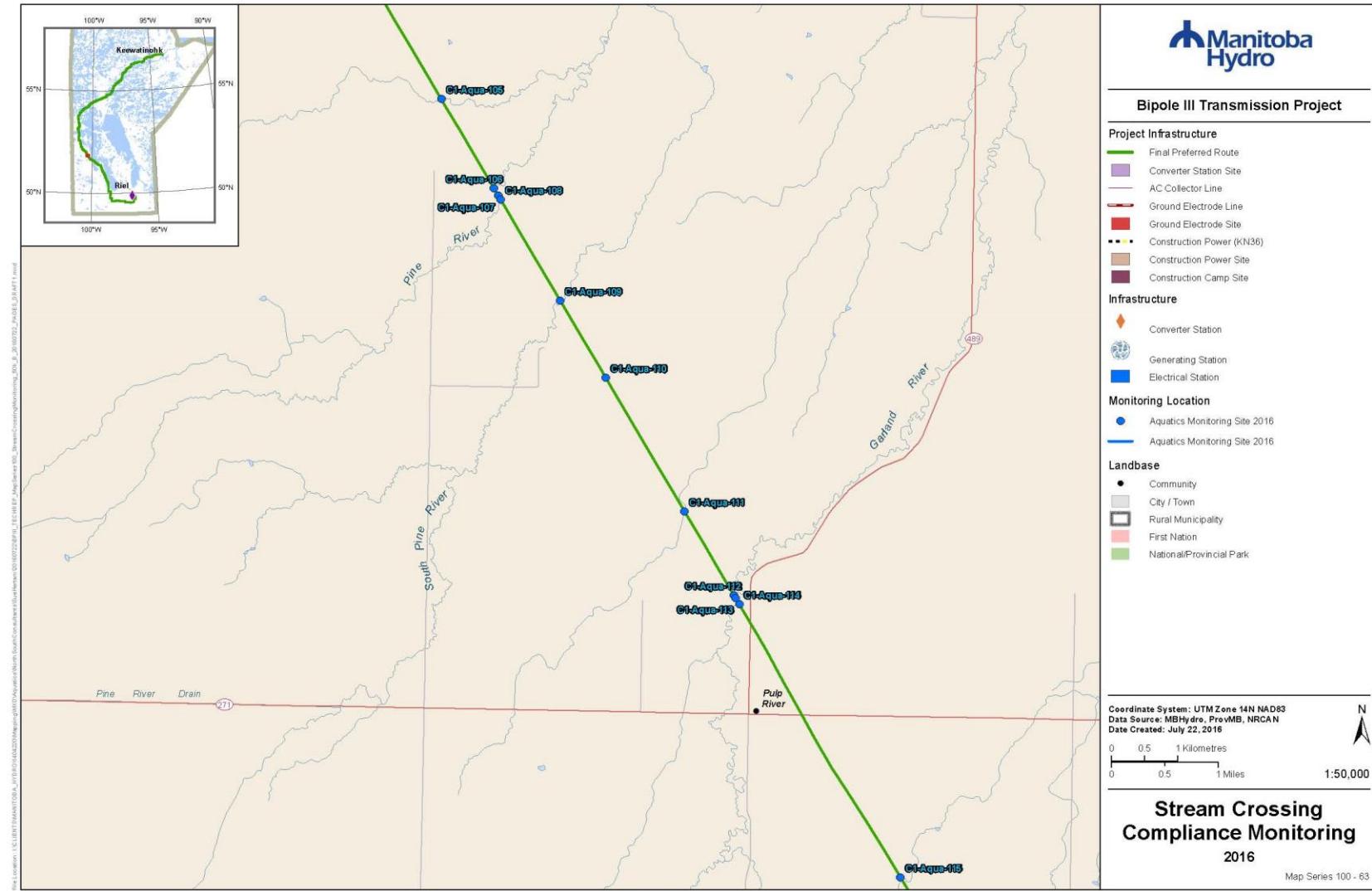
Map 100-58. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



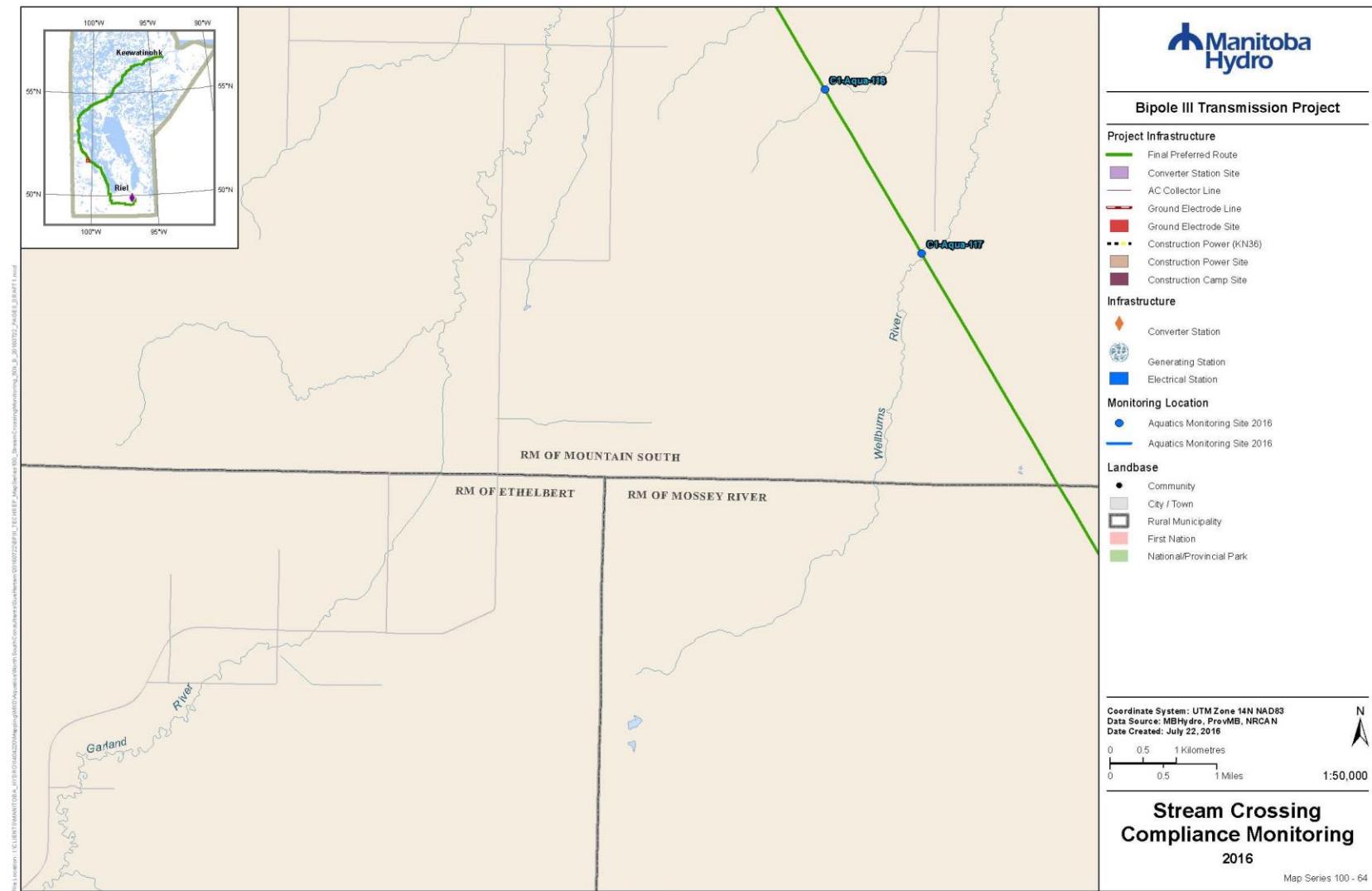
Map 100-59. Bipole III 500 kV Transmission Line (Final Preferred Route; segment N4) stream crossings.



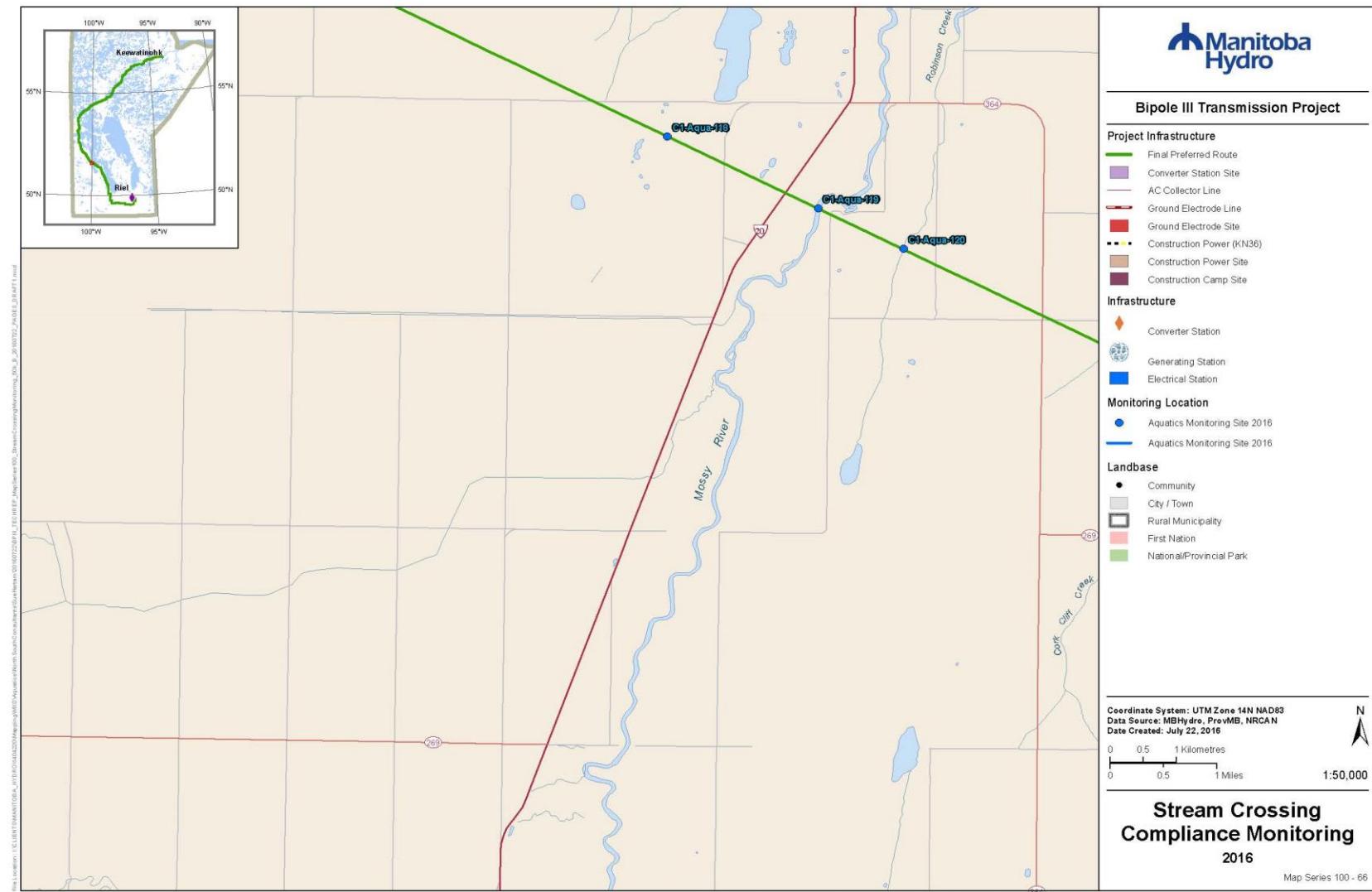
Map 100-62. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



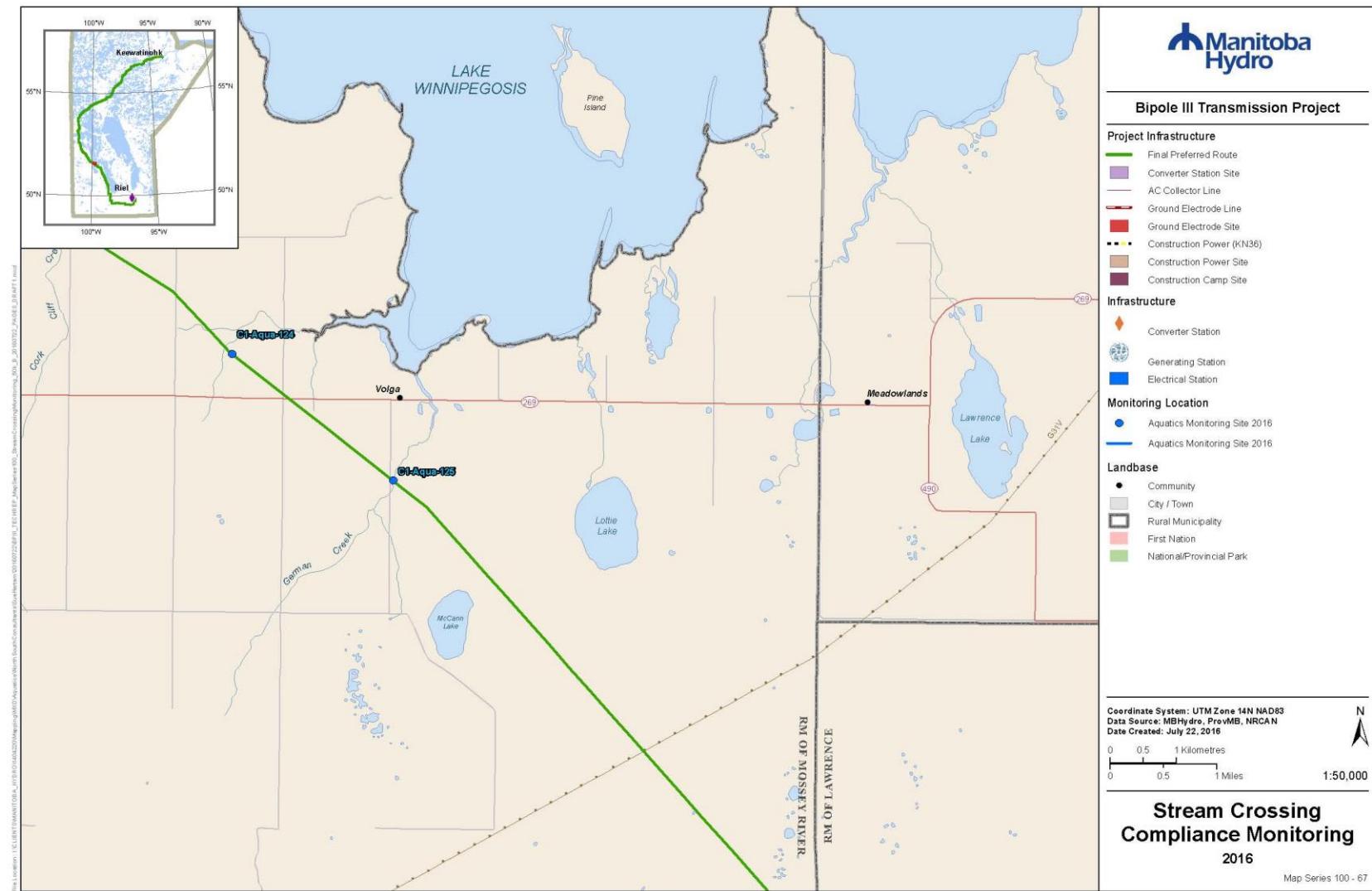
Map 100-63. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



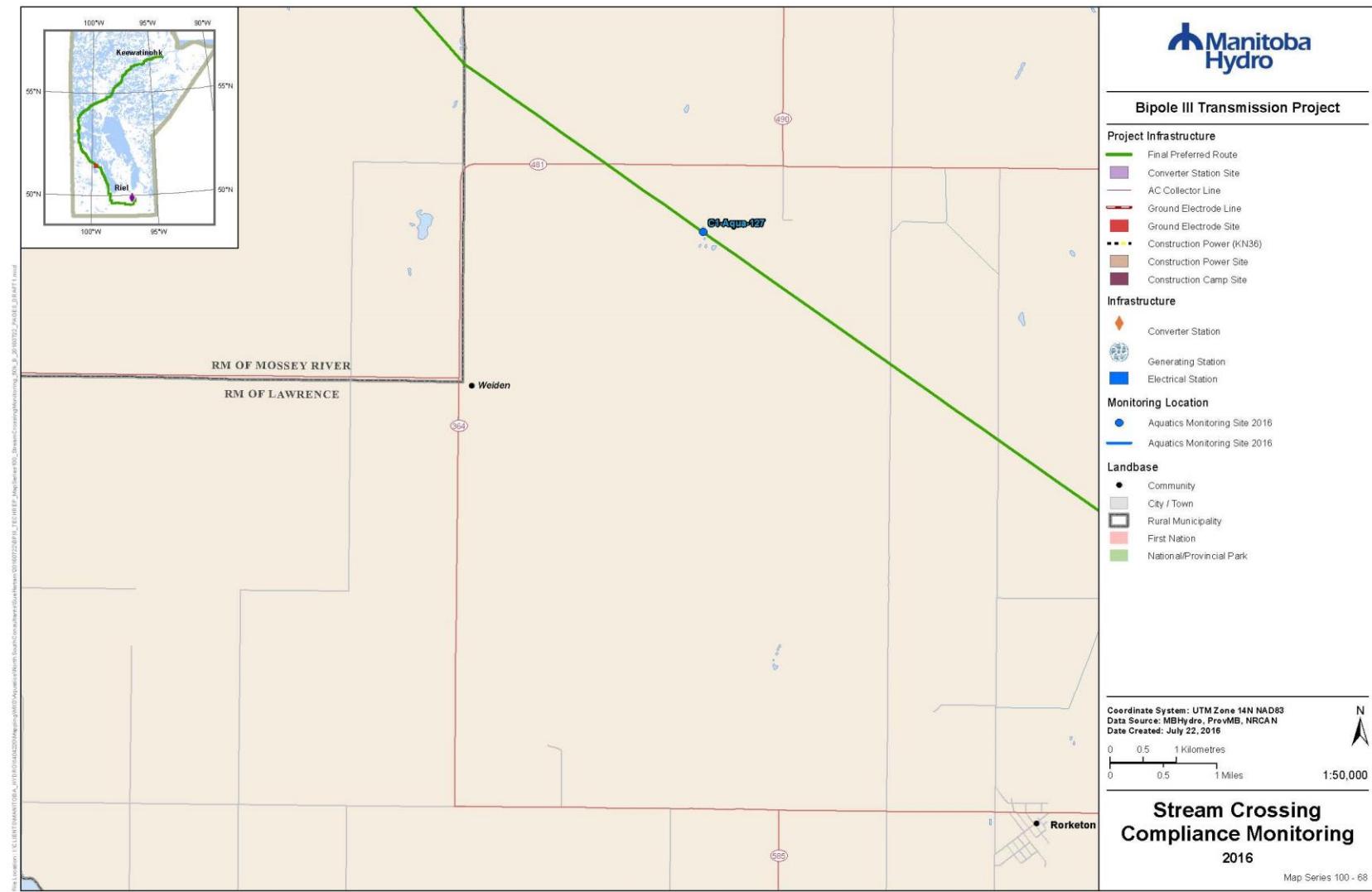
Map 100-64. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



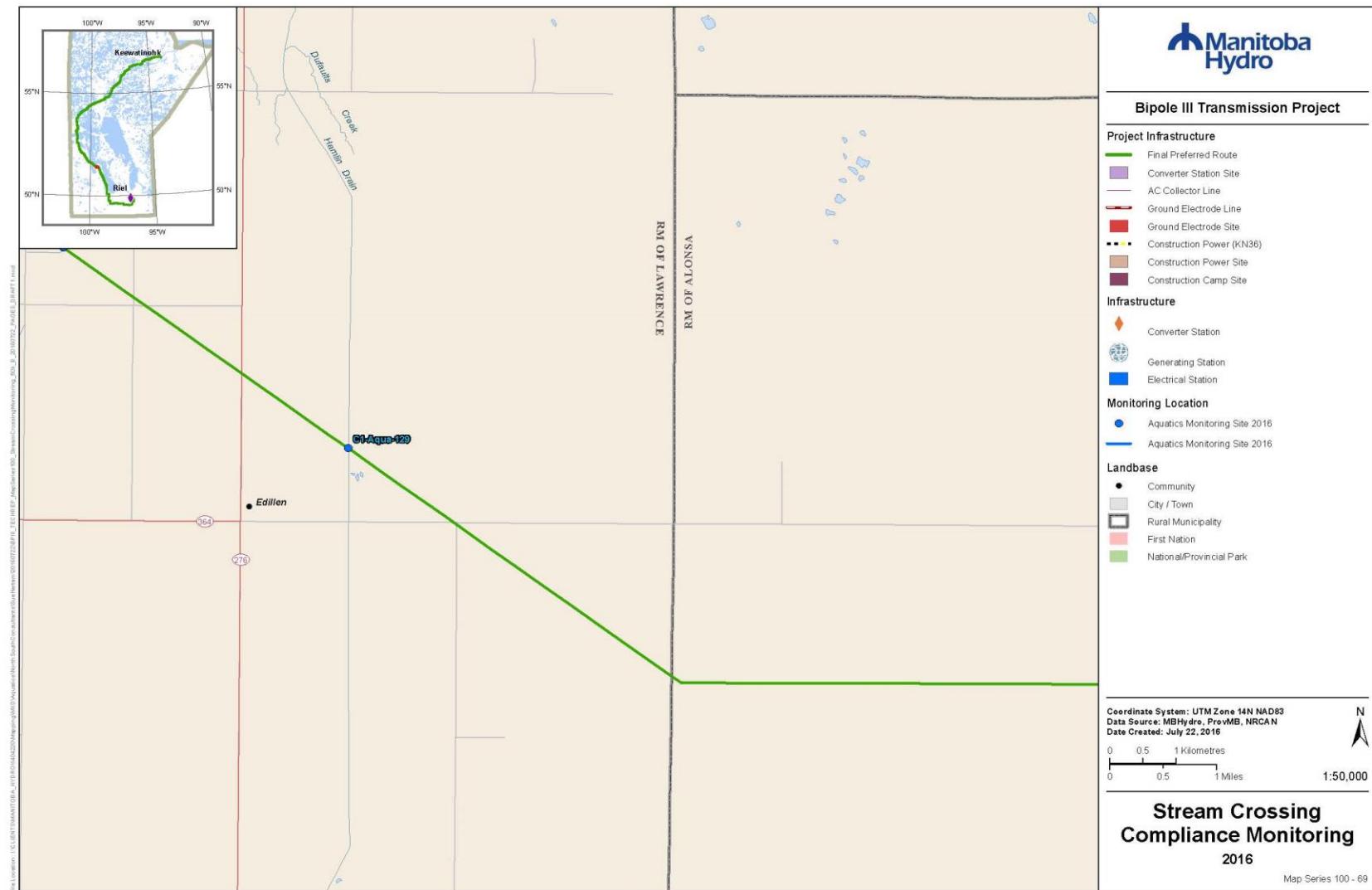
Map 100-66. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



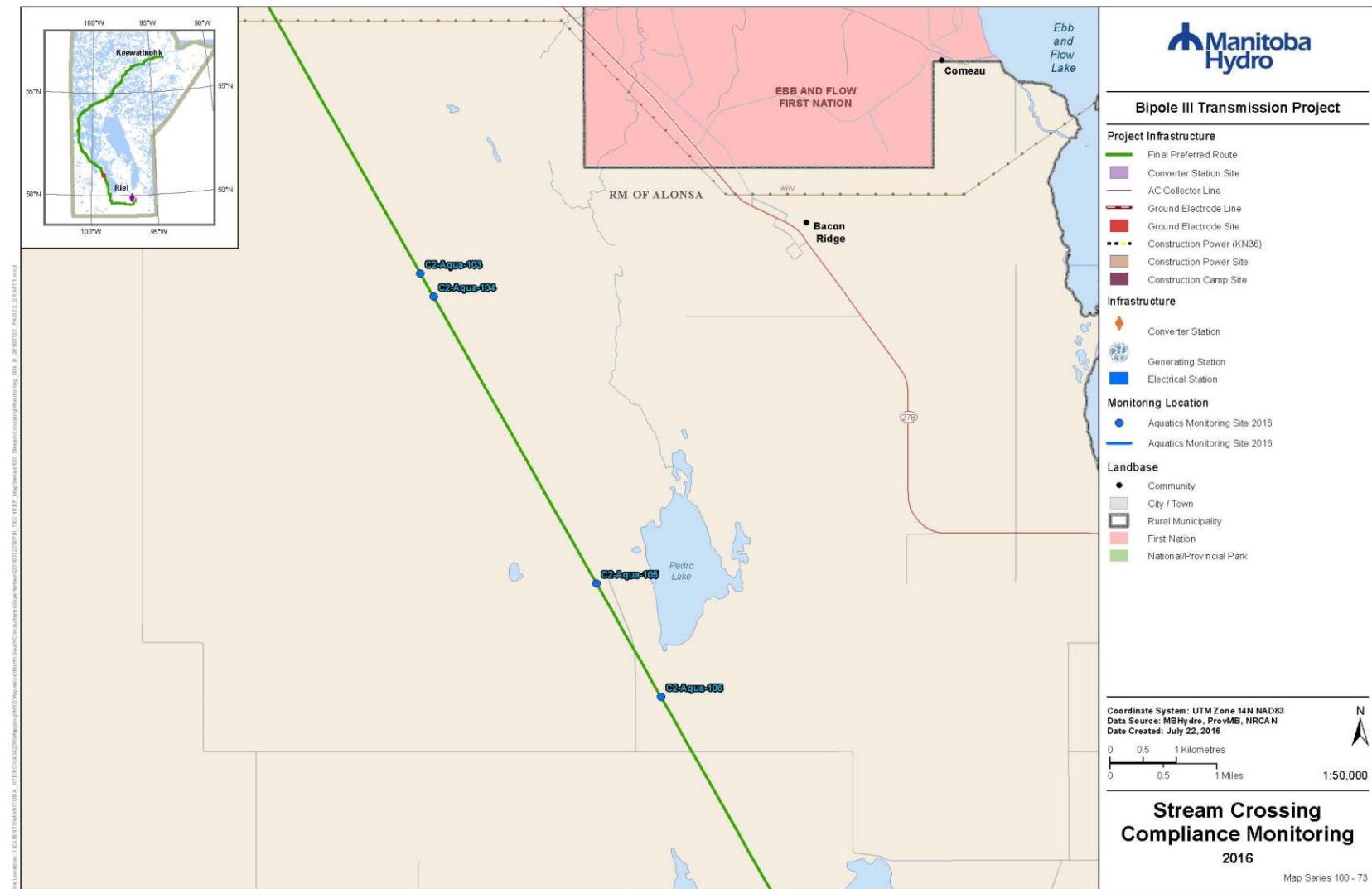
Map 100-67. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



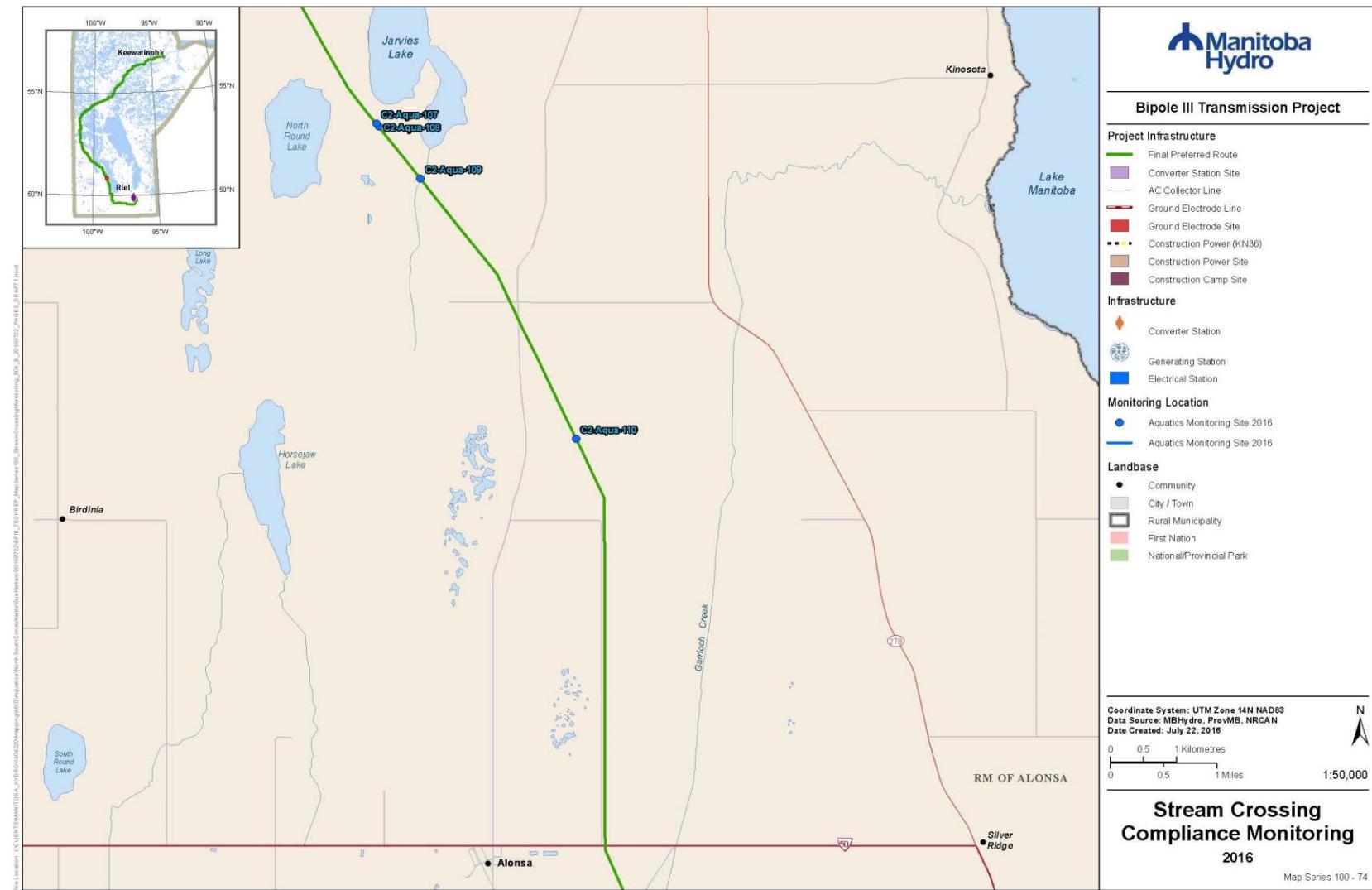
Map 100-68. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



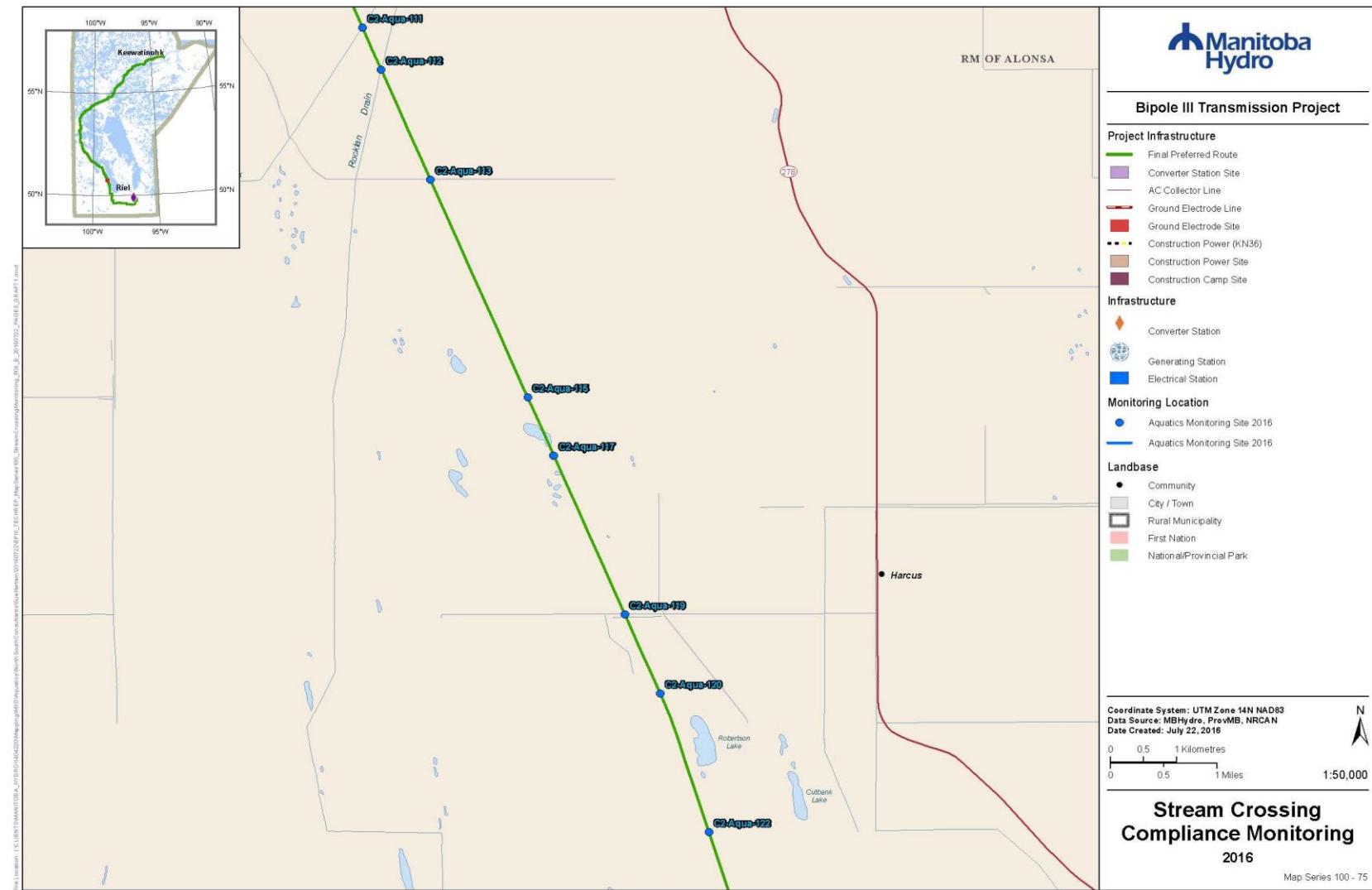
Map 100-69. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C1) stream crossings.



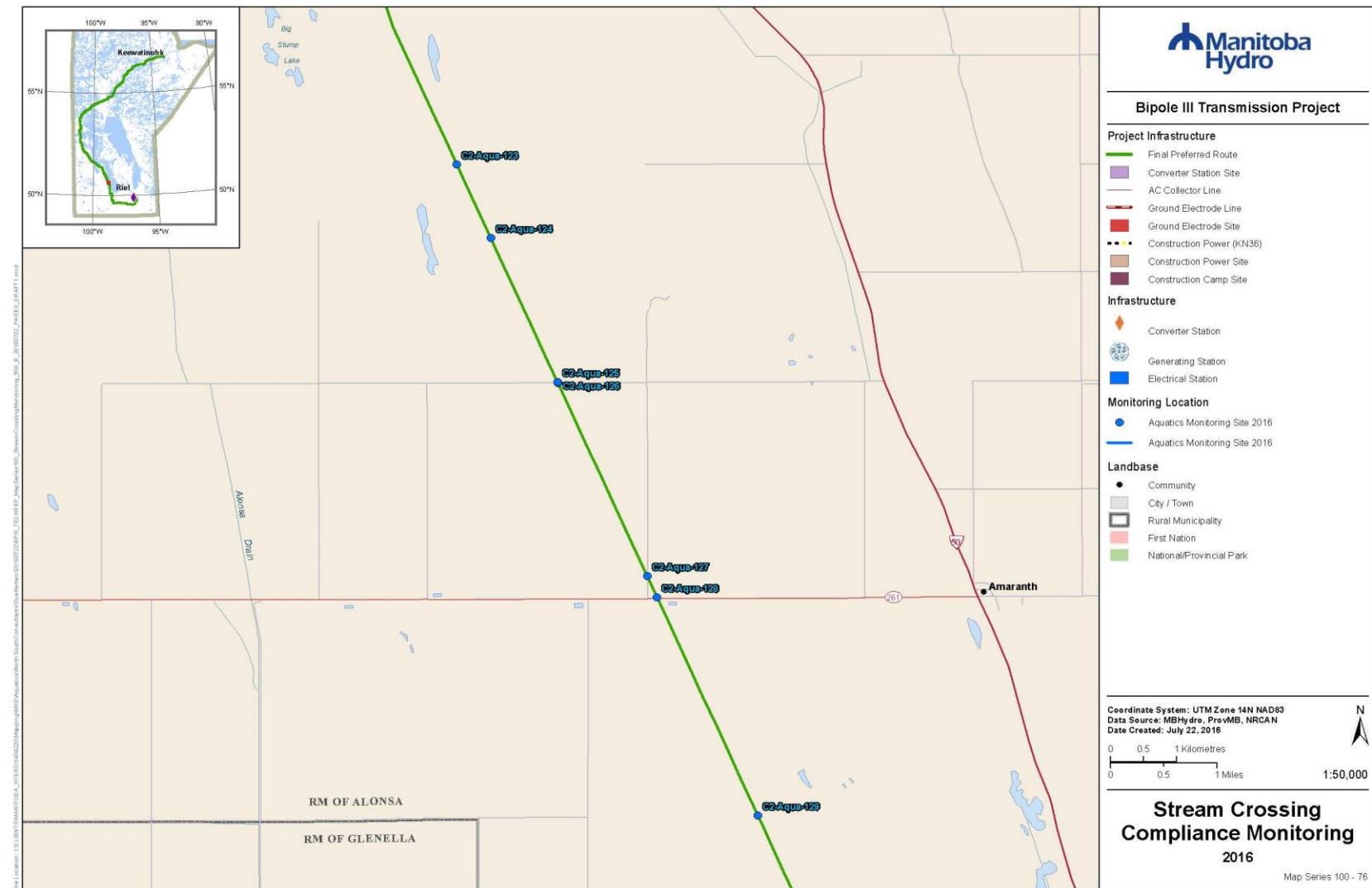
Map 100-73. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.



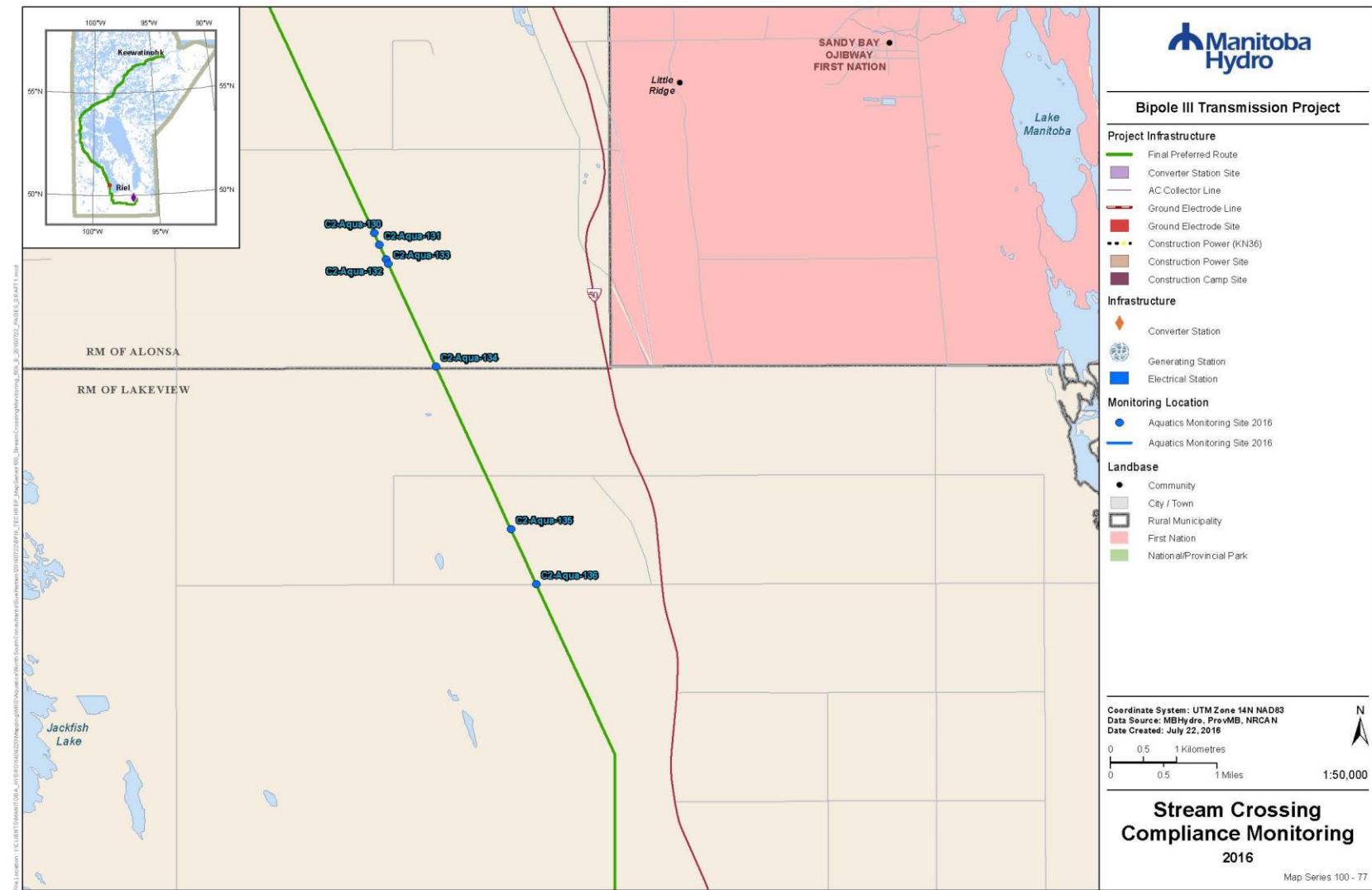
Map 100-74. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.



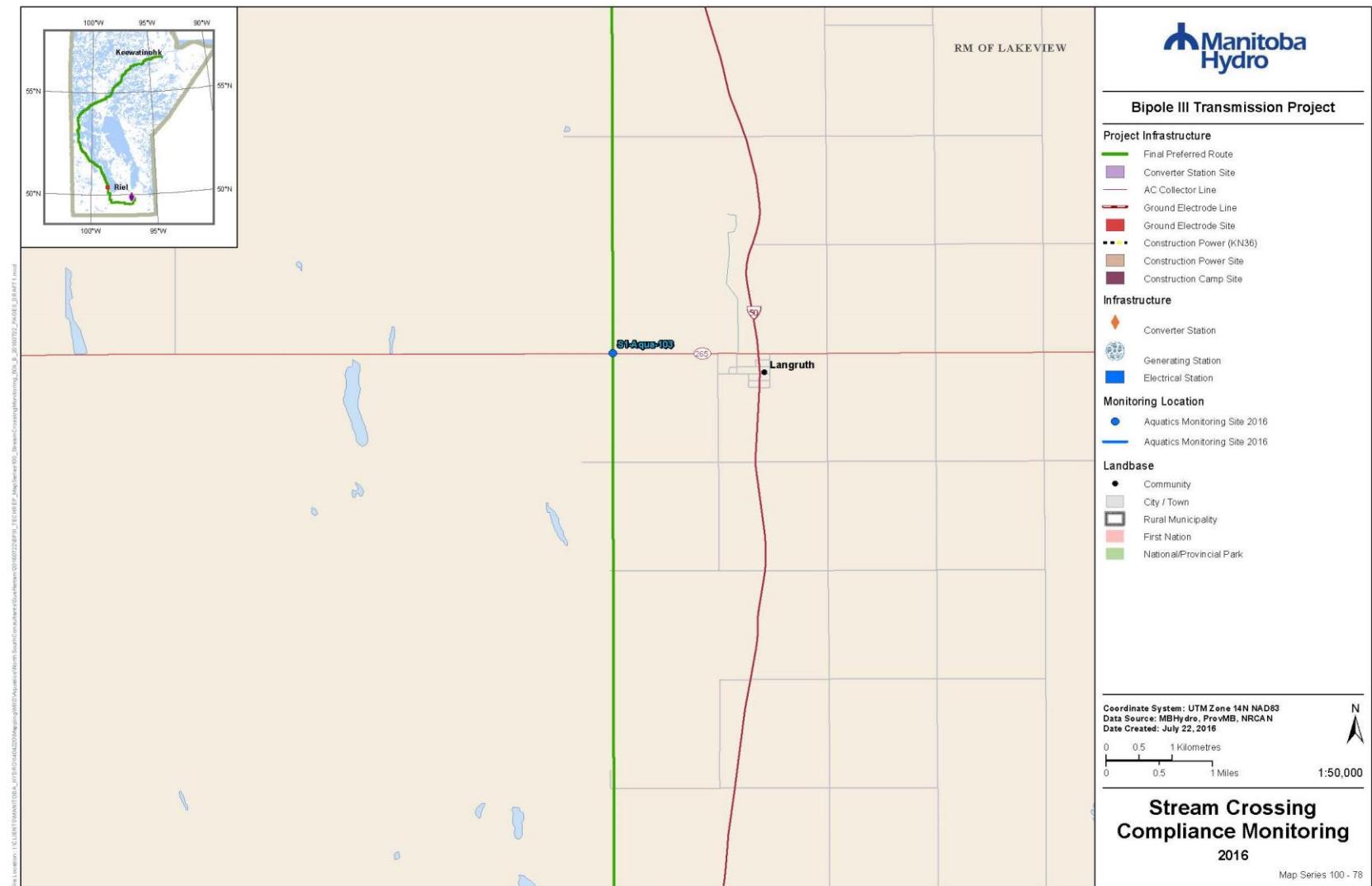
Map 100-75. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.

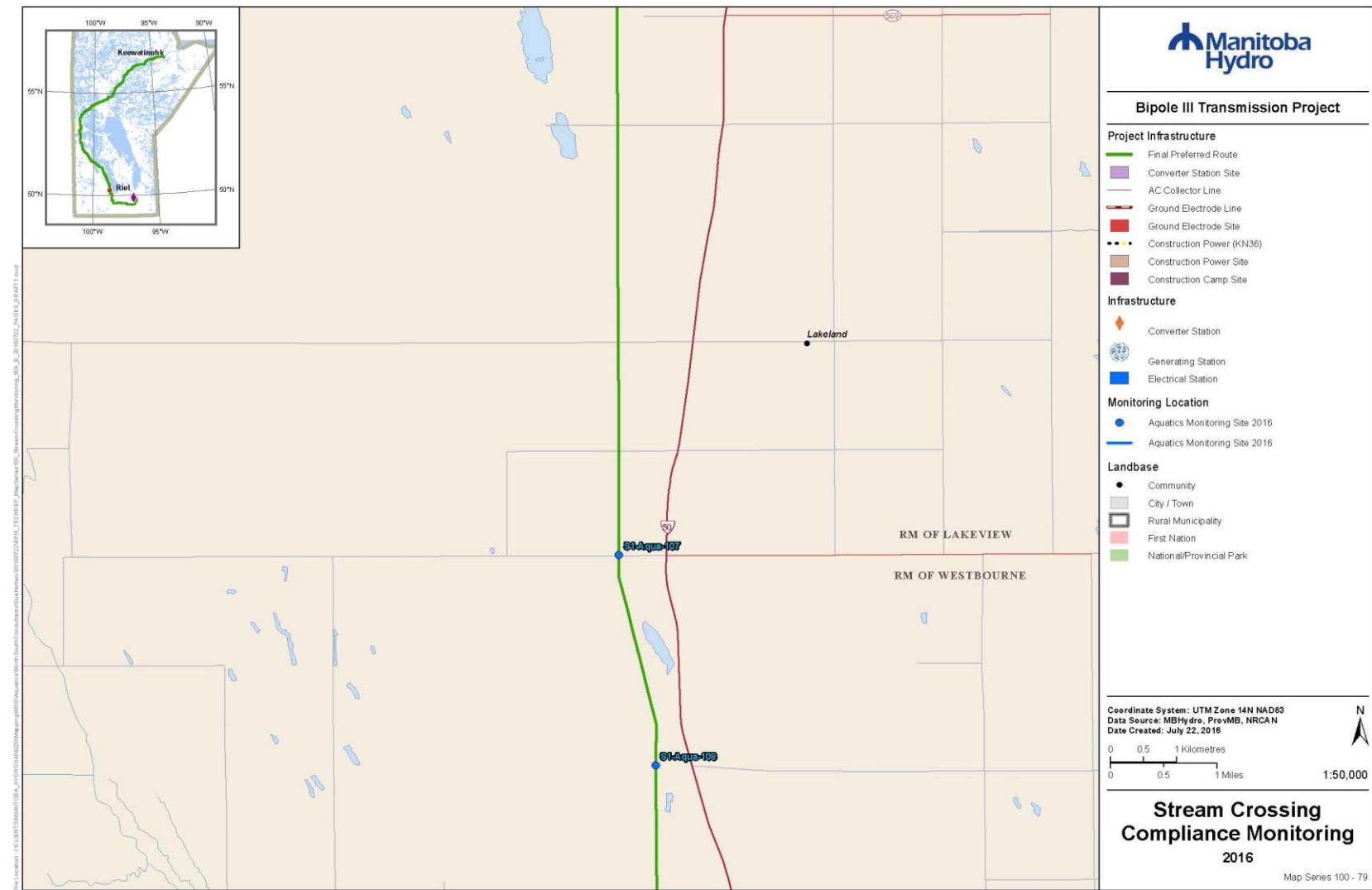


Map 100-76. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.

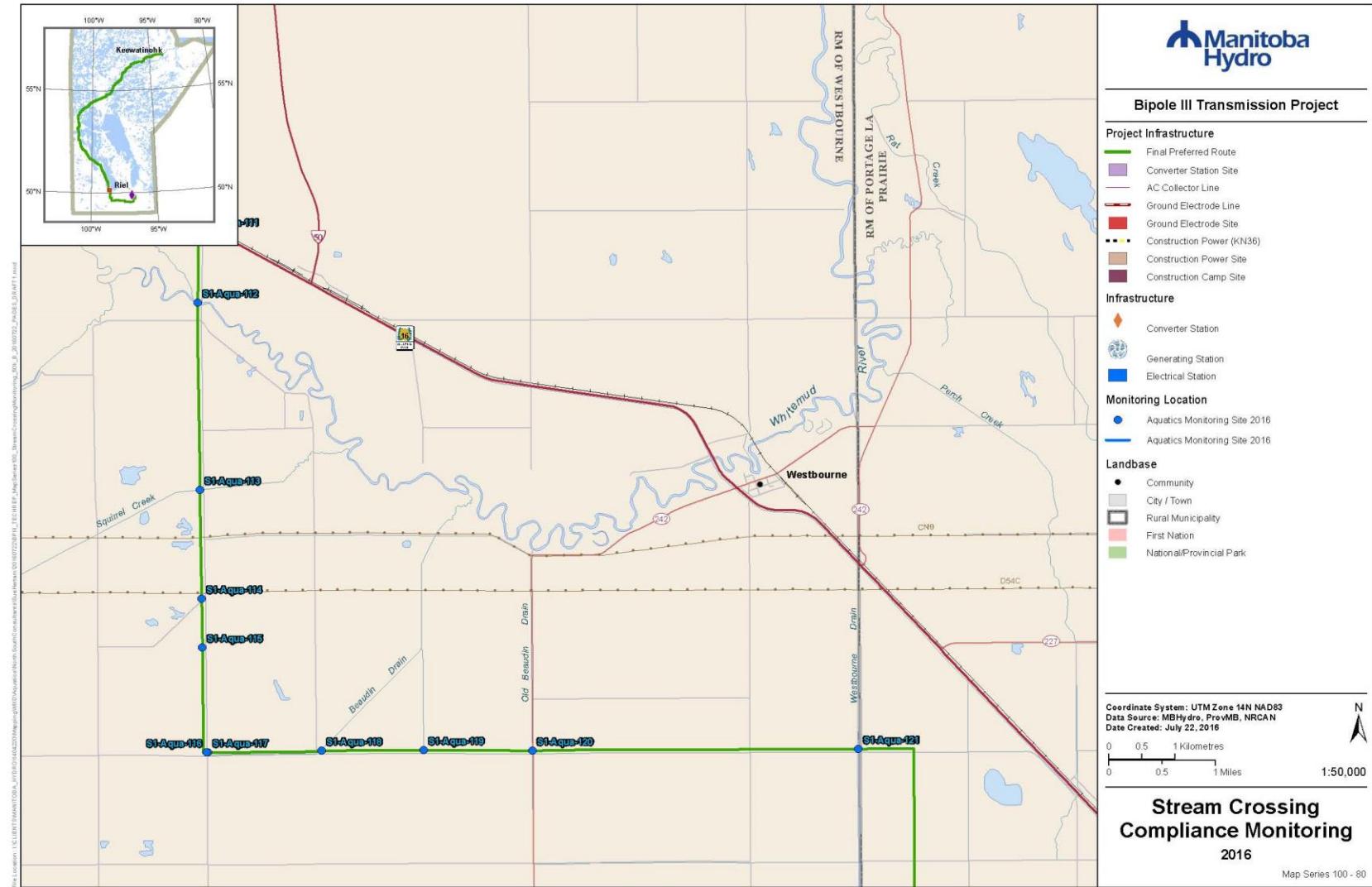


Map 100-77. Bipole III 500 kV Transmission Line (Final Preferred Route; segment C2) stream crossings.

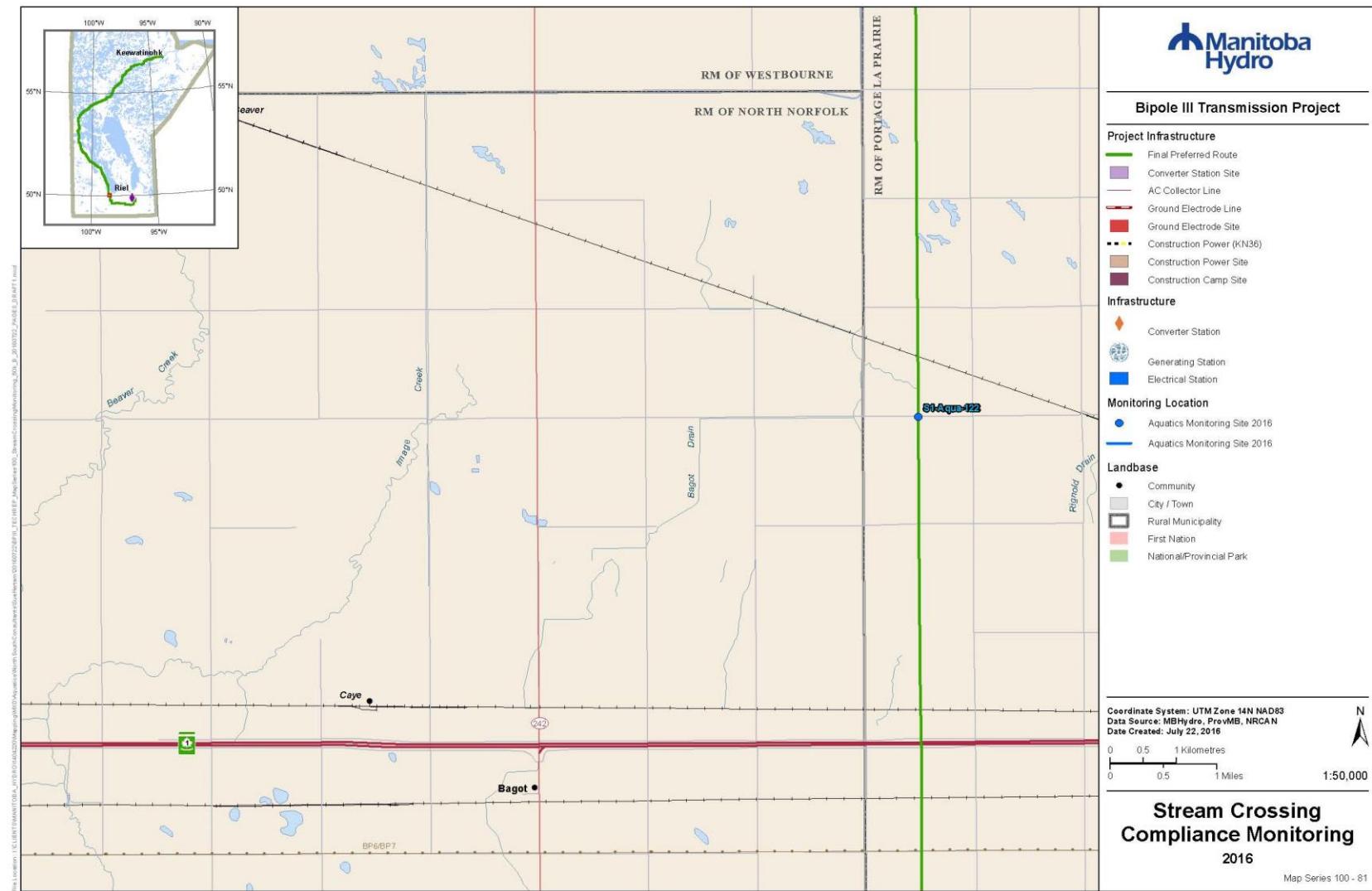




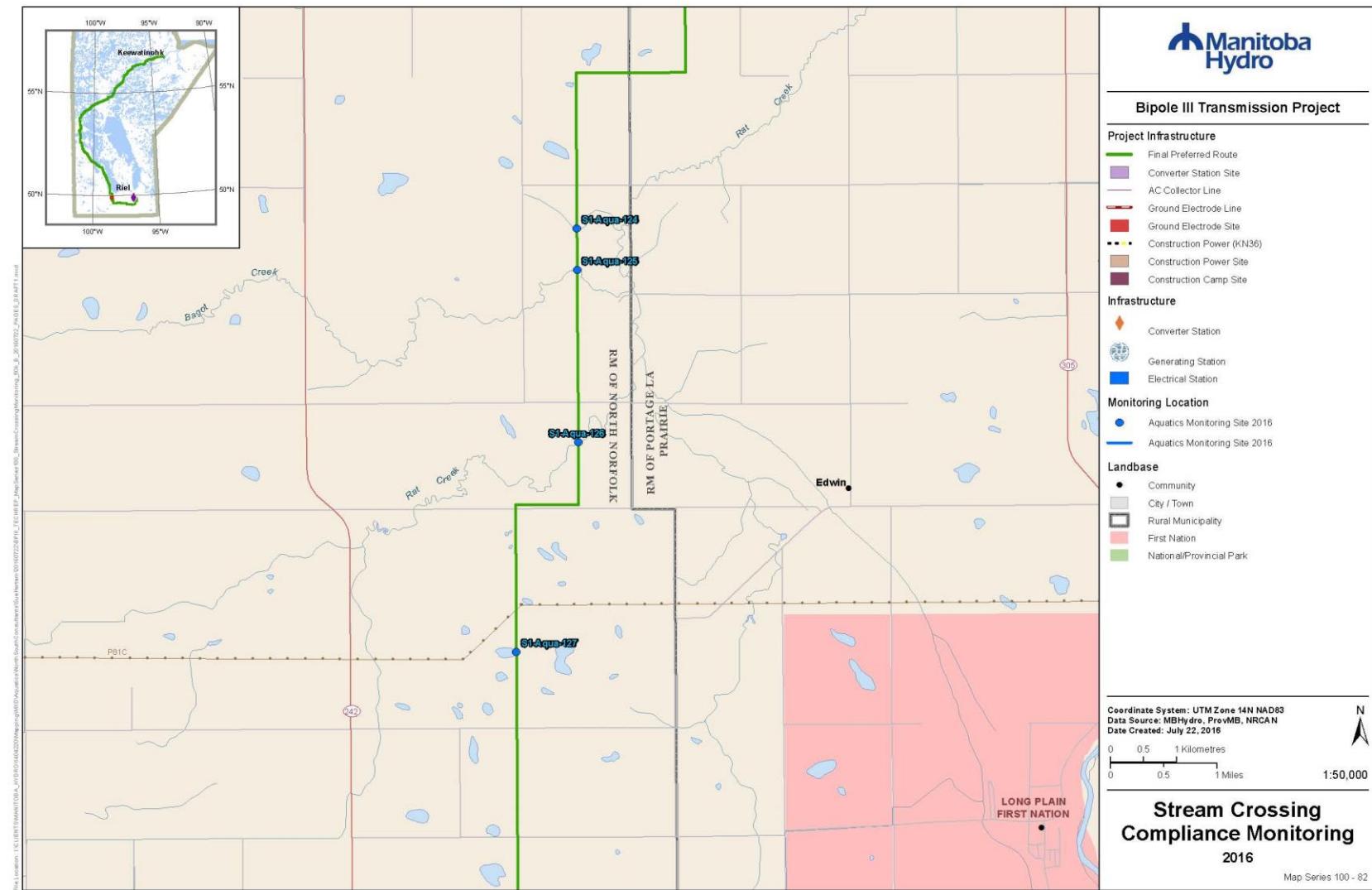
Map 100-79. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.



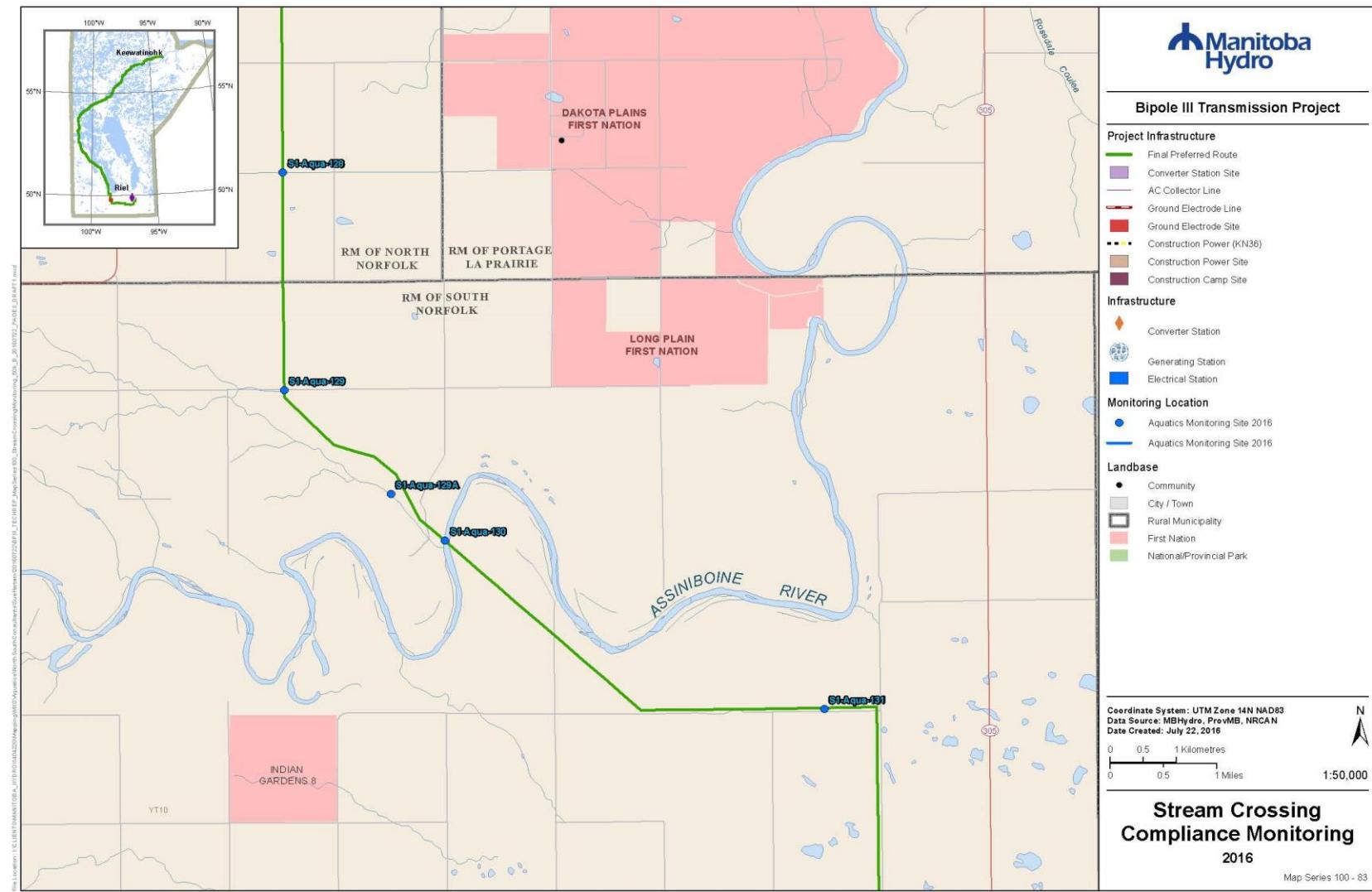
Map 100-80. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.



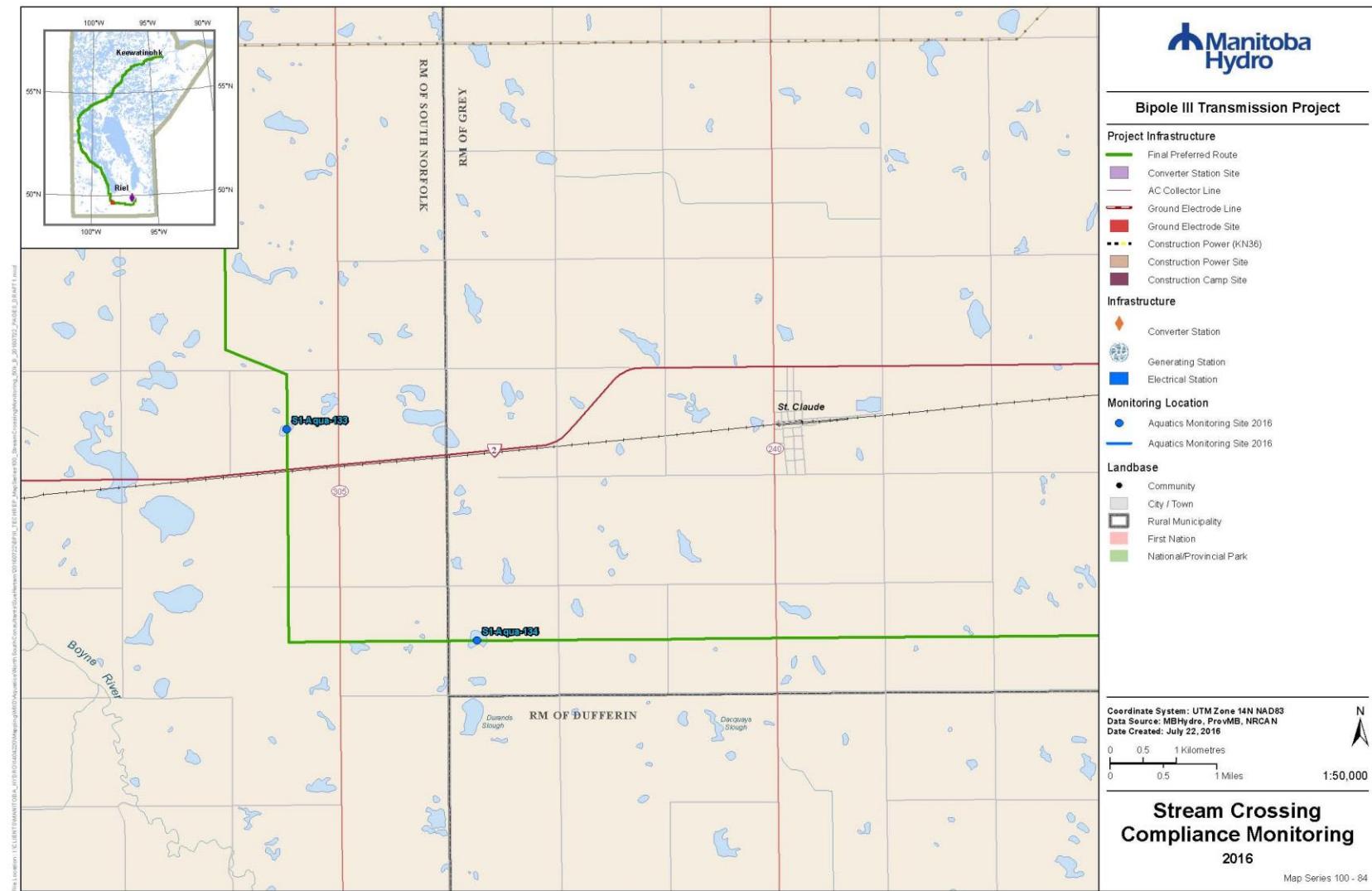
Map 100-81. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.



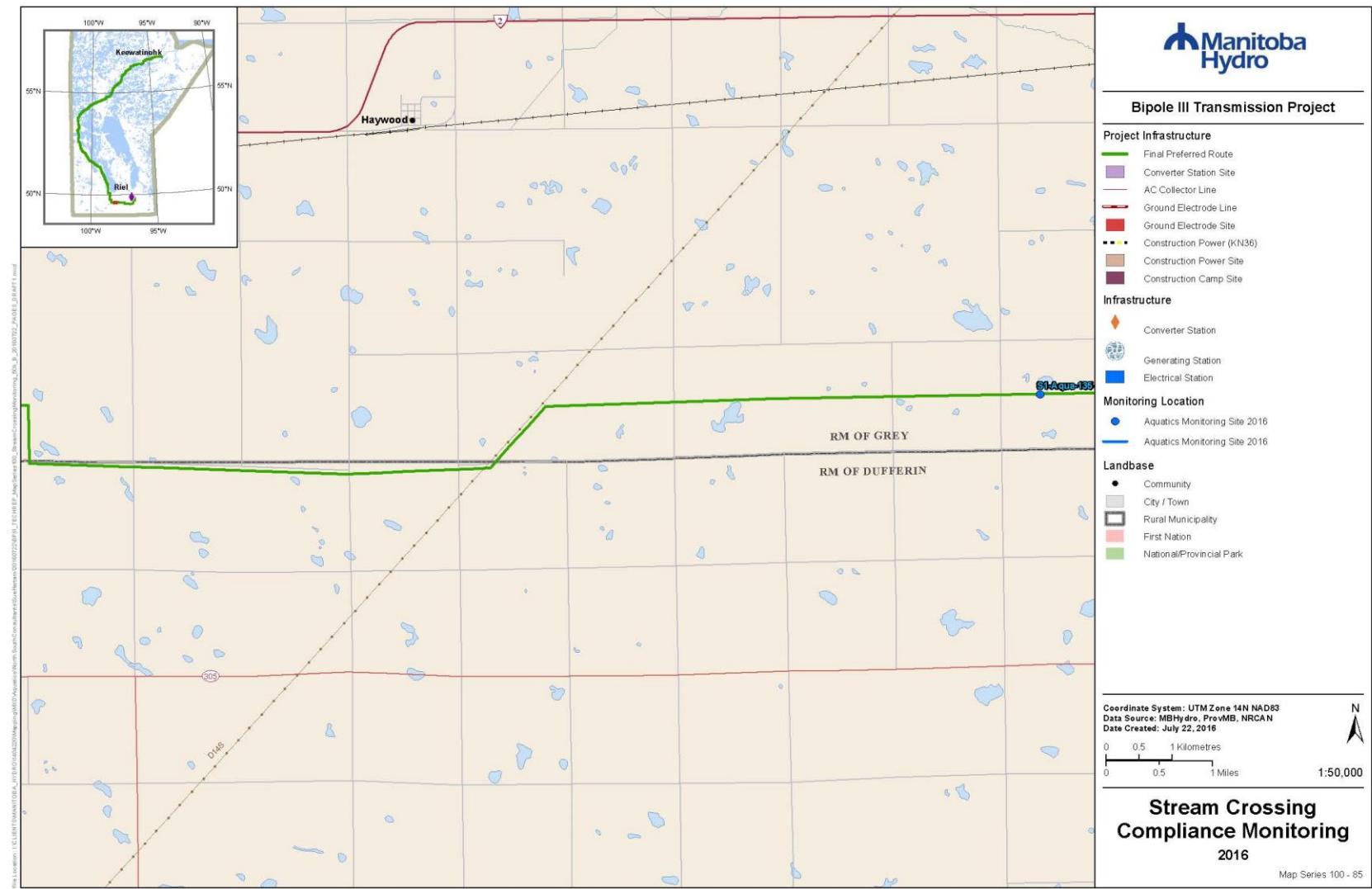
Map 100-82. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.

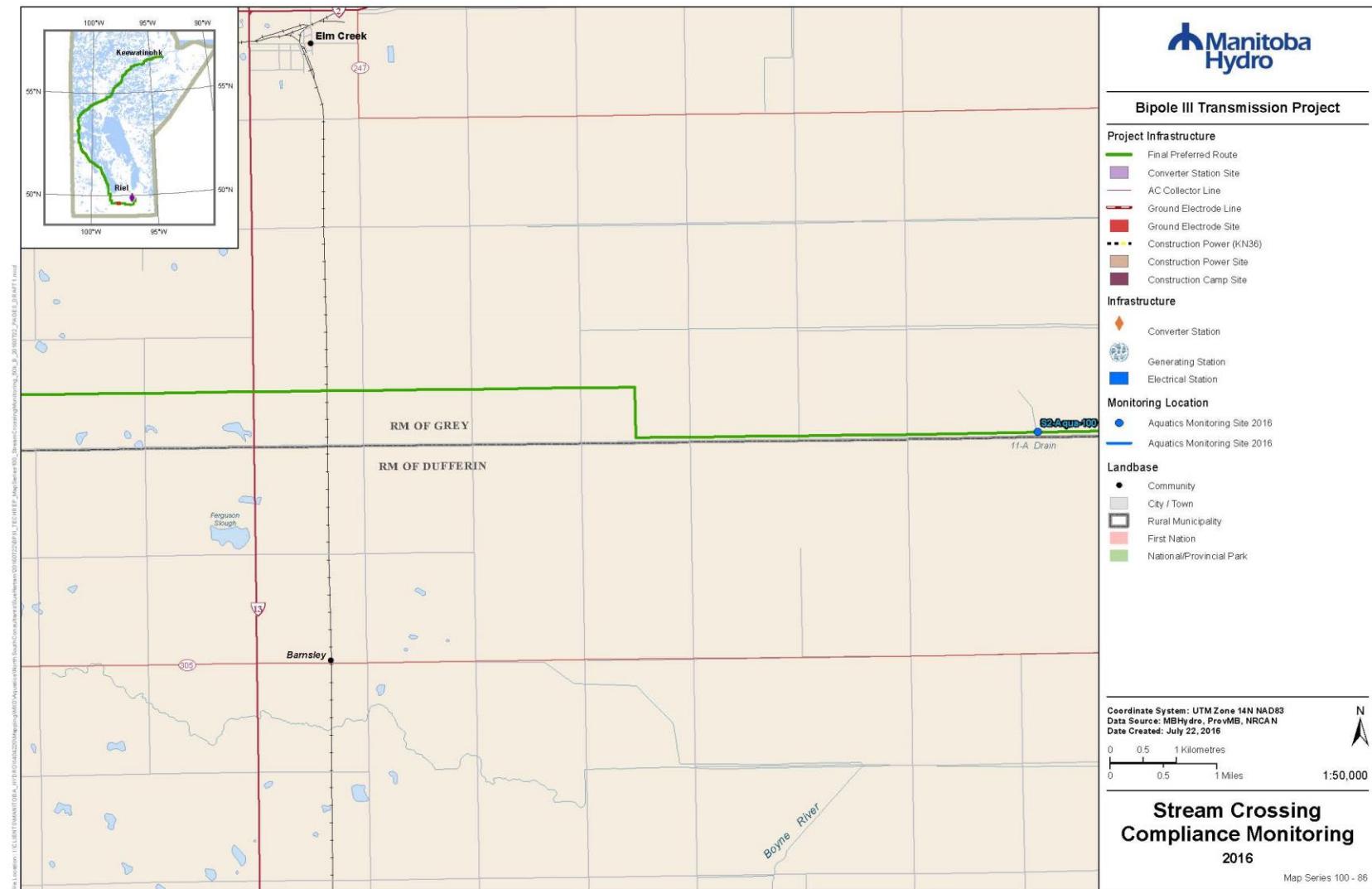


Map 100-83. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.

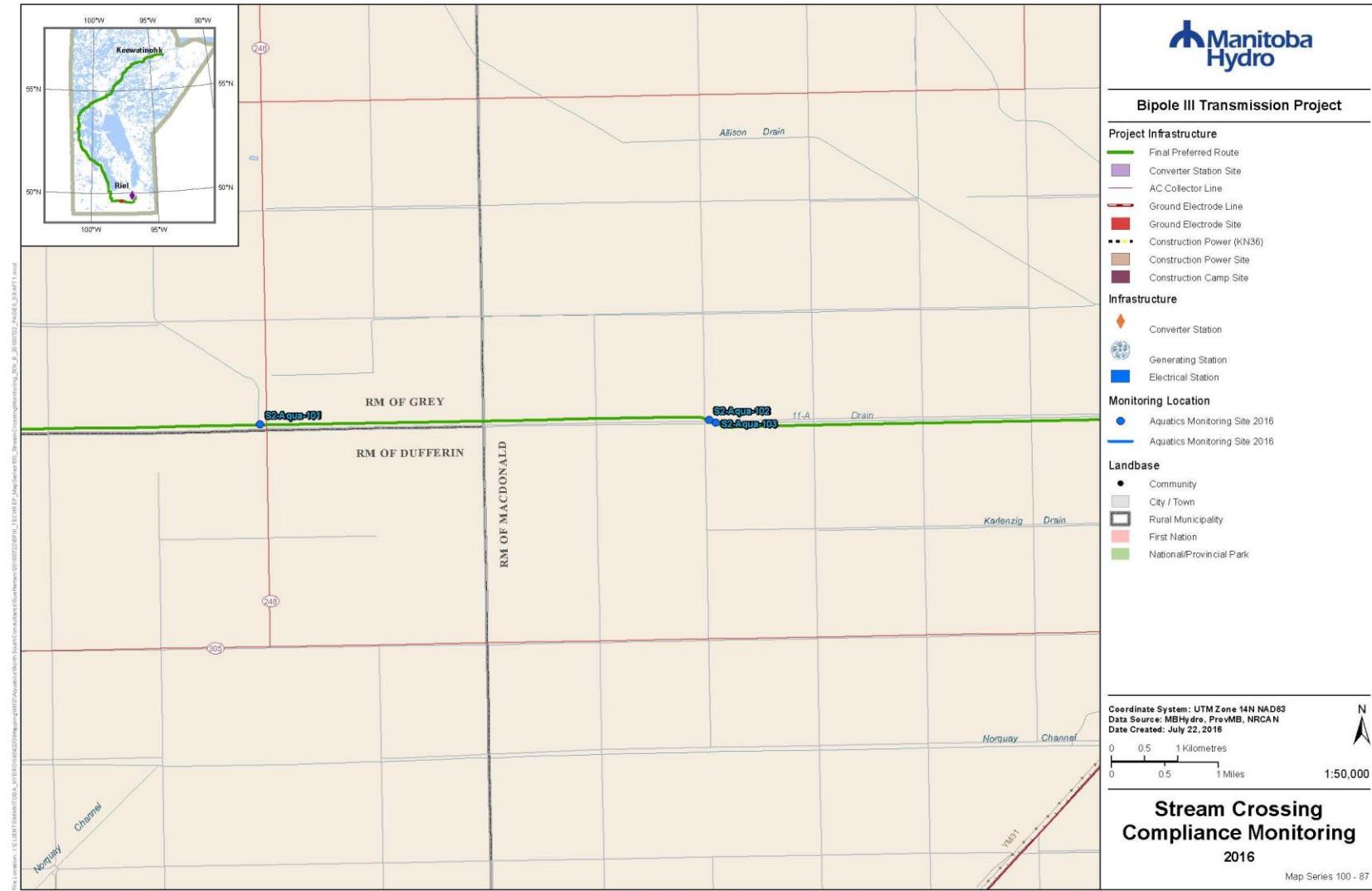


Map 100-84. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S1) stream crossings.

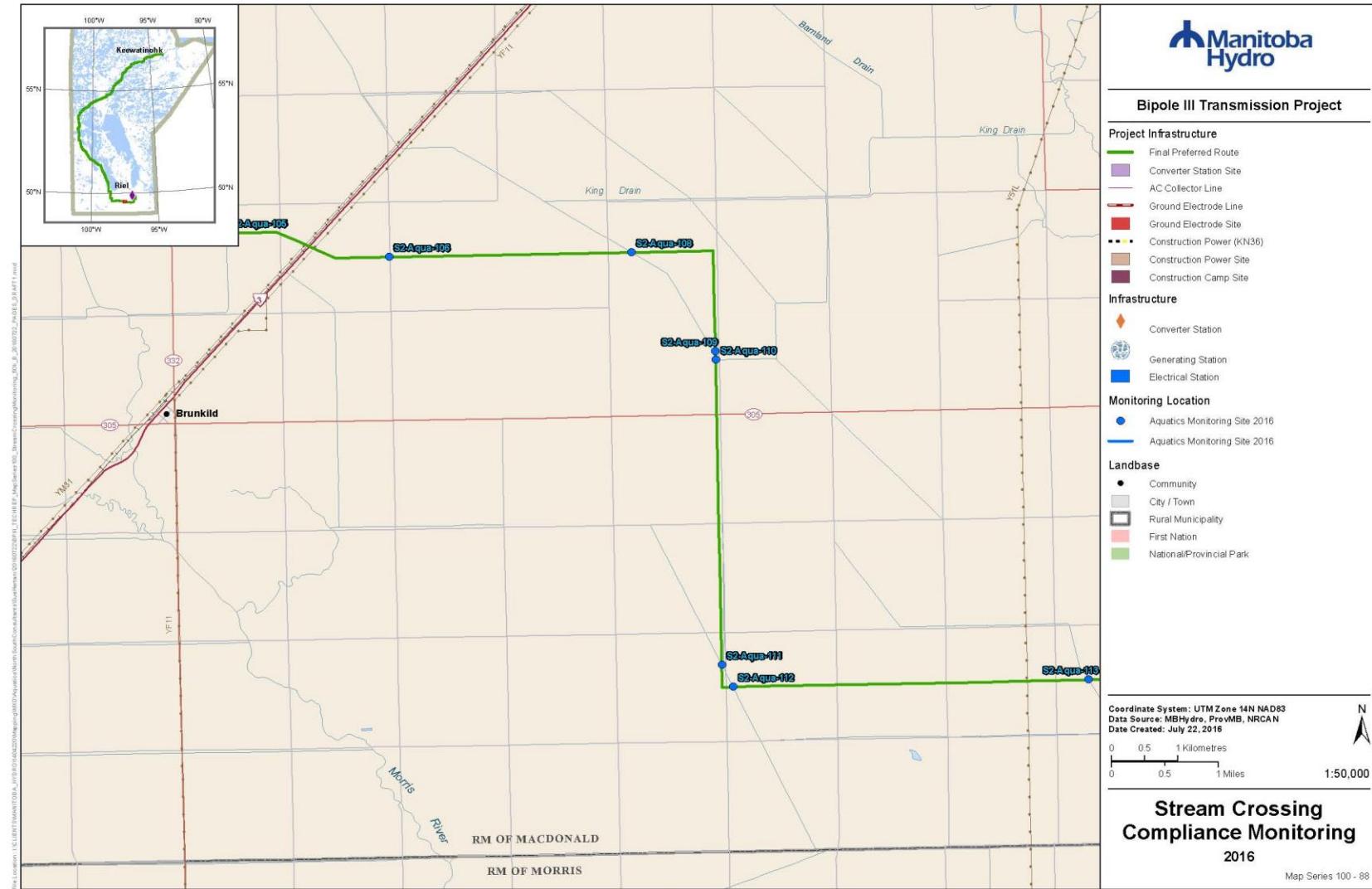




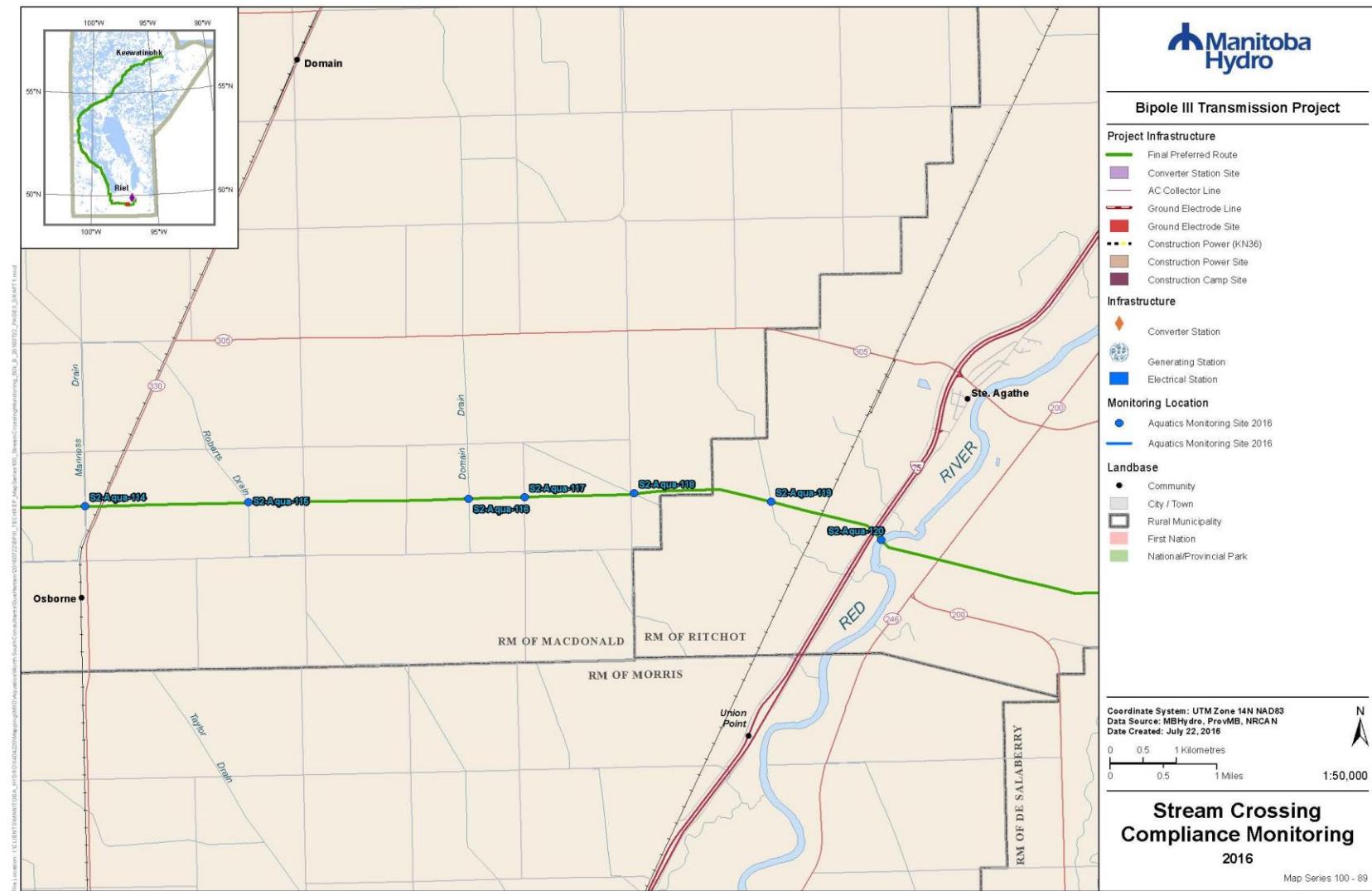
Map 100-86. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



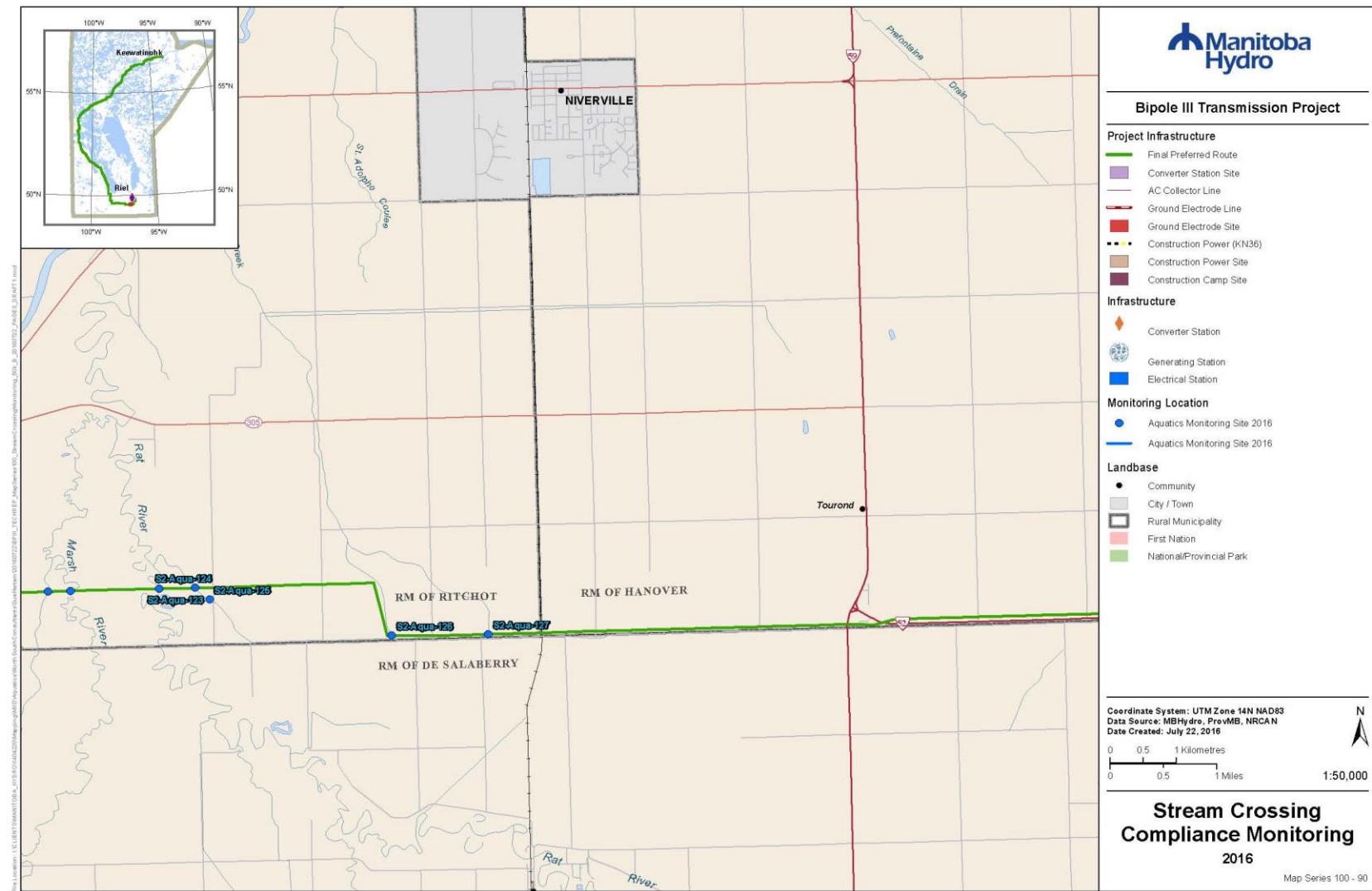
Map 100-87. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



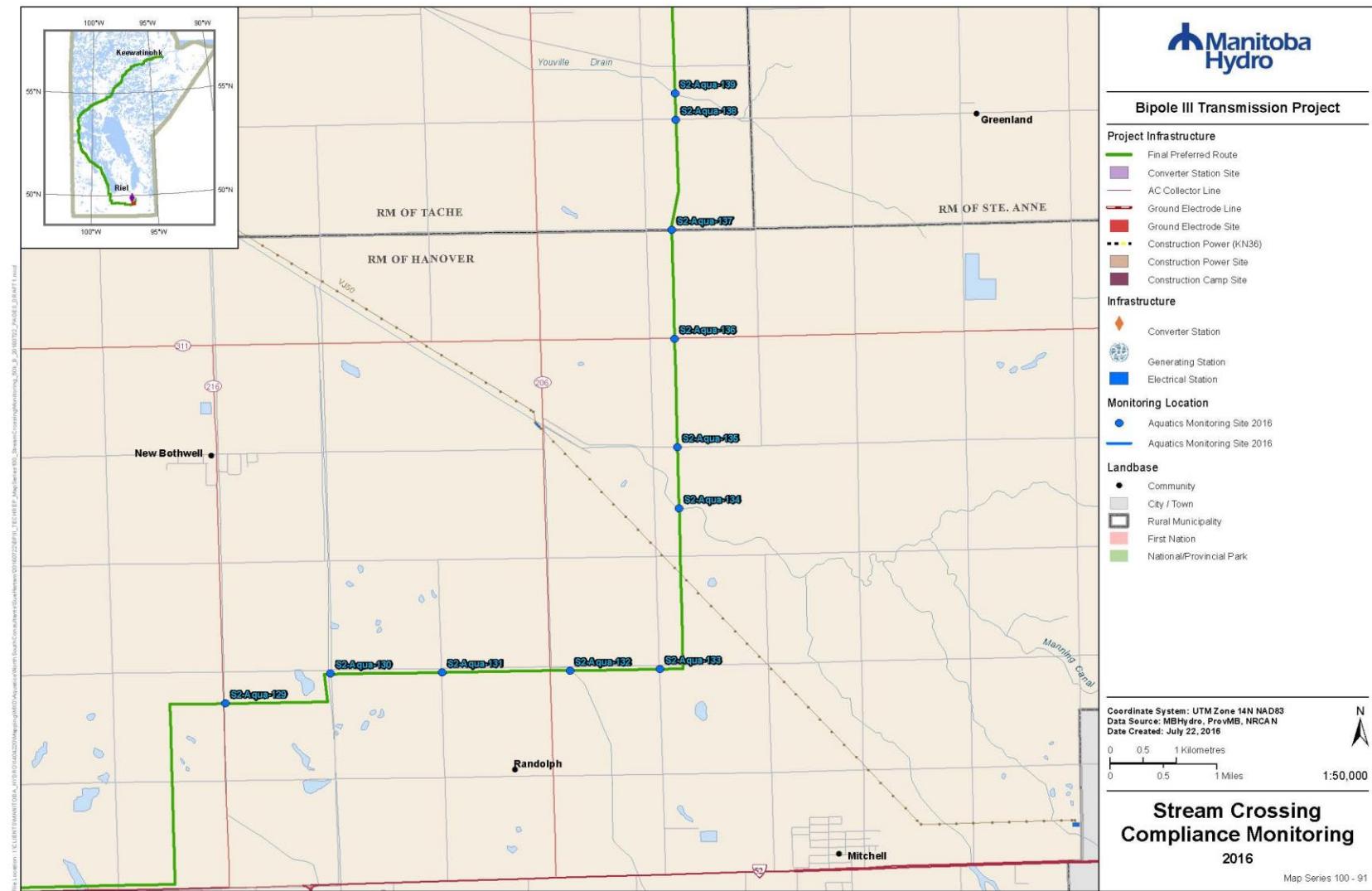
Map 100-88. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



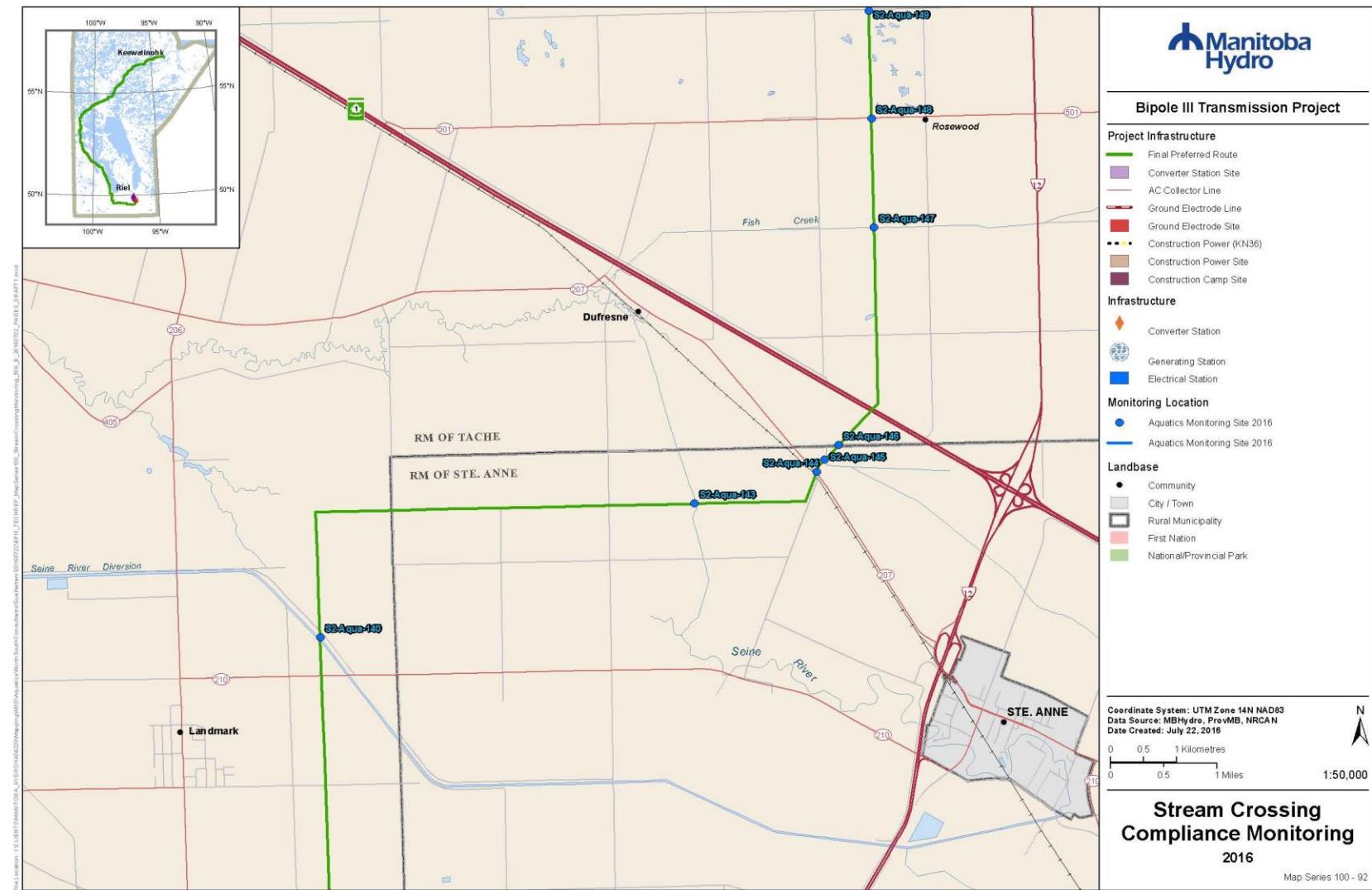
Map 100-89. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



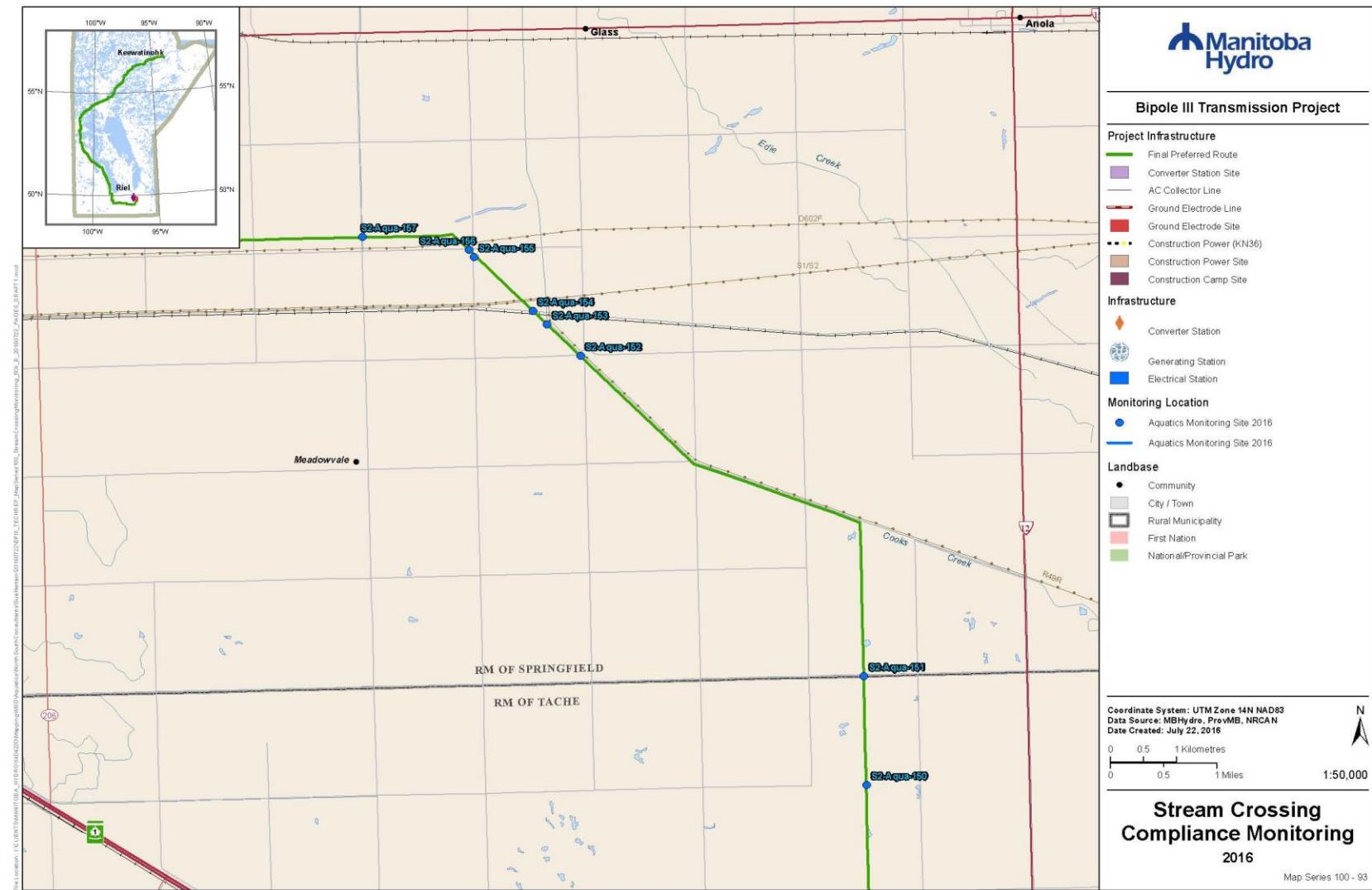
Map 100-90. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



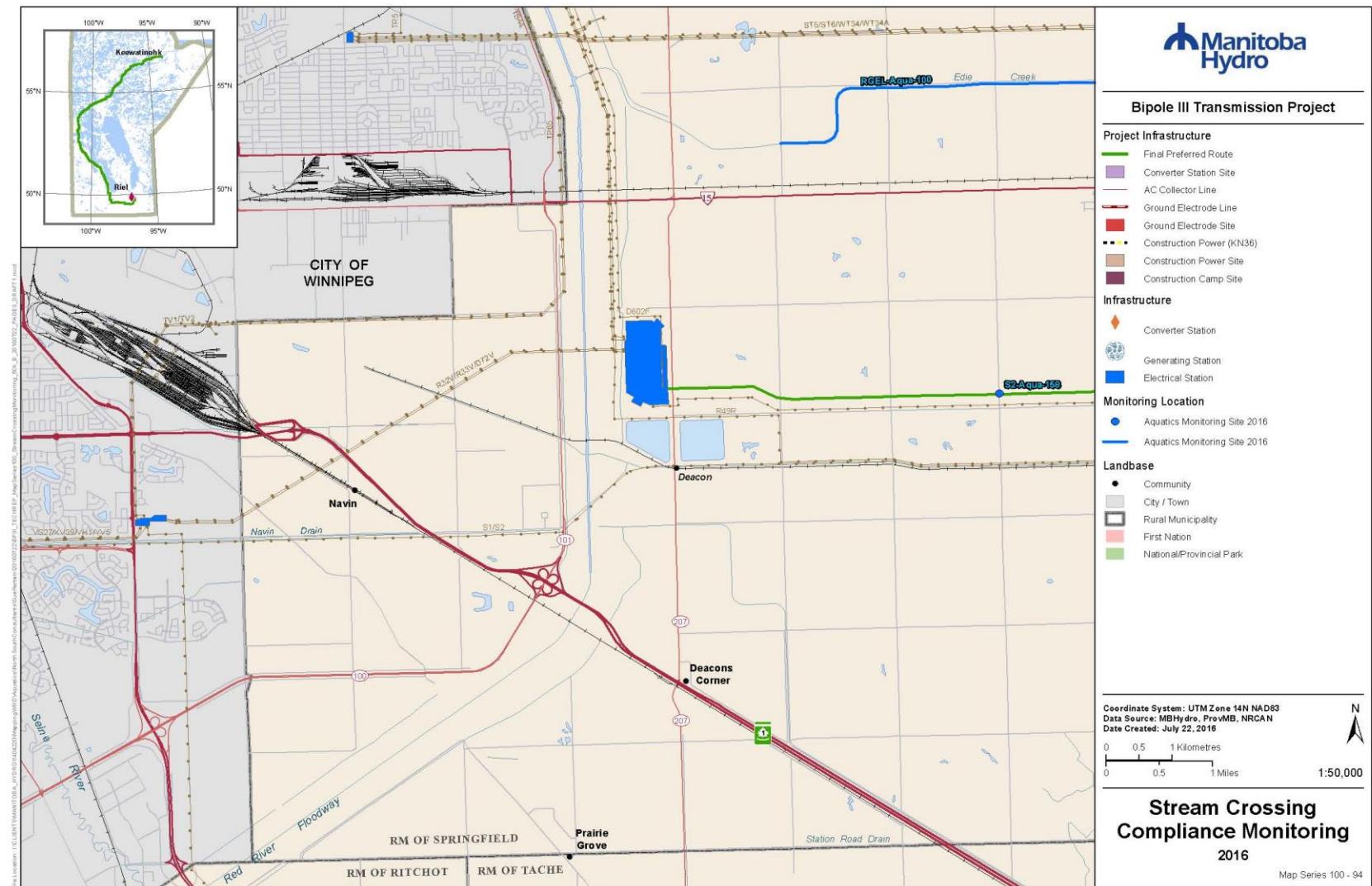
Map 100-91. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



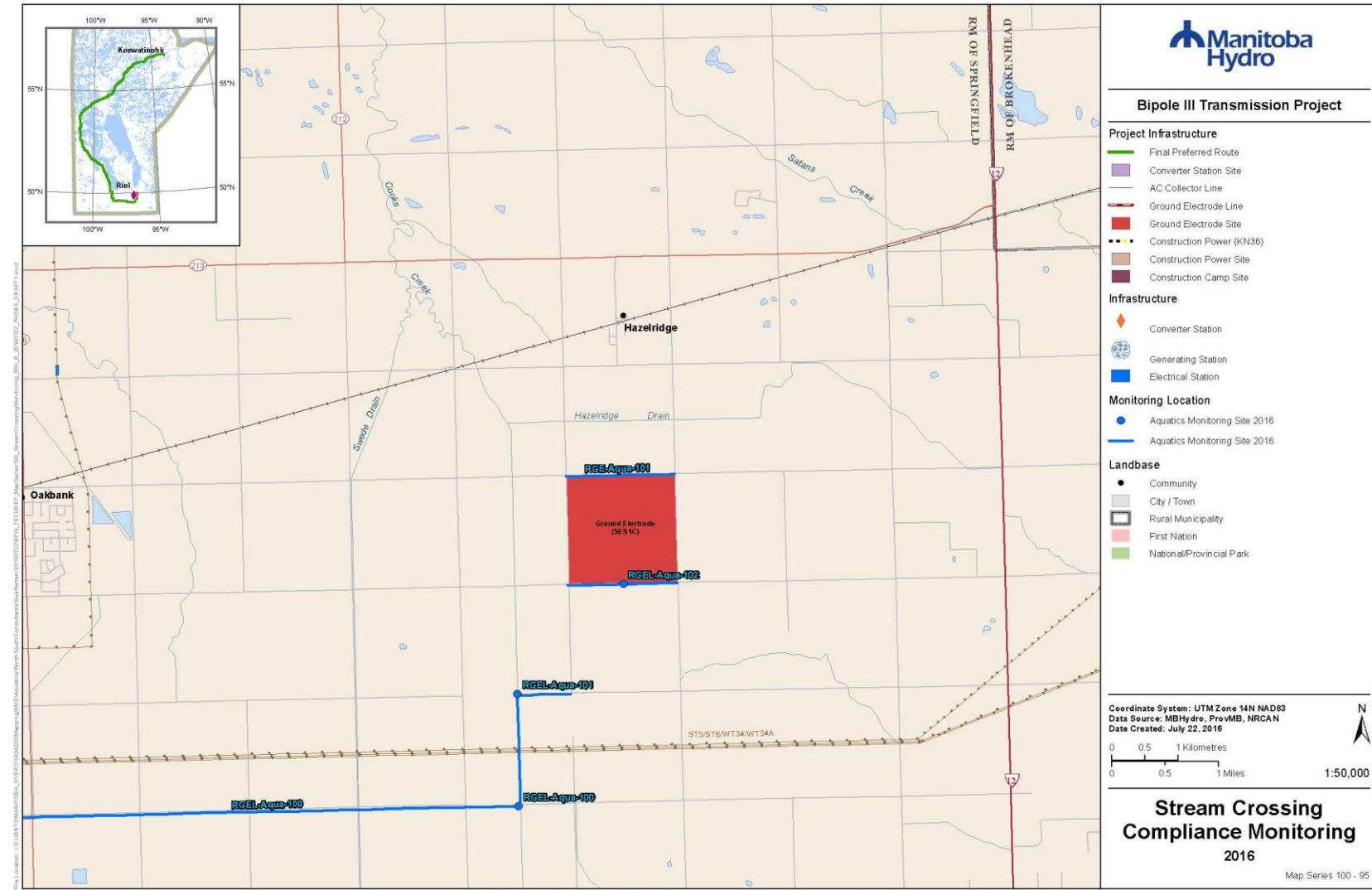
Map 100-92. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



Map 100-93. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



Map 100-94. Bipole III 500 kV Transmission Line (Final Preferred Route; segment S2) stream crossings.



Map 100-95. Bipole III 500 kV Transmission Line (Final Preferred Route; segment RGEL) stream crossings.

## 6.0 PHOTOS



Photo 1. CL-Aqua-104 (Brooks Creek). Woody debris accumulated instream at the vehicle crossing, June 2016.



Photo 2. N1-Aqua-129 (Limestone River). Channel within RoW is subject to erosion, June 2015.



Photo 3. N1-Aqua-129 (Limestone River). Channel within RoW is subject to erosion, June 2016.



Photo 4. N1-Aqua-133 (unnamed tributary of South Moswakot River). Channel runs within the riparian buffer zone in the RoW, prone to erosion, June 2015.



Photo 5. N1-Aqua-133 (unnamed tributary of South Moswakot River). Channel runs within the riparian buffer zone in the RoW, prone to erosion, June 2016.



Photo 6. N1-Aqua-173 (Burntwood River). Erosion in RBZ and slumping of southern bank (segment N1), June 2015.



Photo 7. N1-Aqua-173 (Burntwood River). Erosion/slumping of the southern bank (segment N1) at the downstream side of the RoW, June 2016.



Photo 8. N1-Aqua-173 (Burntwood River). Erosion/slumping of the southern bank (segment N1) at the upstream side of the RoW, June 2016.



Photo 9. N1-Aqua-135 (unnamed tributary of South Moswakot River). Woody debris in channel at the vehicle crossing, June 2016.



Photo 10. N1-Aqua-156 (unnamed tributary of Assean Lake). Woody debris in channel immediately downstream of the vehicle crossing, June 2016.



Photo 11. N1-Aqua-167 (unnamed tributary of the Burntwood River). Woody debris in channel at the vehicle crossing, June 2016.



Photo 12. N1-Aqua-172 (unnamed tributary of the Burntwood River). Woody debris in channel at the vehicle crossing, June 2016.



Photo 13. N1-Aqua-169 (unnamed tributary of Odei River). Temporary crossing remains in place, June 2015.



Photo 14. N1-Aqua-169 (unnamed tributary of Odei River). Temporary crossing remains in place, June 2016.



Photo 15. N2-Aqua-103 (unnamed tributary of Brannigan Creek). Woody debris in channel at the vehicle crossing, June 2016.



Photo 16. N2-Aqua-119 (unnamed tributary of Partridge Crop Lake). Bucked wood in channel creating a partial blockage to water flow, June 2016.



Photo 17. N2-Aqua-112 (Isbister Creek). Sediment accumulation instream and large plank functioning as a temporary bridge creating a partial blockage to water flow, June 2016.



Photo 18. N2-Aqua-160 (unnamed pond) Channel encroaching on tower anchor (1349), east of the crossing, June 2016.



Photo 19. N3-Aqua-102 bypass road (tributary of the Mitishto River). Woody debris observed instream of a small tributary along the bypass road , June 2016.



Photo 20. N2-Aqua-166 (unnamed tributary of Gormley Creek). Woody debris accumulated against supports of bridge immediately downstream of the RoW, June 2016.



Photo 21. N3-Aqua-103 (Mitishto River). Excessive clearing in RBZ and exposed soil prone to erosion protected by erosion control matting, June 2015.



Photo 22. N3-Aqua-103 (Mitishto River). Shrubs and forbes becoming established on the steep eastern bank through erosion control matting, June 2016. No erosion was detected.



Photo 23. N3-Aqua-134 (Saskatchewan River). Excessive vegetation clearing in the RBZ, June 2015.



Photo 24. N3-Aqua-134 (Saskatchewan River). Shrubs and forbes becoming well established on the southern bank, June 2016. Slumping does not appear to have increased since June 2015.



Photo 25. N4-Aqua-112 (tributary of Lake Winnipegosis). Woody debris and an accumulation of sediment observed instream within the RoW, June 2016.



Photo 26. C1-Aqua-125 (German Creek). Erosion of the stream at the vehicle and cattle crossing, June 2016.



Photo 27. S1-Aqua-112 (Whitemud River). Woody debris accumulated against supports of bridge immediately downstream of the RoW, June 2016.

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

Table A1. Compliance with 21 mitigation measures for stream crossings on the 230 kV AC Collector Lines and the 500 kV Line segments N1 through to S2.

ESS	Name	Construction Status 2016																					
		Cross Channel	Perpendicular to	Structures Above Tree Line	Riparian Ground Cover	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
<i>Watercourse Crossings of the 230 kV AC Collector Lines</i>																							
CLCP-Aqua 100	unnamed trib. of Goose Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-101	unnamed trib. of Tiny Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KW-Aqua-110	Tiny Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KW-Aqua-111	unnamed trib. to Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-102	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-103	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KW-Aqua-116	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KW-Aqua-117	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
KW-Aqua-118	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-104	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-105	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-106	Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-107	unnamed trib. to Swift Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-108	unnamed trib. to Beaver Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-109	Beaver Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
CLCP-Aqua-110	unnamed trib. to Sundance Cr.	TW	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	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	Y	Y	U	Y	N
CLCP-Aqua-111	Sundance Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CLCP-Aqua-112	unnamed trib. to Raindance Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CLCP-Aqua-113	unnamed trib. to Raindance Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CLCP-Aqua-114	Raindance Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CLCP-Aqua-115	Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	Y	NA	NA	NA	NA	NA	N							
CL-Aqua-100	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-101	Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	Y	NA	NA	NA	NA	NA	N							
CL-Aqua-102	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-103	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-104	Brooks Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	Y		
CL-Aqua-105	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-106	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-107	unnamed trib. of the Nelson R.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-108	Wilson Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-108	Wilson Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		
CL-Aqua-108	Wilson Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N		

Table A1. Continued.

ESS	Name	Construction Status 2016																					
		Cross Channel	Perpendicular to	Structures Above Tree Line	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots	Slash Above the Tree Line	Erogeate 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 2017
<i>Watercourse Crossings of the 500 kV Transmission Line</i>																							
N1-Aqua-100	unnamed trib. of Goose Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-101	unnamed trib. of Goose Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-102	unnamed trib. of Tiny Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-103	unnamed wetland	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-104	unnamed trib. of Goose Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-105	unnamed trib. of Goose Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-106	Goose Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-107	unnamed trib. of Weir R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-108	unnamed trib. of Weir R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-109	unnamed trib. of 9-Mile Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-110	unnamed trib. of 9-Mile Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-111	unnamed trib. of 9-Mile Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-113	9-Mile Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-114	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-115	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-116	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N
N1-Aqua-117	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	U	Y	N

Table A1. Continued.

ESS	Name	Construction Status 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
N1-Aqua-118	McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N1-Aqua-119	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-120	unnamed trib. of McMillan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-121	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
N1-Aqua-122	unnamed trib. of Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-123	Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-124	Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-125	unnamed trib. of Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-127	unnamed trib. of unnamed lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-128	unnamed trib. of unnamed Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-129	Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
N1-Aqua-130	unnamed trib. of Limestone R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-131	North Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-132	unnamed trib. of South Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	NA	N
N1-Aqua-133	unnamed trib. of South Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
N1-Aqua-134	South Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-135	unnamed trib. of South Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
N1-Aqua-136	unnamed trib. of South Moswakot R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	NA	N

Table A1. Continued.

ESS	Name	Construction Status 2016	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 Infact	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 2017
N1-Aqua-137	unnamed trib. of Stephens Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N1-Aqua-138	unnamed trib. of Assean R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-139	unnamed trib. of Assean R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-141	unnamed trib. of Apetowachakamasik Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-142	unnamed trib. of Apetowachakamasik Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-143	unnamed trib. of Assean R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-144	Crying R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-145	unnamed trib. of Hunting R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-146	Hunting R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-148	Awawayaykamak Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-149	unnamed trib. of Hunting R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-150	unnamed trib. of Hunting R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-151	Missewaitay R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-153	unnamed trib. of Hunting Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-154	unnamed trib. of Hunting Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-155	unnamed trib. of Assean Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-156	unnamed trib. of Assean Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
N1-Aqua-158	unnamed trib. of Clay R.	TA	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 2016	Cross Parpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
N1-Aqua-159	Clay R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N1-Aqua-160	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-161	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-162	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-163	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-165	Orr Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-166	unnamed trib. of Orr Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-167	unnamed trib. of Burntwood R.	RI/TA	Y	Y	NA	NA	Y	Y	Y	NA	N	NA	NA	Y	Y	Y	Y	Y	N	NA	Y	Y	U	Y	Y
N1-Aqua-168	Odei R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-169	unnamed trib. of Odei R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	NA	Y	Y	U	Y	Y
N1-Aqua-170	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-171	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-172	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N1-Aqua-173	Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	Y
N2-Aqua-100	unnamed trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-101	trib. of Burntwood R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-102	ponded area within wetland	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N

Table A1. Continued.

ESS	Name	Construction Status 2016	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 Infact	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 2017
N2-Aqua-103	trib. of Brannigan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	Y	
N2-Aqua-104	trib. of Brannigan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-105	Brannigan Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-106	unnamed stream	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-107	unnamed stream	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-108	small, unnamed lake	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-109	trib. of Isbister Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-110	trib. of Isbister Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-111	trib. of Isbister Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-112	Isbister Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
N2-Aqua-113	trib. of Isbister Cr.	TW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-115	trib. of Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-116	unnamed trib. of Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-117	trib. of Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	NA	N
N2-Aqua-118	riparian buffer	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	y	Y	U	NA	N
N2-Aqua-119	trib. of Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-120	trib. of Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-121	trib. of Partridge Crop Lake	TA	Y	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 2016	Cross Parpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
N2-Aqua-122	Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N2-Aqua-123	riparian buffer	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-124	Grass R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-125	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	Y
N2-Aqua-126	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	Y
N2-Aqua-127	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-128	unnamed Pond	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	Y
N2-Aqua-129	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-130	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-131	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-132	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-133	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-134	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-135	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-136	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-137	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-138	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N
N2-Aqua-139	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	NA	Y	N

Table A1. Continued.

ESS	Name		Construction Status 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
N2-Aqua-140	unnamed trib. into Partridge Crop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N2-Aqua-141	unnamed trib. into Teardrop Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-142	unnamed trib. connecting Gordon Brown Lake and	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-143	unnamed trib. of Wintering Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-144	unnamed trib. into Gordon Brown Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-145	unnamed trib. into Wintering Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	NA	N
N2-Aqua-146	unnamed trib. into Wintering Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-147	unnamed trib. into Wintering Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-148	unnamed trib. into Wintering Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	NA	N
N2-Aqua-149	Patrick Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-150	Halfway R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-151	Halfway R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-152	unnamed trib. of Patrick Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-153	unnamed trib. of Thicket Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-154	unnamed trib. of Clarke Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-155	unnamed trib. of Clarke Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-156	unnamed trib. of Clarke Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N2-Aqua-157	unnamed trib. of Clarke Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N

Table A1. Continued.

ESS	Name		TA	Construction Status 2016																		Fording Under Acceptable Conditions	Stream Bank Protection	Temp. Bridge As Needed	Follow-up Site Inspection 2017	
				Cross Channel	Perpendicular to Structures	Above Tree Line	Riparian Ground Cover	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				
N2-Aqua-158	Clarke Cr.		TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N	
N2-Aqua-158A	unnamed pond		TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N
N2-Aqua-159	Unnamed trib. of Muningwari Cr.		TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	Y	N
N2-Aqua-160	unnamed pond		TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N2-Aqua-161	unnamed trib. of Tooth Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N2-Aqua-162	unnamed trib. of Rocky Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N2-Aqua-163	unnamed trib. of Monty lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N2-Aqua-164	unnamed trib. of Monty lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N	
N2-Aqua-165	unnamed trib. of Resting Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N	
N2-Aqua-166	unnamed trib. of Gormley Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-100	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-101	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-102	Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-103	Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y
N3-Aqua-104	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-105	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-106	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N
N3-Aqua-107	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N

Table A1. Continued.

ESS	Name	TA	Construction Status 2016																		Fording Under Acceptable Conditions	Stream Bank Protection	Temp. Bridge As Needed	Follow-up Site Inspection 2017
			Cross Channel	Perpendicular to Structures	Above Tree Line	Riparian Ground Cover	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	Erogeate 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			
N3-Aqua-108	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-109	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-110	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-111	unnamed trib. into Mitishto R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-112	unnamed trib. into Dyce Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-113	unnamed trib. of Frog Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-114	unnamed trib. into Frog Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-115	Frog Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-116	unnamed headwater or side tributaries into Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-117	unnamed headwater or side tributaries into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-118	unnamed headwater or side tributaries into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-119	unnamed headwater or side tributaries into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-120	unnamed headwater or side tributaries into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-121	unnamed headwater or side tributaries into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-122	unnamed trib. into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-123	unnamed trib. into Little Frog Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N
N3-Aqua-124	unnamed trib. of unnamed Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N3-Aqua-125	unnamed trib. of Little Frog Cr.	TA	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 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
N3-Aqua-126	Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-127	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N3-Aqua-128	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N3-Aqua-129	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	Y	N	
N3-Aqua-130	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N3-Aqua-131	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N3-Aqua-132	unnamed trib. of Little Frog Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N3-Aqua-133	unnamed pond	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-134	Saskatchewan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	N	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	Y
N3-Aqua-136	unnamed trib. of the Saskatchewan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-137	unnamed trib. of the Saskatchewan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-138	Ralls Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N3-Aqua-139	unnamed pond	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-100	Iskwayanikakespeetik Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-101	Iskwayanikakespeetik Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-102	Iskwayanikakespeetik Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-103	Iskwayanikakespeetik Cr.	TA	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 2016																						
			Cross Parpendicular 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 Infact	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 2017	
N4-Aqua-104	Iskwayanikakespeetik Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N		
N4-Aqua-105	Iskwayanikakespeetik Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-106	unnamed trib. of Cedar Lake	RI	Y	NA	NA	NA	Y	Y	Y	NA	NA	NA	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-107	unnamed lake	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N	
N4-Aqua-108	unnamed drain	RI	Y	NA	NA	NA	Y	Y	Y	NA	NA	NA	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-109	unnamed drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-110	Overflowing R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-111	unnamed trib. of Overflowing R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-112	unnamed trib. of Lake Winnipegosis	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	Y	
N4-Aqua-113	Red Deer R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N	
N4-Aqua-116	unnamed trib. of Lake Winnipegosis	CL	Y	NA	NA	NA	NA	NA	U	Y	NA	NA	Y	NA	Y	Y	Y	Y	NA	Y	NA	U	U	N	
N4-Aqua-119	unnamed trib. of unnamed lake	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
N4-Aqua-121	unnamed trib. of unnamed lake	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-123	Steeprock R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N4-Aqua-124	unnamed trib. of Mafeking Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	NA	NA	U	N
N4-Aqua-125	Bell R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N4-Aqua-126	unnamed agricultural drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
N4-Aqua-127	unnamed agricultural drain	RC	Y	NA	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 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	Slash Above the Tree Line	Erogeate Disturbed Areas 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 2017
N4-Aqua-128	unnamed trib. of Bell Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
N4-Aqua-129	unnamed trib. of Bell Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	NA	NA	U	N	
N4-Aqua-130	Wawayanagan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
N4-Aqua-131	unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N
N4-Aqua-132	unnamed waterbody	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-133	unnamed agricultural drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-134	Swede Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-135	unnamed agricultural drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
N4-Aqua-136	unnamed trib. of Woody R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-137	Woody R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-138	trib. of Woody R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-139	trib. of Woody R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-140	Poplar Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-144	oxbow lake/wetland of Swan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-145	oxbow lake/wetland of Swan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-146	Swan R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N
N4-Aqua-147	Kitzul drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
N4-Aqua-148	unnamed agricultural drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	N

Table A1. Continued.

ESS	Name		Construction Status 2016																					
			Cross Channel	Perpendicular to Channel	Structures Above Tree Line	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots	Slash Above the Tree Line	Erosion Disturbed Areas 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 2017
N4-Aqua-149	unnamed agricultural drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	Y	NA	NA	NA	NA	N	
C1-Aqua-100	North Duck R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	Y	NA	NA	NA	N	
C1-Aqua-102	unnamed trib. of North Duck R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	
C1-Aqua-103	Sclater R.	CL	Y	NA	NA	NA	NA	NA	U	Y	NA	NA	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	
C1-Aqua-104	unnamed trib. of Sclater R.	CL	Y	NA	NA	NA	NA	NA	U	Y	NA	NA	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	
C1-Aqua-105	unnamed trib. of North Pine R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-106	North Pine R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-107	North Pine R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-108	North Pine R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-109	South Pine R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-110	unnamed pond	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-111	unnamed trib. of Garland R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-112	Garland R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-113	Backwater of Garland R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-114	Backwater of Garland R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
C1-Aqua-115	unnamed trib. of Wellburns Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	
C1-Aqua-116	unnamed trib. of Wellburns Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	
C1-Aqua-117	Wellburns Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	

Table A1. Continued.

ESS	Name	Construction Status	2016	Cross Parpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	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 2017
C1-Aqua-118	unnamed small lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	Y	Y	NA	Y	Y	U	Y	N	
C1-Aqua-119	Mossy R.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	Y	N	
C1-Aqua-120	Robinson Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	N	
C1-Aqua-121	unnamed trib. of Cork Cliff Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	N	
C1-Aqua-122	Cork Cliff Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	N	
C1-Aqua-124	unnamed trib. of Lake Winnipegosis	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C1-Aqua-125	German Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	Y
C1-Aqua-127	unnamed pond	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	NA	N
C1-Aqua-128	unnamed agricultural drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	NA	N
C1-Aqua-129	unnamed agricultural drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-100	unnamed wetland	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-101	small unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	NA	N
C2-Aqua-102	small unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	NA	N
C2-Aqua-103	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-104	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-105	unnamed Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-106	unnamed trib. from Pedro Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N

Table A1. Continued.

ESS	Name	TA	Construction Status 2016																					
			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 Infact	Slash Above the Tree Line	Erogeate 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 2017
C2-Aqua-107	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N	
C2-Aqua-108	unnamed trib. from Jarvis Lake	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-109	unnamed stream between Jarvis Lake and an	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-110	unnamed Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-111	Garrioch Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-112	Rocklan Drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-113	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-114	unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-115	unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-117	small, unnamed lake	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-119	unnamed road ditch	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-120	unnamed road ditch	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-121	small, unnamed waterbody	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-122	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-123	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-124	unnamed Cr.	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-125	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	NA	Y	Y	U	Y	N
C2-Aqua-126	drain	TA	Y	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 2016																		2017					
		TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C2-Aqua-127	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-128	drain	TA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-129	drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-130	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-131	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-132	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-133	unnamed Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-134	drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-135	drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	Y	Y	NA	Y	Y	Y	U	N
C2-Aqua-136	drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	N
S1-Aqua-101	small, unnamed waterbody (retention pond)	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S1-Aqua-102	small, unnamed waterbody (retention pond)	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S1-Aqua-103	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	N
S1-Aqua-104	small, unnamed waterbody (retention pond)	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	N										
S1-Aqua-106	small, unnamed waterbody (retention pond)	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	N										
S1-Aqua-107	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	N
S1-Aqua-108	unnamed drain	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	N										
S1-Aqua-109	small, unnamed waterbody (retention pond)	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	N										

Table A1. Continued.

ESS	Name	Construction Status 2016	Cross Channel	Perpendicular to	Structures Above Tree Line	Riparian Ground Cover	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 2017
			RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	
S1-Aqua-111	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-112	Whitemud R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-113	Squirrel Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-114	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-115	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-116	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-117	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-118	New Beaudin Drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-119	unnamed ditch	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-120	unnamed road ditch	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-121	Westbourne Drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-122	unnamed drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-124	unnamed trib. of Rat Cr.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-125	Bagot Cr.	RI	Y	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Y	N	
S1-Aqua-126	Rat Cr.	RI	Y	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Y	N	
S1-Aqua-127	unnamed wetland	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	Y	N	
S1-Aqua-128	Rossendale Drain	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	Y	N	
S1-Aqua-129	unnamed trib. of Assiniboine R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	

Table A1. Continued.

ESS	Name	Construction Status 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	Slash Above the Tree Line	Erogeate Disturbed Areas 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 2017
S1-Aqua-130	Assiniboine R.	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	Y	NA	NA	NA	N	
S1-Aqua-131	small, unnamed waterbody	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S1-Aqua-132	small, unnamed waterbody	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S1-Aqua-133	unnamed small wetland area	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S1-Aqua-134	unnamed small wetland area	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S1-Aqua-135	unnamed small lake	RC	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-100	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-101	11-A Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-102	11-A Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-103	11-A Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-104	11-A Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-105	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-106	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-107	unnamed pond	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-108	Parker Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-109	Parker Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-110	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N
S2-Aqua-111	Garber Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N

Table A1. Continued.

ESS	Name	Construction Status 2016	Cross Perpendicular to Channel	Structures Above Tree Line Remain	Riparian Ground Cover	Machine Free Zone 7 m	Riparian Buffer 30 m	Clearing Limits Marked	Construction on Frozen Ground	Riparian Vegetation Roots Infact	Slash Above the Tree Line	Erogeate 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 2017
S2-Aqua-112	Garber Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-113	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-114	Manness Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-115	Roberts Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-116	Domain Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	Y	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-117	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-118	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-119	La Pointe Coulee	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-120	Red R.	NC	Y	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	
S2-Aqua-121	unnamed trib. of Marsh R.	NC	NA	NA	NA	NA	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	
S2-Aqua-122	Marsh R.	NC	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-123	Rat R.	NC	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-124	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-125	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-126	Tourond Cr.	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-127	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-128	unnamed wetland	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	
S2-Aqua-129	Old South Lateral Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	N	

Table A1. Continued.

ESS	Name	Construction Status 2016	Cross Channel	Perpendicular to	Structures Above Tree Line	Riparian Ground Cover	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 2017
			RC	Y	NA	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	NA	
S2-Aqua-130	South Lateral Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-131	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-132	Chorlitz Drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-133	unnamed drain	RC	Y	NA	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-134	Manning Canal	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-135	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-136	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-137	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-138	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-139	Youville Drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-140	Seine R. Diversion	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-143	Seine R.	NC/TA	Y	Y	Y	NA	NA	U	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-144	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-145	unnamed ditch/drain connected to Seine R.	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-146	unnamed ditch/drain connected to Seine R.	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-147	Fish Cr.	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-148	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	
S2-Aqua-149	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N	

Table A1. Continued.

ESS	Name	Construction Status 2016																					
		Cross Channel	Perpendicular to Structures	Above Tree Line	Riparian Ground Cover	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	Erosion Disturbed Areas	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
S2-Aqua-150	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S2-Aqua-151	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S2-Aqua-152	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S2-Aqua-153	unnamed drain	RC/TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S2-Aqua-154	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	N
S2-Aqua-155	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	N
S2-Aqua-156	unnamed drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	NA	Y	NA	NA	N
S2-Aqua-157	Swede Drain	TA	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N
S2-Aqua-158	unnamed drain	TA	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	N

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

Construction Status 2015: 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: Cr. - creek; R. - River; Temp. - temporary; Trib. - trib.