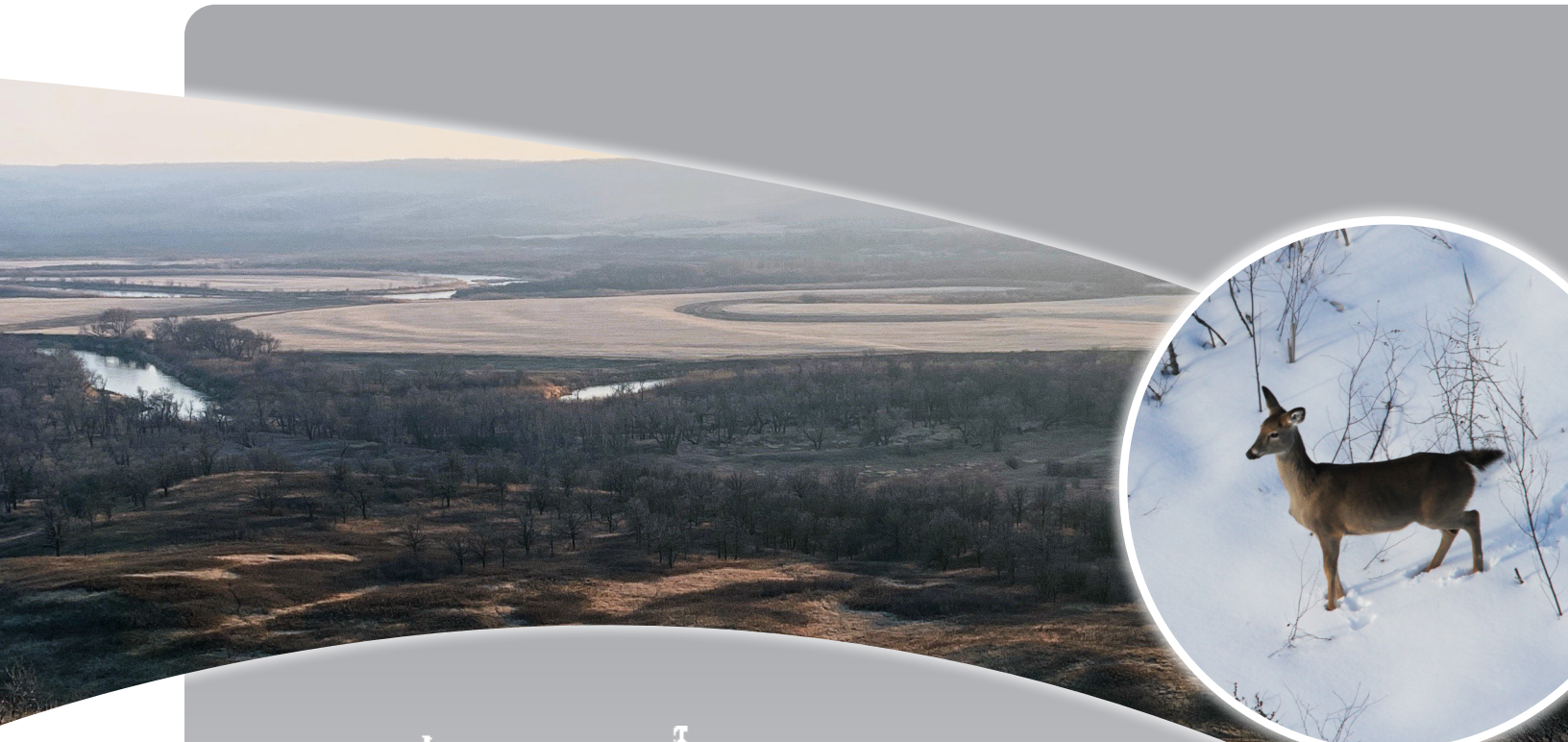


# Birtle Transmission Project Environmental Effects Monitoring Report



Prepared by:  
Manitoba Hydro  
Winnipeg, Manitoba  
February 2021





# **Birtle Transmission Project 2020**

## **Environmental Effects Monitoring Report**

**Prepared by Manitoba Hydro**

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Licensing & Environmental Assessment

February 2021

Prepared for:

Environmental Approvals Branch

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## Acronyms

AC	Alternating Current
BTP	Birtle Transmission Project
BFJV	Birdtail Sioux Dakota Nation Forbes Bros Joint Venture
EMP	Environmental Monitoring Plan
CEnvPP	Construction Environmental Protection Plan
EA	Environmental Assessment
EPIMS	Environmental Protection Information Management System
EPP	Environmental Protection Program
ESS	Environmentally Sensitive Site
HCR	Heritage and Culture Review Team
kV	Kilovolt
MCC	Manitoba Conservation and Climate
ROW	Right-of-way
VC	Valued Component



## 1 INTRODUCTION

This report presents the results of the environmental effects monitoring plan for Birtle Transmission Project, hereby known as “the Project”. This report is produced in compliance with clause 26 of *The Environment Act* licence No. 3314. Manitoba Hydro presents this information to inform interested parties, communities, stakeholders and the general public on progress made on construction and implementation of mitigation measures that minimize environmental effects.

This is the Project’s first annual monitoring report and describes monitoring from January 1, 2020 through December 31, 2020. Map 1 outlines the Birtle Transmission Project area. Anyone interested in further information about this report or the Project is invited to contact Manitoba Hydro at:

Licensing and Environmental Assessment  
360 Portage Avenue (5)  
Winnipeg, MB R3C 0G8  
1-877-343-1631 or 204-360-7888

## 2 PROJECT OVERVIEW

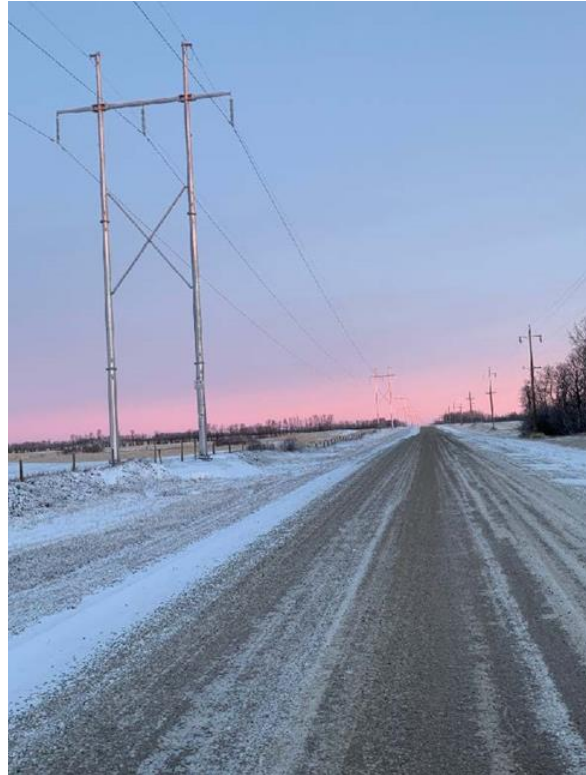
The Birtle Transmission Project involves the construction and operation of a new 230 kV transmission line from the Birtle Station, located south of the community of Birtle, Manitoba to the Manitoba Saskatchewan border (Map 1).

## 3 PROJECT STATUS

Construction activities began in July 2020. The construction contract was awarded to a joint venture between Birdtail Sioux Dakota Nation and Forbes Bros (BFJV). Vegetation clearing, foundation installation, tower assembly, tower erection, and conductor stringing were all initiated within this reporting period. At the end of December 2020, construction completion progress was as follows:

- Tower foundation installation - 90%
- Tower assembly – 70%
- Tower erection – 62%
- Conductor stringing – 30%
- Vegetation clearing – 75%

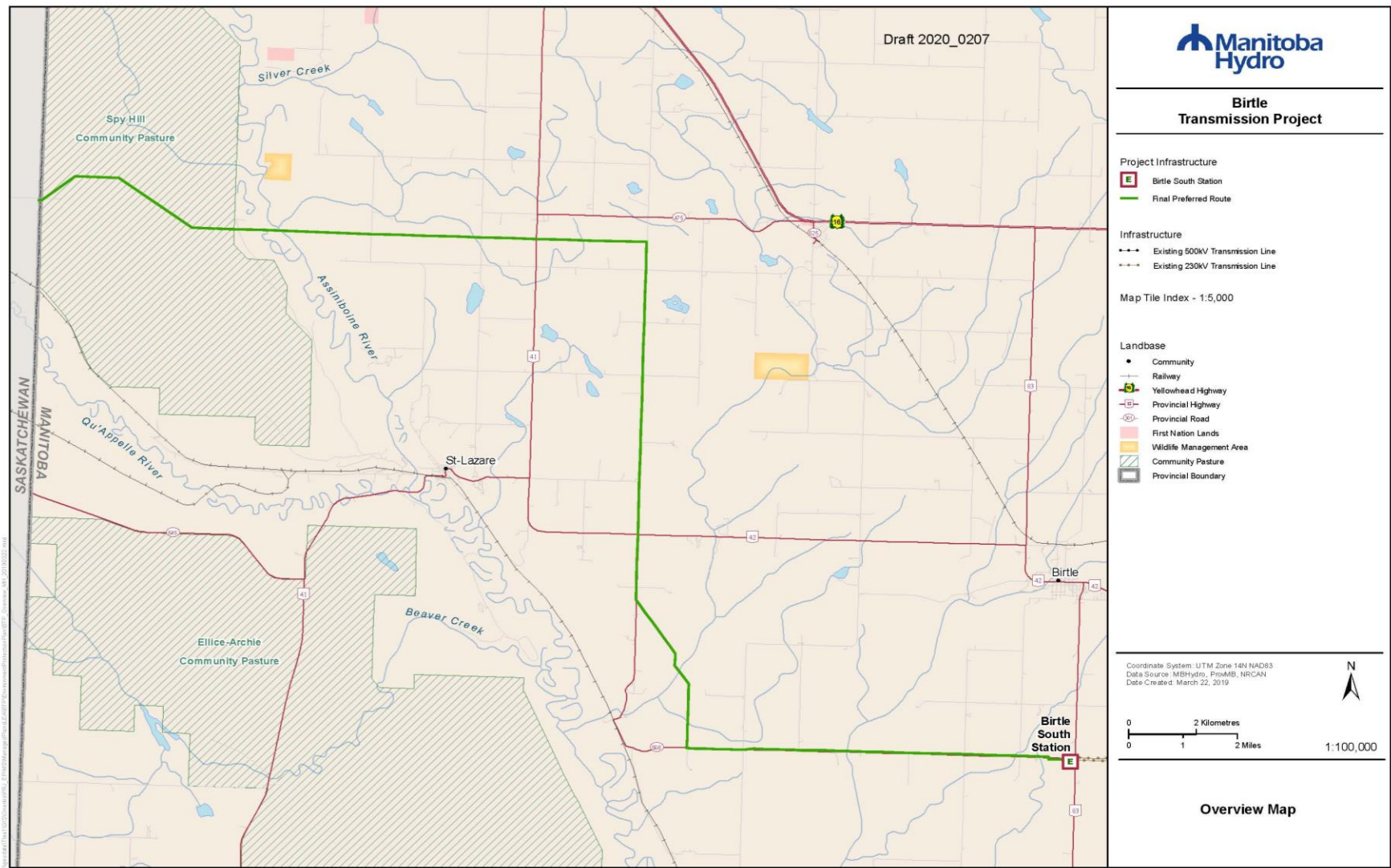
The project is projected to be completed and came into service in June 2020.



**Photo 1:** The Birtle Transmission Project began construction in July 2020.



**Photo 2:** Vegetation clearing along the right of way.



Map 1. Birtle Transmission Project Area.



## 4 ENVIRONMENTAL EFFECTS MONITORING PLAN OVERVIEW

Manitoba Hydro's commitment to environmental protection includes the development of a comprehensive Environmental Protection Program (EPP) for the Project. This includes monitoring and follow-up of biophysical environmental components identified in the environmental assessment. The Environmental Effects Monitoring Plan (EEMP) was approved by the Department of Conservation and Climate (MCC) on June 11<sup>th</sup>, 2020 and outlines the various monitoring activities that will occur during the different phases of the Project.

The scope of this plan includes physical and biological components of the environment. The purpose of the EEMP is to identify the key activities that will be conducted as part of the monitoring and follow-up component of the Environmental Protection Program that will verify potential effects and effectiveness of mitigation.

The objectives of the EEMP are to:

- Confirm the nature and magnitude of predicted environmental effects as stated in the environmental assessment (EA);
- Assess the effectiveness of mitigation measures implemented;
- Identify unexpected environmental effects of the Project, if they occur;
- Identify mitigation measures to address unanticipated environmental effects, if required;
- Confirm compliance with regulatory requirements; and
- Provide baseline information to evaluate long-term changes or trends.

Environmental components, requiring follow-up monitoring, discussed further in this annual Environmental Effects Monitoring Report include:

- Aquatic Habitat
  - Stream Crossings
- Grassland Habitat

- Bird Species of Conservation Concern
- Plant Species of Conservation Concern
- Invasive Plant Species
- Traditional Use Plant Species
- Forest Habitat
  - Ungulates
  - Plant Species of Conservation Concern
  - Invasive Plant Species
  - Traditional Use Plant
  - Predators and Resource User Access

### Adaptive Management

Manitoba Hydro has accumulated a wealth of knowledge and lessons learned from previous monitoring programs. The successes of those programs have been useful in developing the EEMP for the Project. This previous experience has been used to improve upon the plan's approach, methods and key environmental monitoring activities.

Going forward, an adaptive management framework will continue to be used through the end of the monitoring program deal with unexpected outcomes or events based on information gathered. Data will be reviewed as collected to determine if any of the environmental thresholds specified in the EEMP have been exceeded due to shortfalls in impact prediction, ineffective mitigation measures or inadequate monitoring approaches. Actions will be developed in response to these contingencies.

## 5 IMPLEMENTATION OF MONITORING AND FOLLOW-UP ACTIVITIES

Environmental monitoring helps validate the accuracy of the environmental assessment and effectiveness of mitigation measures. Manitoba Hydro utilizes internal staff for the implementation of the EEMP, funded participation of Indigenous community representatives, and retained highly qualified specialists in appropriate disciplines. Manitoba Hydro's Environmental Protection Information Management System (EPIMS) will also play a major role in managing the EEMP implementation, coordination of field work, data collection and communications amongst the monitoring team.



## 2020 Environmental Effects Monitoring Highlights

Key monitoring highlights during this reporting include:

- Preconstruction surveys were conducted for invasive plants along the right of way. Sites were identified and added to the biosecurity plan to prevent their spread to new areas.
- Sharp-tailed grouse populations appeared to be lower with fewer lek sites than was recorded during baseline surveys in 2017.
- No unexpected environmental effects have been observed for any environmental components.
- No regulatory warnings or citations were issued.

**Table 1: 2020 Monitoring Activities**

Valued Component	Environmental Indicator	2020 Monitoring Status
Aquatic Habitat	Stream Crossings	Planned for the following year
Grassland Habitat	Plant Species of Conservation Concern	Planned for the following year
	Traditional Use Plant Species	Planned for the following year
	Bird Species of Conservation Concern	Sharp-tailed grouse survey completed
	Invasive Plant Species	Completed
Forest Habitat	Ungulates	Planned for the following year
	Plant Species of Conservation Concern	Planned for the following year
	Traditional Use Plant Species	Planned for the following year
	Invasive Plant Species	Completed
	Predator and Resource User Access	Planned for the following year

## 6 ENVIRONMENTAL COMPONENT MONITORING

Multiple environmental components were identified for follow-up in the environmental assessment and technical reports. For each environmental component, one or more environmental indicators were selected to focus monitoring and follow-up efforts as indicated in the EEMP (Table 1). Map 2 shows an overview of monitoring site locations.

### 7 AQUATIC HABITAT

#### 7.1 Stream Crossings

Stream crossings monitoring is planned for 2021.

### 8 GRASSLAND HABITAT

#### 8.1 Plant Species of Conservation Concern

Plant species of conservation concern monitoring is planned for 2021.

#### 8.2 Traditional Use Plant Species

Traditional use plant species monitoring is planned for 2021.

### 8.3 Invasive and Non-Native Plants

Invasive and non-native plant monitoring was completed from June 26-29, 2020. A total of 93 sites were surveyed roadside along the project route for invasive plant species from the Birtle Station to the Manitoba border. This survey included grassland habitat. A total of 45 species were recorded in surveys (invasive, noxious and/or non-native). Results were shared with weed district supervisor and incorporated in the BTP biosecurity plan.

No decision triggers or thresholds for action were met within this reporting period. Post construction monitoring of invasive plants will be conducted in 2021.

### 8.4 Bird Species of Conservation Concern

A pre-construction sharp-tailed grouse survey was conducted in 2020. Sharp-tailed grouse lek surveys were conducted by two observers from April 15 to 17, 2020 in Spy Hill Ellice Community Pasture. Leks are an assembly area where sharp-tailed grouse carry out display and courtship behavior in the early spring.

A total of 15 active sharp-tailed grouse leks with 133 grouse were observed in the study area. Fewer sharp-tailed grouse leks were observed in 2020 (15), compared

to the number observed in 2017 (29). However, the average number of grouse attending the leks was greater in 2020 (9), compared to 2017 (6), which may account for some of the difference in the number of leks observed.

No decision triggers or thresholds for action were met within this reporting period. Post construction monitoring of sharp-tailed grouse and other grassland bird species of conservation concern will be conducted in 2021.



**Photo 3. Sharp-tailed grouse habitat in the Project area.**

## **9 FOREST HABITAT**

### **9.1 Ungulates**

Ungulate monitoring is planned for 2021.

### **9.2 Plant Species of Conservation Concern**

Plant species of conservation concern monitoring is planned for 2021.

### **9.3 Traditional Use Plant Species**

Traditional use plant species monitoring is planned for 2021.

### **9.4 Invasive and Non-Native Plants**

Invasive and non-native plant monitoring was completed from June 26-29, 2020. A total of 93 sites were surveyed roadside along the project route for invasive plant species from the Birtle Station to the Manitoba border. This survey included forested habitat. A total of 45 species were recorded in surveys (invasive, noxious and/or non-native).

Results were shared with Weed District Supervisor and incorporated in the BTP biosecurity plan.

No decision triggers or thresholds for action were met within this reporting period. Post construction monitoring of invasive plants will be conducted in 2021.



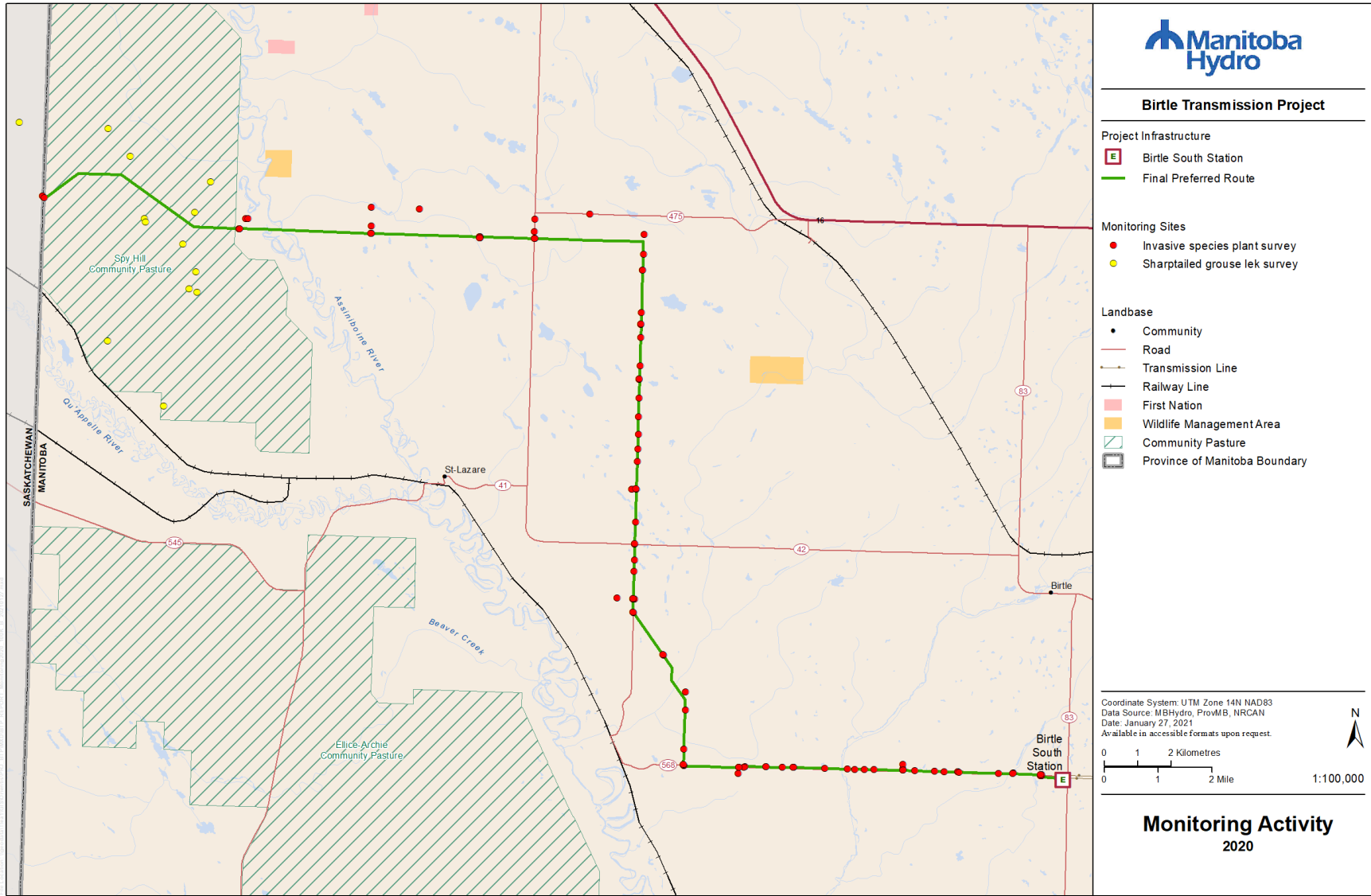
**Photo 4. Invasive plant species were surveyed along the right of way.**

### **9.5 Predator and Resource User Access**

Predator and resource user access monitoring is planned for 2021.



**Photo 5: Transmission tower construction at the Assiniboine River valley.**



Map 2: Birtle Transmission Project Monitoring Site Locations.

## 10 COMPLIANCE MONITORING

Compliance monitoring involves reviewing Project activities for adherence to legislation, licence conditions, permits, and environmental protection plans. On-site project environment officers conducted daily site inspections throughout this reporting period. Monthly communication and reports were made with the Provincial Environment Officer assigned to the Project. No regulatory warnings or citations were issued.

Notable environmental mitigations in this reporting period included:

- Buffering and monitoring multiple migratory bird nests along the ROW in August 2020.
- The discovery and buffering of a black bear den in October 2020.
- The salvaging of burr oak tree adjacent to private landowner.
- Adherence to landowner biosecurity protocols.
- Eight minor fluid releases were identified, cleaned up and cleared.

## 11 CULTURE AND HERITAGE MONITORING

In September 2020, a Heritage and Culture Review (HCR) Team was formed with representatives from Indigenous communities, Manitoba Hydro and the project archaeologist. The purpose of the HCR Team is to:

- support Indigenous monitoring in the Spy-Hill Ellice Community Pasture;
- create a platform for understanding issues of concern to Indigenous participants; and

- share information in a cooperative and transparent manner relating to culture and heritage resources on the Project.

In December 2020, two Indigenous Culture and Heritage Monitors began daily monitoring of historic resources during construction in the Spy-Hill Ellice Community Pasture and sharing biweekly updates with the HCR Team. As of December 31, 2020, no culture and heritage findings or concerns have been reported by the monitors. Monitoring will continue until construction in the Spy-Hill Ellice Community Pasture is complete.

## 12 FUTURE MONITORING

The following monitoring activities are planned for 2021. The environmental effects monitoring plan contains detailed descriptions of all monitoring activities.

### Aquatic Habitat

- Stream Crossings

### Grassland Habitat

- Bird Species of Conservation Concern
- Plant Species of Conservation Concern
- Invasive Plant Species
- Traditional Use Plant Species

### Forest Habitat

- Ungulates
- Plant Species of Conservation Concern
- Invasive Plant Species
- Traditional Use Plant
- Predators and Resource User Access