

# Site 61

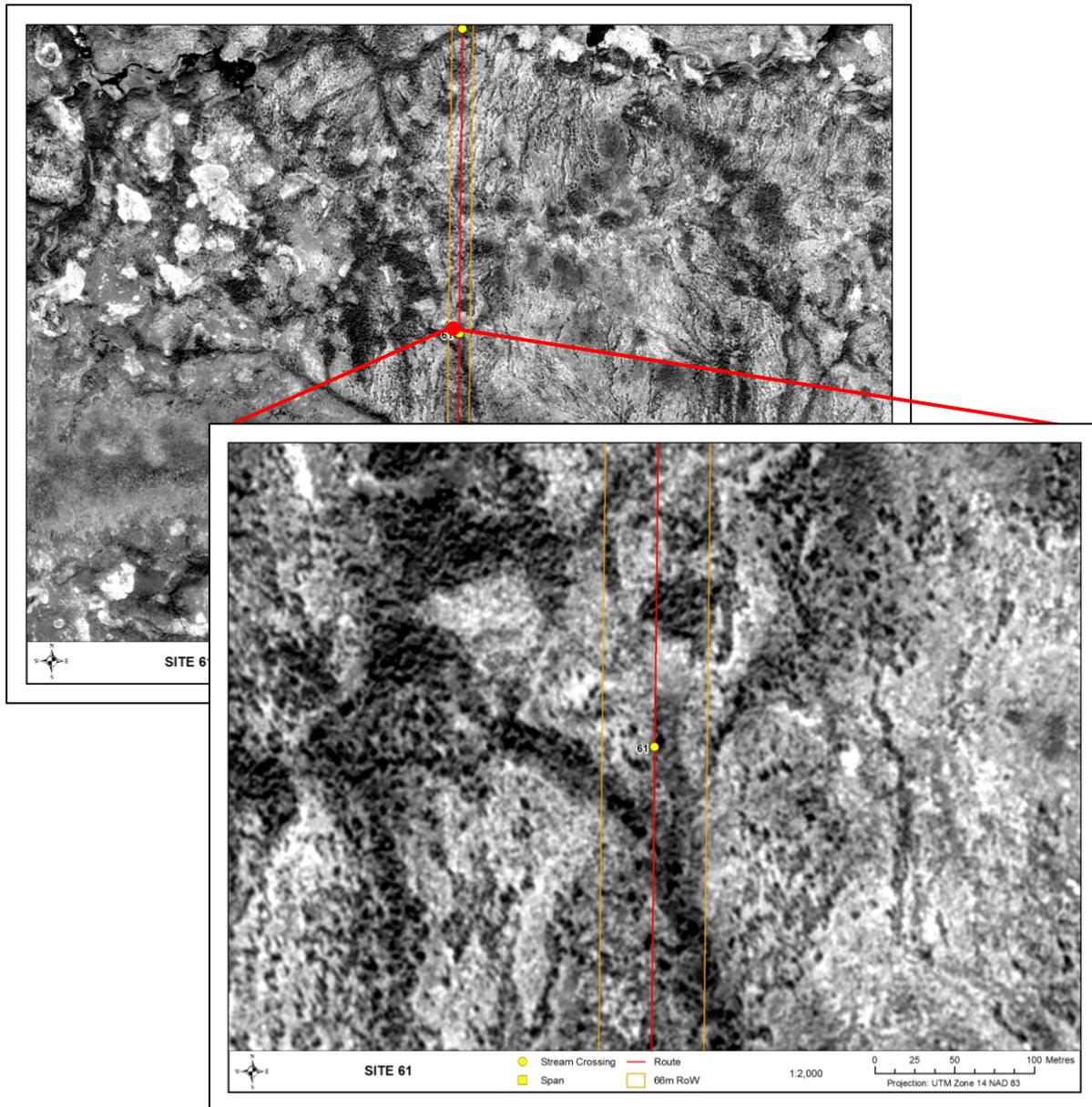
## Unnamed Tributary of Clay River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 643376  
Northing: 6232830  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Clay River 3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### **Channel and Flow**

Wetted Width (m)	-
Channel Width (m)	-

##### **Banks (%)**

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### **Floodplain Distance (m)**

Right Bank	-
Left Bank	-

##### **Riparian Distance (m)**

Right Bank	22 (total)
Left Bank	-

##### **Riparian Vegetation Type (Y/N)**

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### **Canopy Cover (%)**

	-
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#### Substrate

##### **Substrate Type (%)**

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### **Total Cover Available (%)**

##### **Cover Composition (% of Total)**

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### **Habitat Composition**

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW crosses the headwaters of this unnamed tributary of the Clay River. It likely provides marginal habitat for forage fish, with low overwintering potential. It appears to have a soft floodplain.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Likely soft floodplain results in a moderate sensitivity rating, despite marginal fish habitat.

# Site 62

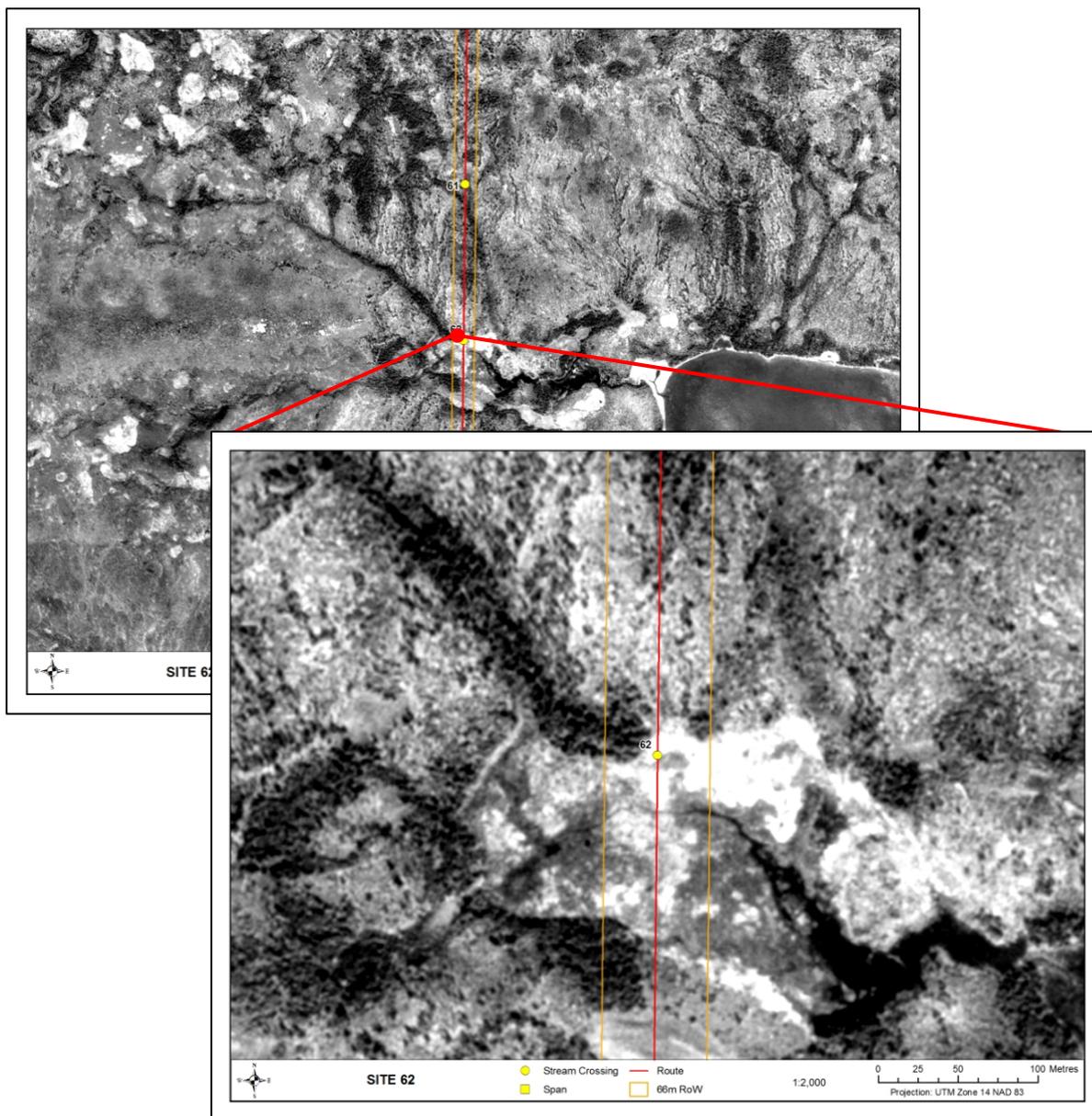
## Unnamed Tributary of Clay River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 643370  
Northing: 6232351  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IM  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 1.6 km<sup>2</sup>  
**Distance to Receiving Water:** Clay River 2.68 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	55
Left Bank	169

##### Riparian Distance (m)

Right Bank	74
Left Bank	194

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of the Clay River likely provides important habitat for indicator and forage fish, with moderate overwintering potential. It is surrounded by a large soft grass floodplain.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Soft floodplain and important fish habitat result in a moderate sensitivity rating.

# Site 63

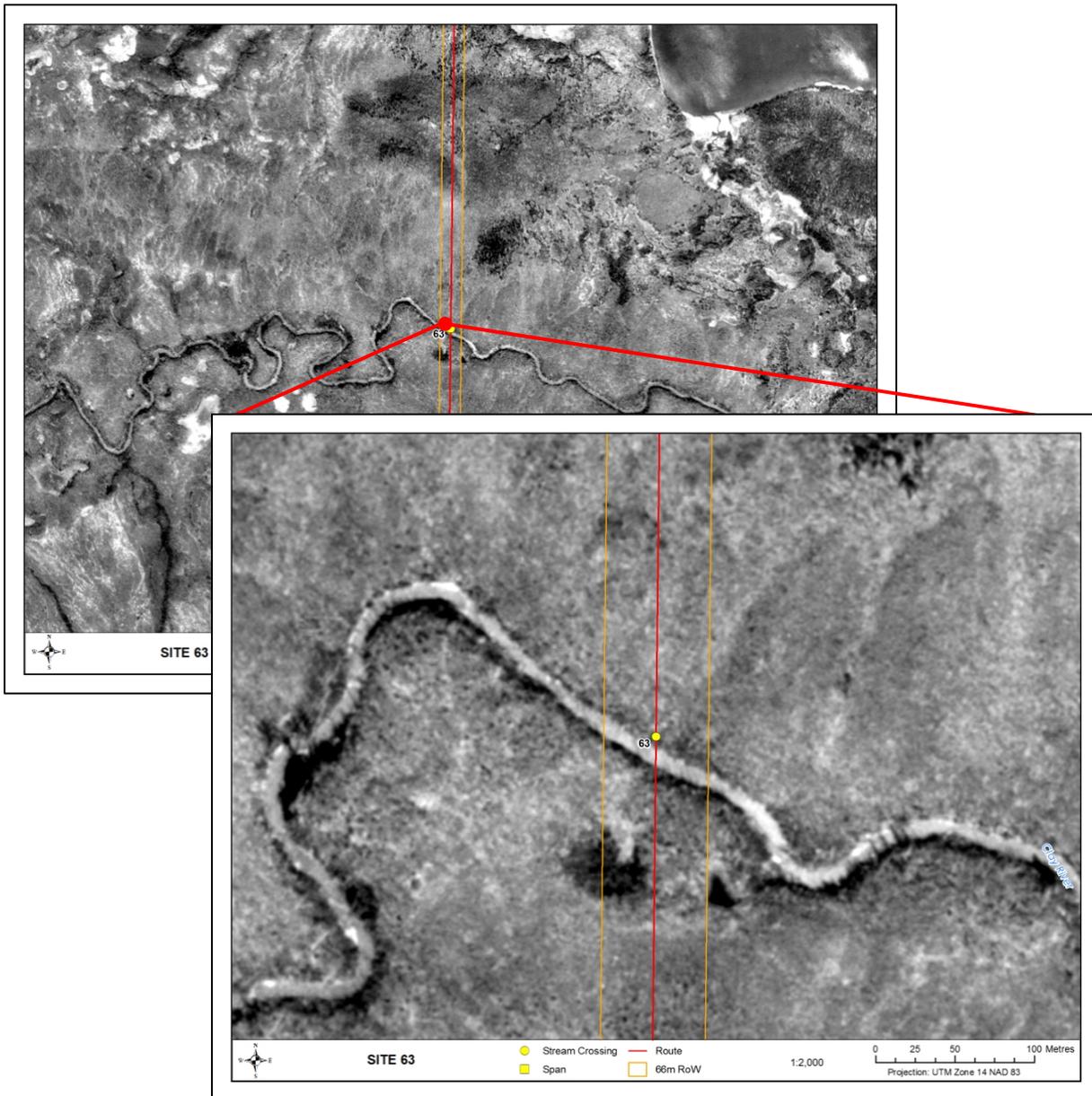
# Clay River

## Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 643357
	<i>Northing:</i> 6231167
<b>Data Source:</b>	DOI

## General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IM
<b>Confinement:</b>	UN
<b>Stage:</b>	-
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	-
<b>U/S Drainage:</b>	260.1 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Assean Lake 5.78 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	10
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	7
Left Bank	7

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### **Comments:**

The Clay River is a major river that provides important habitat for indicator and forage fish, with high overwintering potential. Bank stability at the RoW is unknown.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Unknown bank stability and important fish habitat result in a moderate sensitivity rating.

# Site 64

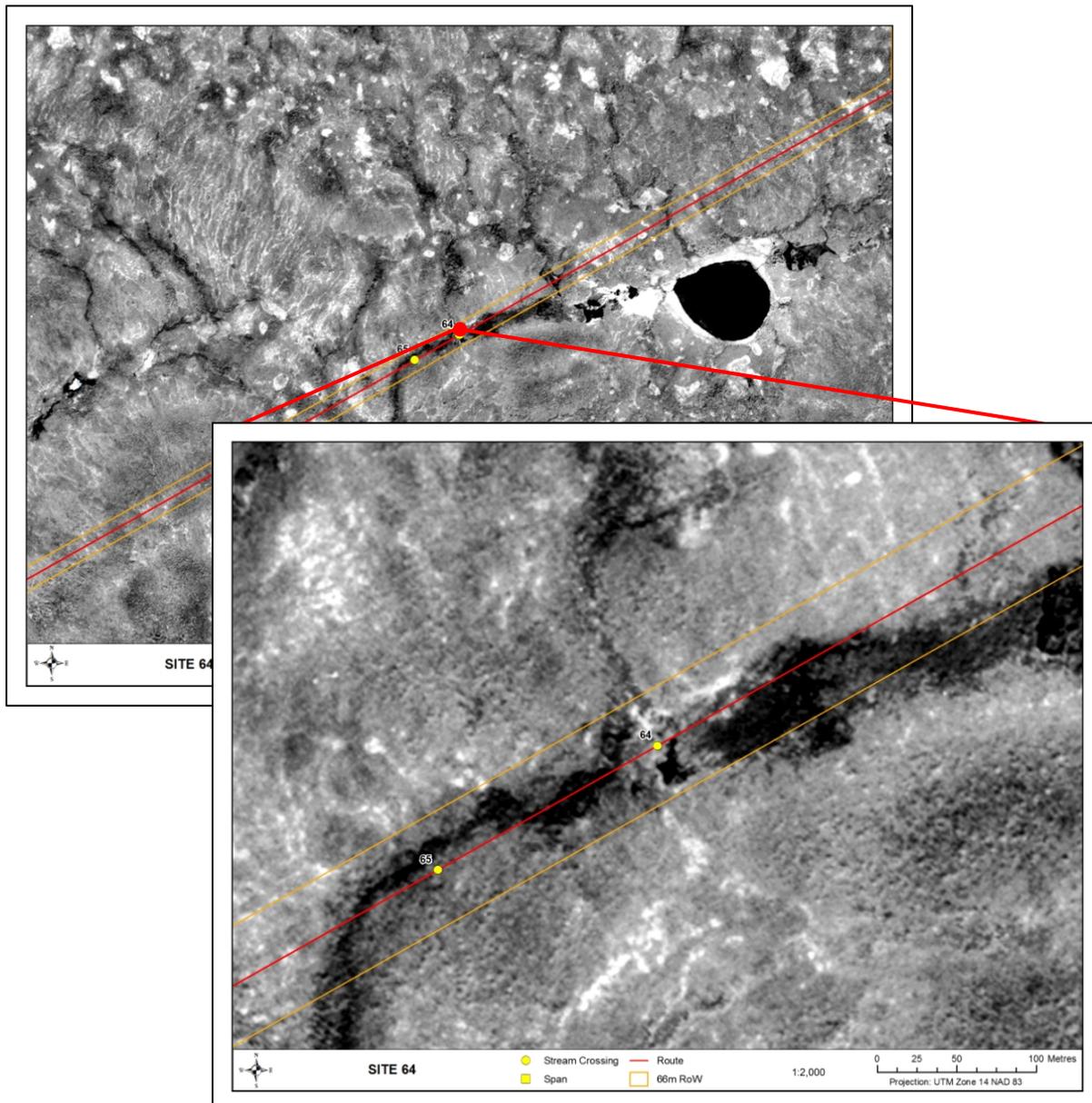
## Unnamed tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 641963  
Northing: 6227980  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 1.1 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River 4.22 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	24 (pooled area)
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	0
Left Bank	34

##### Riparian Distance (m)

Right Bank	21
Left Bank	45

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of the Burntwood River likely provides marginal habitat for forage fish, with low overwintering potential. The RoW follows the channel for 300m upstream and 231m downstream of the site. There is a channel meeting the tributary on the left bank at the site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Soft floodplain results in a moderate sensitivity rating, despite marginal fish habitat.

# Site 65

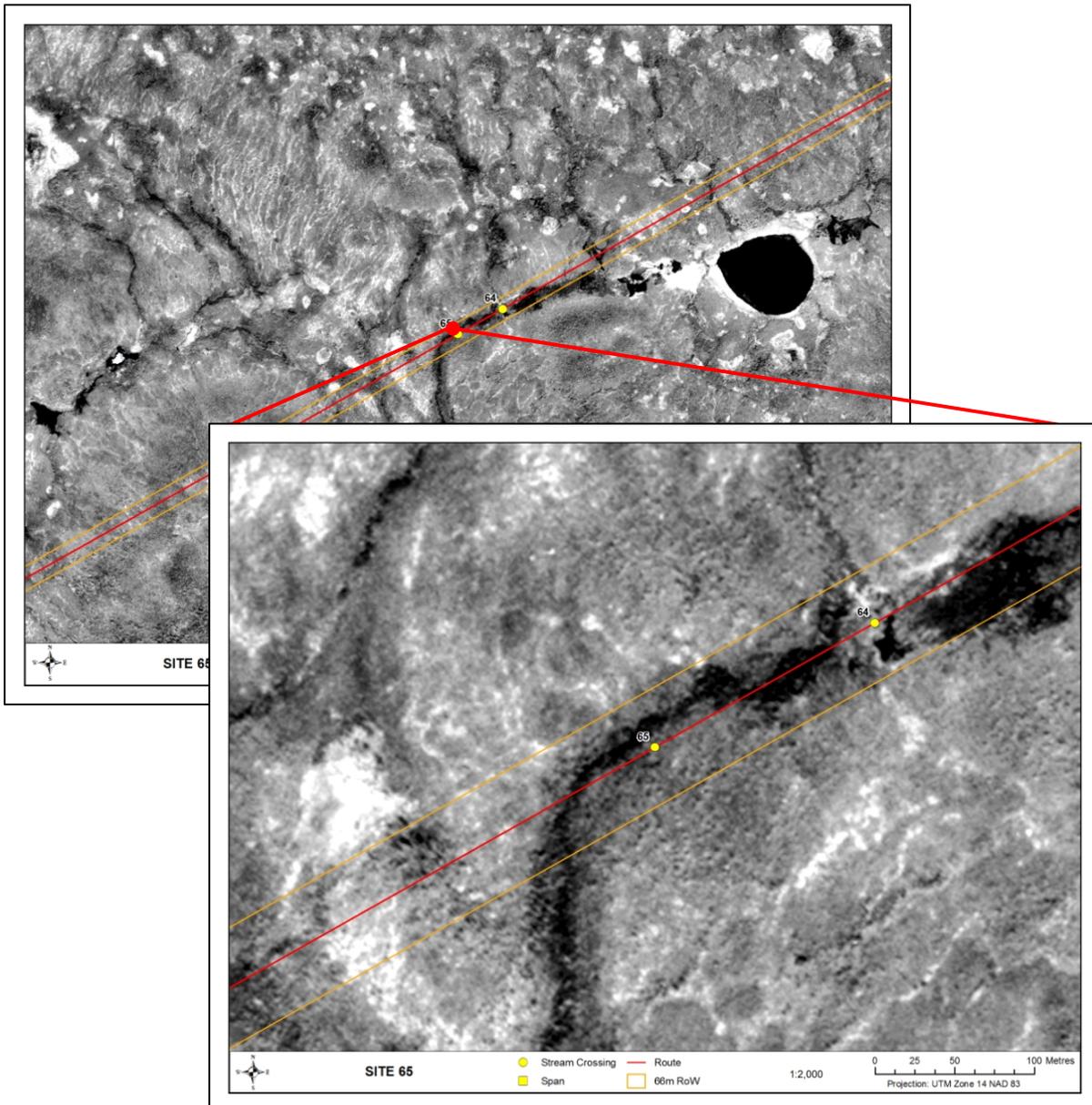
## Unnamed tributary of Burntwood River

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 641825
	<i>Northing:</i> 6227902
<b>Data Source:</b>	DOI

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	SI
<b>Confinement:</b>	UN
<b>Stage:</b>	-
<b>Flow Regime:</b>	Intermittent
<b>Morphology:</b>	-
<b>U/S Drainage:</b>	1.2 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Burntwood River 4.06 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### **Channel and Flow**

Wetted Width (m)	-
Channel Width (m)	-

##### **Banks (%)**

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### **Floodplain Distance (m)**

Right Bank	13 (total)
Left Bank	-

##### **Riparian Distance (m)**

Right Bank	42 (total)
Left Bank	-

##### **Riparian Vegetation Type (Y/N)**

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### **Canopy Cover (%)**

	-
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#### Substrate

##### **Substrate Type (%)**

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### **Total Cover Available (%)**

##### **Cover Composition (% of Total)**

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### **Habitat Composition**

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of the Burntwood River likely provides habitat for forage fish, with low overwintering potential. It is surrounded by a soft floodplain.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Soft floodplain results in moderate sensitivity, despite marginal fish habitat.

# Site 66

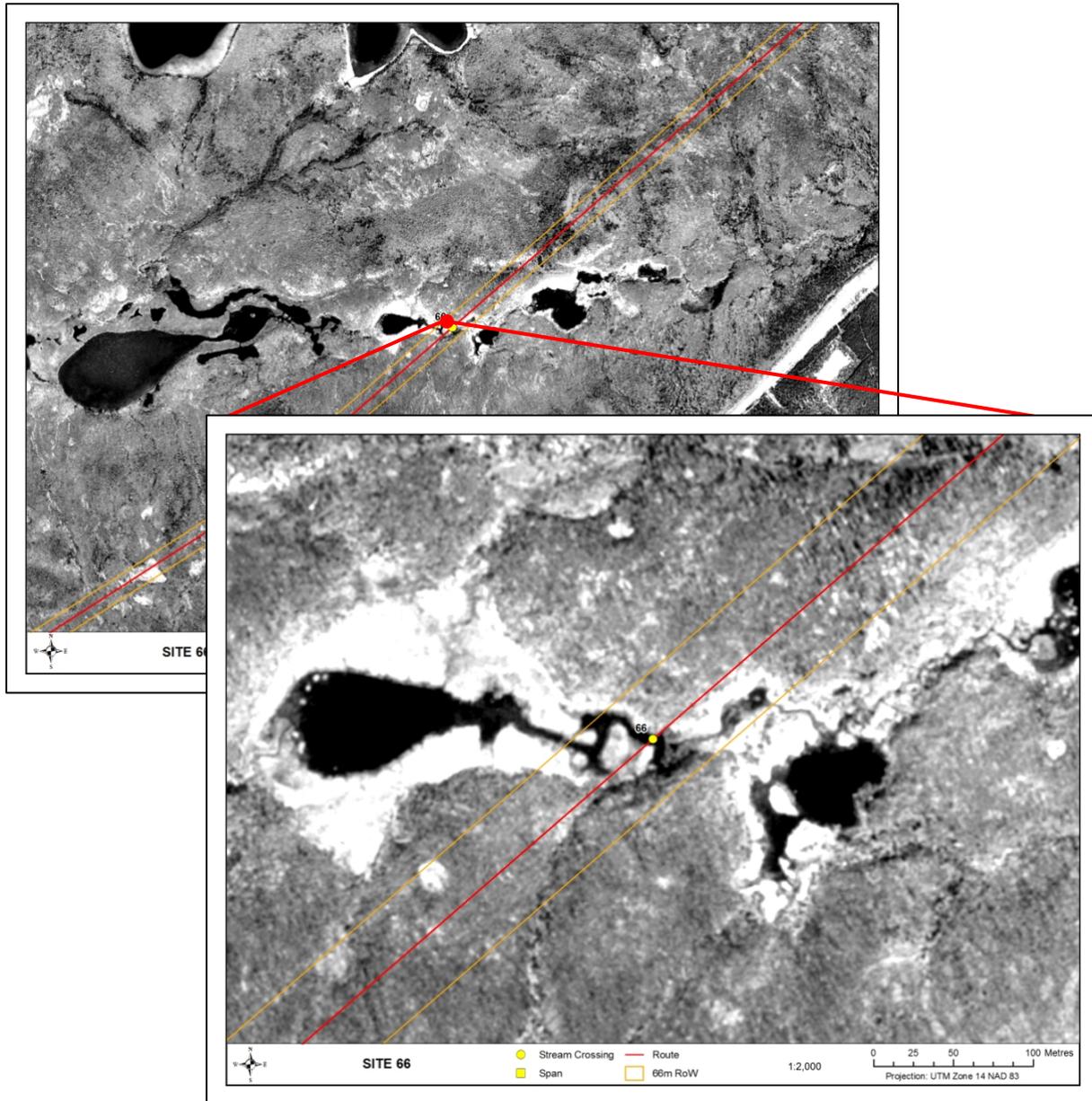
## Unnamed tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 635356  
Northing: 6223851  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 4.8 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River 3.46 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	10
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	9
Left Bank	20

##### Riparian Distance (m)

Right Bank	30
Left Bank	37

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of the Burntwood River likely provides marginal habitat for indicator and forage fish, with low overwintering potential. It is surrounded by a soft floodplain, and there are pooled areas 90m upstream and 121m downstream of the site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

The soft floodplain results in a moderate sensitivity rating, despite marginal fish habitat.

# Site 67

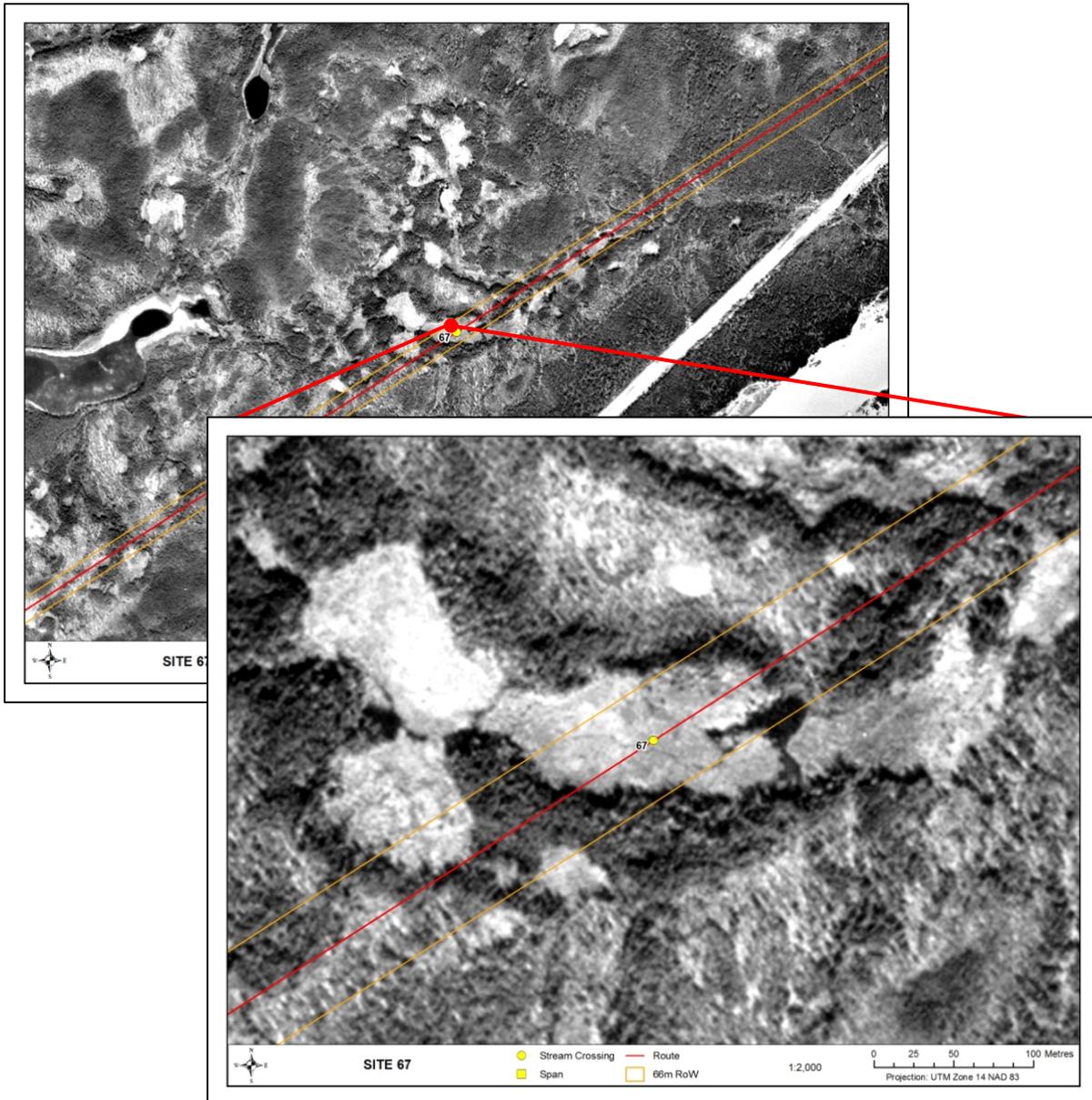
## Unnamed tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 632129  
Northing: 6221631  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 1.3 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River 1.7 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	64 (total)
Left Bank	-

##### Riparian Distance (m)

Right Bank	97 (total)
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The crossing site lies within a peat wetland and has poor connection to downstream areas. A small upstream drainage area, indicating limited flows, and poor downstream connectivity likely limits fish use to forage fish species.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Soft floodplain and important fish habitat result in a moderate sensitivity rating.

# Site 68

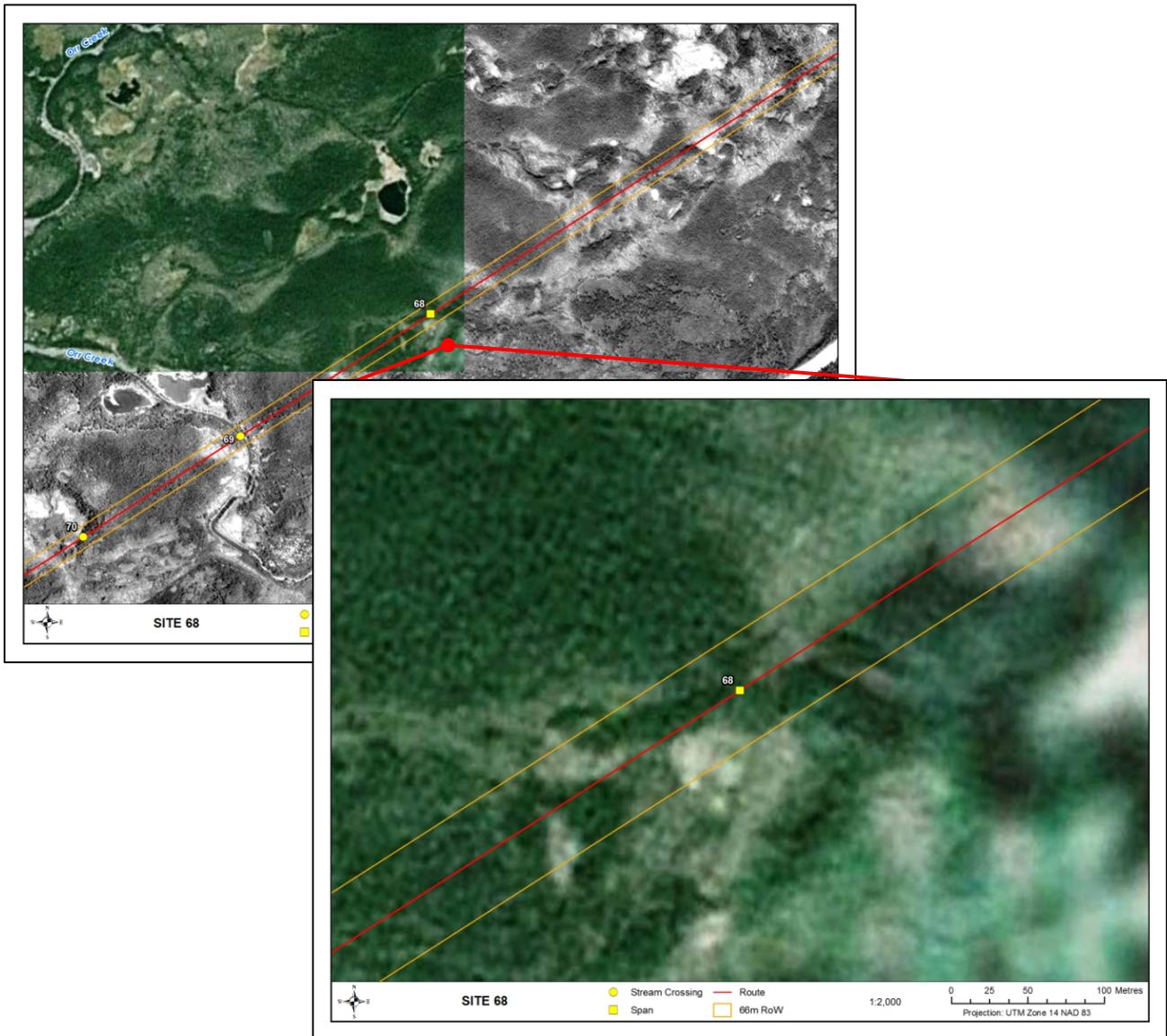
## Unnamed tributary of Orr Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 629889  
Northing: 6220190  
**Data Source:** Google Earth

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 0 km<sup>2</sup>  
**Distance to Receiving Water:** Orr Creek 1.01 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW crosses within the headwaters of this unnamed tributary of Orr Creek. Based aerial imagery, there appears to be no direct channel connection from the site to Orr Creek. Based on low flow conditions (upstream drainage area = 0 m<sup>2</sup>) and poor connectivity, any fish use at the site will be limited to forage fish species, tolerant of low oxygen levels.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Unknown bank stability and important fish habitat result in a moderate sensitivity rating.

# Site 69

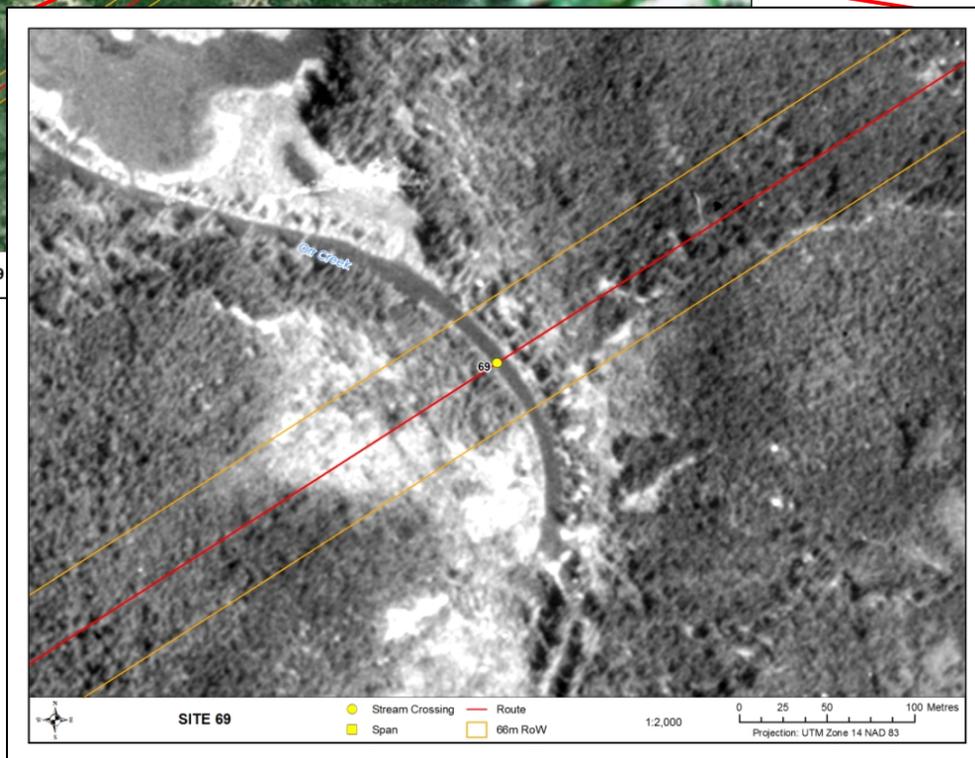
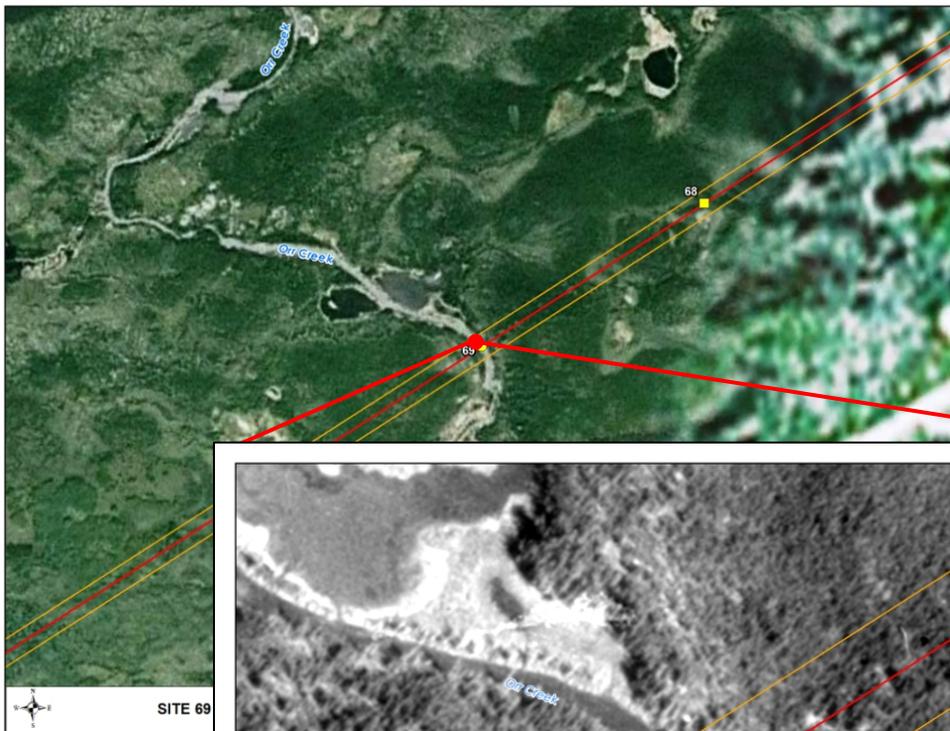
# Orr Creek

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 629264  
Northing: 6219788  
**Data Source:** DOI

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Perennial  
**Morphology:** -  
**U/S Drainage:** 236.7 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River 1.64 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	9
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	63
Left Bank	130

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### **Comments:**

Orr Creek is a major river providing important habitat for indicator and forage fish, with high overwintering potential. Bank stability at the RoW is unknown.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Unknown bank stability and important fish habitat result in a moderate sensitivity rating.

# Site 70

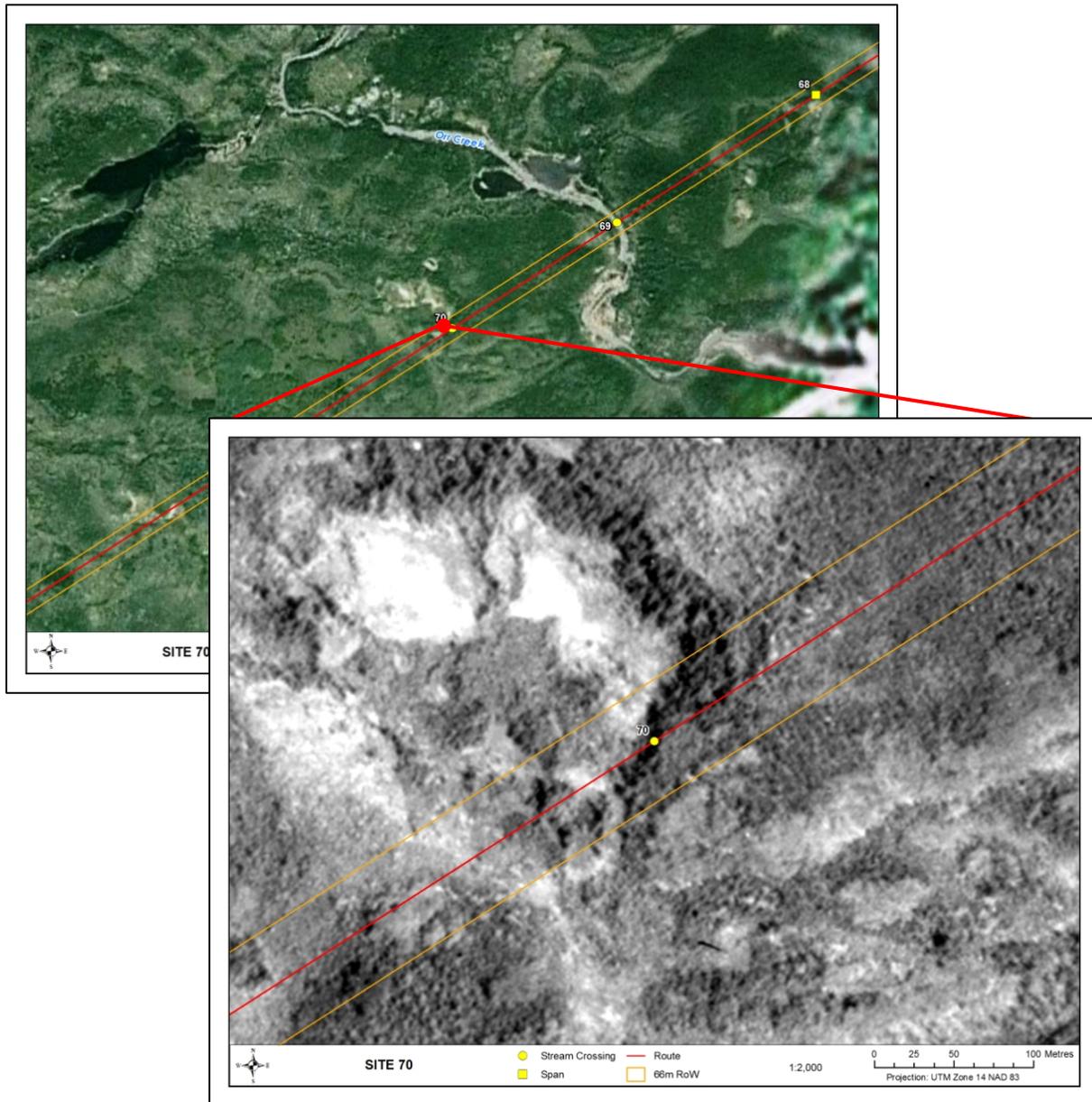
## Unnamed tributary of Orr Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 628746  
Northing: 6219456  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** -  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 0 km<sup>2</sup>  
**Distance to Receiving Water:** Orr Creek 0.59 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	101 (total)
Left Bank	-

##### Riparian Distance (m)

Right Bank	282 (total)
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW crosses the headwaters of this unnamed tributary of Orr Creek. It likely provides habitat for forage fish, with low overwintering potential. It is surrounded by a soft floodplain.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Soft floodplain results in a moderate sensitivity rating, despite marginal fish habitat.

# Site 71

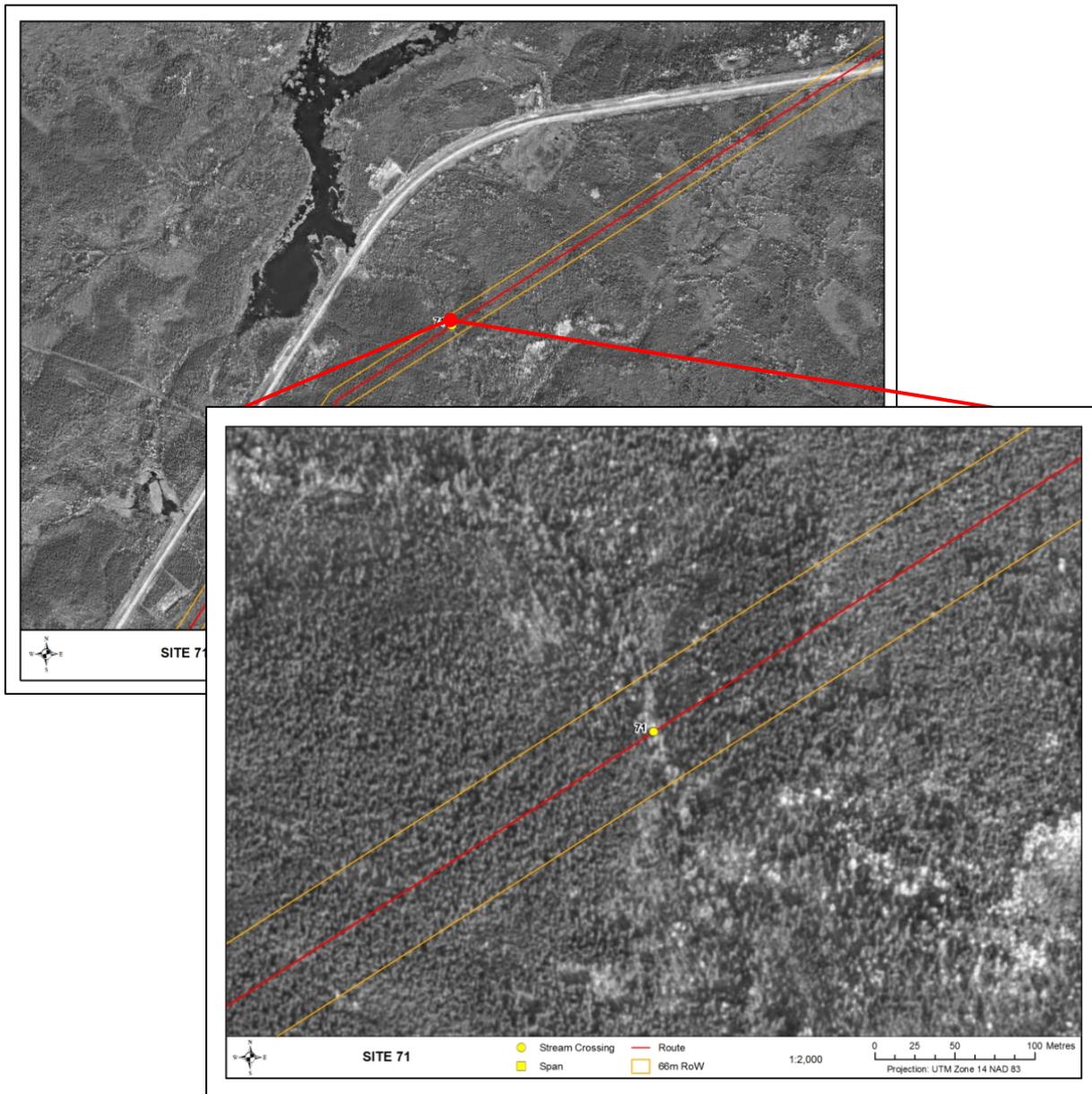
## Unnamed tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 621924  
Northing: 6215068  
**Data Source:** DOL.

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IM  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 8.8 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River 0.7 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
Deciduous	Y
Mixed Forest	-

Canopy Cover (%) 100

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

This unnamed tributary of the Burntwood River is an intermittent stream which likely provides habitat for forage fish, with low overwintering potential.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

Unknown bank stability results in a moderate sensitivity rating, despite marginal fish habitat.

# Site 72

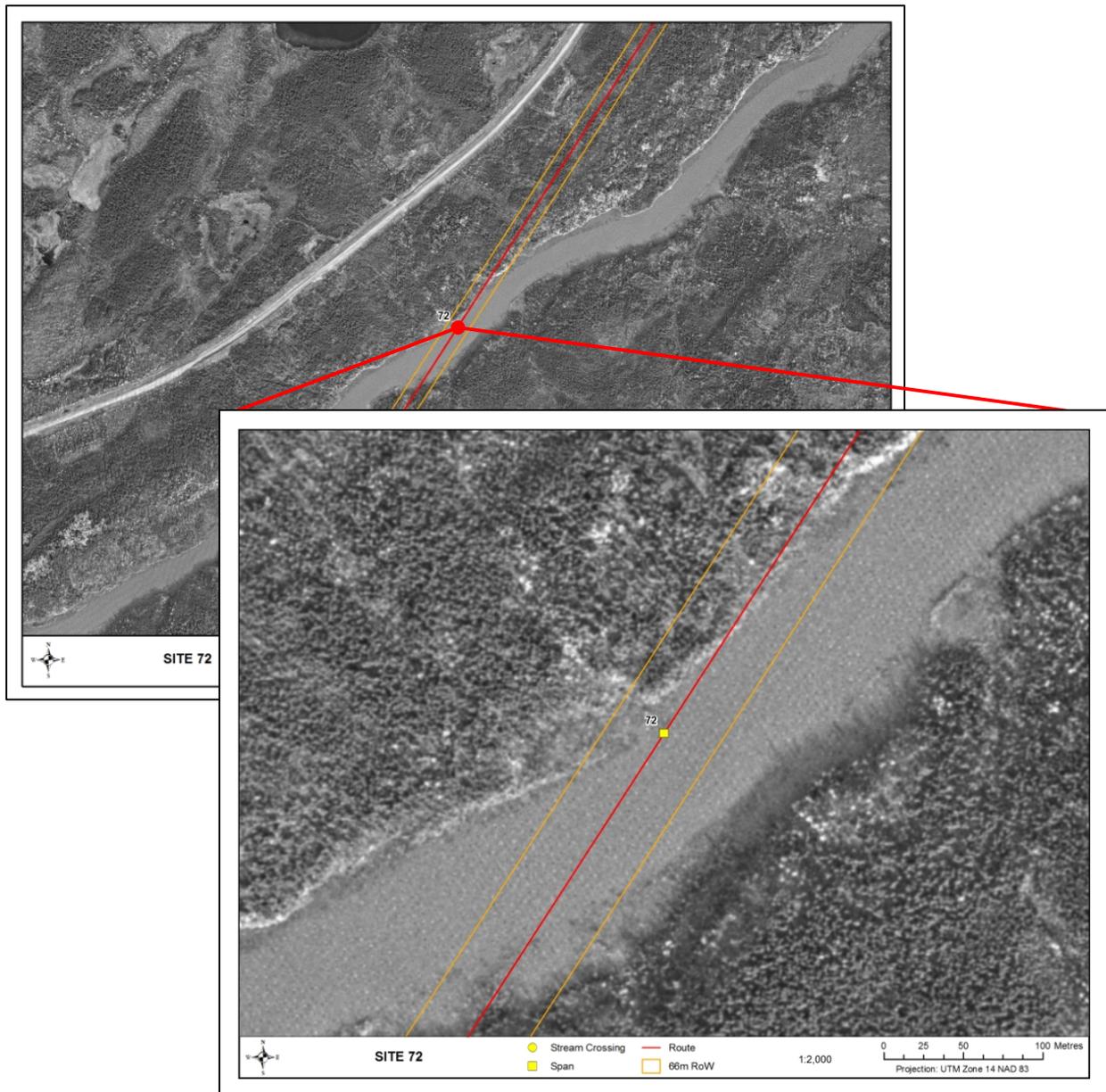
# Odei River

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 620228  
Northing: 6212911  
**Data Source:** DOI. Site Visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** CO  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 6259.7 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River  
11 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: High

<u>Transect</u>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	119	-	-	-	-
Wetted Width (m)	119	-	-	-	-

#### Water Depths (m)

25%	-	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	95	-	-	-	-
Left Bank Stability (%)	95	-	-	-	-
Right Bank Slope (°)	~20	-	-	-	-
Left Bank Slope (°)	~50	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	-	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Distance (m)

Right Bank	53	-	-	-	-
Left Bank	48	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	-	-	-	-	-
Conifers	Y	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

	Tr	-	-	-	-
--	----	---	---	---	---

#### Substrate Type (%)

Fines	-	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	-	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	-	-	-	-	-
Run	-	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	20	20
Large Woody Debris	50	50
Overhanging Vegetation	-	-
Instream Vegetation	50	50
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-





Overhead view of site 72.



Upstream view at site 72.



Downstream view at site 72.



Bank slope at site 72.

## ↘ Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** Walleye, sauger, northern pike, lake cisco (FIHCS 2009)

#### Comments:

The Odei River provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. Various species and life stages of fish are expected at this site. Photos and information on cover, bank stability, and bank slope were taken 129m upstream of crossing site; however conditions at the crossing appear similar.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### Comments:

Though important fish habitat, stable vegetated banks result in a low sensitivity rating.

# Site 74

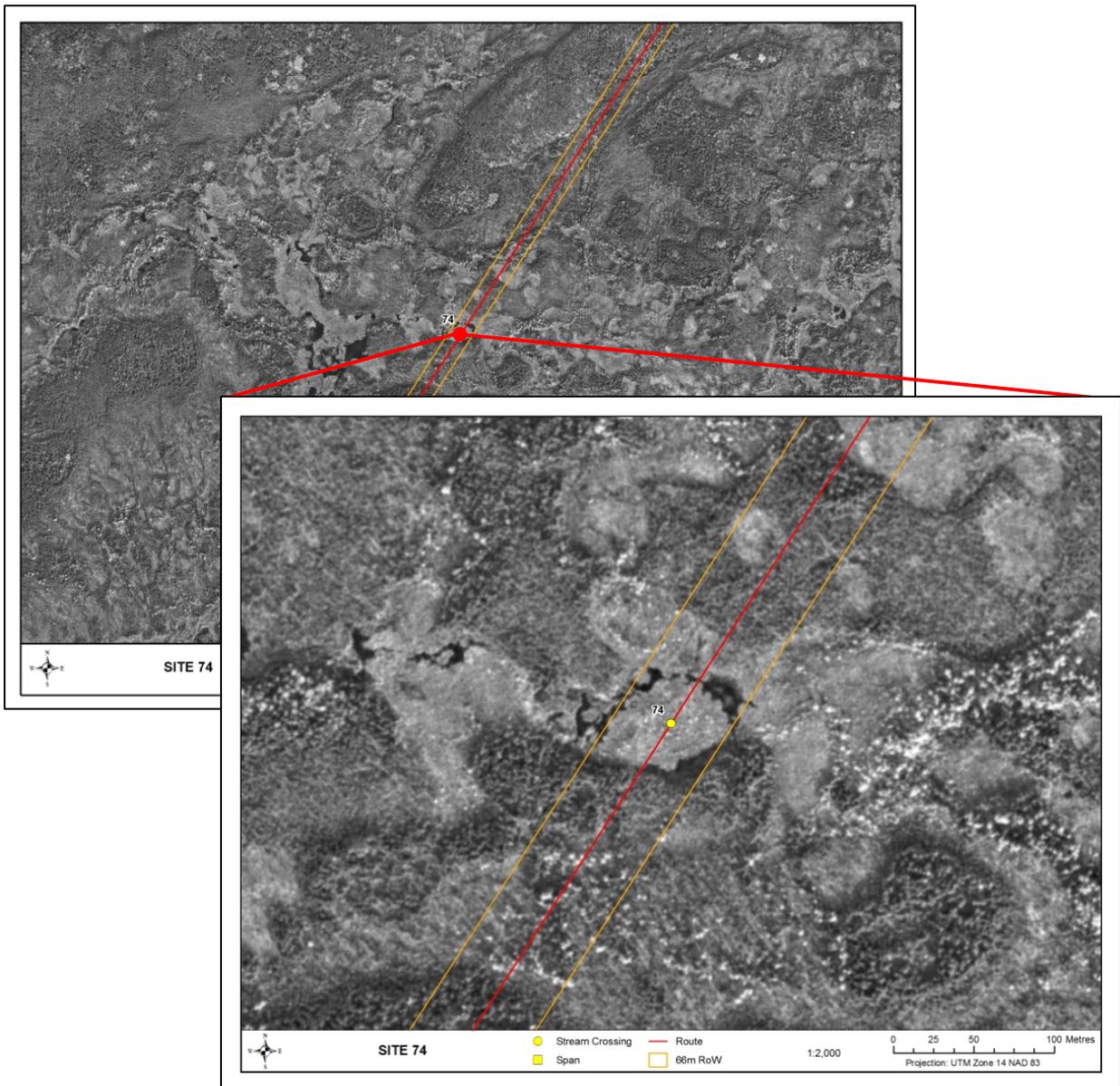
## Unnamed Tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 618229  
Northing: 6209674  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 0.3 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River  
4.2km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	12.8
Channel Width (m)	12.8

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	96.4
Left Bank	12.8

##### Riparian Distance (m)

Right Bank	143.9
Left Bank	63.1

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW crosses this unknown tributary of the Burntwood River approximately 4.2 km from the Burntwood River. The tributary is an ephemeral stream with low habitat diversity and low overwintering potential. Forage fish are expected at this crossing.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain region may be sensitive to damage during construction in an area with fish presence.

# Site 75

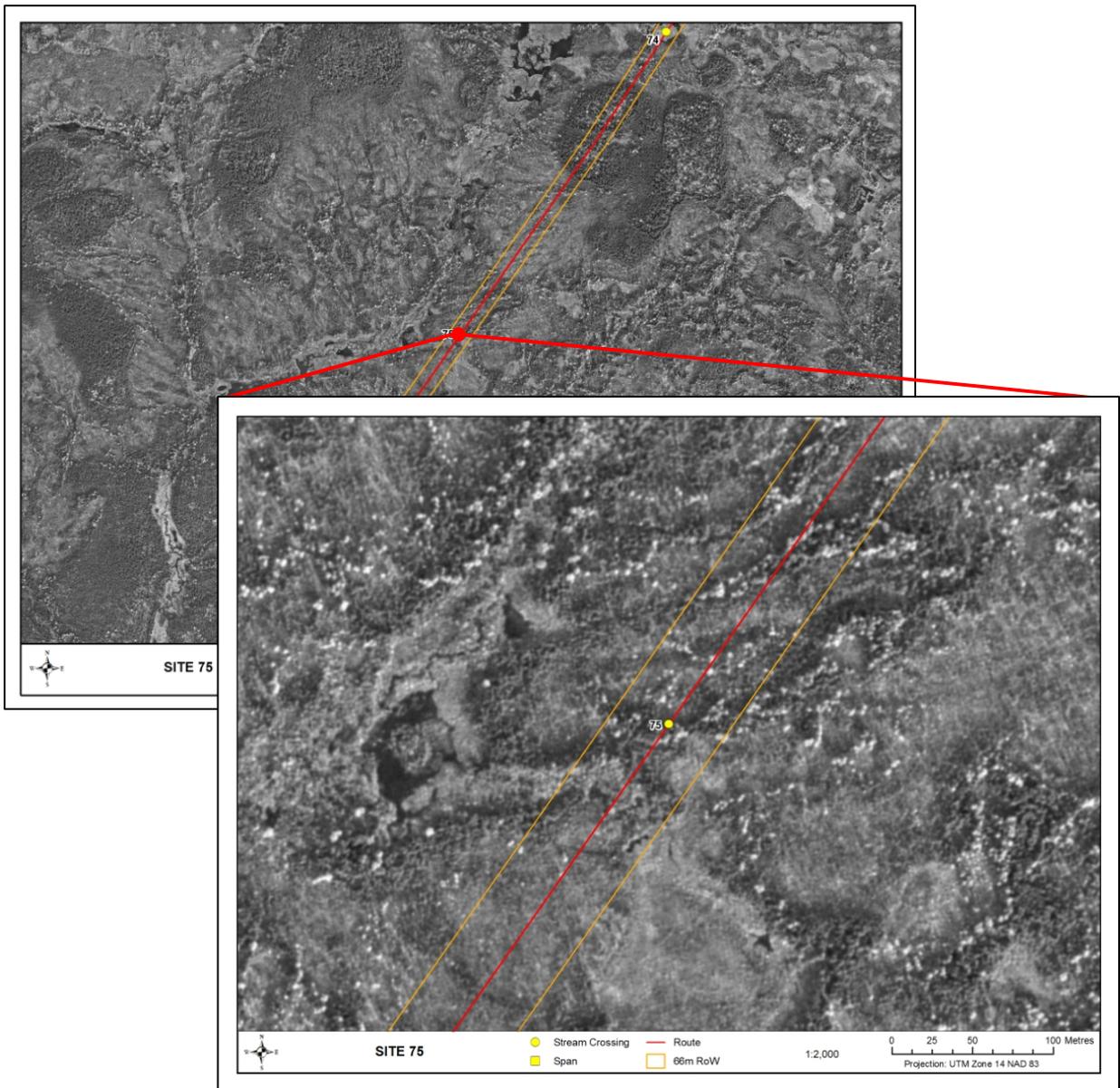
## Unnamed Tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 617598  
Northing: 6208747  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 0.5 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River  
2.9km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	23.4

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	9.1
Left Bank	12.6

##### Riparian Distance (m)

Right Bank	28.7
Left Bank	20.9

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW crosses this unknown tributary of the Burntwood River approximately 2.9 km from the Burntwood River. The tributary is an ephemeral stream with low habitat diversity and low overwintering potential and may support forage fish.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Marginal fish habitat result in a low sensitivity rating.

# Site 76

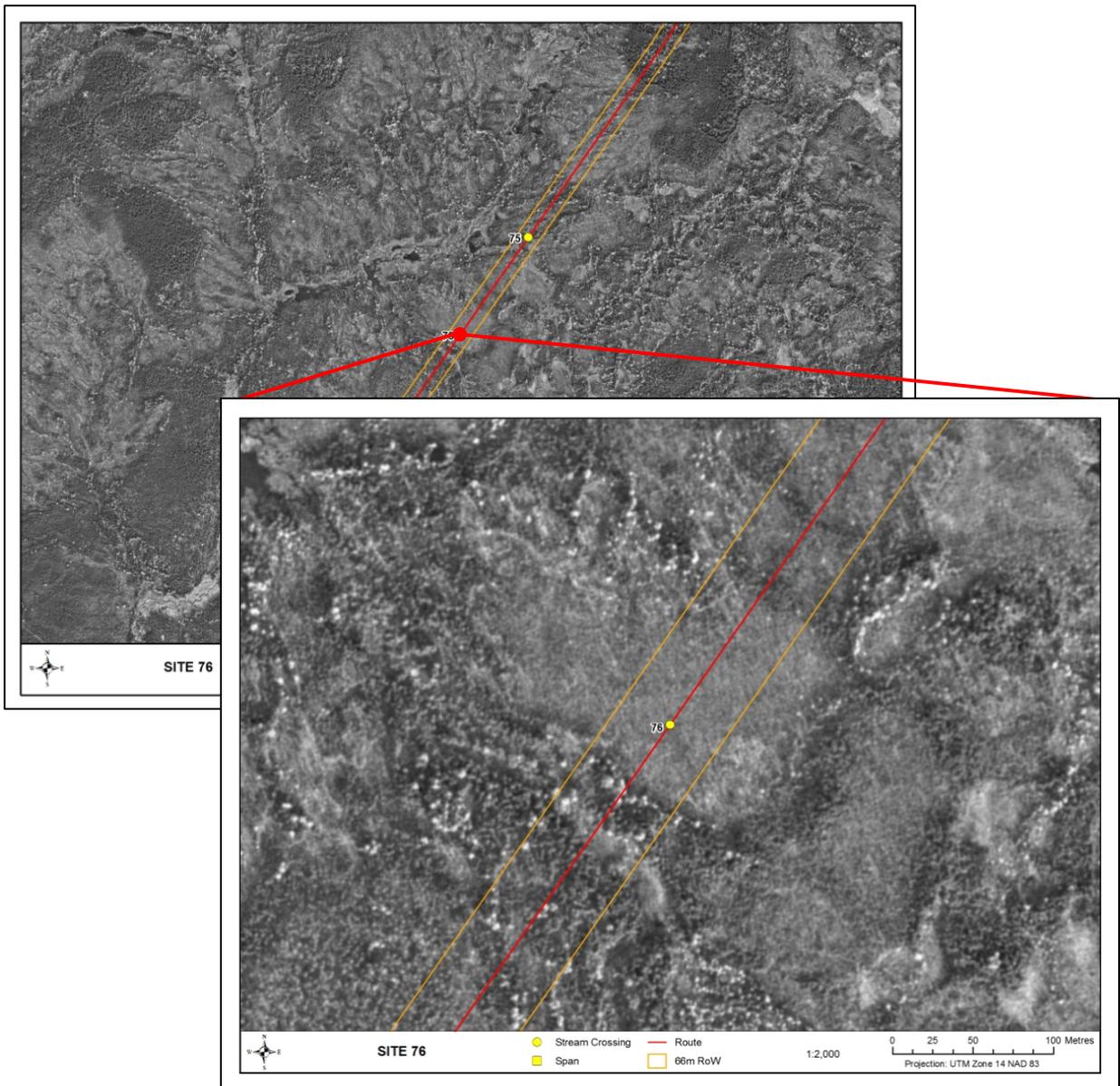
## Unnamed Tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 617392  
Northing: 6208452  
**Data Source:** DOI

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River  
2.8km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of the Burntwood River has a weakly defined channel and no water is visible within the DOI. The connection to the Burntwood River is also weak. This tributary likely contains no fish habitat.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

No fish habitat results in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 616211  
Northing: 6206771  
**Data Source:** DOI. Video. Site Visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** OC  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 19103.2 km<sup>2</sup>  
**Distance to Receiving Water:** Nelson River 55 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: Moderate

<u>Transect</u>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	>100	-	-	-	-
Wetted Width (m)	>100	-	-	-	-

#### Water Depths (m)

25%	1.0	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	60	-	-	-	-
Left Bank Stability (%)	50	-	-	-	-
Right Bank Slope (°)	~30	-	-	-	-
Left Bank Slope (°)	~45-90	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	-	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Distance (m)

Right Bank	9.4	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	Y	-	-	-	-
Conifers	Y	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

	0	-	-	-	-
--	---	---	---	---	---

#### Substrate Type (%)

Fines	100	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	-	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	-	-	-	-	-
Run	100	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	Trace	Trace
Large Woody Debris	10	10
Overhanging Vegetation	80	80
Instream Vegetation	10	10
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Overhead view of site 77.



Upstream view at site 77.



Downstream view at site 77.



Right bank to left bank at site 77.

## ↓ Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** Burbot, carp, emerald shiner, freshwater drum, goldeye, johnny darter, lake chub, lake sturgeon, lake whitefish, logperch, longnose sucker, mooneye, mottled sculpin (FIHCS 2009).

#### Comments:

The RoW at site 77 crosses the Burntwood River. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. Many species of fish have been documented within the Burntwood River. Various species and life stages of fish are expected at this site

### + Habitat Sensitivity

**Sensitivity Rating:** High

#### Comments:

Unstable banks and important fish habitat result in a high sensitivity rating as construction may result in increased siltation into the waterbody.

# Site 78

## Unnamed Tributary of Burntwood River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 613794  
Northing: 6201861  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IM  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 6.8 km<sup>2</sup>  
**Distance to Receiving Water:** Burntwood River  
6.5km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	3.0
Channel Width (m)	3.0

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	45
Left Bank	4.0

##### Riparian Distance (m)

Right Bank	54
Left Bank	26

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	100
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW of site 76 crosses this unknown tributary of the Burntwood River approximately 6.5 km from the Burntwood River. The tributary is an intermittent stream with moderate habitat diversity and low overwintering potential. Minnow species are anticipated at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

The floodplain may be sensitive to damage during construction in an area with fish presence.

# Site 79

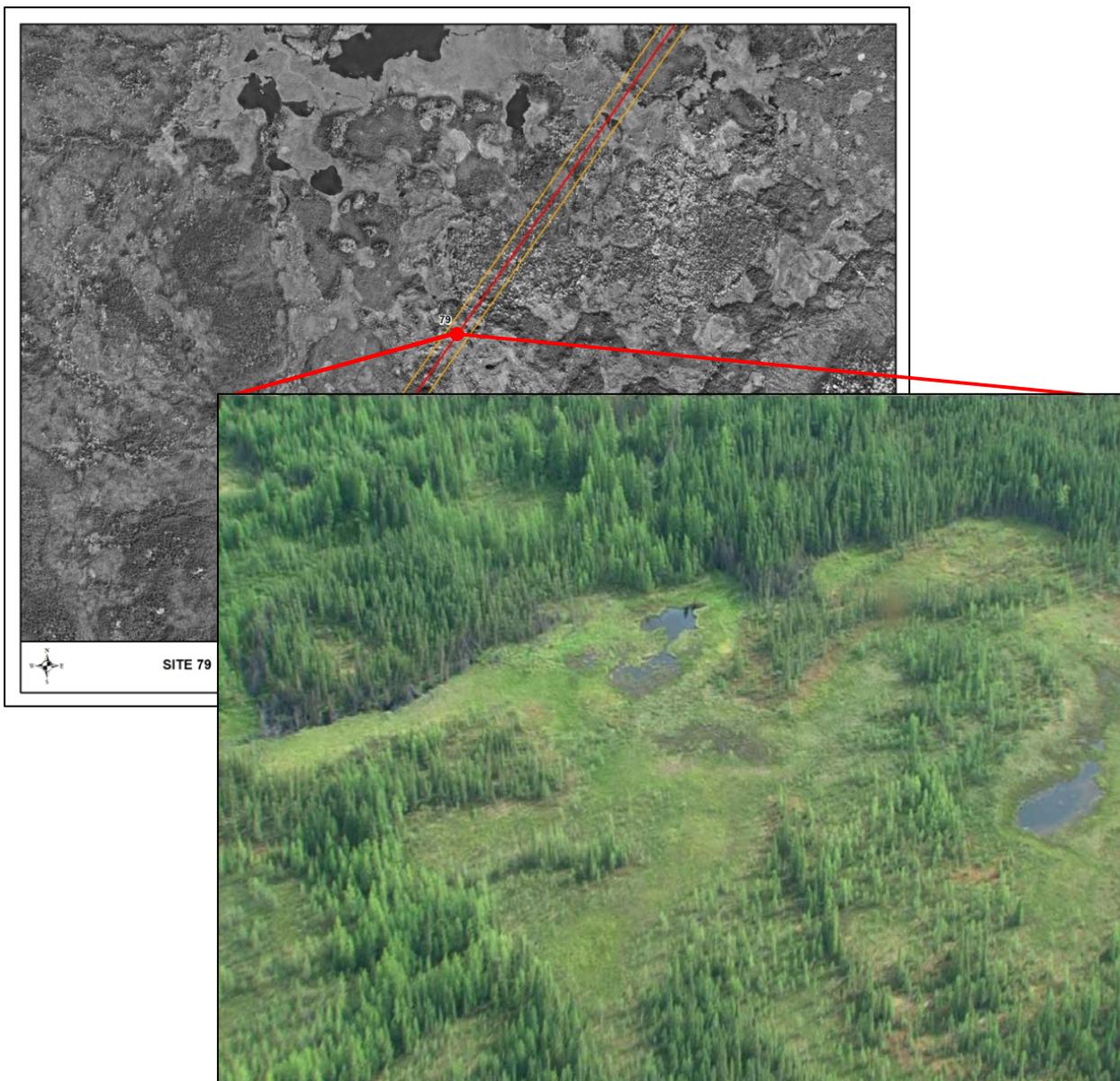
## Unnamed wetland

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 612275  
Northing: 6199694  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Lake  
**Pattern:** -  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** -  
**Distance to Receiving Water:** -



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Lake size (ha)	0.026
Lake width at ROW (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
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#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 77 crosses this ponded area within a wetland. This is an isolated wetland that due to small size and shallow depth is not expected to support fish.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

No fish habitat results in a low sensitivity rating.

# Site 80

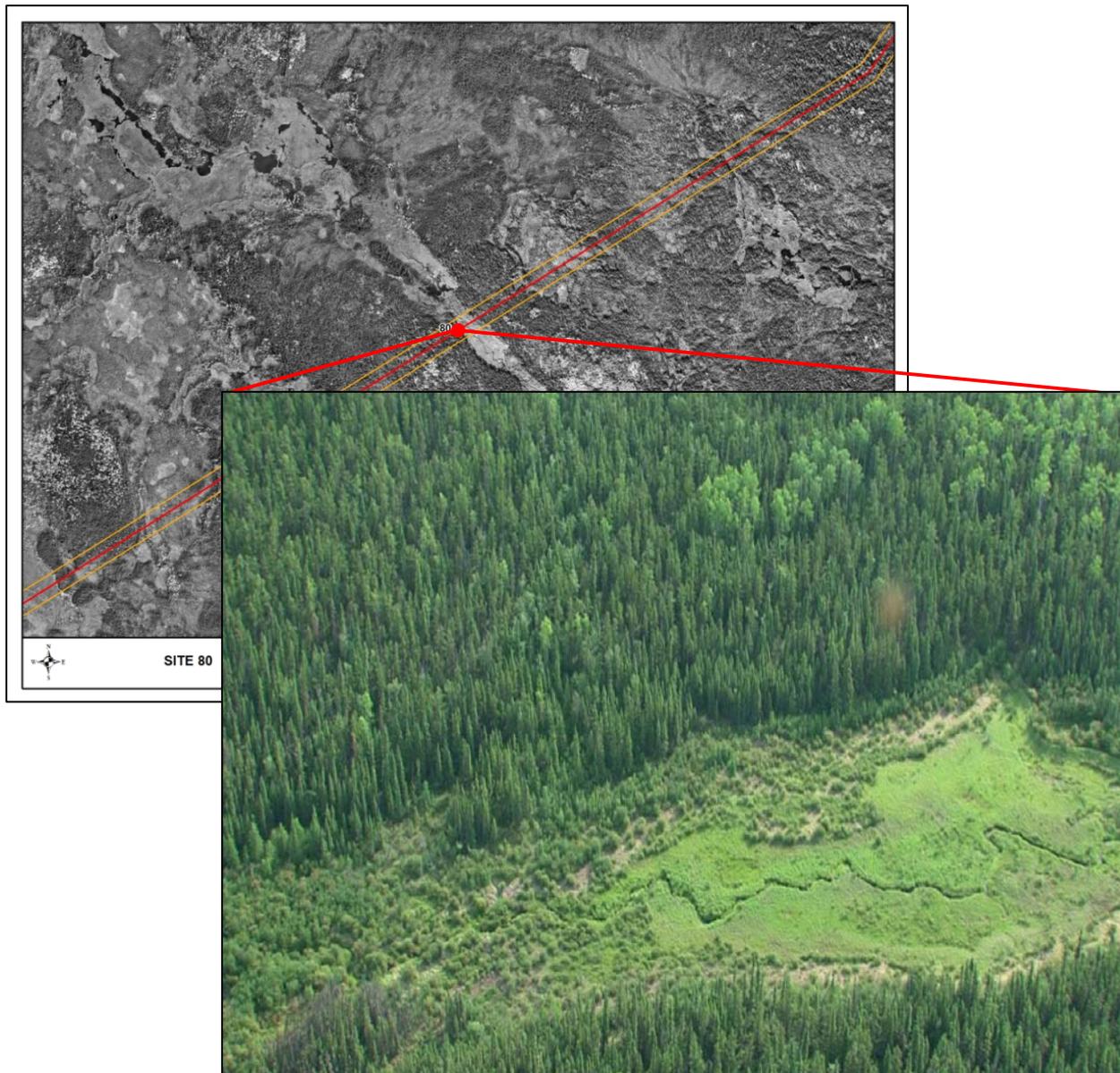
## Unnamed Tributary of Brannigan Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 609670  
Northing: 6196994  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 5.1 km<sup>2</sup>  
**Distance to Receiving Water:** Brannigan Creek  
3.1km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2
Channel Width (m)	2

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	29
Left Bank	25

##### Riparian Distance (m)

Right Bank	40
Left Bank	30

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 30

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	100
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 78 crosses this unnamed tributary of Brannigan Creek. The area has moderate habitat diversity and low overwintering potential. Minnow species are anticipated at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 81

## Unnamed Tributary of Brannigan Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 607525  
Northing: 6195647  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 2.0 km<sup>2</sup>  
**Distance to Receiving Water:** Brannigan Creek  
0.2km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	3
Channel Width (m)	3

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	31
Left Bank	44

##### Riparian Distance (m)

Right Bank	31
Left Bank	77

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 50

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	50
Instream Vegetation	50
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 79 crosses this unnamed tributary of Brannigan Creek. The area has low habitat diversity and low overwintering potential. Forage fish may be found at this site considering its close proximity to Brannigan Creek.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Marginal fish habitat and stable shoreline areas result in a low sensitivity rating.

# Site 82

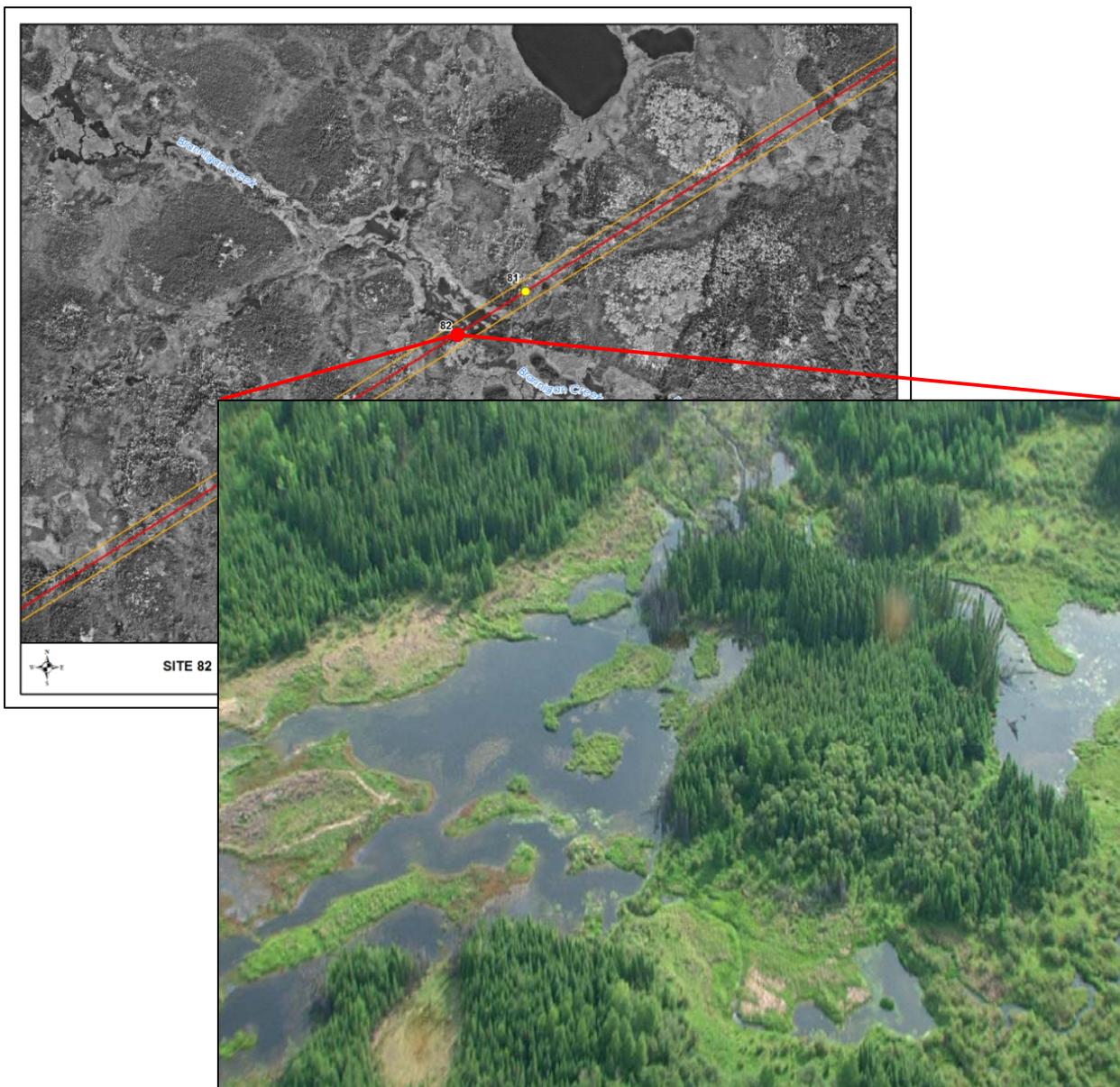
# Brannigan Creek

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 607318  
Northing: 6195517  
**Data Source:** DOI.Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 11.4 km<sup>2</sup>  
**Distance to Receiving Water:** Brannigan Lake  
27.6km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	92
Channel Width (m)	92

##### Banks (%)

Right Bank Stability	80
Left Bank Stability	80

#### Riparian

##### Floodplain Distance (m)

Right Bank	43
Left Bank	38

##### Riparian Distance (m)

Right Bank	43
Left Bank	212

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 10

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	50
Instream Vegetation	50
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 82 crosses Brannigan Creek. The area has moderate habitat diversity and low overwintering potential. Minnow species are anticipated at the site, and potential exists for the presence of large indicator species; however few fish are anticipated.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Unstable banks combined with a sensitive floodplain region and fish presence result in a moderate sensitivity rating.

# Site 83

## Unnamed Stream

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 603314  
Northing: 6193001  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** -  
**Distance to Receiving Water:** Unnamed lake



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	25
Channel Width (m)	25

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	32
Left Bank	0

##### Riparian Distance (m)

Right Bank	40
Left Bank	9

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 60

##### Cover Composition (% of Total)

Large Woody Debris	Trace
Overhanging Vegetation	25
Instream Vegetation	25
Pool	50
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	50
Run	50
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 81 crosses an unnamed stream. The area has low habitat diversity and low overwintering potential. Forage fish may occur at this site.

### + Habitat Sensitivity

Sensitivity Rating: Low

Comments:

# Site 84

## Unnamed Stream

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 603199  
Northing: 6192929  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** -  
**Distance to Receiving Water:** Unnamed lake



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	29
Channel Width (m)	29

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	36
Left Bank	29

##### Riparian Distance (m)

Right Bank	38
Left Bank	37

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 60

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	10
Pool	90
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	50
Run	50
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 84 crosses an unnamed stream. The area has low habitat diversity and low overwintering potential. Forage fish may occur at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Very marginal fish habitat results in a low sensitivity rating.

# Site 85

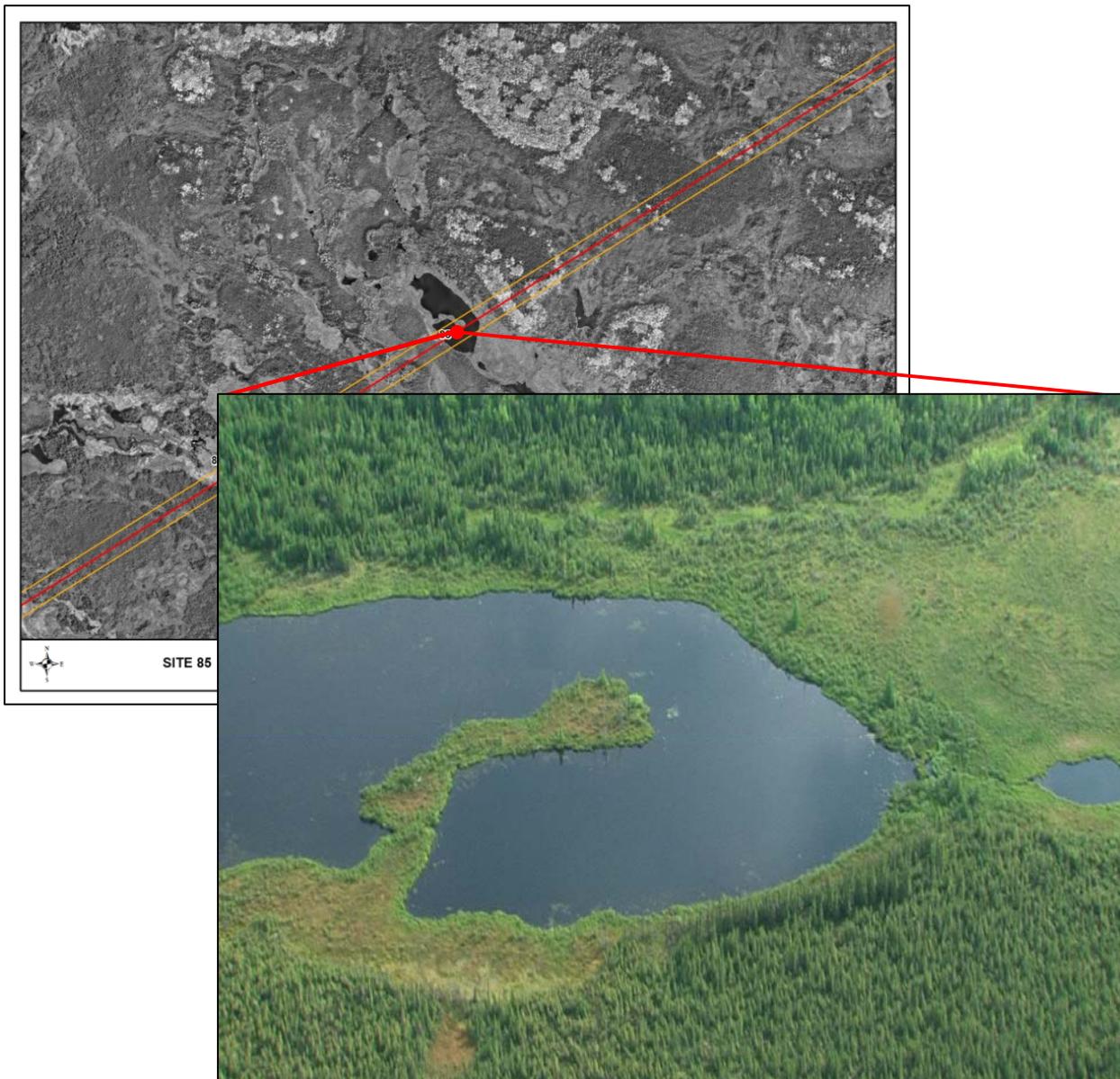
## Unnamed Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 600543  
Northing: 6191260  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Lake  
**Pattern:** -  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** -  
**Distance to Receiving Water:** Isbister Creek 8.6km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Lake size (ha)	2.5
Lake width at ROW (m)	123

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 85 crosses this unnamed lake. The area has moderate habitat diversity and potential for overwintering. Forage fish species and potentially large bodied fish are expected at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 86

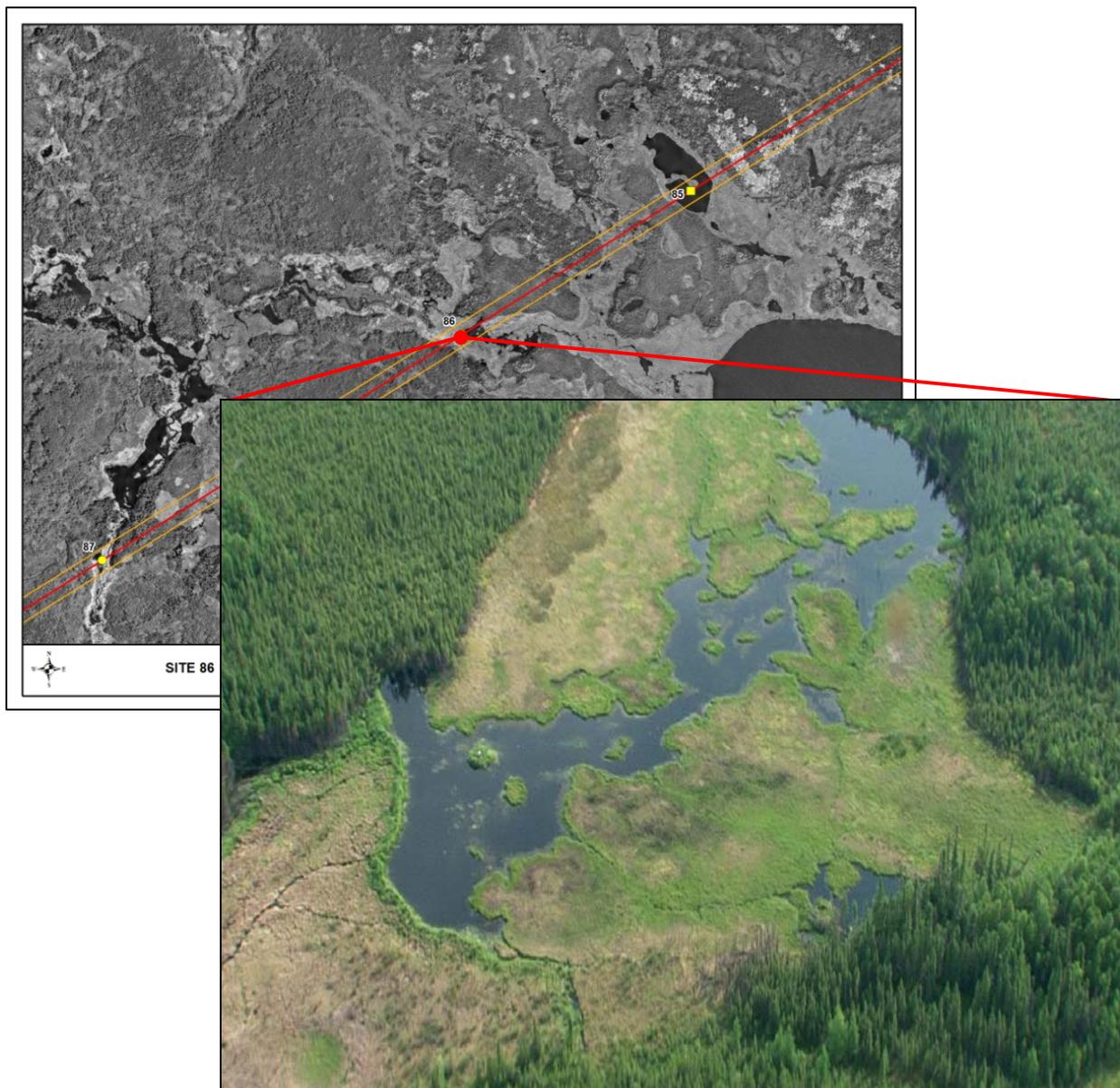
## Unnamed Tributary of Isbister Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 599839  
Northing: 6190817  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 7.3 km<sup>2</sup>  
**Distance to Receiving Water:** Isbister Creek  
7.0 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2
Channel Width (m)	2

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	61
Left Bank	22

##### Riparian Distance (m)

Right Bank	73
Left Bank	28

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 50

##### Cover Composition (% of Total)

Large Woody Debris	Trace
Overhanging Vegetation	25
Instream Vegetation	25
Pool	50
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	50
Run	50
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 86 crosses this unnamed tributary of Isbister Creek. The area has moderate habitat diversity. Minnows are expected at this site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

The saturated floodplain may be sensitive to damage in an area with fish presence.

# Site 87

## Unnamed Tributary of Isbister Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 598731  
Northing: 6190121  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 13.2 km<sup>2</sup>  
**Distance to Receiving Water:** Isbister Creek  
5.4 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	3
Channel Width (m)	3

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	40
Left Bank	18

##### Riparian Distance (m)

Right Bank	63
Left Bank	28

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 10

##### Cover Composition (% of Total)

Large Woody Debris	Trace
Overhanging Vegetation	-
Instream Vegetation	100
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 87 crosses this unnamed tributary of Isbister Creek. The area has moderate habitat diversity and low overwintering potential. Minnows and possibly large bodied species such as northern pike are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

The floodplain may be unstable and sensitive to damage in an area with fish presence.

# Site 88

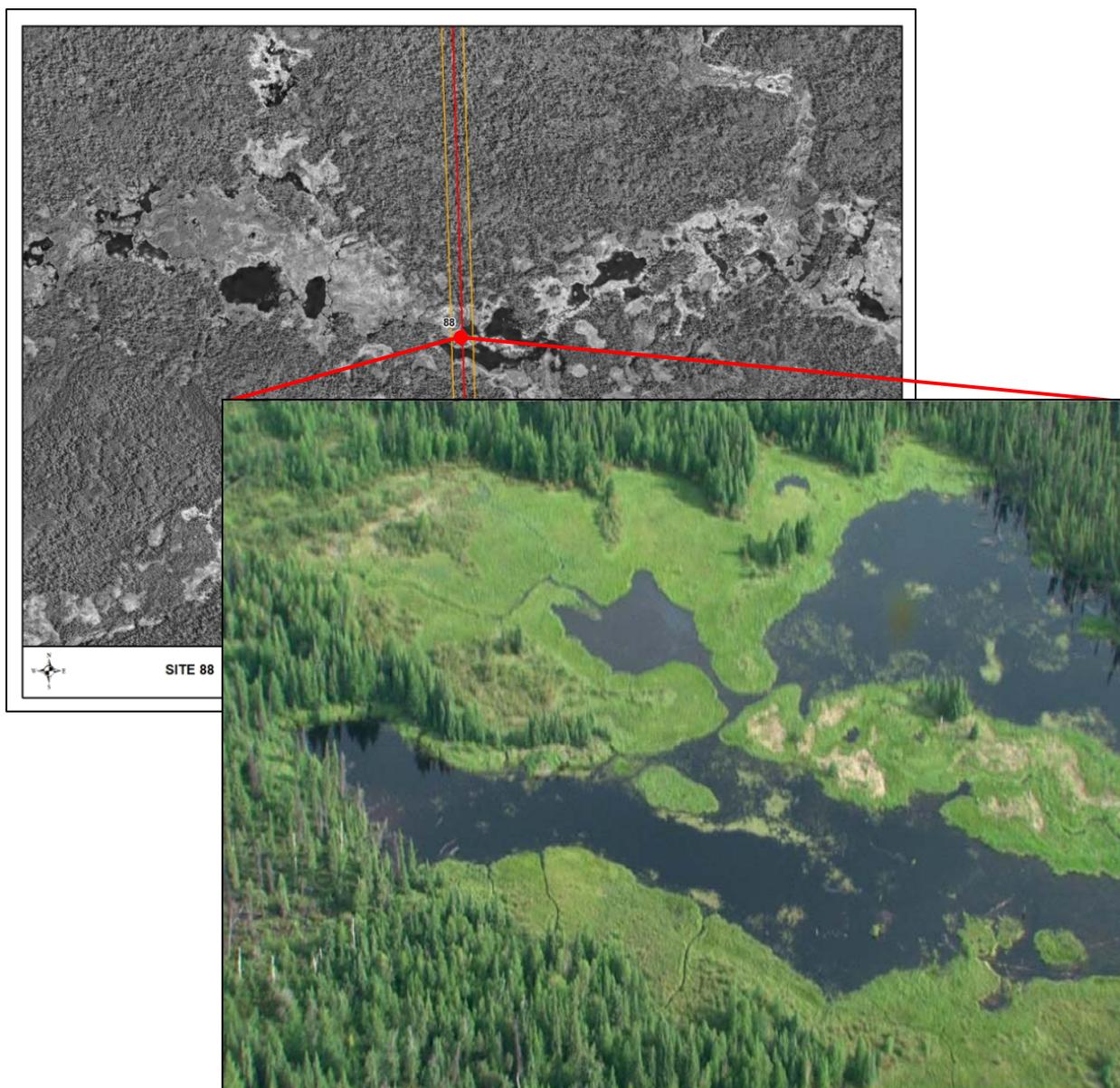
## Unnamed Tributary of Isbister Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 596605  
Northing: 6187282  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 1.7 km<sup>2</sup>  
**Distance to Receiving Water:** Isbister Creek  
4.0 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	41
Channel Width (m)	41

##### Banks (%)

Right Bank Stability	80
Left Bank Stability	80

#### Riparian

##### Floodplain Distance (m)

Right Bank	55
Left Bank	32

##### Riparian Distance (m)

Right Bank	55
Left Bank	32

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 30

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	20
Pool	80
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 88 crosses this unnamed tributary of Isbister Creek. The area has moderate habitat diversity potential for overwintering. Forage and possibly large bodied species are expected at this site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

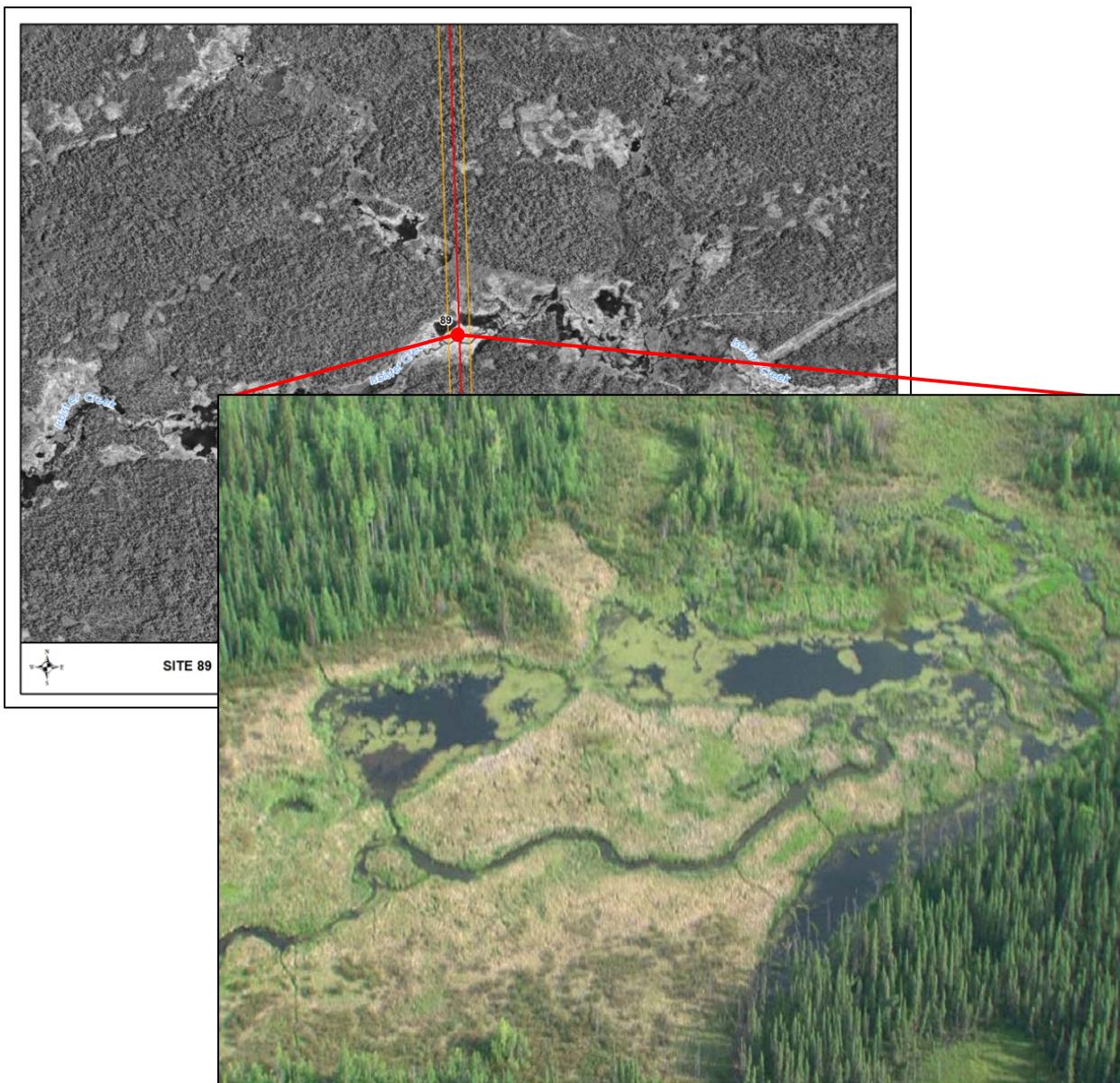
The floodplain may be unstable and sensitive to damage in an area with fish presence.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 596653  
Northing: 6185774  
**Data Source:** DOI.Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IM  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 24.6 km<sup>2</sup>  
**Distance to Receiving Water:** Isbister Lake  
11.3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	5
Channel Width (m)	5

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	96
Left Bank	65

##### Riparian Distance (m)

Right Bank	253
Left Bank	65

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	80
Pool	20
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 89 crosses Isbister Creek. The area has moderate habitat diversity. Minnows are expected at this site and possibly large bodied species such as northern pike.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

The floodplain may be unstable and sensitive to damage in an area with fish presence.

# Site 90

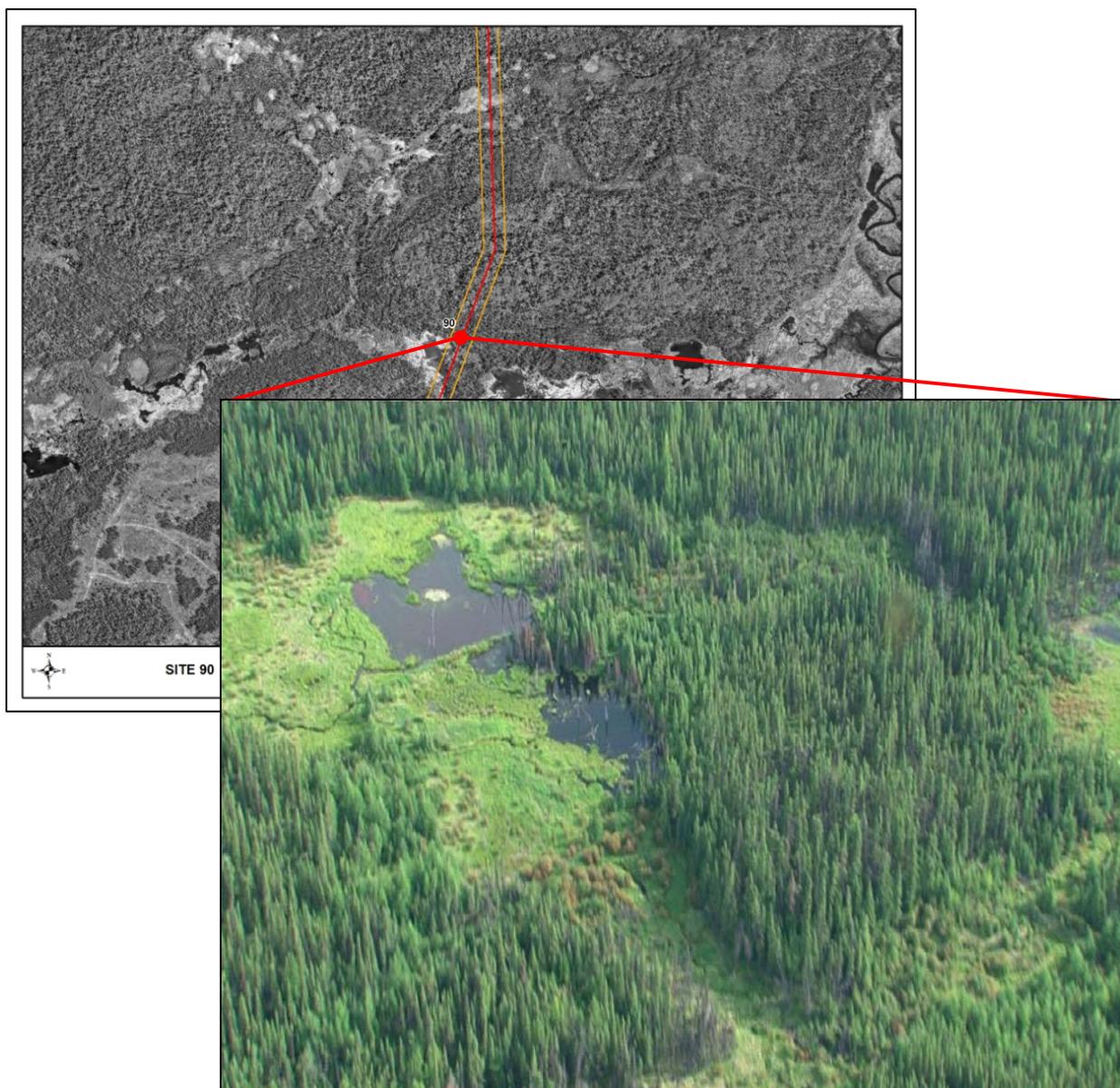
## Unnamed Tributary of Isbister Creek

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 596631  
Northing: 6183081  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 2.0 km<sup>2</sup>  
**Distance to Receiving Water:** Isbister Creek  
1.3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	3
Channel Width (m)	3

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	8
Left Bank	24

##### Riparian Distance (m)

Right Bank	8
Left Bank	6

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	50
Instream Vegetation	-
Pool	50
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 90 crosses Isbister Creek. The area consists of a headwater wetland with only forage fish expected at this site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

The floodplain may be unstable and sensitive to damage in an area with fish presence.

# Site 91

## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 595145
	<i>Northing:</i> 6179083
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IR
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Ephemeral
<b>Morphology:</b>	-
<b>U/S Drainage:</b>	0.1 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 5.0 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

This tributary of Partridge Crop Lake was hardly visible on the video, and likely does not contain fish habitat.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

No fish habitat results in a low sensitivity rating.

# Site 92

## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 595069  
Northing: 6178880  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
4.7 km



SITE 92

## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	84 (total)
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 92 crosses this unnamed tributary of Partridge Crop Lake. The area has low habitat diversity. Forage fish may be found at this site when water is present.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 93

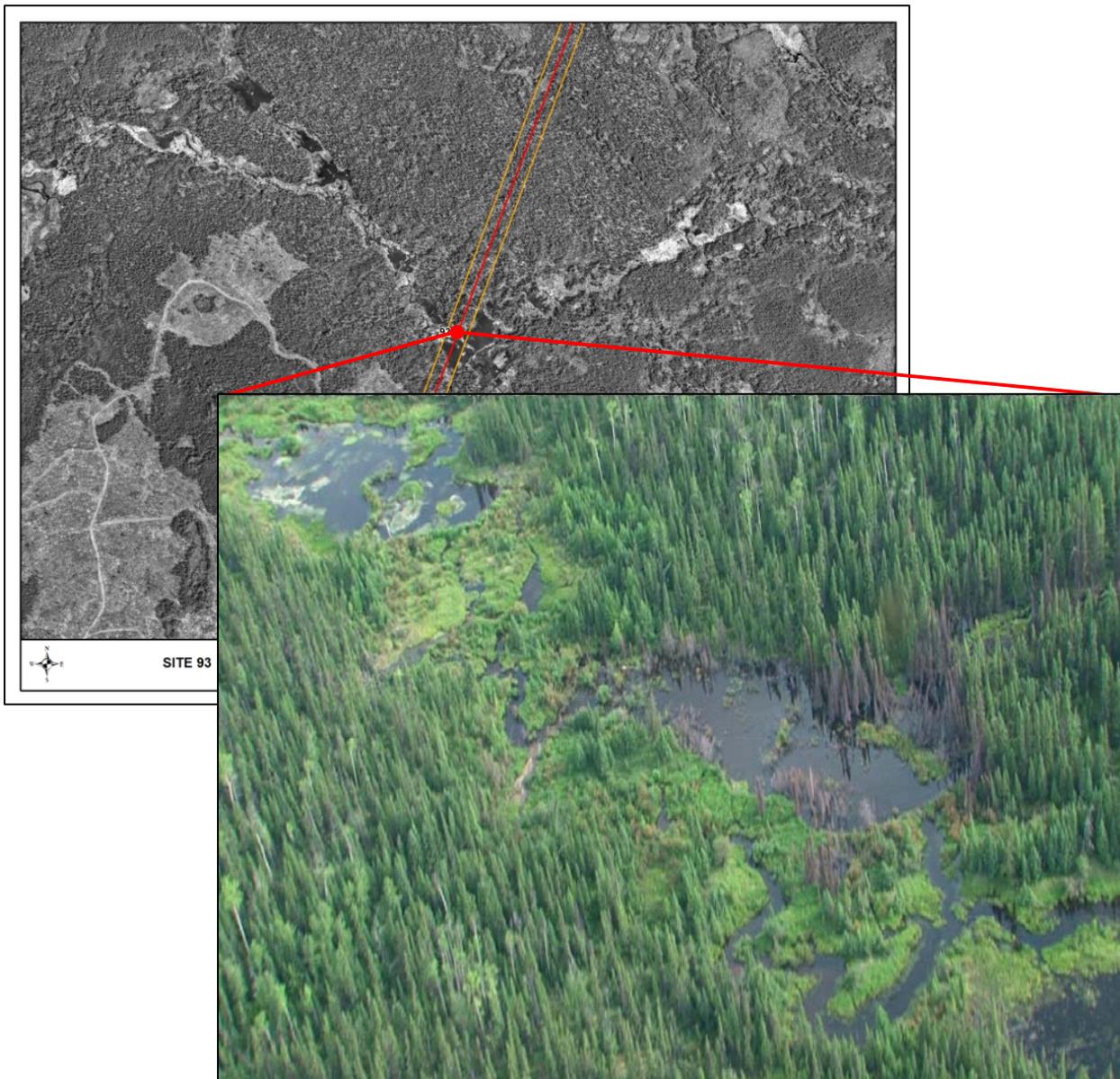
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594469  
Northing: 6177266  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 2.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
2.4 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	68
Channel Width (m)	68

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	15
Left Bank	20

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 30

##### Cover Composition (% of Total)

Large Woody Debris	50
Overhanging Vegetation	-
Instream Vegetation	50
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 93 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and low overwintering potential. Minnows and potentially some large bodied species may be found at this site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

Floodplain region may be sensitive to damage during construction, resulting in increased siltation into tributary.



# Site 94

## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594220  
Northing: 6174610  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** -  
**Distance to Receiving Water:** Partridge Crop Lake  
1.3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	14 (total)
Left Bank	-

##### Riparian Distance (m)

Right Bank	23
Left Bank	23

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 20

##### Cover Composition (% of Total)

Large Woody Debris	50
Overhanging Vegetation	50
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 94 crosses this unnamed tributary of Partridge Crop Lake. The area has low habitat diversity and low overwintering potential. Forage fish may be present at this site.

### + Habitat Sensitivity

Sensitivity Rating: Low

#### Comments:

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 95

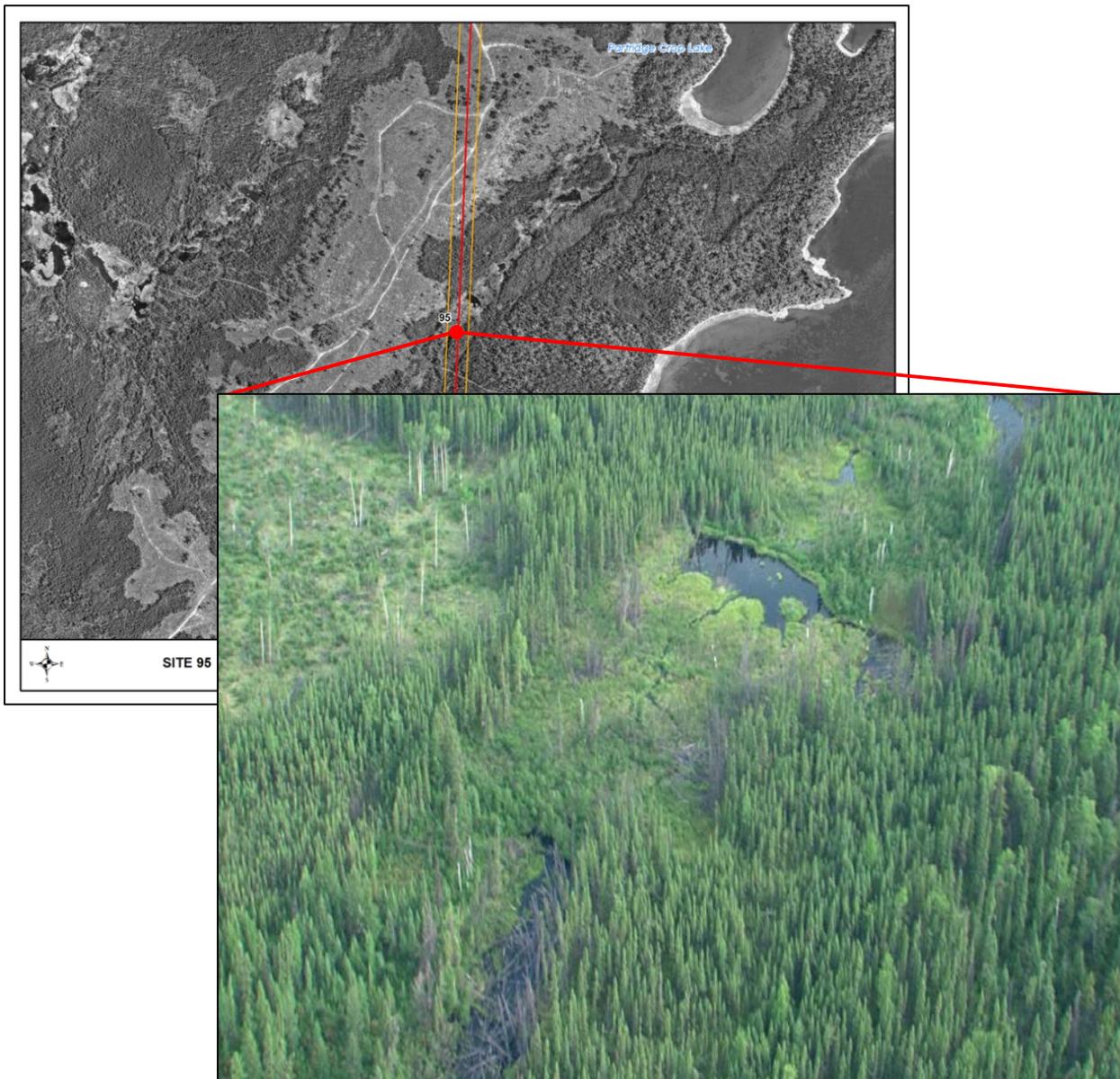
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594113  
Northing: 6172023  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 0.5 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.98 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	3
Channel Width (m)	3

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	29
Left Bank	34

##### Riparian Distance (m)

Right Bank	80
Left Bank	47

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 40

##### Cover Composition (% of Total)

Large Woody Debris	20
Overhanging Vegetation	60
Instream Vegetation	-
Pool	20
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 95 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and low overwintering potential. Forage fish are expected at site.

### + Habitat Sensitivity

Sensitivity Rating: Low

#### Comments:

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 96

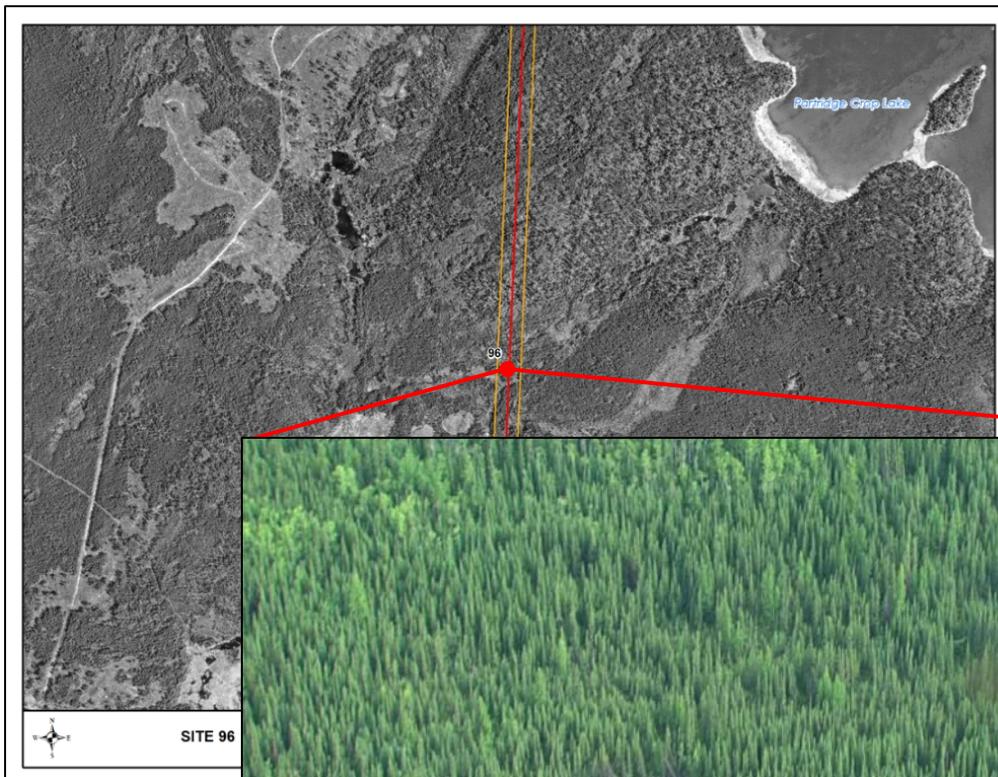
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594062  
Northing: 6170794  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.99 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	14

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	117
Left Bank	53

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) -

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 96 crosses this unnamed tributary of Partridge Crop Lake. In this area the stream consists of a boreal wetland with no water visible.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Lack of fish presence results in a low sensitivity rating.

# Site 97

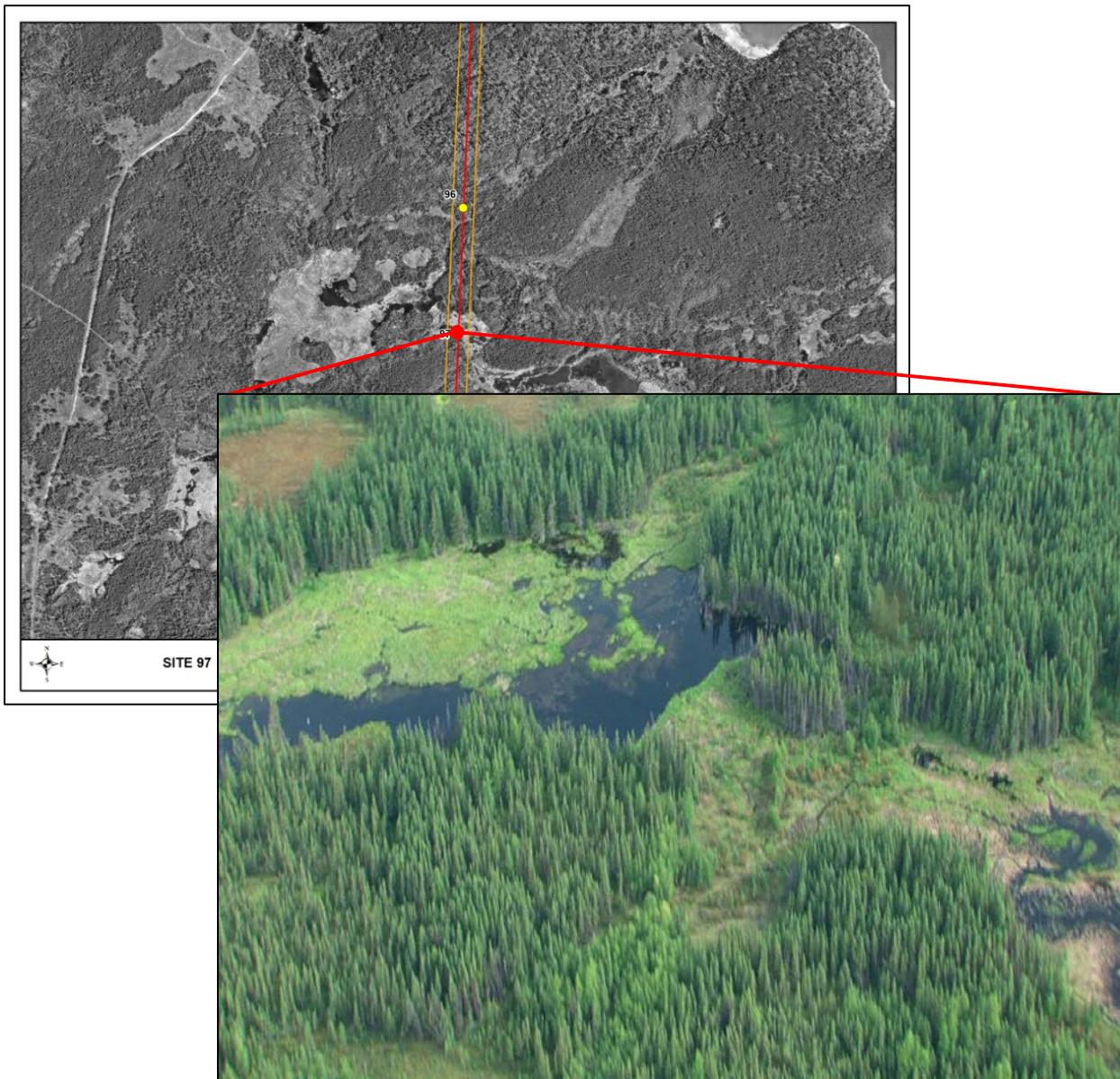
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594046  
Northing: 6170413  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 0.1 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.61 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2
Channel Width (m)	2

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	21
Left Bank	19

##### Riparian Distance (m)

Right Bank	21
Left Bank	19

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	30
Instream Vegetation	70
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 97 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and low overwintering potential. Forage fish and potentially large bodied fish species are expected at the site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

Floodplain area may be sensitive to damage during construction.

# Site 98

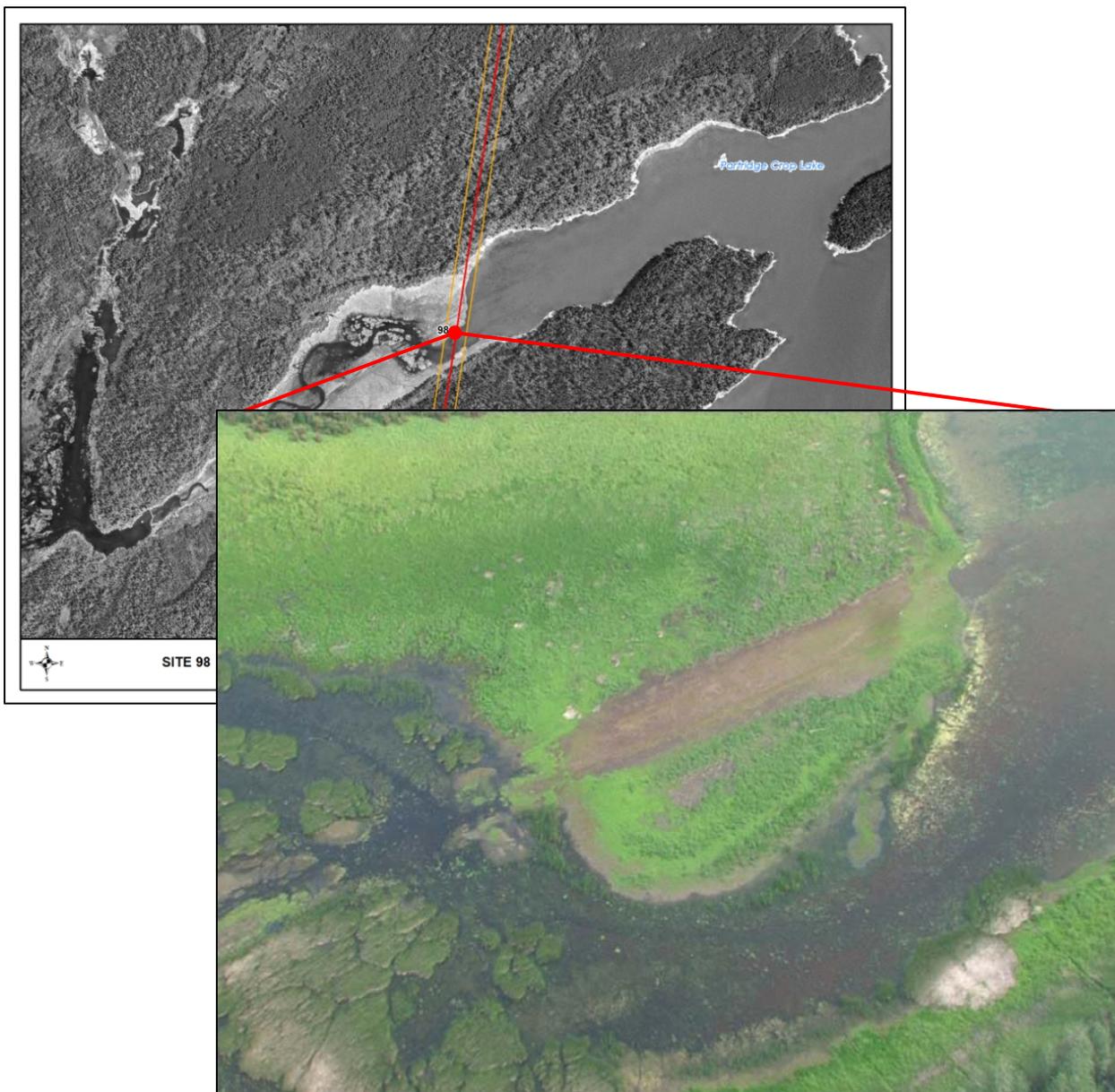
## Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 593719  
Northing: 6167671  
**Data Source:** DOI. Video. Site Visit

### General Morphology

**Stream/Lake:** Lake  
**Pattern:** -  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 4.1 km<sup>2</sup>  
**Distance to Receiving Water:** Nelson River 98 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: Moderate

<u>Transect</u>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	~80	-	-	-	-
Wetted Width (m)	~120	-	-	-	-

#### Water Depths (m)

25%	0.5	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~1	-	-	-	-
Left Bank Slope (°)	~1	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	50	-	-	-	-
Left Bank	~30	-	-	-	-

#### Riparian Distance (m)

Right Bank	66	-	-	-	-
Left Bank	~40	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	-	-	-	-	-
Conifers	-	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

	0	-	-	-	-
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#### Substrate Type (%)

Fines	100	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	-	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	-	-	-	-	-
Run	100	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	10	-
Large Woody Debris	-	-
Overhanging Vegetation	-	-
Instream Vegetation	100	-
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Overhead view of site 98.



Upstream view at site 98.



Downstream view at site 98.



Right bank to left bank at site 98

## ↘ Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### Comments:

The RoW at site 98 crosses Partridge Crop Lake. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. Various species and life stages of fish are expected at this site. It is surrounded by a soft floodplain.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### Comments:

Soft floodplain and important fish habitat result in a moderate sensitivity rating.

# Site 99

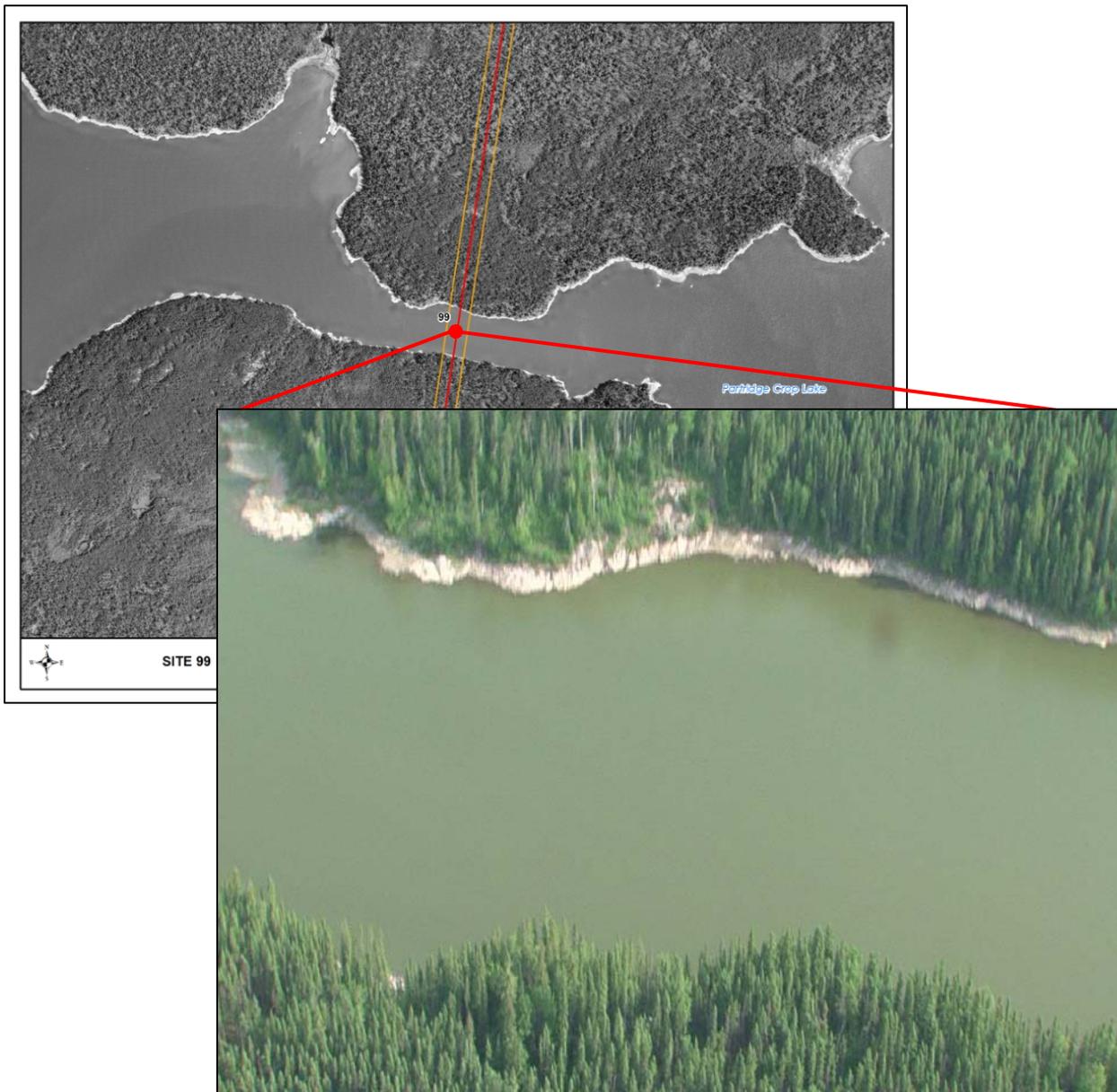
## Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 593115  
Northing: 6163661  
**Data Source:** DOI. Video. Site Visit

### General Morphology

**Stream/Lake:** Lake  
**Pattern:** -  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 12,764 km<sup>2</sup>  
**Distance to Receiving Water:** Nelson River 110 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: Moderate

<u>Transect</u>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	~130	-	-	-	-
Wetted Width (m)	~130	-	-	-	-

#### Water Depths (m)

25%	1.0	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~45	-	-	-	-
Left Bank Slope (°)	~45	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	-	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Distance (m)

Right Bank	9.7	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	-	-	-	-	-
Conifers	-	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

Trace	-	-	-	-	-
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#### Substrate Type (%)

Fines	100	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	20	-	-	-	-
Bedrock	80	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	100	-	-	-	-
Run	-	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	Trace	Trace
Large Woody Debris	Trace	Trace
Overhanging Vegetation	-	-
Instream Vegetation	-	-
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Overhead view of site 99.



West view at site 99.



East view at site 99.



North bank to south bank at site 99.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### Comments:

The RoW at site 99 crosses Partridge Crop Lake. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. Various species and life stages of fish are expected at this site

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### Comments:

Though important fish habitat, stable banks result in a low sensitivity rating.

# Site 100

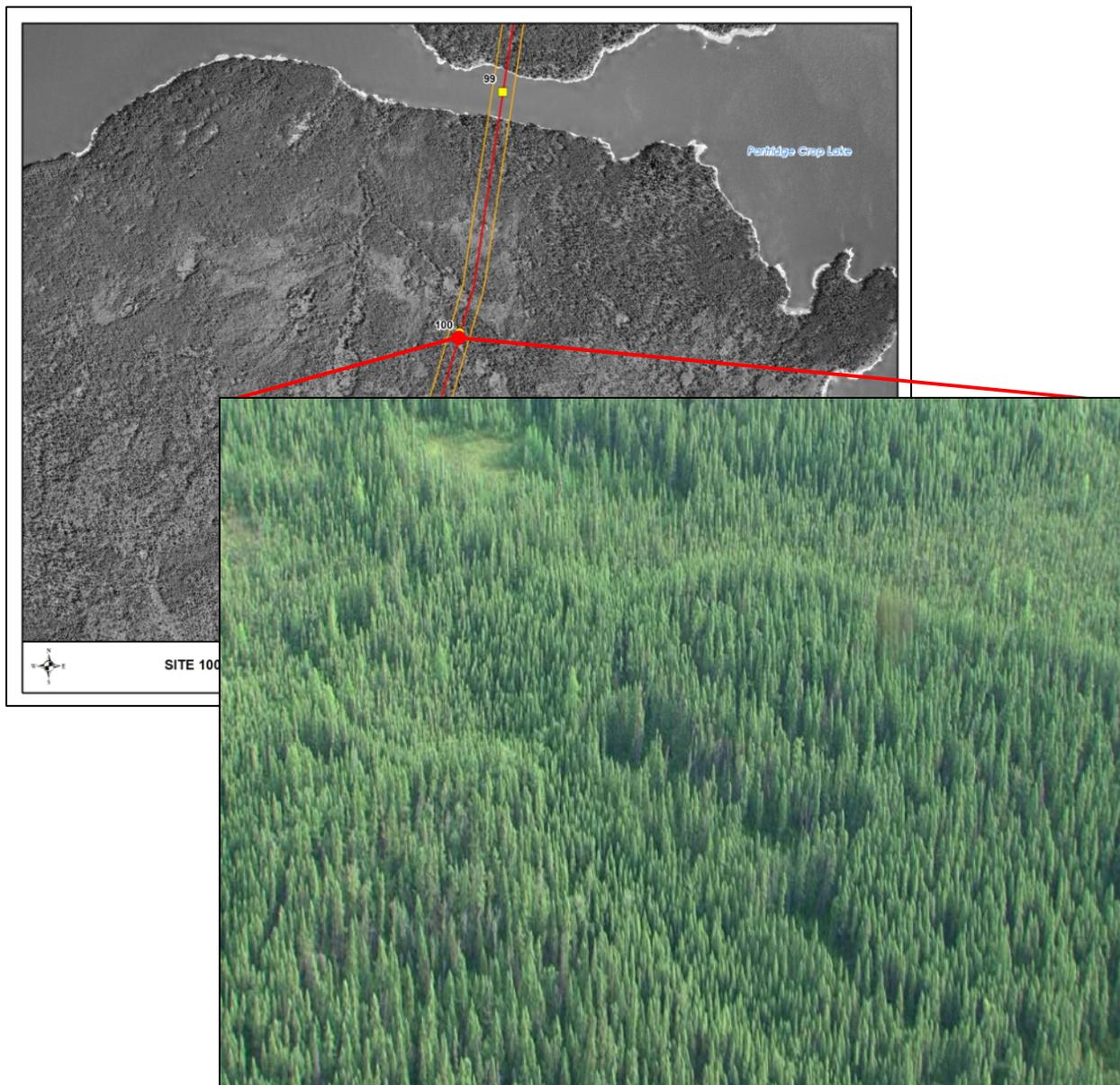
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 592983  
Northing: 6162918  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.7 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 100 crosses this unnamed tributary of Partridge Crop Lake. The small stream area has low habitat diversity and low overwintering potential. Forage fish may occur in this stream when sufficient water exists.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Poor quality fish habitat and abundant vegetation result with a rating of low.

# Site 101

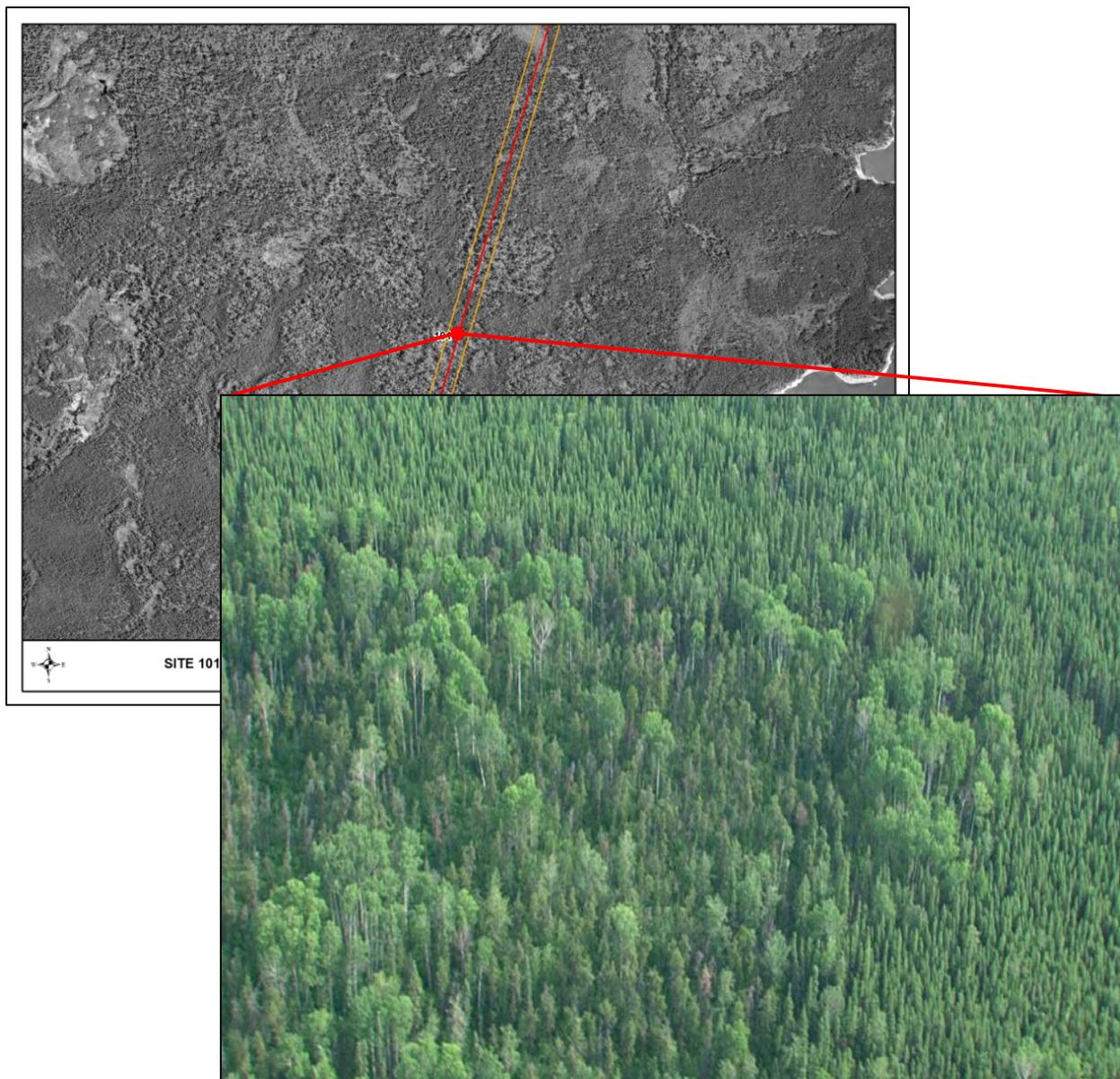
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 592552  
Northing: 6161442  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
1.6 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	-
Conifers	Y
Deciduous	Y
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

This unnamed tributary of Partridge Crop Lake is hardly visible on the video, and likely contains no fish habitat.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 102

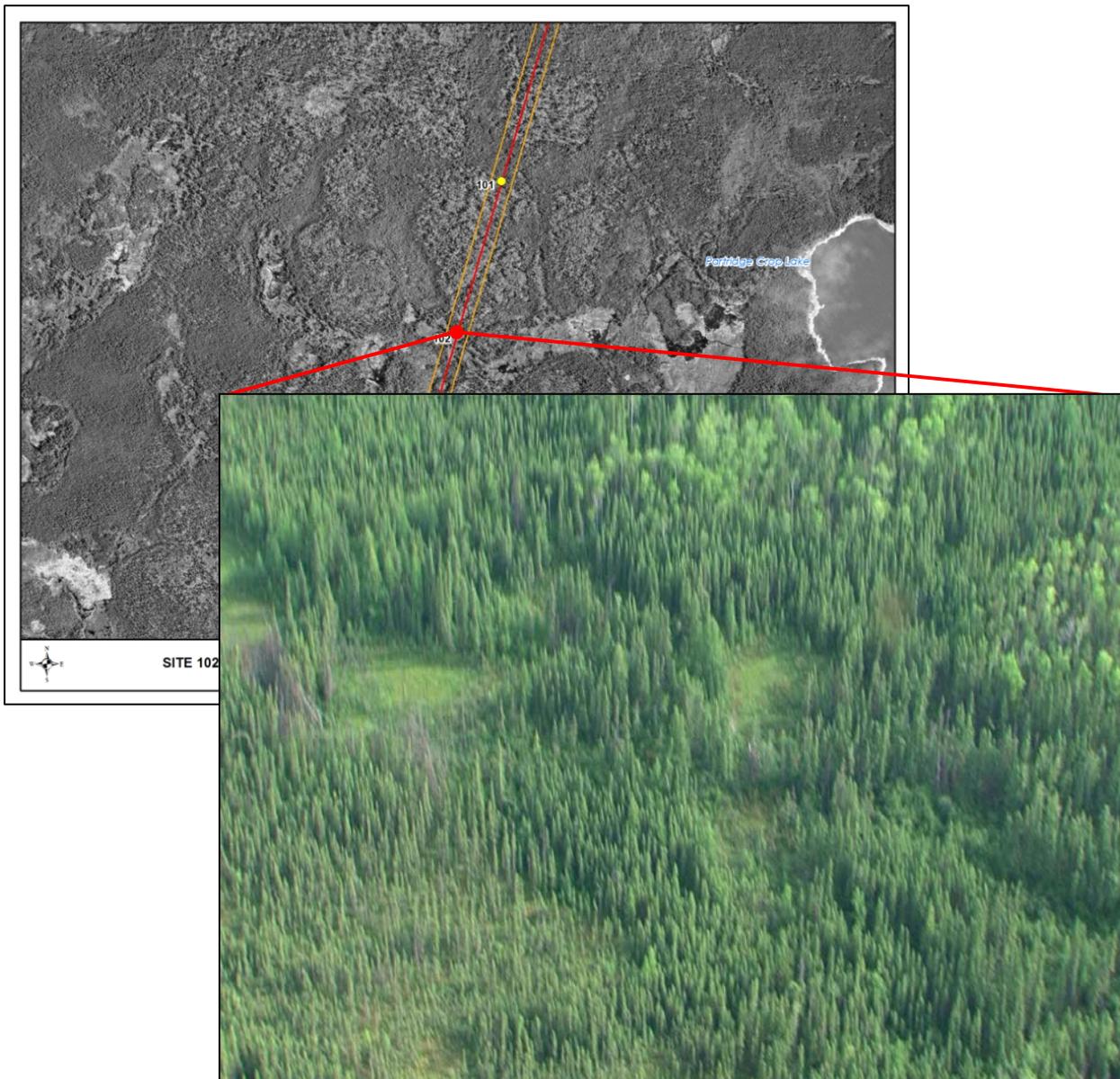
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 594062  
Northing: 6170794  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
1.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 102 crosses this unnamed tributary of Partridge Crop Lake. The area consists of wetland habitat with little channel formation. Forage fish may occur at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Marginal fish habitat and abundant vegetation results in a low sensitivity rating.



# Site 103

## Unnamed Pond

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 591937  
Northing: 6159336  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** -  
**Pattern:** -  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** -  
**Distance to Receiving Water:** -



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	No
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	No Fish Habitat

**Fish Presence:** N/A

#### **Comments:**

This unnamed pond does not appear to be connected to other waterbodies, and likely contains no fish habitat.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and no fish habitat result in a low sensitivity rating.

# Site 104

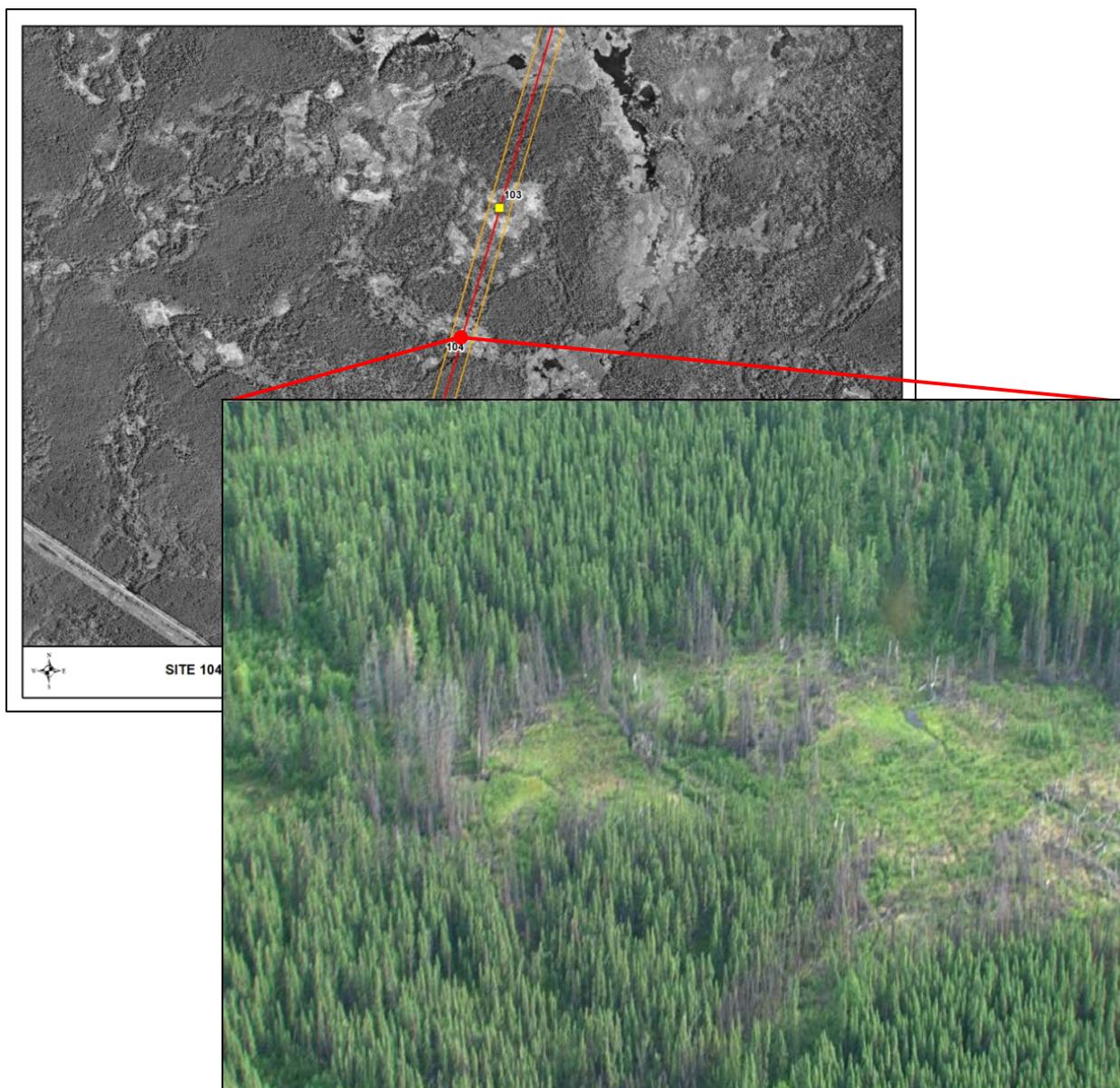
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 591822  
Northing: 6158940  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 0.2 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 104 crosses this unnamed tributary of Partridge Crop Lake. The area is in the headwaters of a small stream and habitat consists of boreal wetland with poor channel formation. Forage fish may be found at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating.

# Site 105

## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 591693  
Northing: 6158498  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** -  
**Distance to Receiving Water:** Partridge Crop Lake  
2 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	31.7
Channel Width (m)	142.5

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	31.8
Left Bank	80.2

##### Riparian Distance (m)

Right Bank	76.4
Left Bank	84.9

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

10

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	100
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 105 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and overwintering potential. Minnows are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain area may be sensitive to damage during construction in an area with fish presence.

# Site 106

## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 591527
	<i>Northing:</i> 6157930
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	SI
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	0.7 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 1 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4.7
Channel Width (m)	4.7

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	9.7
Left Bank	8.4

##### Riparian Distance (m)

Right Bank	28.2
Left Bank	17.8

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

10

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	50
Instream Vegetation	50
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 109 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and overwintering potential and is within close unimpeded distance of Partridge Crop Lake. Both forage and large bodied species are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable vegetated banks result in a low sensitivity rating.



# Site 107

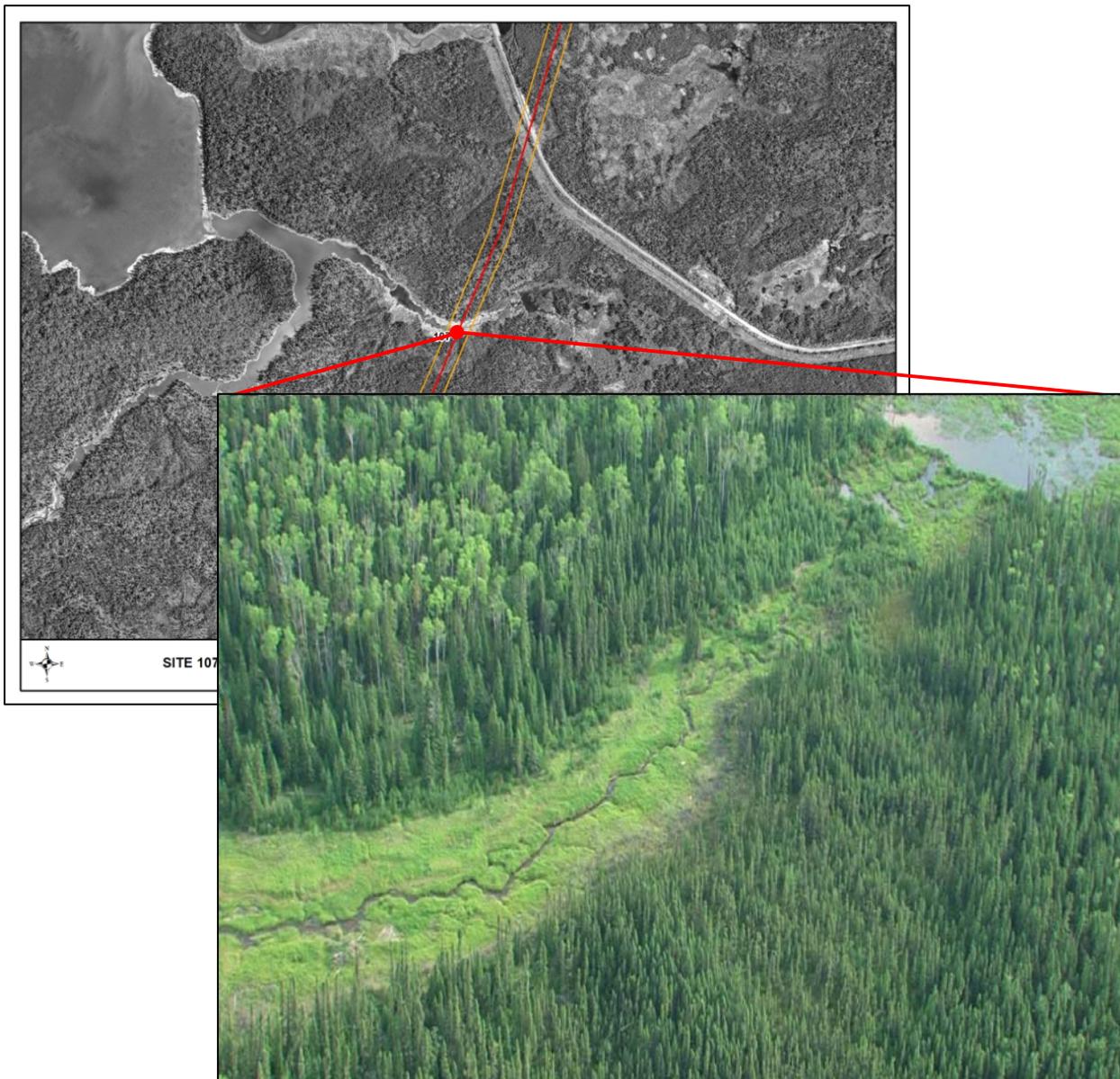
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 591129  
Northing: 6156698  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 0.9 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	9.6
Channel Width (m)	9.6

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	20.2
Left Bank	25.9

##### Riparian Distance (m)

Right Bank	38.8
Left Bank	68.6

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	100
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 107 crosses this unnamed tributary of Partridge Crop Lake. The area has moderate habitat diversity and is close to Partridge Crop Lake. Forage fish as well as large bodied species are expected at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Saturated floodplain is susceptible to rutting and erosion and therefore a moderate sensitivity rating.

# Site 108

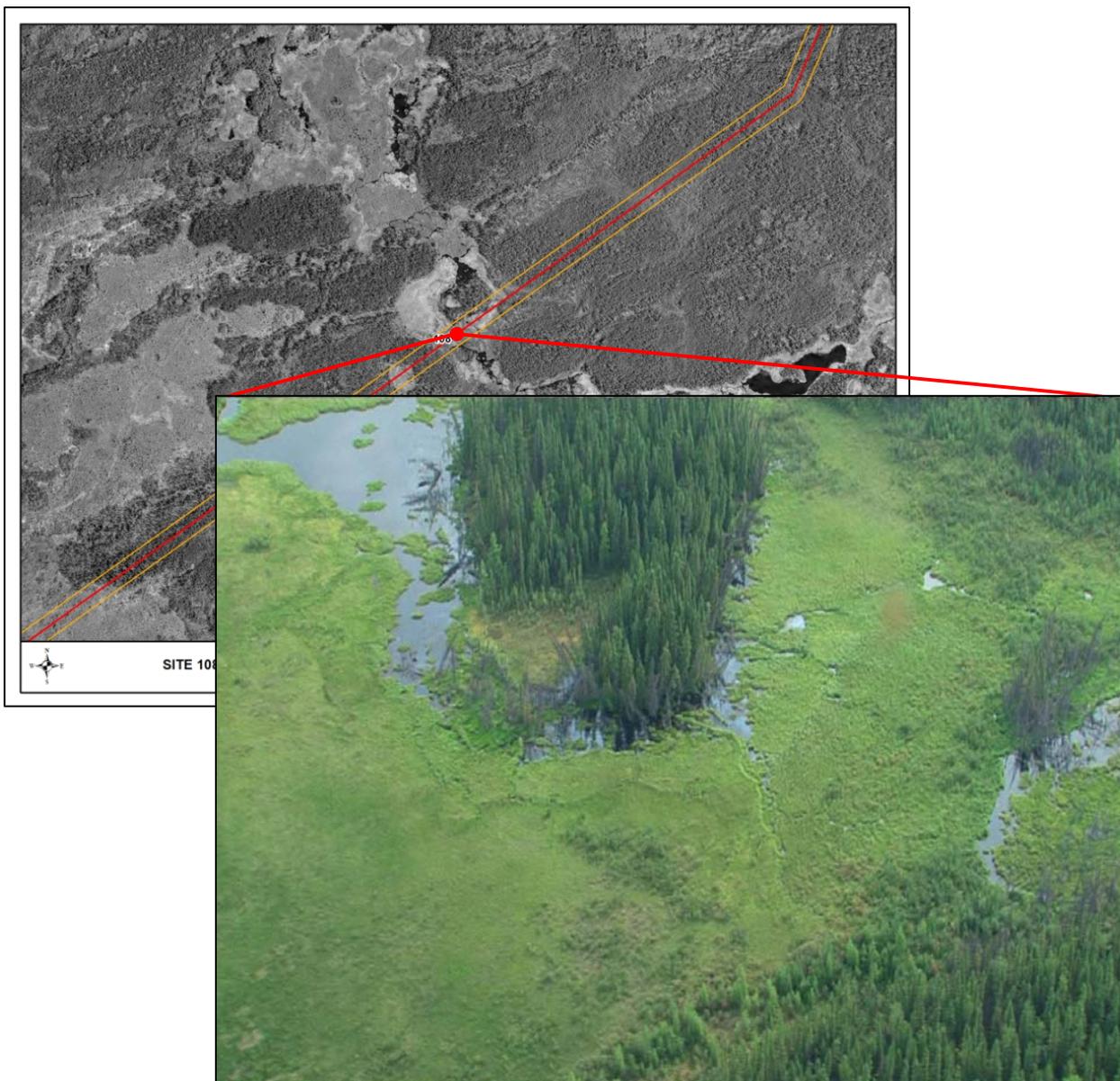
## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 589219
	<i>Northing:</i> 6153875
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IR
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Ephemeral
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	4 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 4.1 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	239.1

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	156.1
Left Bank	88.9

##### Riparian Distance (m)

Right Bank	217.1
Left Bank	105.1

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 51

##### Cover Composition (% of Total)

Large Woody Debris	5
Overhanging Vegetation	45
Instream Vegetation	50
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 108 crosses this unnamed tributary of Partridge Crop Lake. The small stream contains boreal wetland habitat with poor channel formation. Access from downstream areas limits large bodied fish access. Forage fish are expected at this site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

The broad saturated floodplain is susceptible to rutting and erosion.

# Site 109

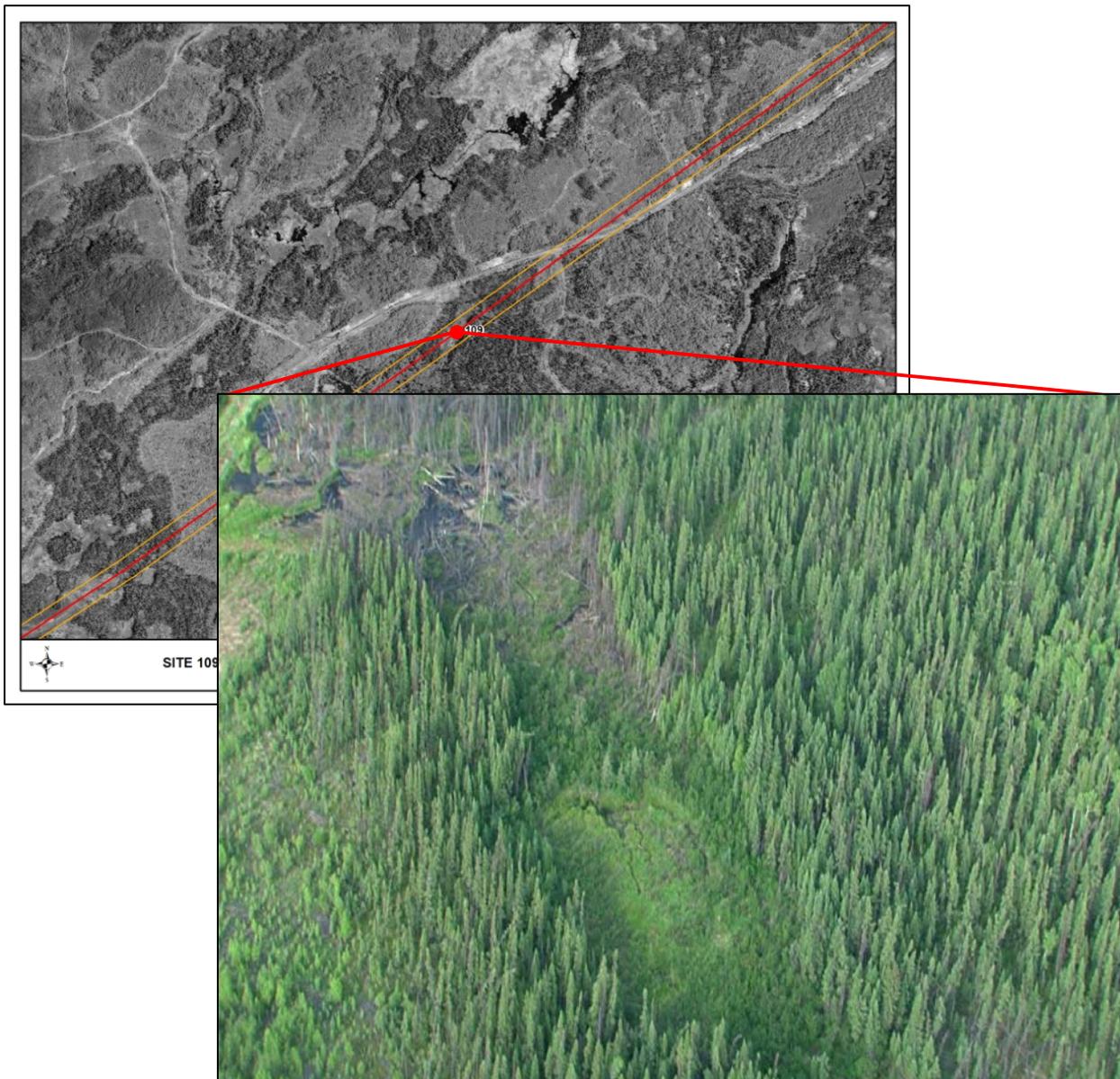
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 583153  
Northing: 6149524  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 0.8 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
1.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	-

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 109 crosses this unnamed tributary of Partridge Crop Lake. The site is at the headwaters of a small stream with little flow or water. Forage fish may be found in the area where sufficient water exists.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Stable banks and marginal fish habitat result in a low sensitivity rating



# Site 110

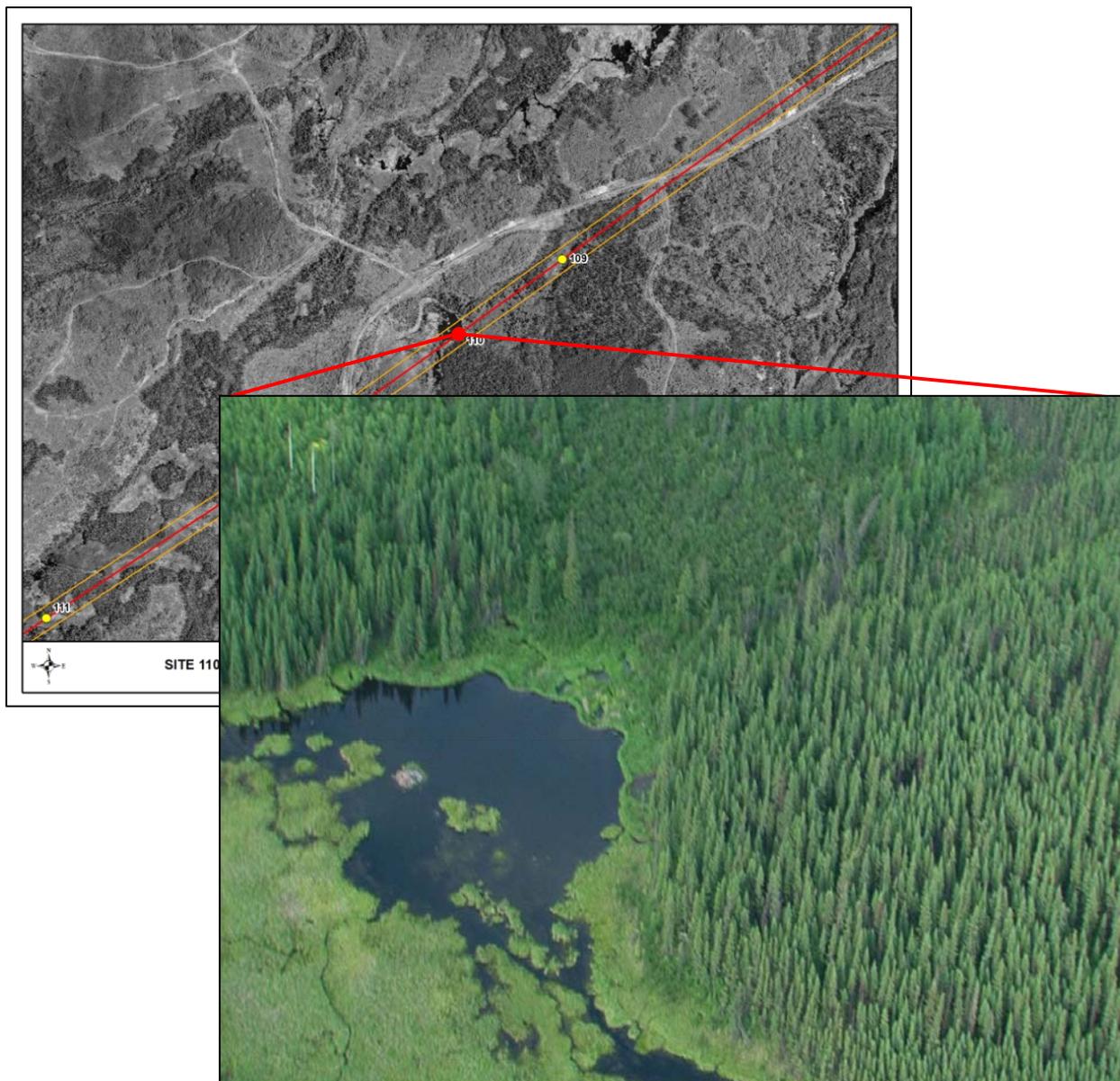
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 582835  
Northing: 6149296  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 0.5 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
2 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	72.3
Channel Width (m)	72.3

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	12.1
Left Bank	76.1

##### Riparian Distance (m)

Right Bank	41.6
Left Bank	87.6

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 70

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	80
Pool	20
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	50
Run	50
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 110 crosses this unnamed tributary of Partridge Crop Lake. The site is in the headwaters of a small stream characterized by boreal wetland habitat. Forage fish species are expected.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain may be unstable and sensitive to damage within an area with fish presence.

# Site 111

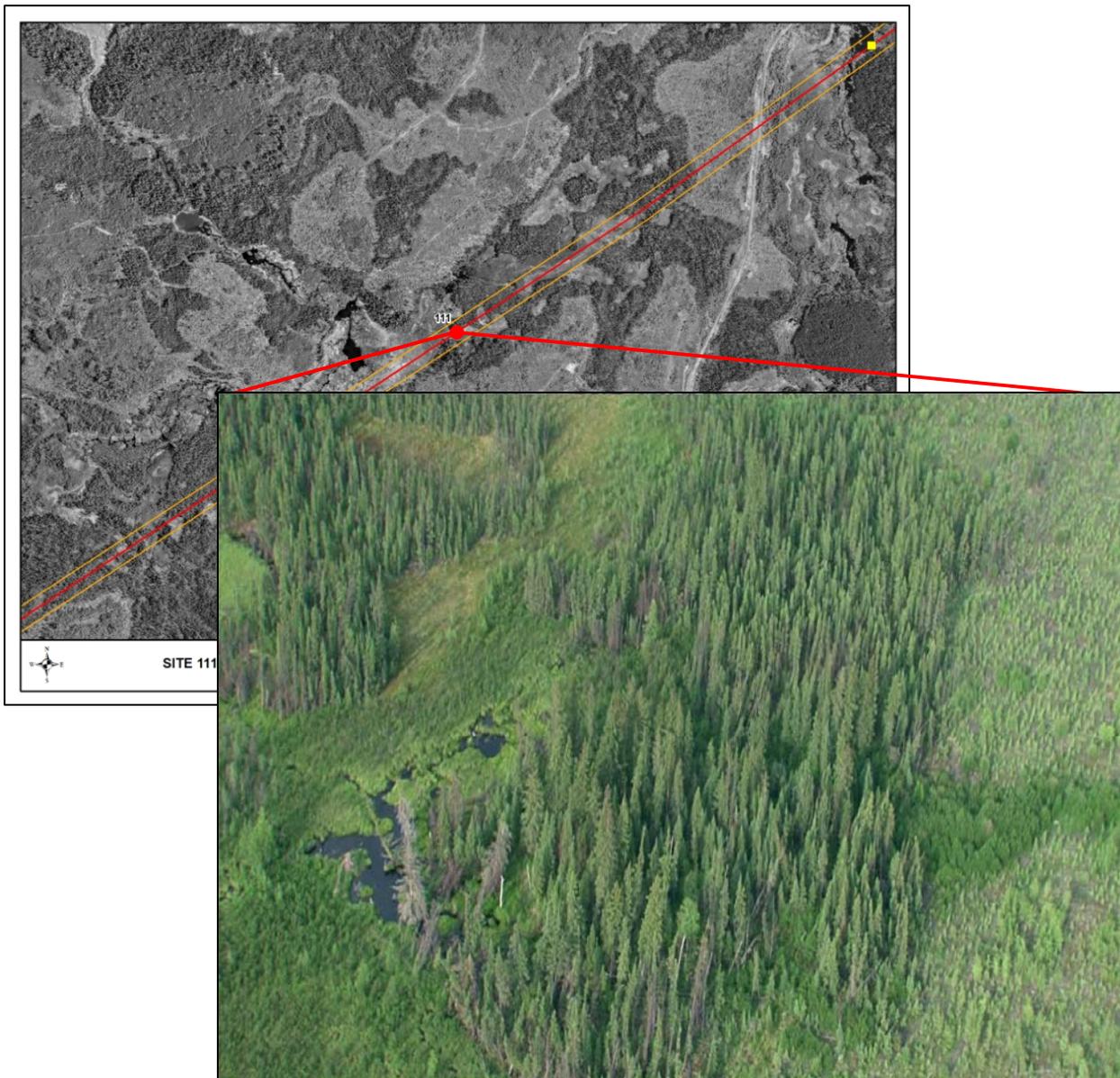
## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 581555
	<i>Northing:</i> 6148411
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	SI
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Ephemeral
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	0.1 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 1.6 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	32.8

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	-
--	---

#### Substrate

##### Substrate Type (%)

Fines	-
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

	-
--	---

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 111 crosses this unnamed tributary of Partridge Crop Lake. The site is in the headwaters of a small stream characterized by boreal wetland habitat. Forage fish species are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain may be unstable and sensitive to damage within an area with fish presence.

# Site 112

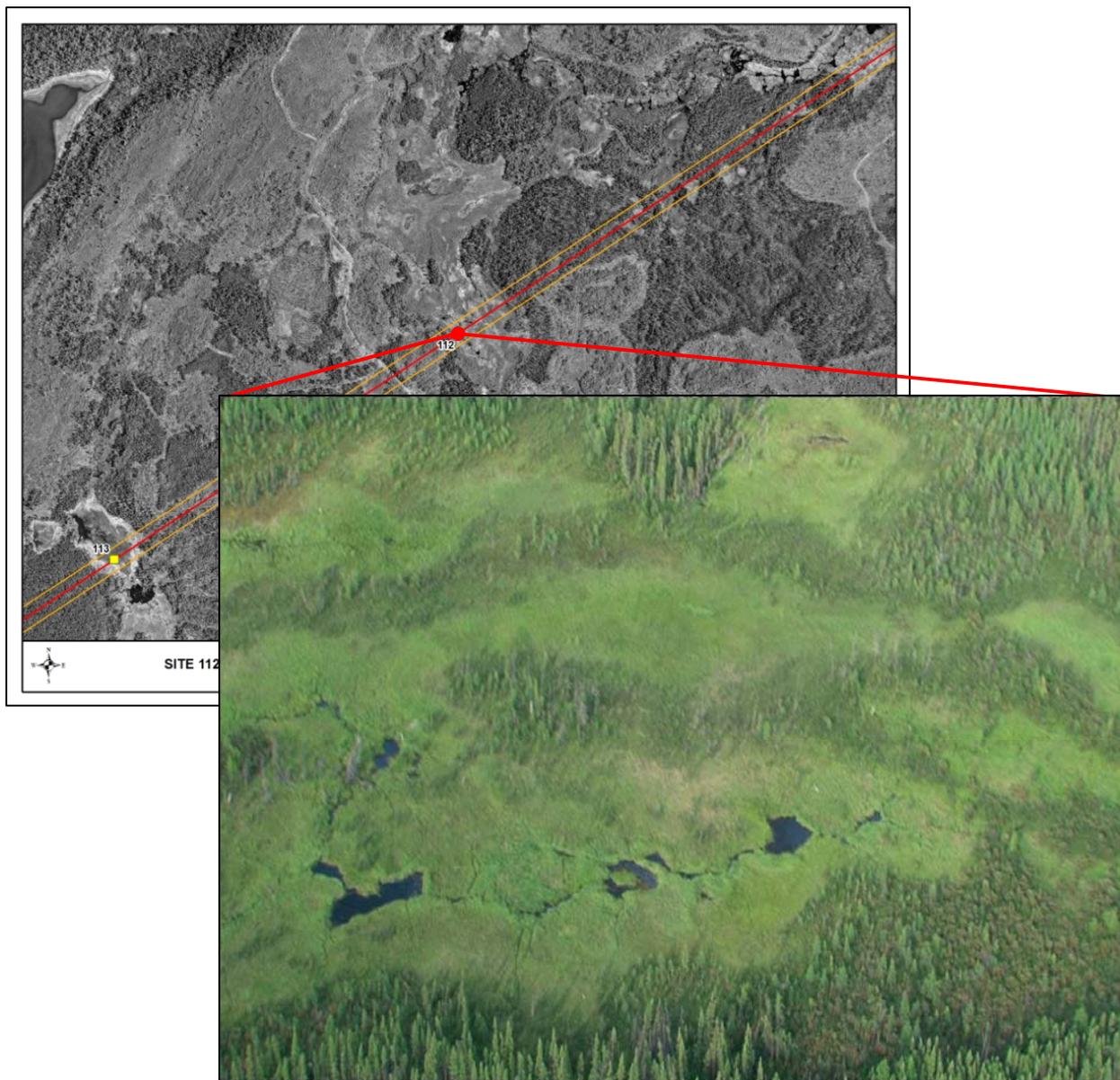
## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 579961  
Northing: 6147362  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** -  
**Distance to Receiving Water:** Partridge Crop Lake  
3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	5.0
Channel Width (m)	5.0

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	161.9
Left Bank	40.9

##### Riparian Distance (m)

Right Bank	199.9
Left Bank	61.8

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 112 crosses this unnamed tributary of Partridge Crop Lake. The site is in the headwaters of a small stream characterized by boreal wetland habitat. Forage fish species are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain may be unstable and sensitive to damage within an area with fish presence.

# Site 113

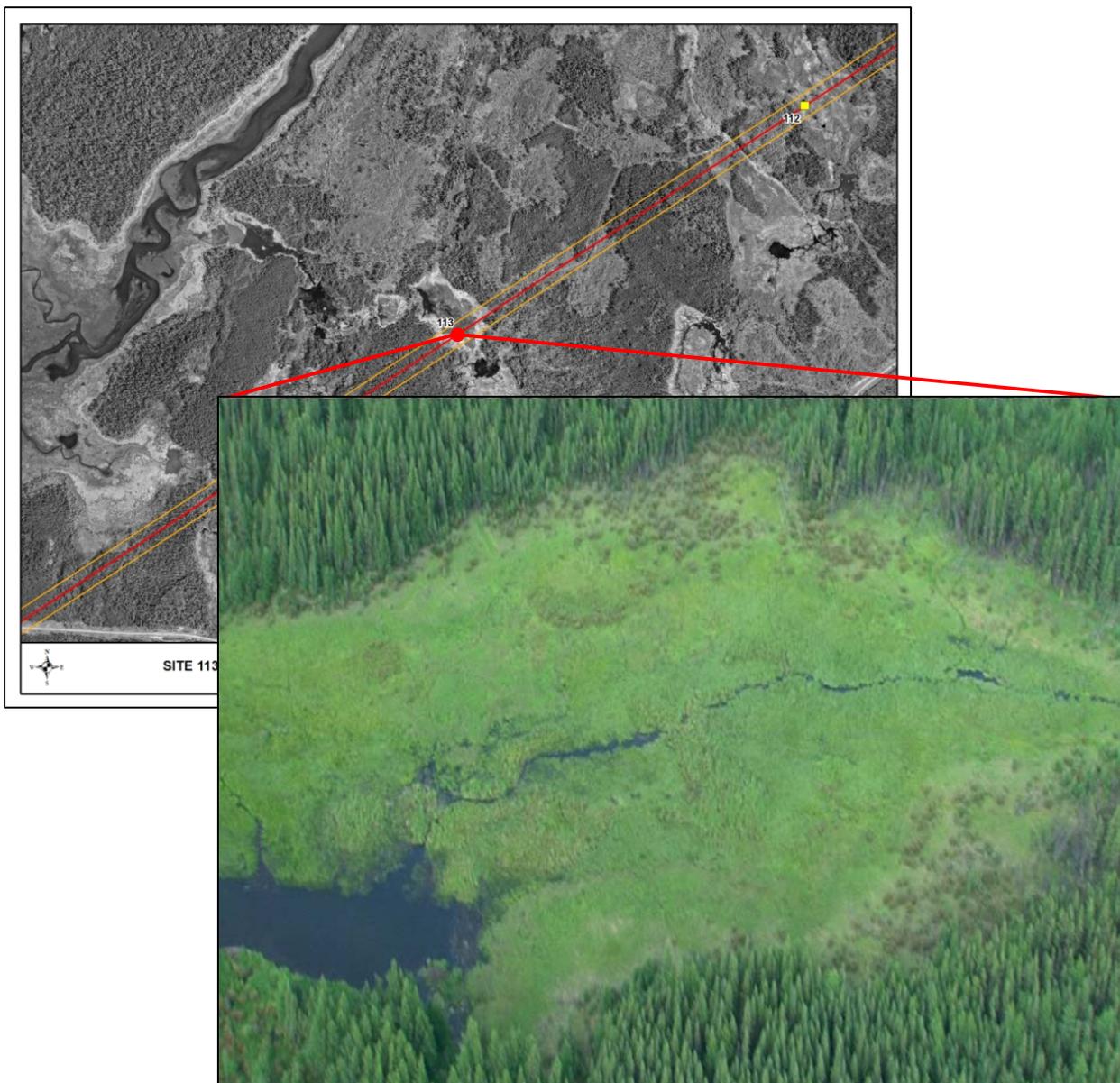
## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 578892
	<i>Northing:</i> 6146658
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IR
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Ephemeral
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	-
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 0.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2.8
Channel Width (m)	2.8

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	105.2
Left Bank	86.8

##### Riparian Distance (m)

Right Bank	168
Left Bank	104.3

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	100
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	10
Run	90
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 113 crosses this unnamed tributary of Partridge Crop Lake. The site is in the headwaters of a small stream characterized by boreal wetland habitat. Forage fish species are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain may be unstable and sensitive to damage within an area with fish presence.

# Site 114

## Unnamed Tributary of Partridge Crop Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 577301  
Northing: 6145610  
**Data Source:** DOI.Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 7.9 km<sup>2</sup>  
**Distance to Receiving Water:** Partridge Crop Lake  
0.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	47.7
Channel Width (m)	47.7

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	41.6
Left Bank	94.2

##### Riparian Distance (m)

Right Bank	59.3
Left Bank	158

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

30

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	90
Pool	10
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	20
Run	80
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 114 crosses this unnamed tributary of Partridge Crop Lake close to the lake. The area has moderate habitat diversity and overwintering potential. Minnow and large bodied fish such as pike are expected at site

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Within an area of fish presence, the floodplain region is unstable and sensitive to damage during construction.

# Site 115

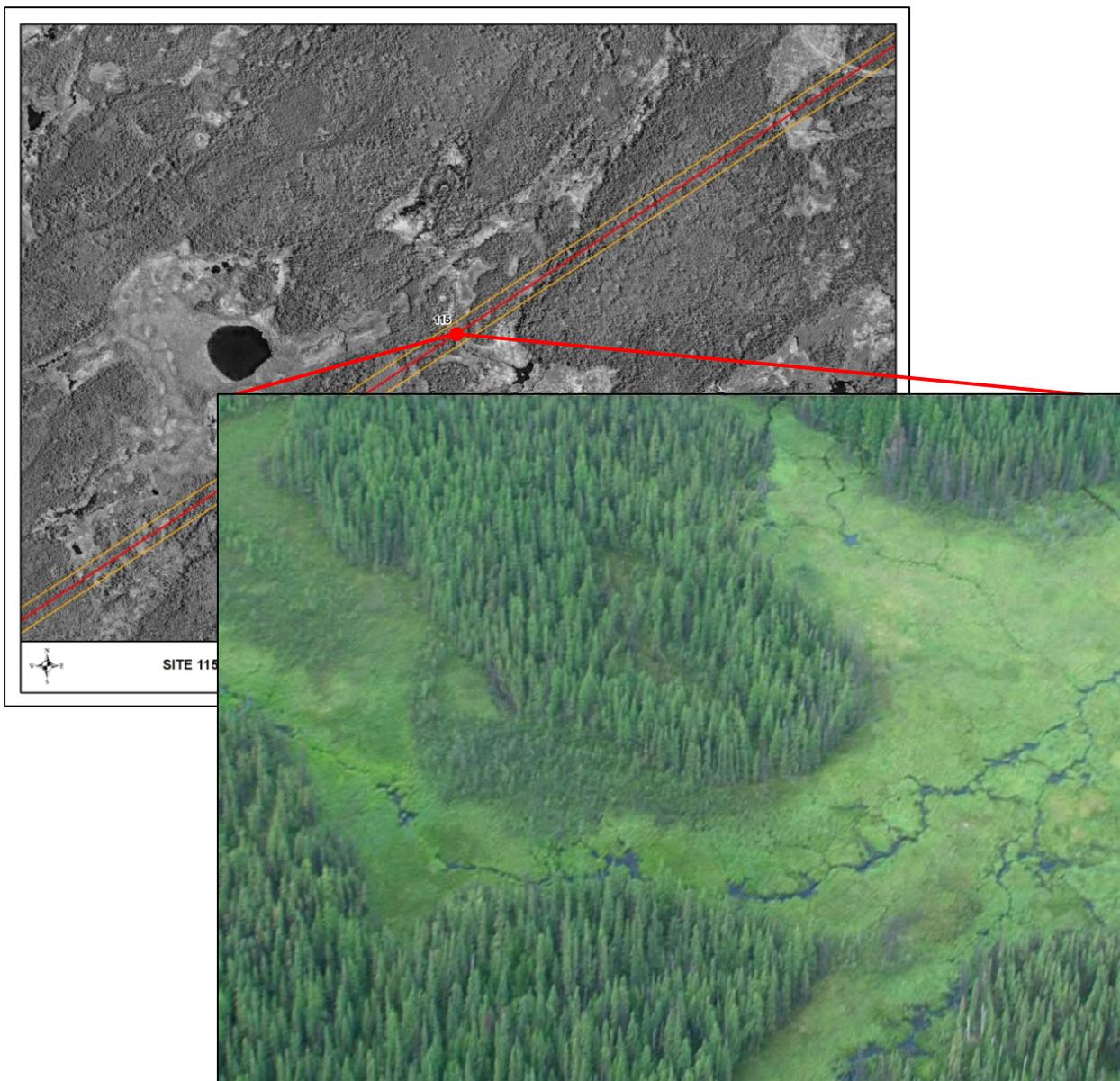
## Unnamed Tributary of Partridge Crop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 574802
	<i>Northing:</i> 6143965
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IR
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	0.7 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Partridge Crop Lake 5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	1.86
Channel Width (m)	1.86

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	77.5
Left Bank	15.3

##### Riparian Distance (m)

Right Bank	59.5
Left Bank	35

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

-

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 115 crosses this unnamed tributary of Partridge Crop Lake. The site is in the headwaters of a small stream characterized by boreal wetland habitat. Forage fish species are expected at site.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain may be unstable and sensitive to damage within an area with fish presence.

# Site 116

## Unnamed Tributary of Teardrop Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 571920
	<i>Northing:</i> 6141885
<b>Data Source:</b>	DOI.Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	SI
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	4.7 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Teardrop Lake 1.4 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4.74
Channel Width (m)	4.74

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	61.0
Left Bank	10.9

##### Riparian Distance (m)

Right Bank	80.8
Left Bank	33.9

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

Total Cover Available (%) 20

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	60
Instream Vegetation	40
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	5
Run	95
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

#### Comments:

The RoW at site 116 crosses this unnamed tributary of Teardrop Lake. The small stream consists of a small channel within a broad saturated floodplain with limited fish potential. Forage fish and possibly large bodied species such as pike from Teardrop Lake are expected at this site.

### + Habitat Sensitivity

Sensitivity Rating: Moderate

#### Comments:

The floodplain region is sensitive to damage during construction.



# Site 117

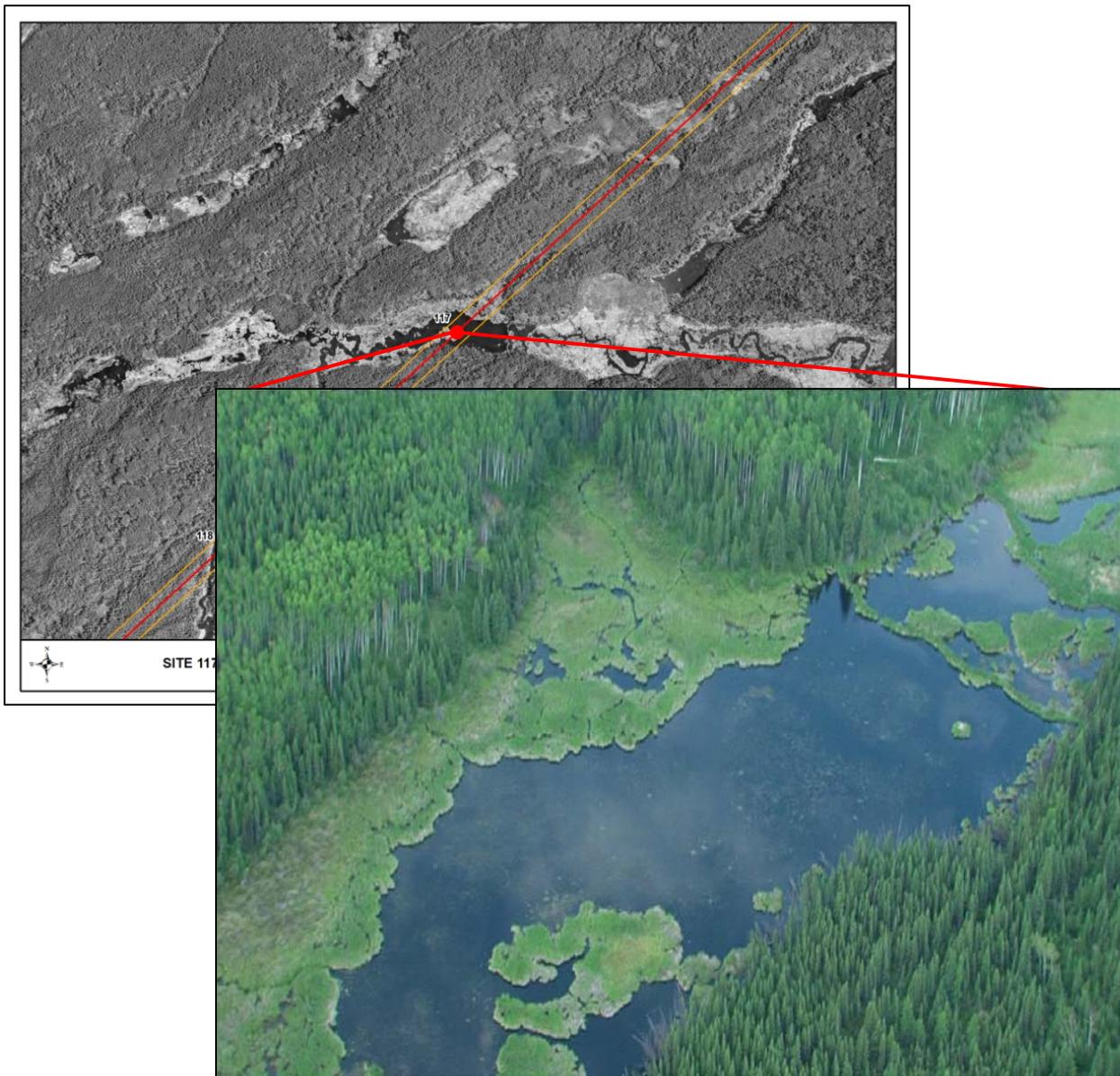
## Unnamed Tributary of Wintering Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 570089  
Northing: 6140201  
**Data Source:** DOI.Video. Site Visit

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IM  
**Confinement:** UN  
**Stage:** Low  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 26.5 km<sup>2</sup>  
**Distance to Receiving Water:** Wintering Lake  
2.5 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: High

<u>Transect</u>	1	2	3	4	5
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	~120	-	-	-	-
Wetted Width (m)	~120	-	-	-	-

#### Water Depths (m)

25%	0.5	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~20	-	-	-	-
Left Bank Slope (°)	~20	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	-	-	-	-	-
Left Bank	-	-	-	-	-

#### Riparian Distance (m)

Right Bank	~2.0	-	-	-	-
Left Bank	2.0	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	-	-	-	-	-
Shrubs	-	-	-	-	-
Conifers	Y	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

	5	-	-	-	-
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#### Substrate Type (%)

Fines	80	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	20	-	-	-	-
Bedrock	-	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	-	-	-	-	-
Run	100	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	60	60
Large Woody Debris	10	10
Overhanging Vegetation	-	-
Instream Vegetation	90	90
Pool	-	-
Boulder	-	-
Undercut Bank	-	-





Overhead view of site 117.



West view at site 117.



East view at site 117.



Beaver lodge at site 117.

## ▾ Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### Comments:

The RoW at site 117 crosses the unnamed tributary of Wintering Lake. This site provides moderate habitat diversity for fish including habitat for spawning, rearing, feeding, and migration. Habitat consists of a broad flooded channel with a saturated floodplain and slow velocity conditions. Beaver dams may impede fish movements, especially indicator fish species, which results in marginal fish habitat.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### Comments:

The saturated floodplain is susceptible to rutting and erosion.



# Site 118

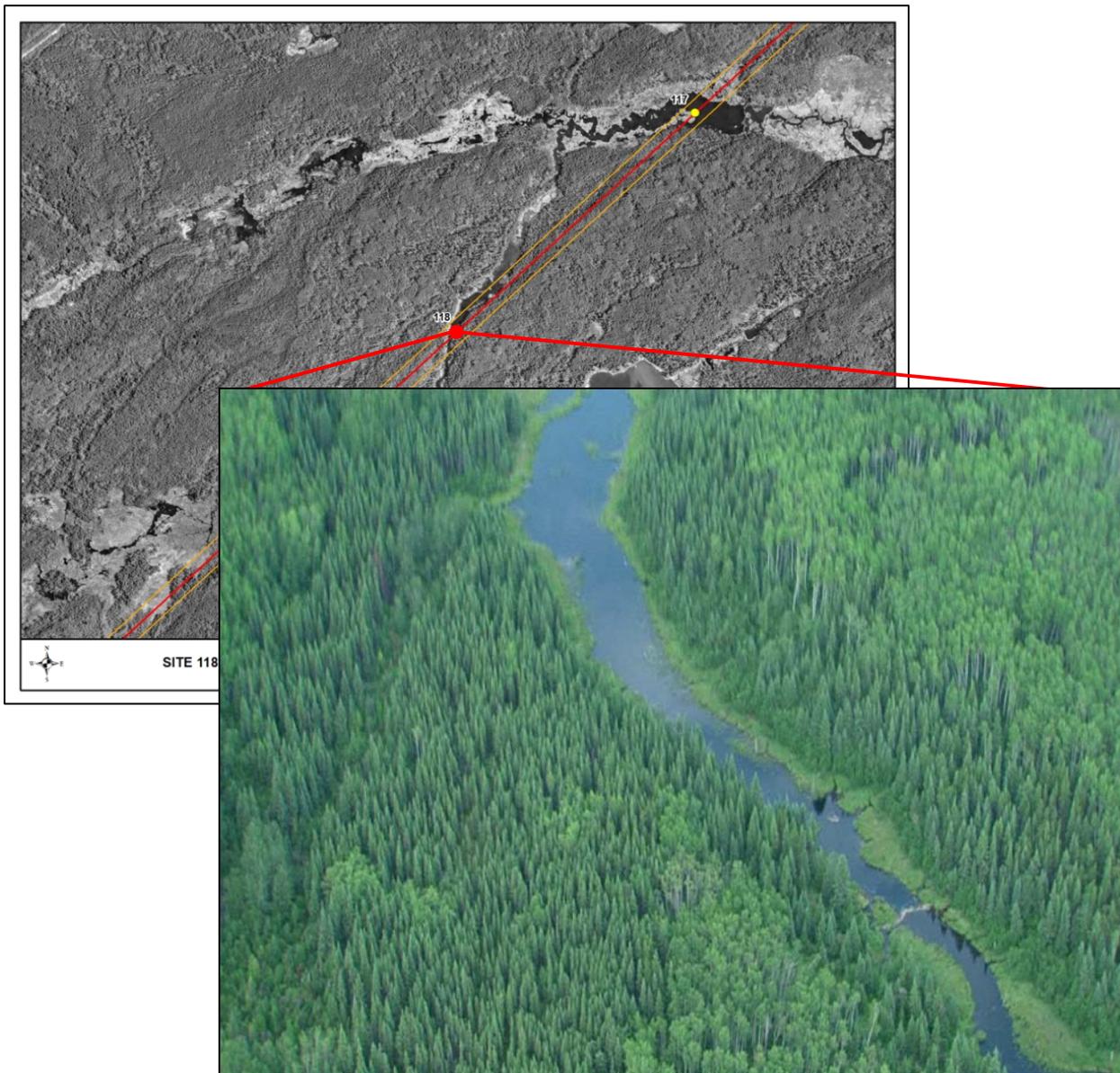
## Unnamed Tributary of Wintering Lake

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 569354
	<i>Northing:</i> 6139525
<b>Data Source:</b>	DOI.Video. Site Visit

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IR
<b>Confinement:</b>	UN
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	20.5 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Wintering Lake 4.5 km



## Site Conditions

### + Physical Data

Survey Date: 14 October 2010

Stage: High

<u>Transect</u>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Distance from Crossing (m)	0	33 US	33 DS	150 US	150 DS

### Channel Profile

#### Channel and Flow

Channel Width (m)	11.8	-	-	-	-
Wetted Width (m)	11.8	-	-	-	-

#### Water Depths (m)

25%	-	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	-	-	-	-	-
Left Bank Slope (°)	-	-	-	-	-

### Riparian

#### Floodplain Distance (m)

Right Bank	-	-	-	-	-
Left Bank	17.6	-	-	-	-

#### Riparian Distance (m)

Right Bank	37.6	-	-	-	-
Left Bank	31.2	-	-	-	-

#### Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	-	-	-	-	-
Conifers	Y	-	-	-	-
Deciduous	-	-	-	-	-
Mixed Forest	-	-	-	-	-

#### Canopy Cover (%)

	0	-	-	-	-
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#### Substrate Type (%)

Fines	100	-	-	-	-
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	-
Boulder	-	-	-	-	-
Bedrock	-	-	-	-	-

### Habitat Type

#### Habitat Composition (%)

Pool	-	-	-	-	-
Run	100	-	-	-	-
Riffle	-	-	-	-	-

### Cover Types

<b>Total Cover Available (%)</b>	US	DS
<b>Cover Composition (% of Total)</b>	5	5
Large Woody Debris	50	50
Overhanging Vegetation	-	-
Instream Vegetation	50	50
Pool	-	-
Boulder	-	-
Undercut Bank	-	-





Overhead view of site 118.



Aerial upstream (South) view at site 118.



Aerial downstream (North) view at site 118.



Beaver dam upstream of site 118.

## ↘ Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Important

**Fish Presence:** N/A

#### Comments:

The RoW at site 118 crosses the unnamed tributary connects Gordon Brown Lake with Wintering Lake. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, and migration. Various species and life stages of fish are expected at this site. Beaver dams may seasonally impede fish movements.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### Comments:

Though important fish habitat, stable banks result in a low sensitivity rating.

# Site 119

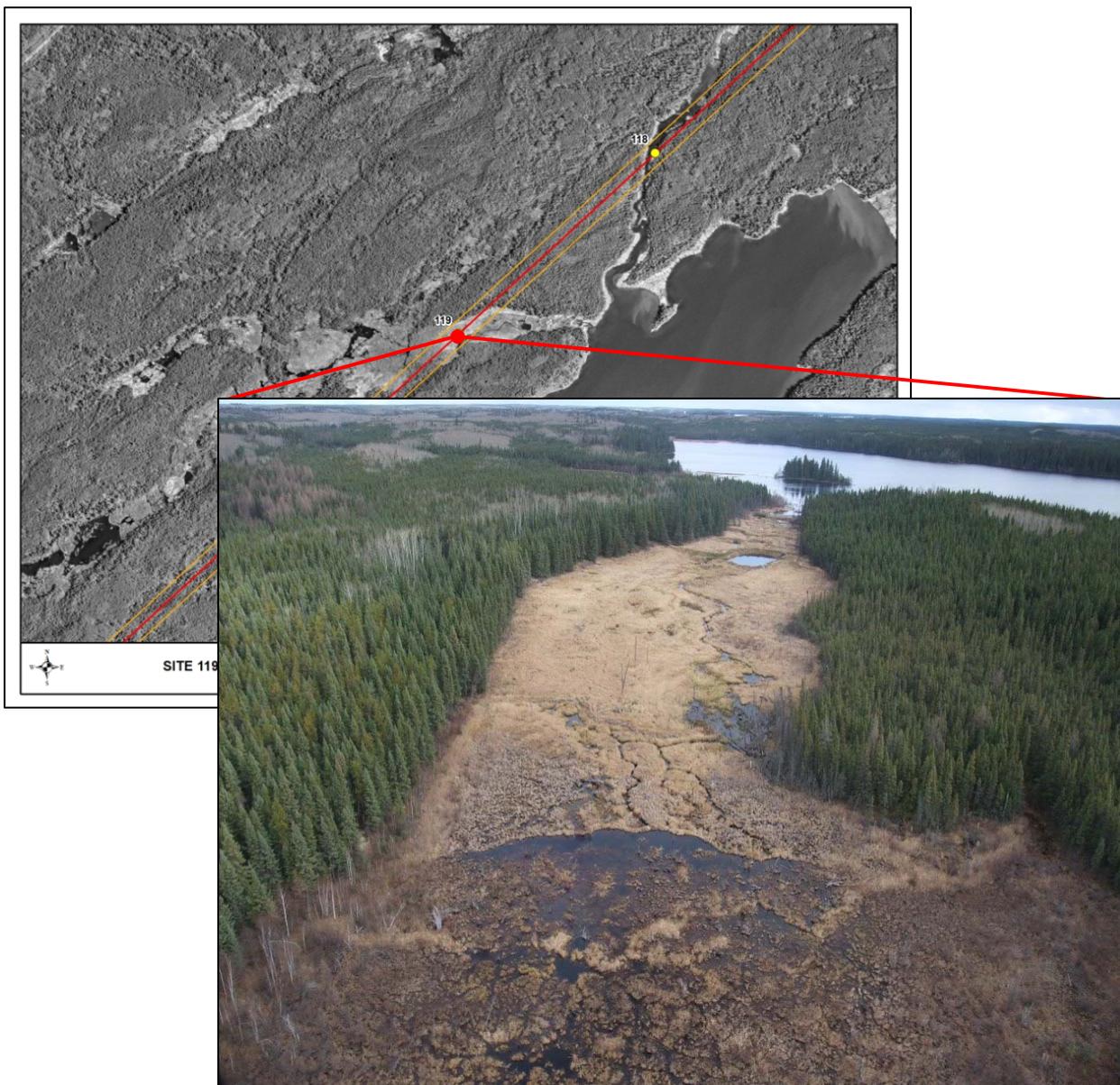
## Unnamed Tributary of Gordon Brown Lake

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 568747  
Northing: 6138967  
**Data Source:** DOI.Video. Site Visit

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** FC  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 1.3 km<sup>2</sup>  
**Distance to Receiving Water:** Gordon Brown Lake  
0.3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	-
Channel Width (m)	62.6

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	31.6
Left Bank	31.5

##### Riparian Distance (m)

Right Bank	55.6
Left Bank	42.9

##### Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%) Trace

#### Substrate

##### Substrate Type (%)

Fines	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

##### Total Cover Available (%)

##### Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	-
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### Habitat Composition

Pool	10
Run	90
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

<b>Fish Habitat Present</b>	Yes
<b>DFO Manitoba Agricultural Watershed Classification:</b>	-
<b>Fish Habitat Classification:</b>	Marginal

**Fish Presence:** N/A

#### **Comments:**

The RoW at site 119 crosses this unnamed tributary of Gordon Brown Lake close to Gordon Brown Lake proper. The tributary is an intermittent stream with a broad saturated floodplain. Minnow species are expected at this site and possibly large bodied species during spring spawn.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

Floodplain region is sensitive to damage during construction.