

Site 120

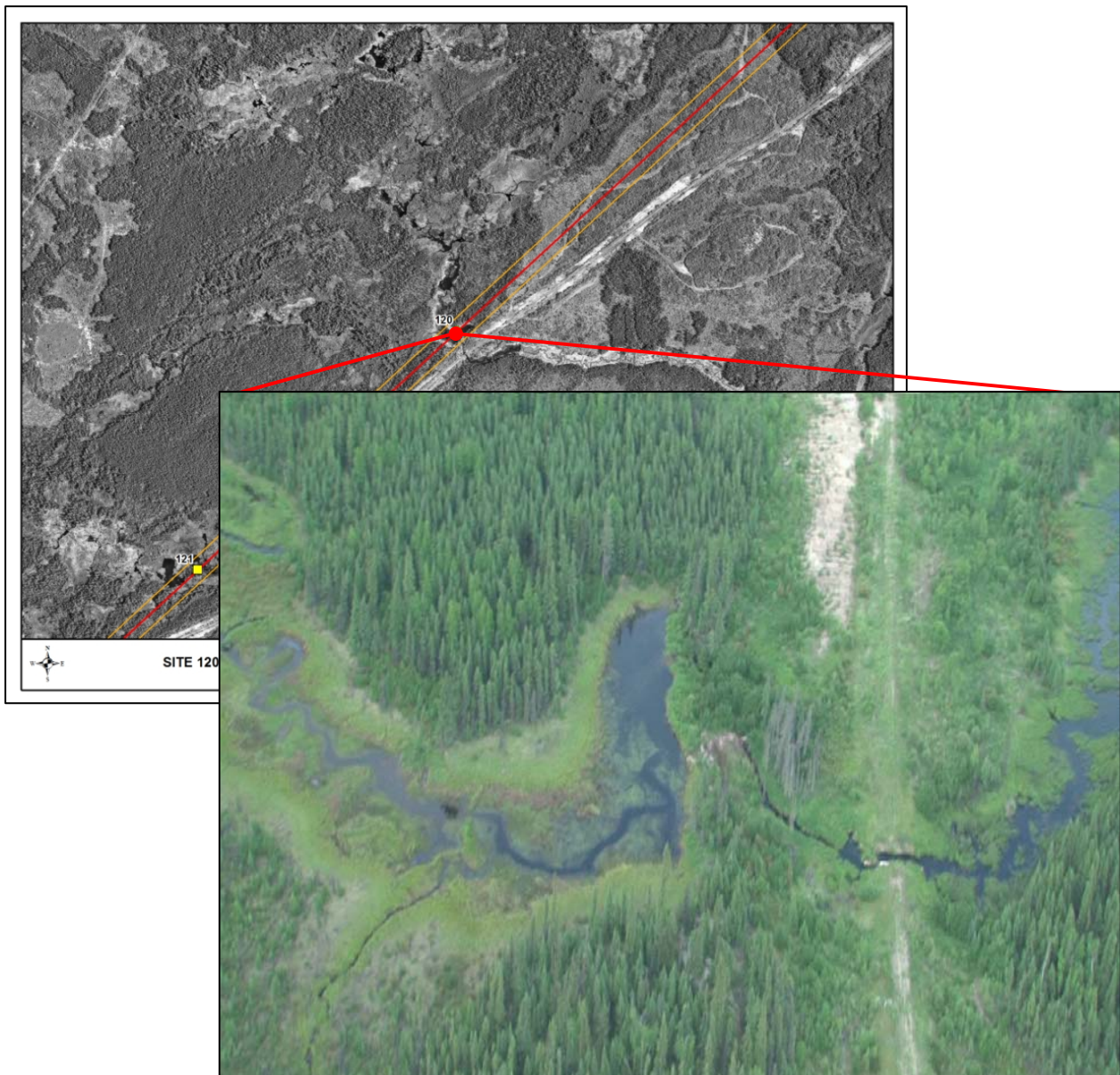
Unnamed Tributary of Wintering Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 562136
Northing: 6132887
Data Source: DOI.Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 6.5 km²
Distance to Receiving Water: Wintering Lake 10 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	33.5
Channel Width (m)	33.5

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	21.7
Left Bank	17.2

Riparian Distance (m)

Right Bank	38.9
Left Bank	28.5

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 (%)

90

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	10
Run	90
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 120 crosses this unnamed tributary of Wintering Lake in the headwaters of this small stream and habitat is typical of small boreal streams with wetland habitat, ponded areas and a saturated floodplain. Forage fish are expected at this site and due to the lack of overwintering habitat and distance from Wintering Lake large bodied fish are not expected at this site

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

The floodplain region is sensitive to damage during construction.

Site 121

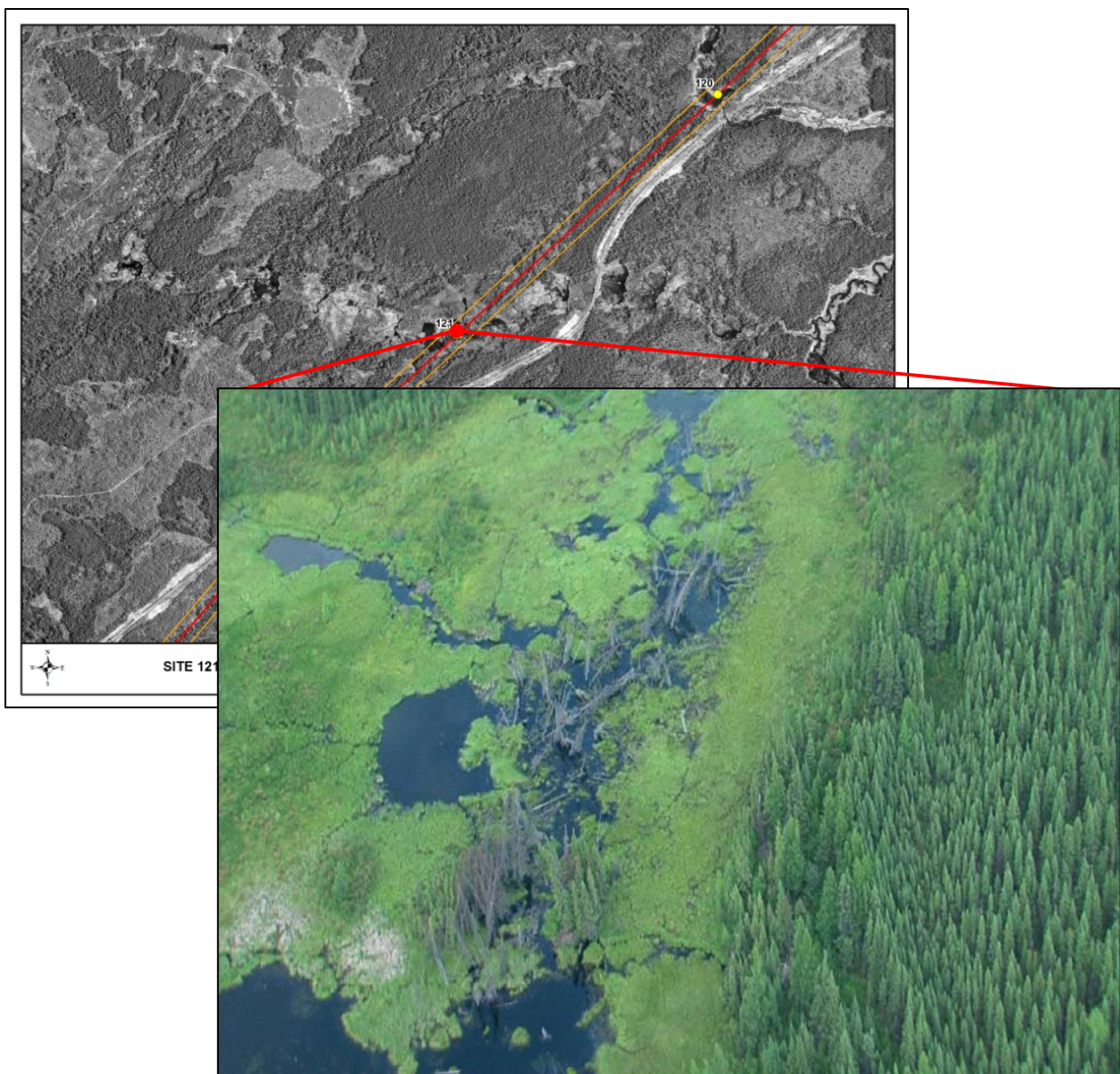
Unnamed Tributary of Wintering Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 561331
Northing: 6132146
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 1.8 km²
Distance to Receiving Water: Wintering Lake 12 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	225.6

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	123.4
Left Bank	102.7

Riparian Distance (m)

Right Bank	137
Left Bank	124.2

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 (%)

80

Cover Composition (% of Total)

Large Woody Debris	20
Overhanging Vegetation	-
Instream Vegetation	70
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

Fish Habitat Present Yes

DFO Manitoba Agricultural Watershed Classification: -

Fish Habitat Classification: Marginal

Fish Presence: N/A

Comments:

The RoW at site 121 crosses this unnamed tributary of Wintering Lake in the headwaters a considerable distance from Wintering Lake. Habitat is typical of small boreal streams with wetland areas consisting of ponded water and poor channel formation. Due to lack of overwintering habitat and distance from wintering lake, forage fish only are expected at this site.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

The floodplain region is sensitive to damage during construction.

Site 122

Unnamed Tributary of Wintering Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 559194
Northing: 6129706
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 1.4 km²
Distance to Receiving Water: Wintering Lake 15 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	110.0

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	54.2
Left Bank	70.1

Riparian Distance (m)

Right Bank	76.6
Left Bank	123.1

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 (%)

-

Cover Composition (% of Total)

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

Habitat Type

Habitat Composition

Pool	30
Run	70
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 122 crosses this unnamed tributary of Wintering Lake in the headwaters of this small boreal stream. Forage fish may be found at this site.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

The floodplain region is sensitive to damage during construction.

Site 123

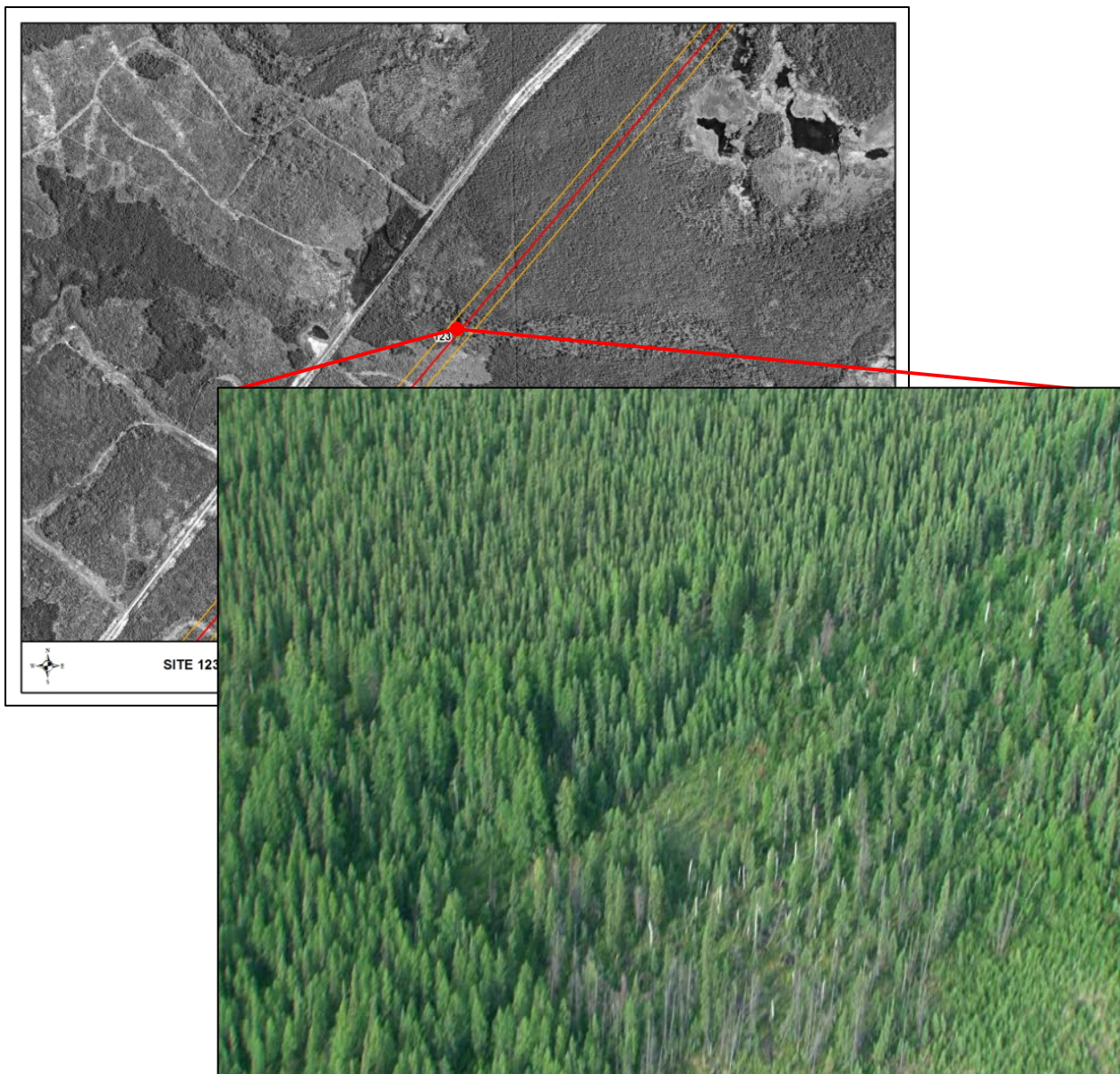
Unnamed Tributary of Wintering Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 558358
Northing: 6128722
Data Source: DOI.Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 0.7 km²
Distance to Receiving Water: Wintering Lake 17 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 (%)

	-
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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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

The RoW at site 123 crosses this unnamed tributary of Wintering Lake in the extreme headwaters reach. A channel or water are not visible at this site and therefore considered no fish habitat

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 124

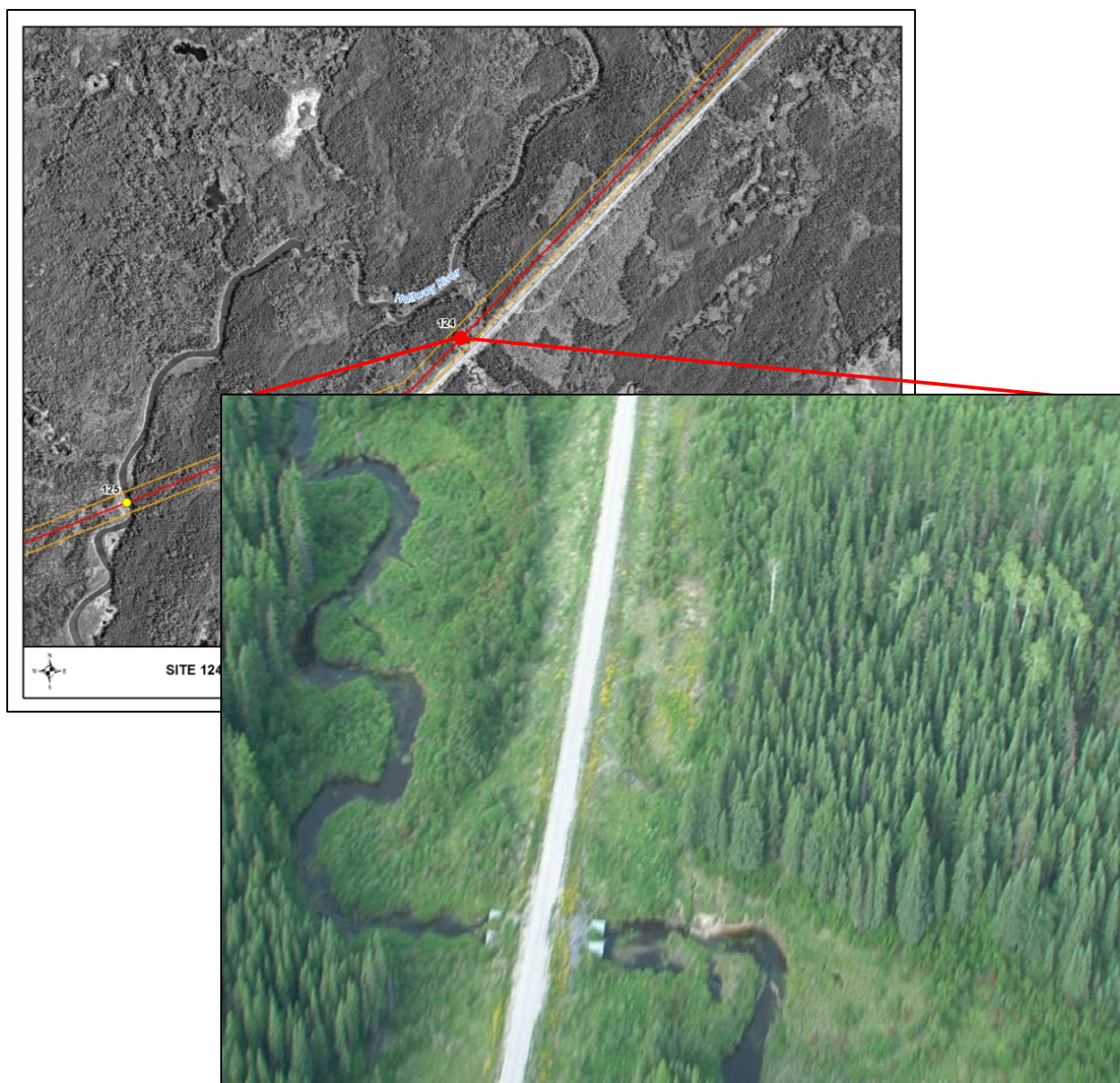
Patrick Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 554582
Northing: 6124563
Data Source: DOI.Video. Site Visit

General Morphology

Stream/Lake: Stream
Pattern: ME
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 83.6 km²
Distance to Receiving Water: Halfway River 0.2 km



Site Conditions

+ Physical Data

Survey Date: 14 October 2010

Stage: Moderate

Transect

	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)	7.0	-	-	-	-
Wetted Width (m)	9.0	-	-	-	-

Water Depths (m)

25%	0.7	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~20	-	-	-	-
Left Bank Slope (°)	~1.0	-	-	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~3.0	-	-	-	-
Left Bank	21.7	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

5	-	-	-	-	-
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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

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	30	15
Large Woody Debris	40	-
Overhanging Vegetation	20	-
Instream Vegetation	40	100
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Overhead view of site 124.



Upstream view at site 124.



Downstream view at site 124.



Upstream culverts at site 124.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

The RoW at site 124 crosses Patrick Creek. This site provides moderate to high habitat diversity for fish including habitat for spawning, rearing, feeding, and migration. Both minnow and large bodied species are expected at this site. Road culverts are found upstream of site.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Floodplain area may be sensitive to damage during construction.

Site 125

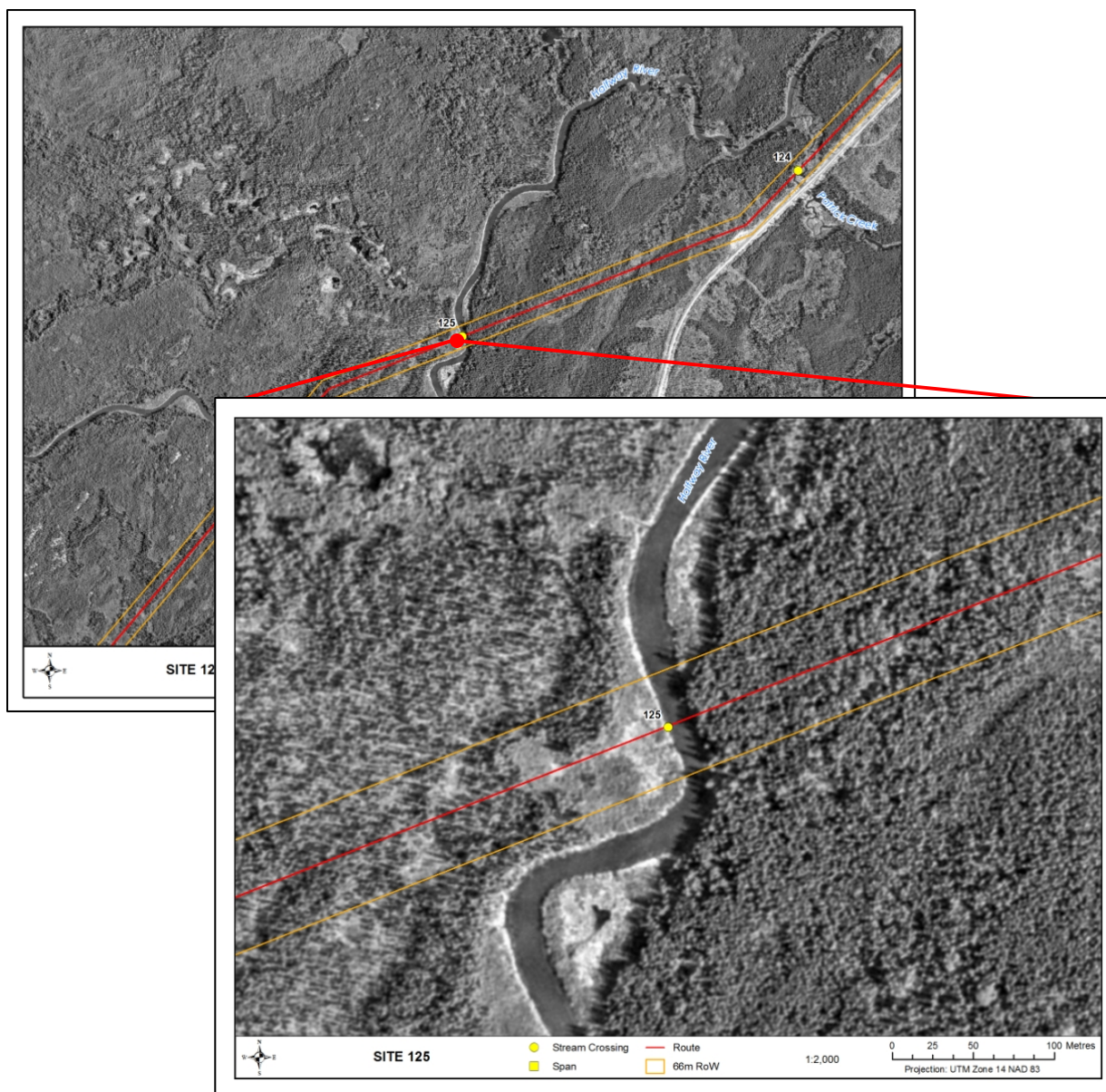
Halfway River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 553547
Northing: 6124051
Data Source: DOI. Site Visit

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: CO
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 272 km²
Distance to Receiving Water: Halfway Lake 28 km



Site Conditions

+ Physical Data

Survey Date: 14 October 2010

Stage: Moderate

Transect

	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)	18	-	-	-	-
Wetted Width (m)	18	-	-	-	-

Water Depths (m)

25%	0.6	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~0	-	-	-	-
Left Bank Slope (°)	~30	-	-	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~30	-	-	-	-
Left Bank	4.6	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Trace	-	-	-	-	-
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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

Total Cover Available (%)	US	DS
Cover Composition (% of Total)	30	30
Large Woody Debris	30	40
Overhanging Vegetation	10	10
Instream Vegetation	60	50
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Overhead view of site 125.



Upstream view at site 125.



Downstream view at site 125.



Beaver lodge at site 125.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

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

Fish Presence: N/A

Comments:

The RoW at site 125 crosses Halfway River. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. A variety of minnow and large bodied species are expected at this site.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 126

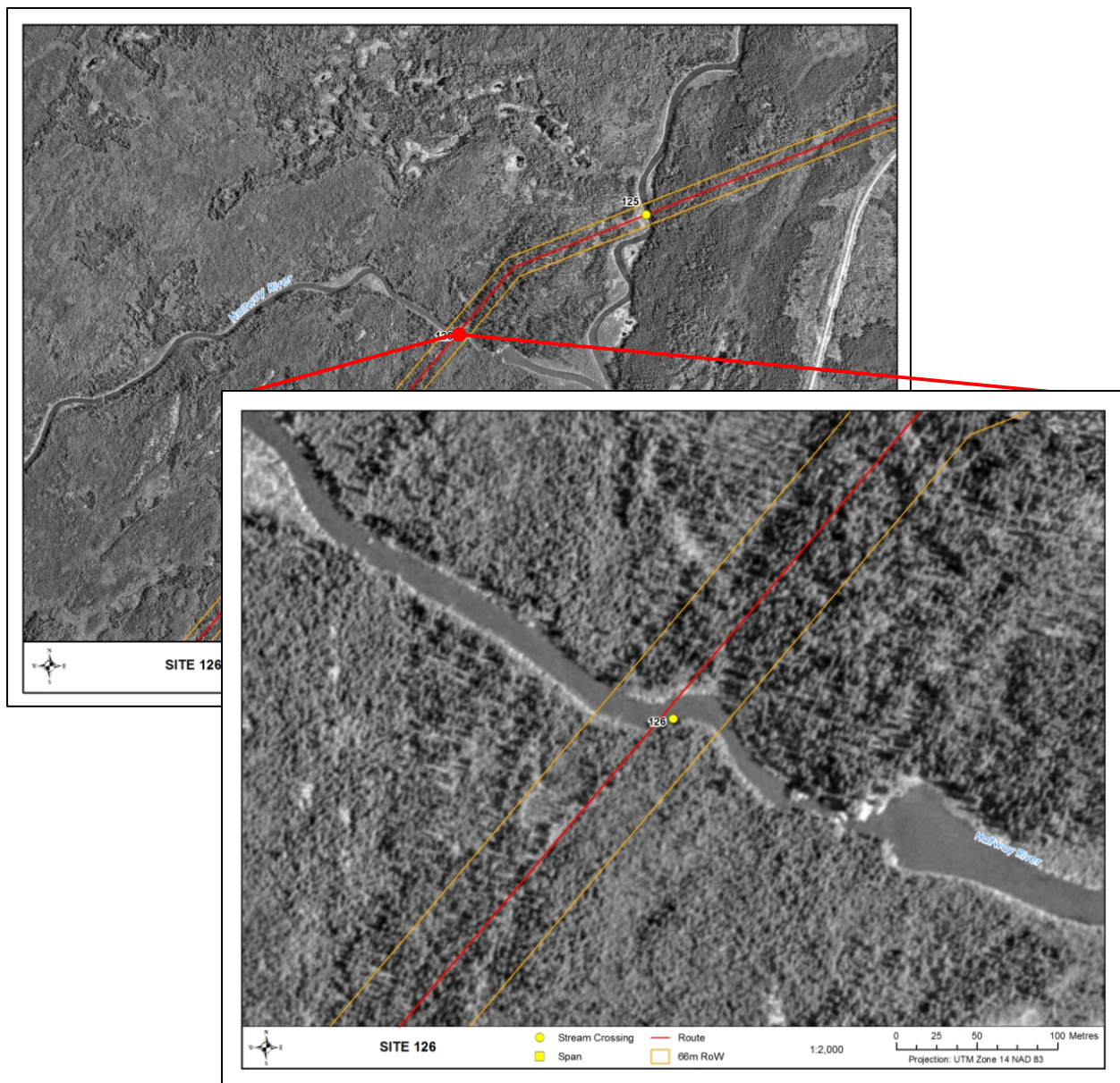
Halfway River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 552970
Northing: 6123685
Data Source: DOI. Site Visit

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: CO
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 270 km²
Distance to Receiving Water: Halfway Lake
26.5 km



Site Conditions

+ Physical Data

Survey Date: 15 October 2010

Stage: Moderate

Transect

	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)	~12	-	-	-	-
Wetted Width (m)	~12	-	-	-	-

Water Depths (m)

25%	1.5	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~15	-	-	-	-
Left Bank Slope (°)	~15	-	-	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~6	-	-	-	-
Left Bank	3.7	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Trace	-	-	-	-	-
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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

Total Cover Available (%)

US	DS
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Cover Composition (% of Total)

Large Woody Debris	30	30
Overhanging Vegetation	30	30
Instream Vegetation	40	40
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Upstream view of site 126.



Upstream view at site 126.



Downstream view at site 126.



Left bank view at site 126.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

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

Fish Presence: N/A

Comments:

The RoW at site 126 crosses Halfway River. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. A variety of minnow and large bodied species are expected at this site. A riffle-pool exists downstream of the site but not within the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 127

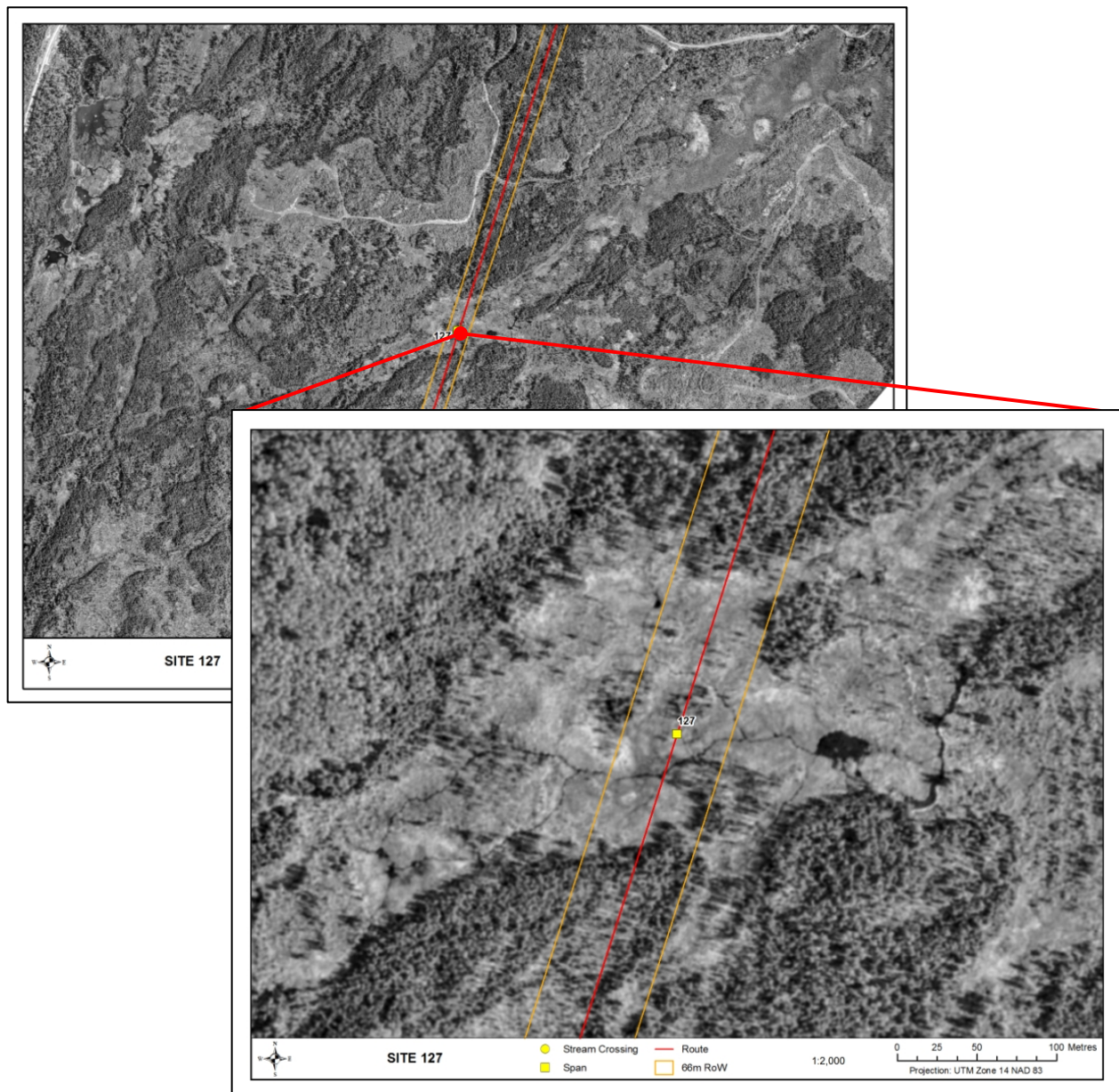
Unnamed tributary of Patrick Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 548641
Northing: 6116350
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: -
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: SI
U/S Drainage: -
Distance to Receiving Water: 1.96 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	111
Left Bank	34

Riparian Distance (m)

Right Bank	-
Left Bank	-

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
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	100
Flat	-
Riffle	-
Rapid	-

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

The RoW crosses within the headwaters of this unnamed tributary of Patrick Lake. It appears as a small channel surrounded by a large floodplain. It is unlikely to support fish due to the very low water level and weak connection to Patrick Lake.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

No fish habitat results in a low sensitivity rating.

Site 128

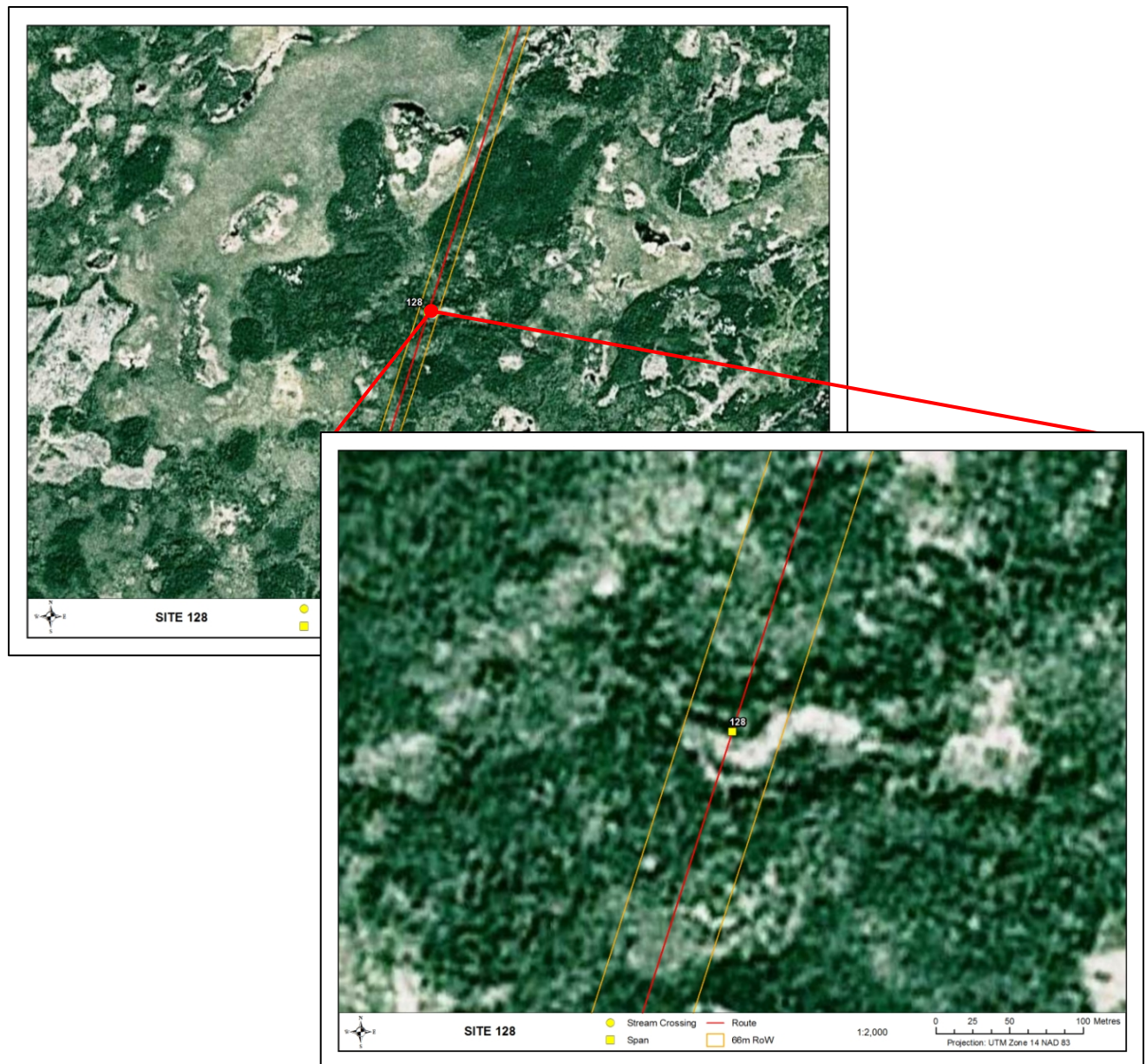
Unnamed pond

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 547521
Northing: 6112843
Data Source: Google Earth

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)	0.30
Lake width at ROW (m)	dry

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 (%)

	-
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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	100
Run	-
Flat	-
Riffle	-
Rapid	-

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed pond is found within forest habitat. It appears as a small grassy area that is likely wet at wetter times of the year. It does not appear to be connected to other waterbodies, and is unlikely to support fish.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

No fish habitat results in a low sensitivity rating.

Site 129

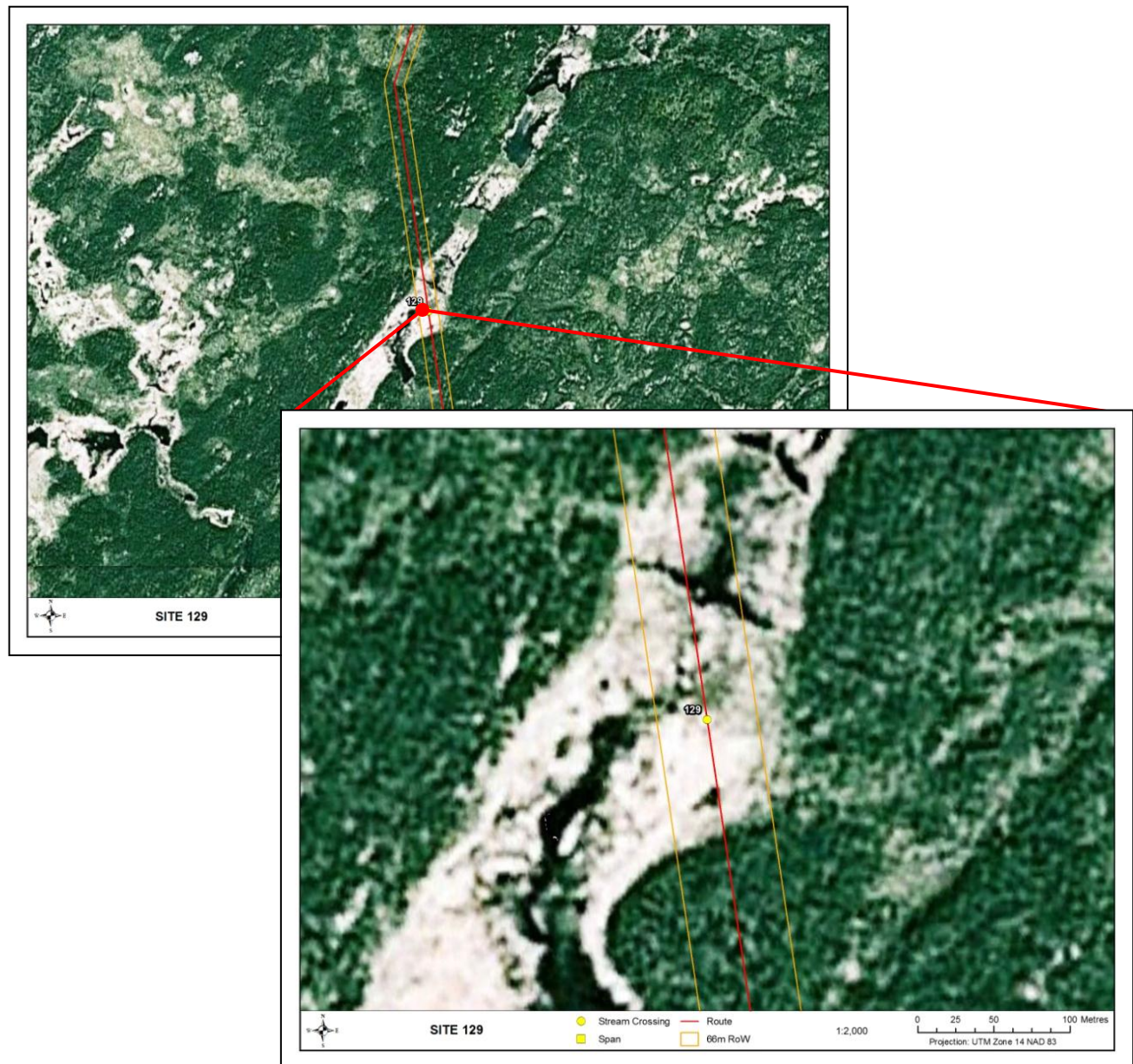
Unnamed tributary of Tooth Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 546114
Northing: 6107319
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Mod
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 1.0 km²
Distance to Receiving Water: 2.2 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	15
Channel Width (m)	-

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	72
Left Bank	55

Riparian Distance (m)

Right Bank	-
Left Bank	-

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	-
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	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:

This unnamed tributary of Tooth Lake is found within forest and wetland habitat. It likely provides marginal habitat for forage fish. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 130

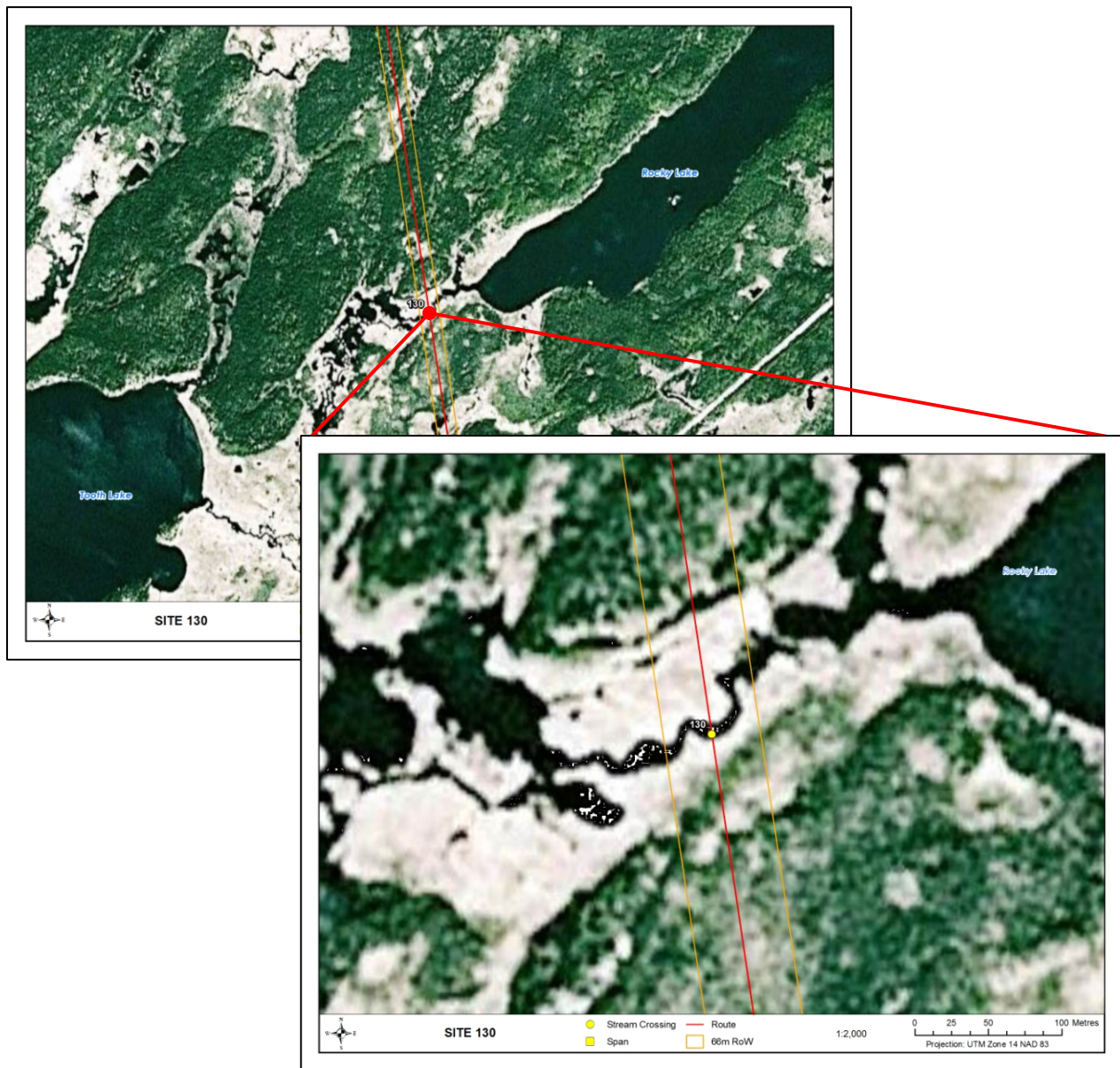
Unnamed tributary of Rocky Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 546383
Northing: 6105516
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Mod
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 13.1 km²
Distance to Receiving Water: 141 m



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	67
Left Bank	32

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	100
Flat	-
Riffle	-
Rapid	-

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

This unnamed tributary of Rocky Lake is found within forest and wetland habitat. It connects Rocky and Tooth Lake, and likely provides important habitat for indicator and forage fish. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 131

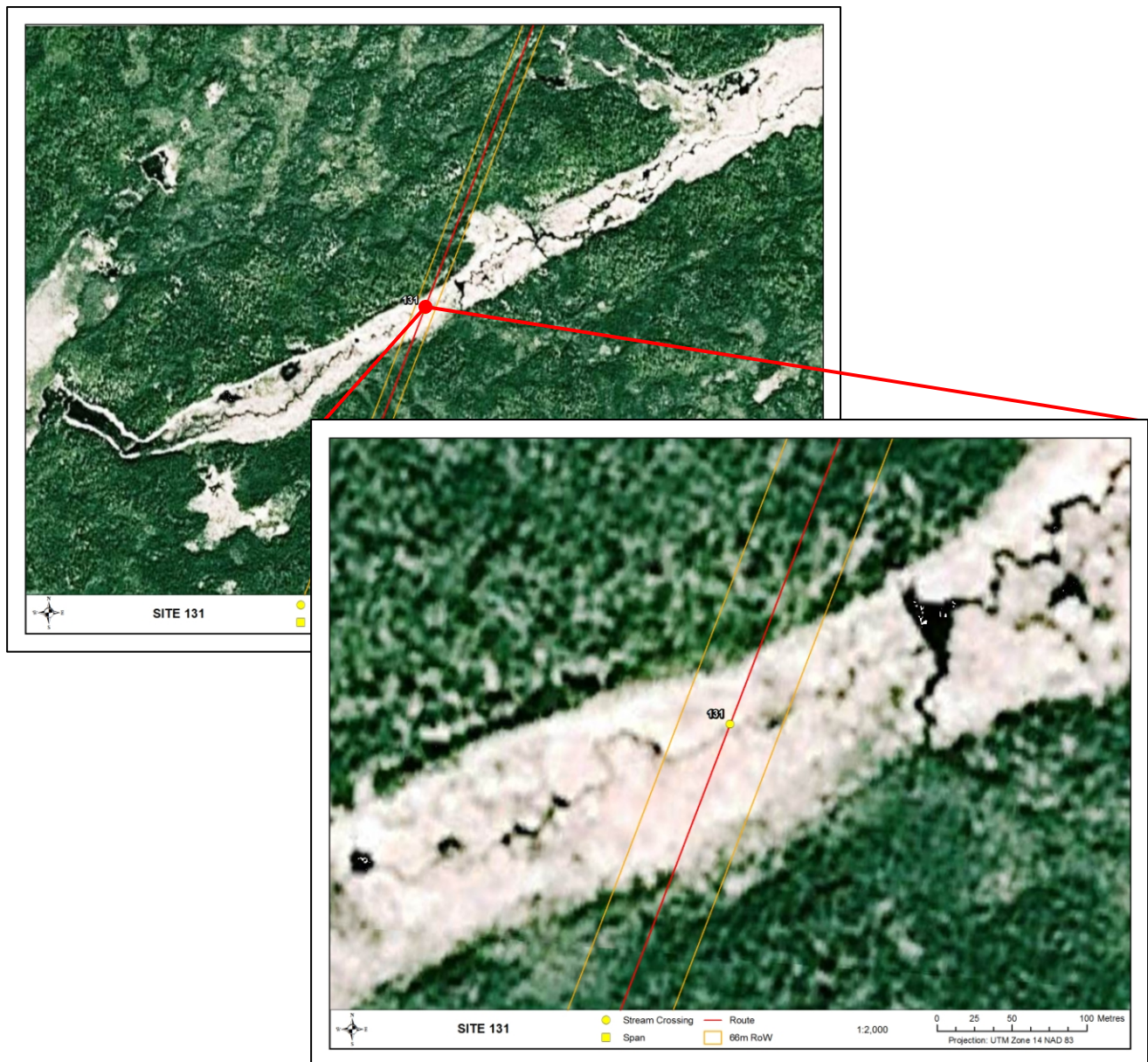
Unnamed tributary of Monty Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 545255
Northing: 6101623
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Mod
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 15.9 km²
Distance to Receiving Water: 1.62 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	8
Channel Width (m)	-

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	49
Left Bank	65

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	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:

This unnamed tributary of Monty Lake is found within forest habitat. It likely provides marginal habitat for forage fish. Indicator fish species may be found in the area, but the channel's small size likely limits their usage of it. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 132

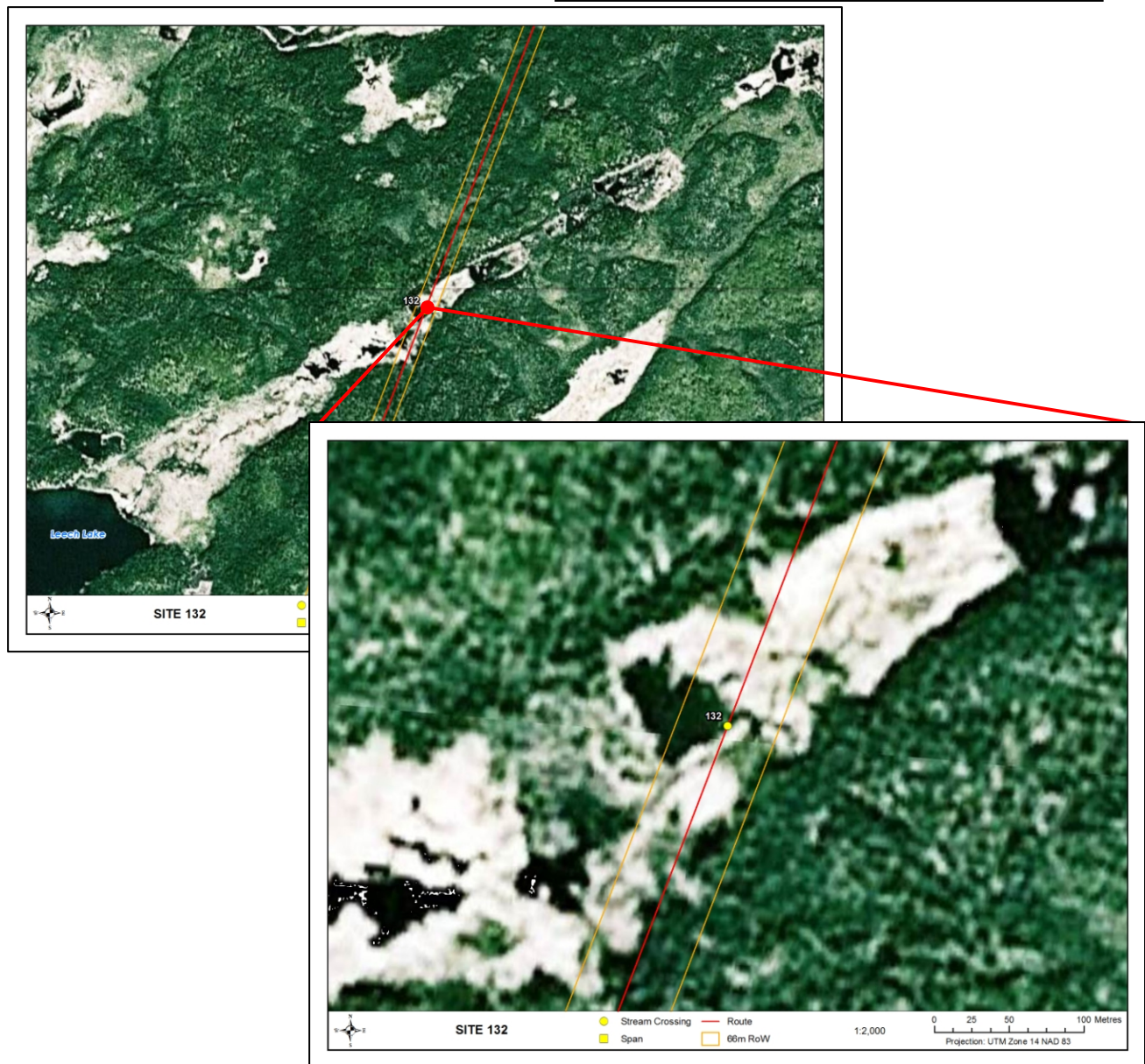
Unnamed tributary of Leech Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 544730
Northing: 6100255
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 1.9 km²
Distance to Receiving Water: 1.2 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	19
Left Bank	58

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	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:

This unnamed tributary of Leech Lake is found within forest habitat. It likely provides marginal habitat for forage fish. The channel is not well-defined, and there is a pooled area within the RoW. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 133

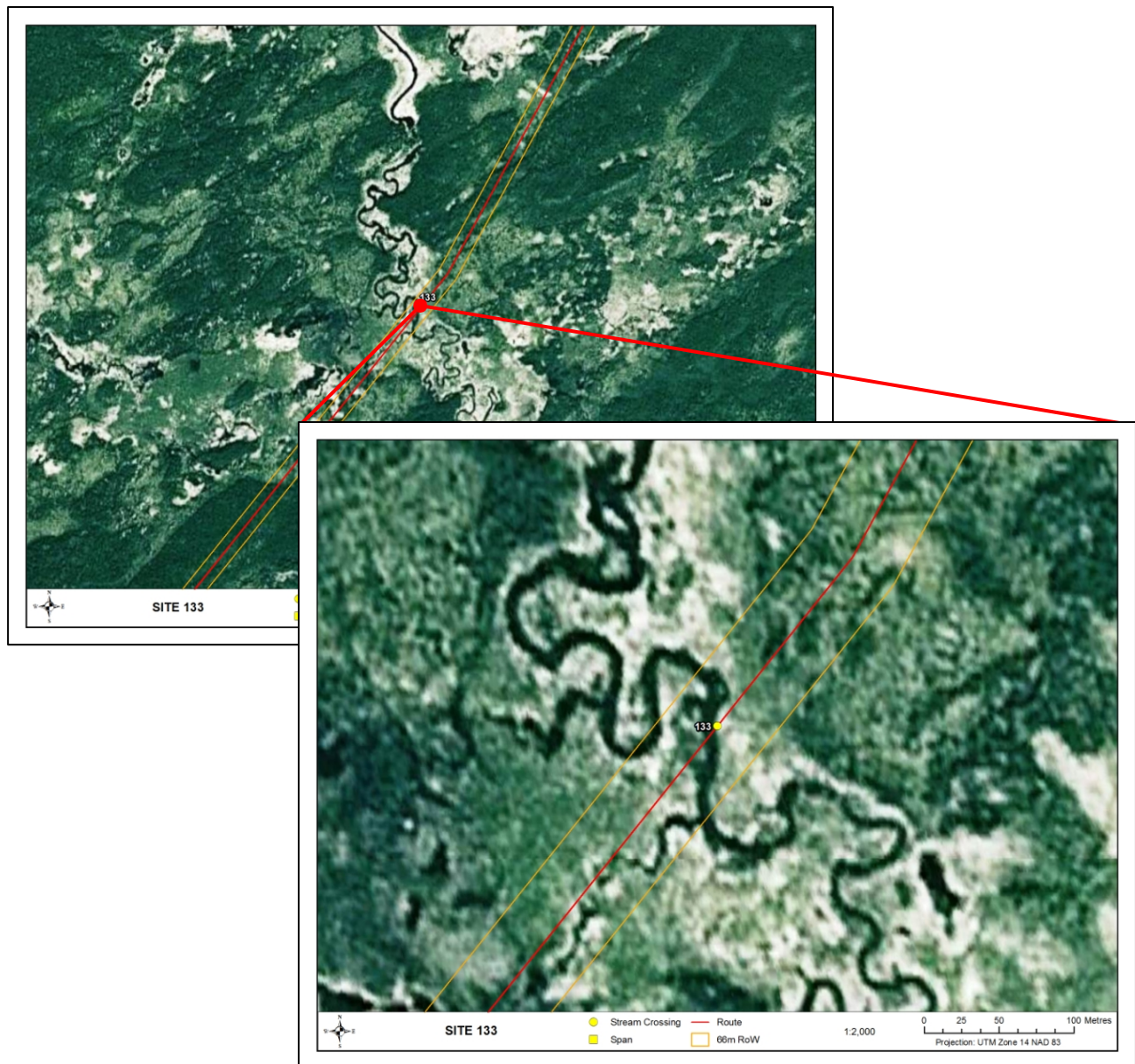
Unnamed tributary of Sipiwesk Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 541948
Northing: 6094805
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: TM
Confinement: UN
Stage: Mod
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 160.6 km²
Distance to Receiving Water: 12.4 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	11
Channel Width (m)	11

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	41
Left Bank	58

Riparian Distance (m)

Right Bank	-
Left Bank	-

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	Y
Shrubs	Y
Conifers	-
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

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

This unnamed tributary of Sipiwesk Lake is found within wetland and forest habitat. It has a well-defined channel, and likely provides important habitat for indicator and forage fish. It is surrounded by a soft grass floodplain, and another channel meets the tributary within the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 134

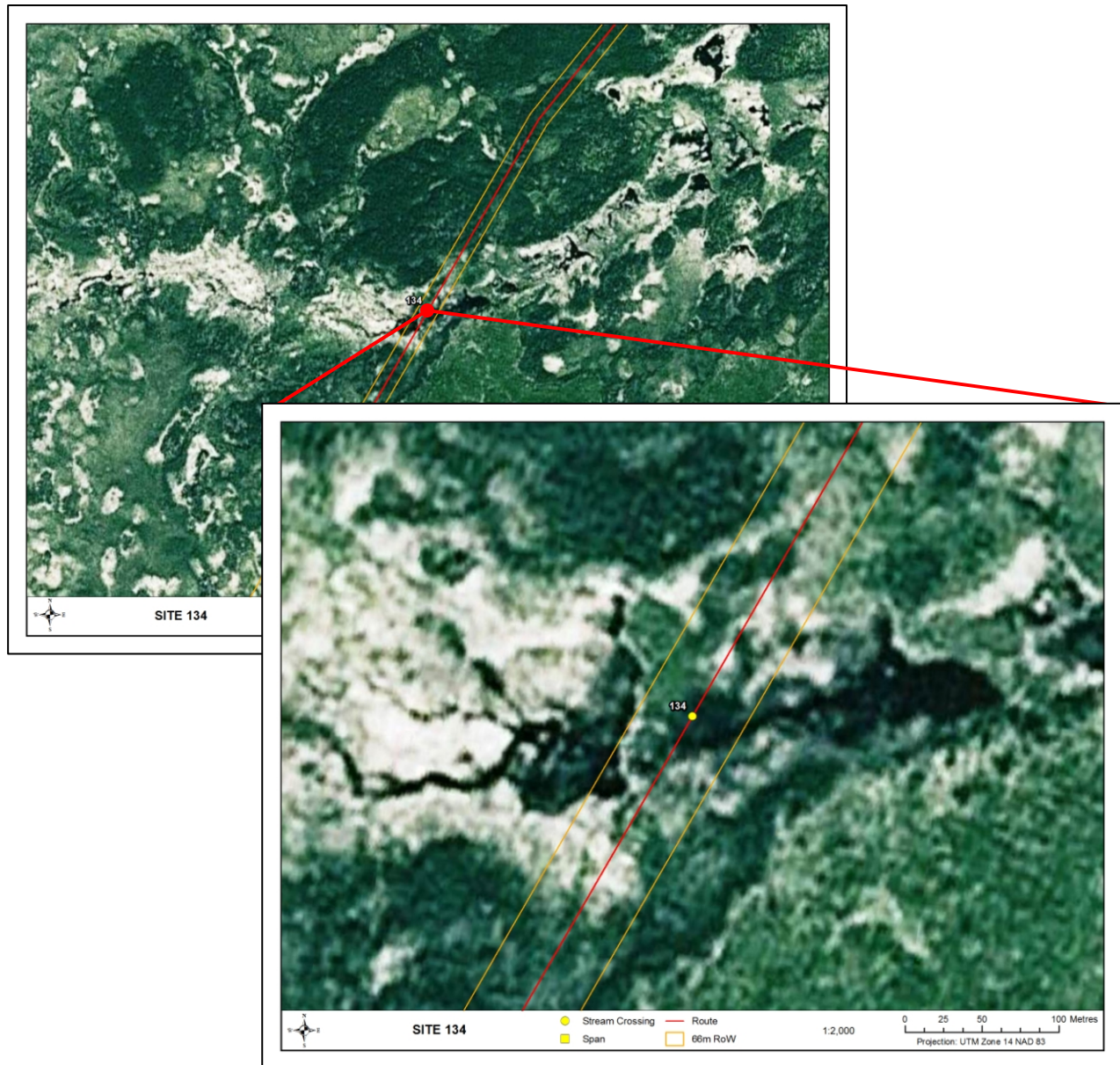
Lungair Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 538325
Northing: 6090109
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Mod
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 9.3 km²
Distance to Receiving Water: 12.2 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	112
Left Bank	42

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 (%)

	-
--	---

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	15
Run	85
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:

Lumgair Creek is within wetland and forest habitat. It likely provides marginal habitat for forage fish. It has many pooled areas, and is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 135

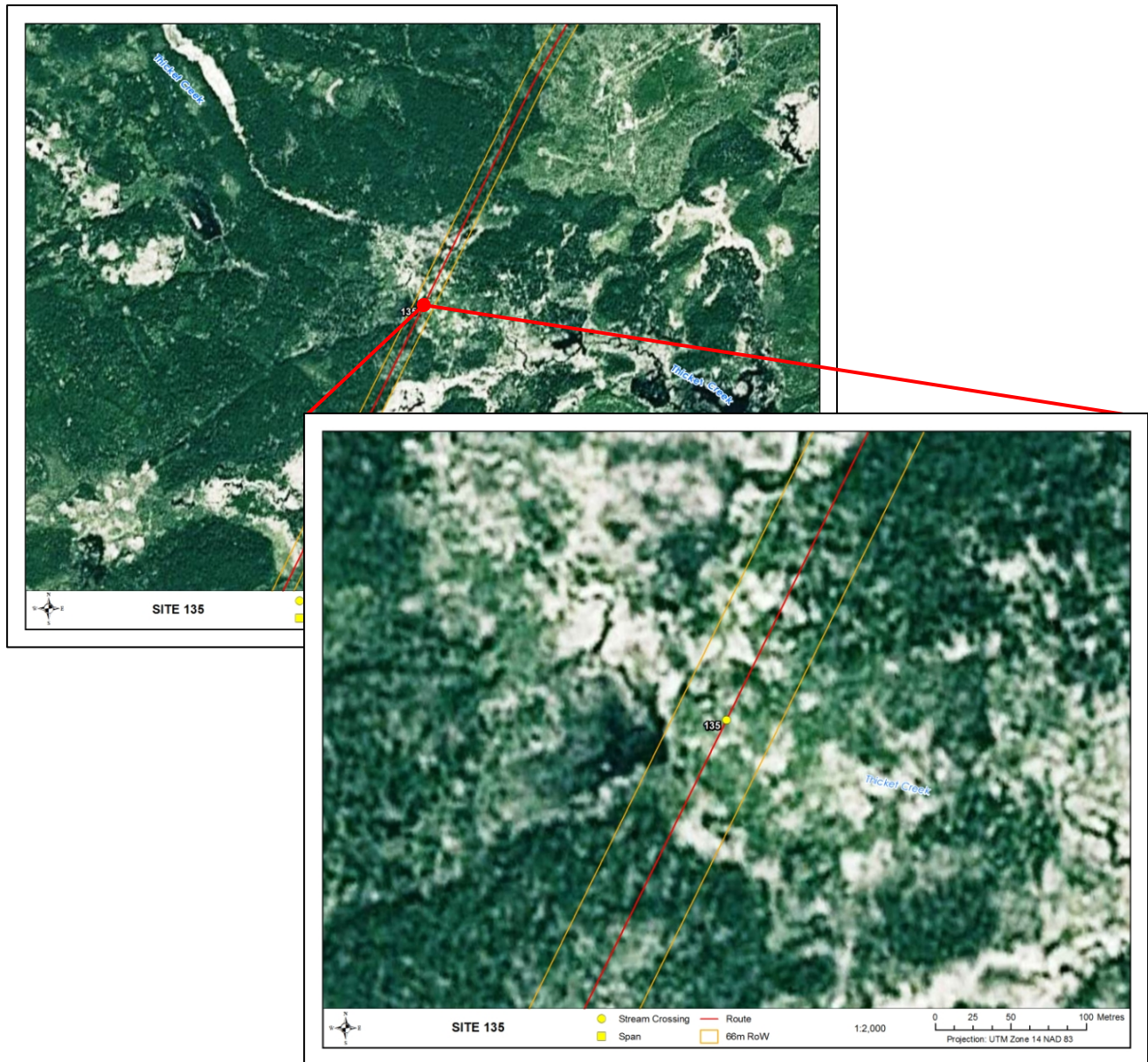
Thicket Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 536586
Northing: 6086988
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 8.7 km²
Distance to Receiving Water: 13.1 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	172 (total)
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 (%)

	-
--	---

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:

Thicket Creek is within wetland and forest habitat. It likely provides marginal habitat for forage fish. It appears as a wetland area within the RoW, with no defined channel. However upstream and downstream of the RoW there is a discernable channel. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 136

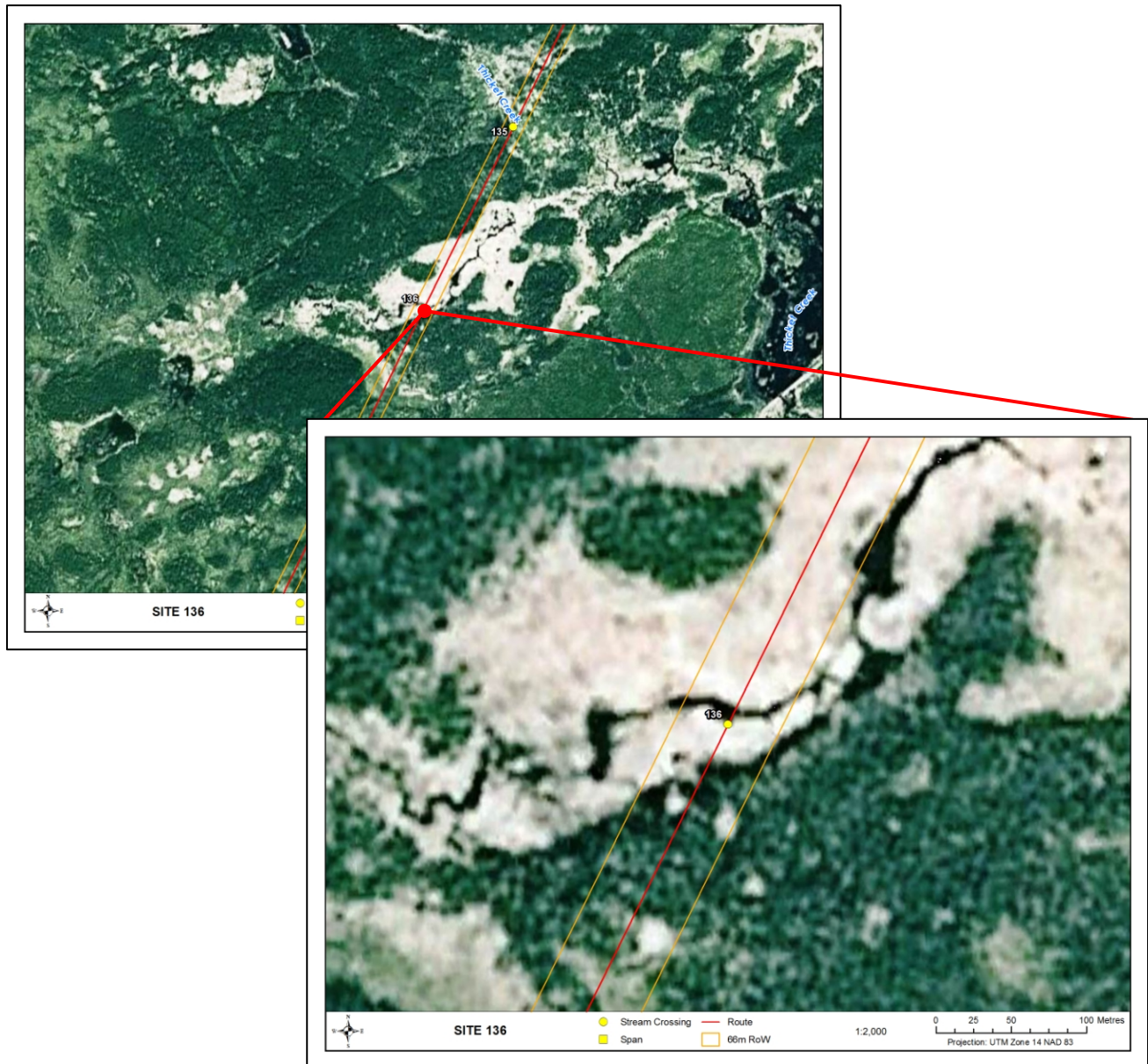
Unnamed tributary of Thicket Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 536286
Northing: 6086379
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 3.2 km²
Distance to Receiving Water: 0.8 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	71
Left Bank	28

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

Fish Habitat Present Yes

DFO Manitoba Agricultural Watershed Classification: -

Fish Habitat Classification: Marginal

Fish Presence: N/A

Comments:

This unnamed tributary of Thicket Creek is within forest habitat. There is a small channel within the RoW which peters out into wetland habitat both upstream and downstream. It likely provides marginal habitat for forage fish, and is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 137

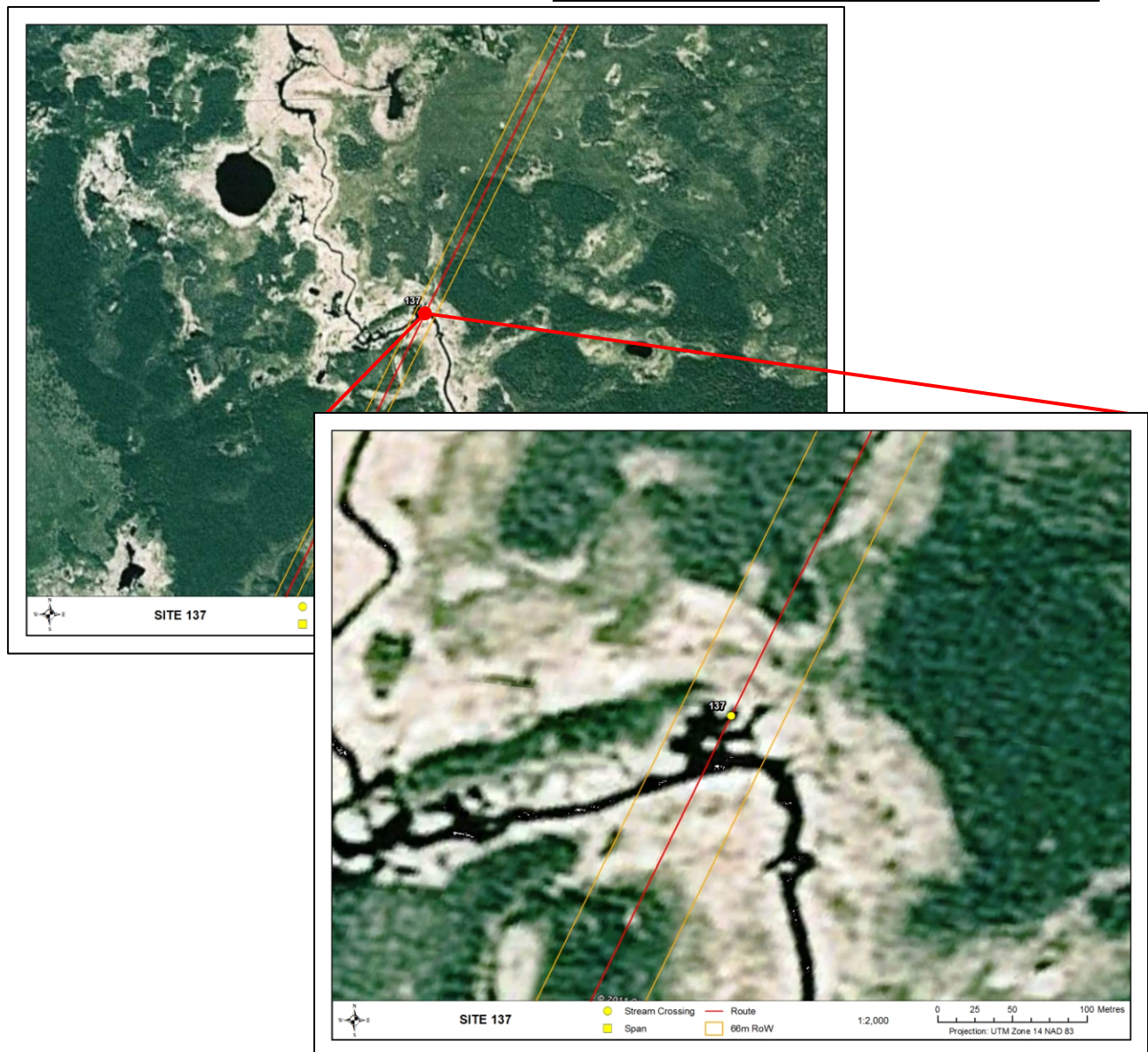
Unnamed tributary of Clarke Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 532224
Northing: 6078132
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 25.0 km²
Distance to Receiving Water: 6.7 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	55
Left Bank	88

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 (%)

	-
--	---

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:

Important

Fish Presence: N/A

Comments:

This unnamed tributary of Clarke Creek is within forest and wetland habitat. It has a well-defined channel and likely provides important habitat for indicator and forage fish. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 138

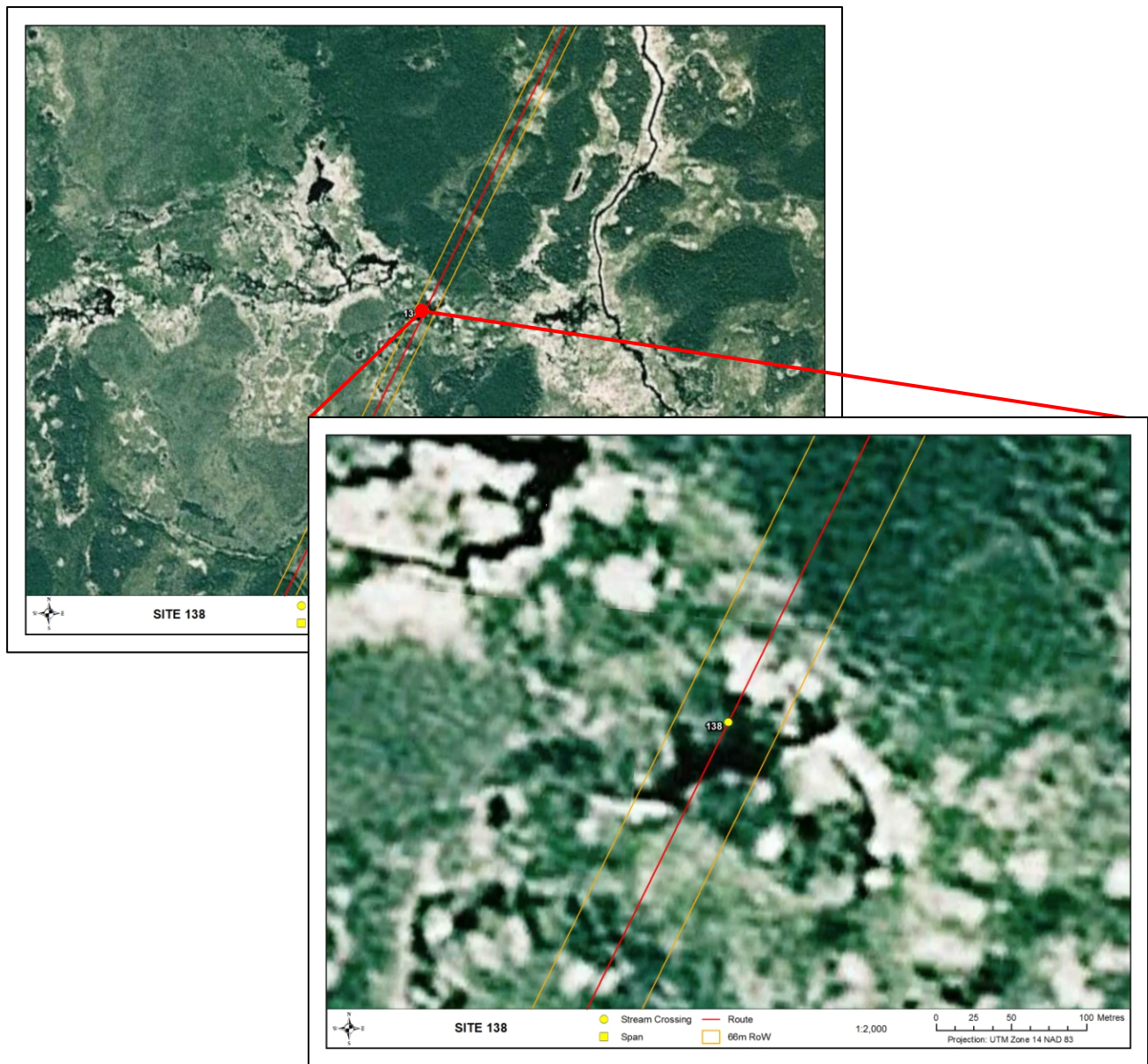
Unnamed tributary of Clarke Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 531588
Northing: 6076841
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 11.1 km²
Distance to Receiving Water: 5.7 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	17
Channel Width (m)	-

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	51
Left Bank	93

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 (%)

	-
--	---

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	100
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 Clarke Creek is within forest and wetland habitat. It likely provides marginal habitat for forage fish. Within the RoW it consists of a pooled area, and it is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 139

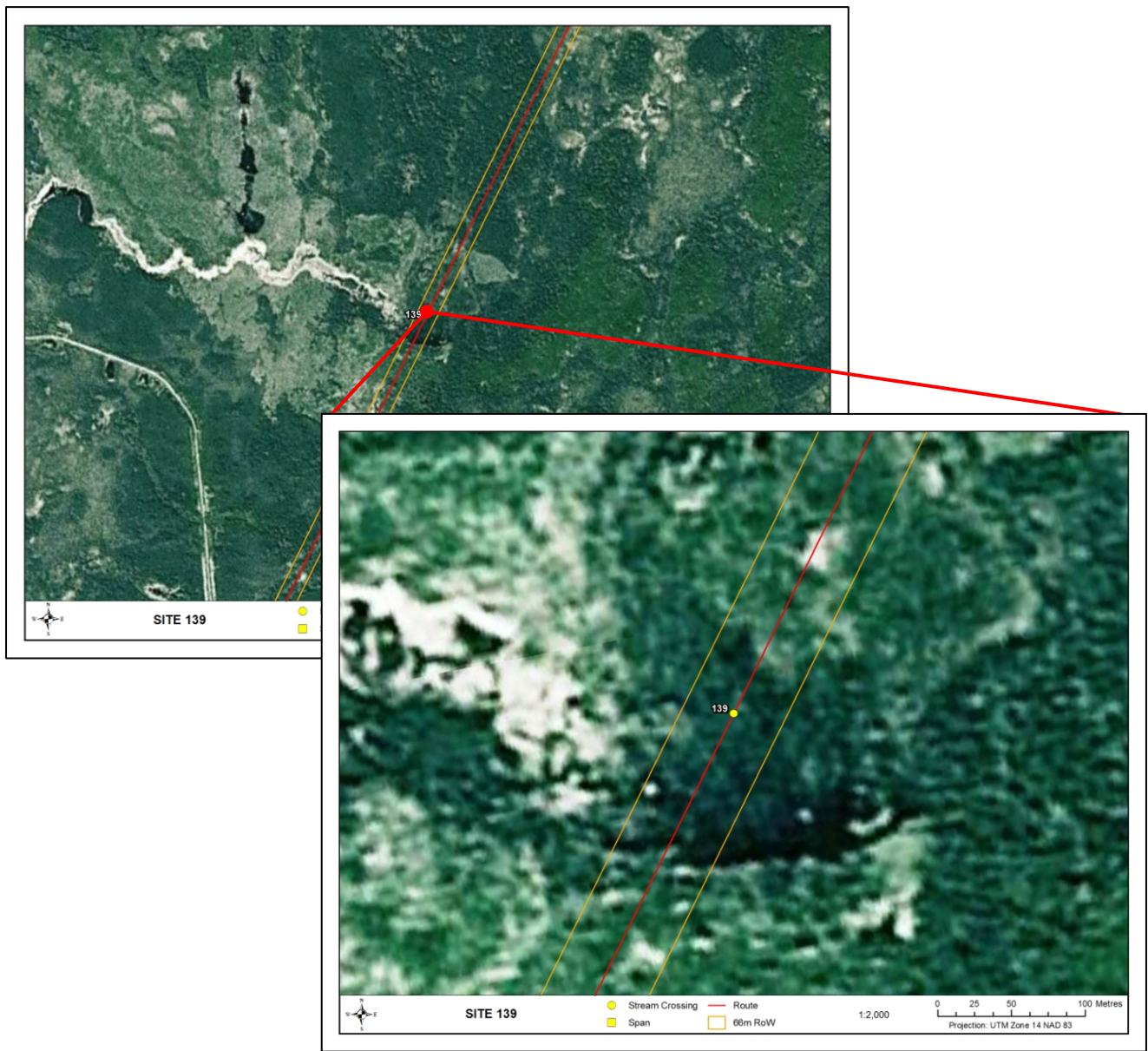
Unnamed tributary of Clarke Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 529772
Northing: 6073154
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 2.9 km²
Distance to Receiving Water: 3.7 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	88 (pooled area)
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	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	100
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 Clarke Creek is within forest and wetland habitat. It appears as a series of pooled areas, and likely provides marginal habitat for forage fish during times of high water levels. It is surrounded by a soft grass floodplain/wetland area.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 140

Unnamed tributary of Clarke Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 529551
Northing: 6072705
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 3.2 km²
Distance to Receiving Water: 3.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	36
Left Bank	26

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 (%)

	-
--	---

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	30
Run	70
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 Clarke Creek is within forest and wetland habitat. It appears as a series of pooled areas, and likely provides marginal habitat for forage fish during times of high water levels. It is surrounded by a soft grass floodplain/wetland area. The RoW follows the channel for 163m upstream of the site.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 141

Clarke Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 528149
Northing: 6069859
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 284.8 km²
Distance to Receiving Water: 20.9 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	13
Channel Width (m)	13

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	9
Left Bank	25

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 (%)

	-
--	---

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:

Important

Fish Presence: N/A

Comments:

Clarke Creek is within forest habitat. It consists of a well-defined channel and likely provides important habitat for indicator and forage fish. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 142

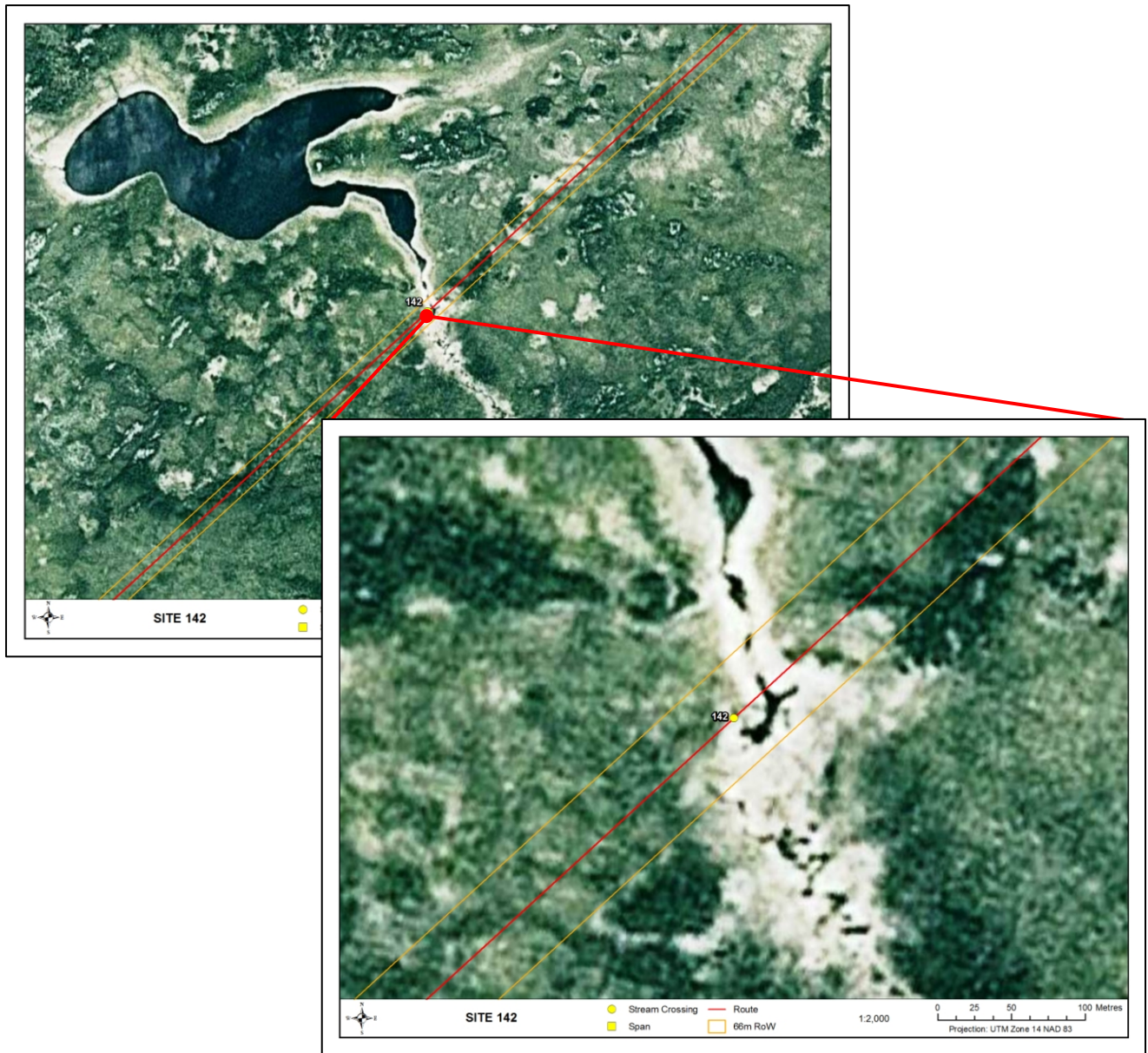
Unnamed tributary of Munigwari Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 508621
Northing: 6053368
Data Source: Google Earth

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 3.5 km²
Distance to Receiving Water: 1.17 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	7
Channel Width (m)	-

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	34
Left Bank	24

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 (%)

	-
--	---

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	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:

This unnamed tributary is within forest habitat, and connects a small lake to Munigwari Creek. It consists of a faint channel and likely provides marginal habitat for forage fish. It is surrounded by a soft grass floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 143

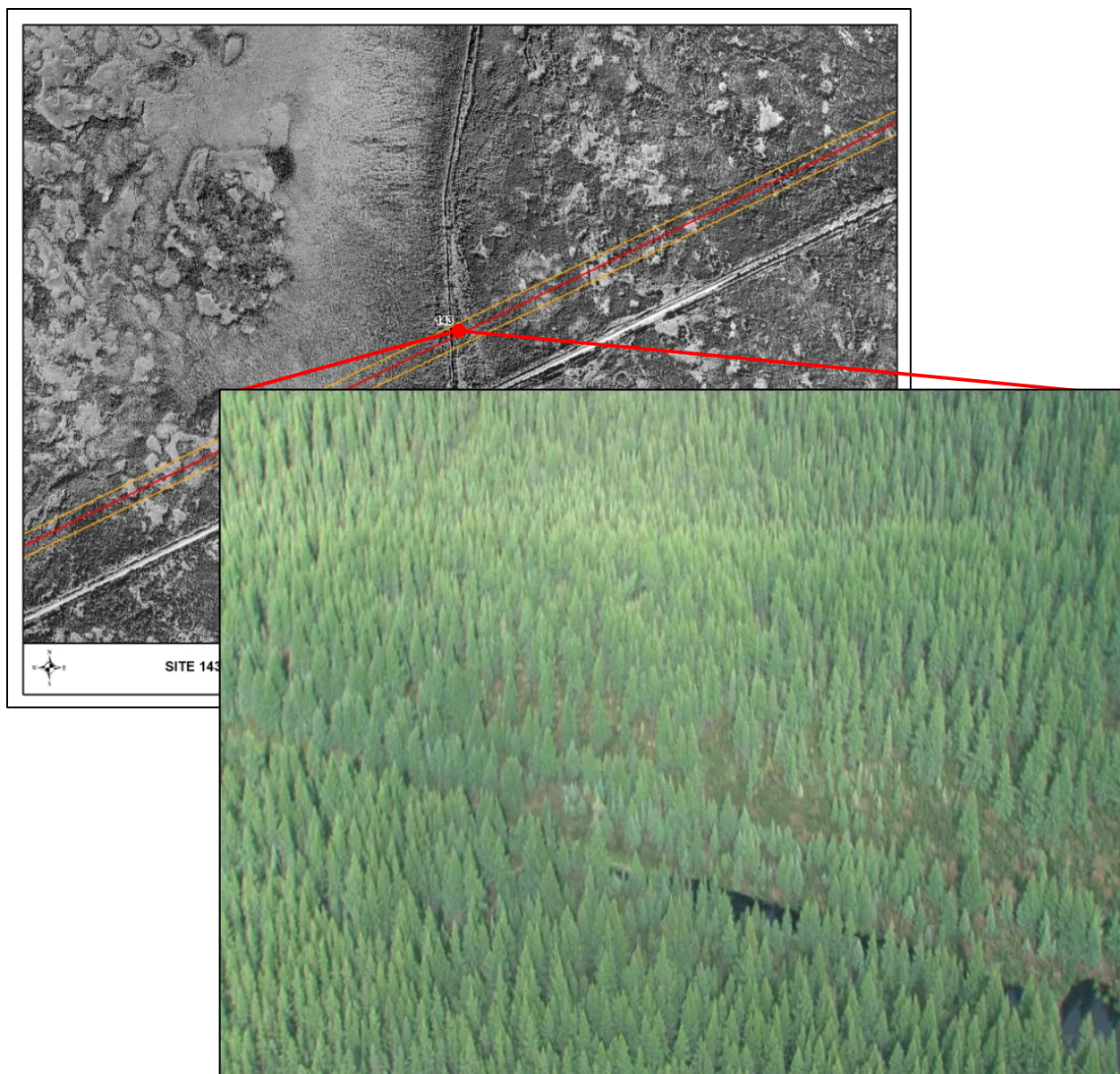
Unnamed Tributary of Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 487270
Northing: 6054206
Data Source: DOI.Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 0.9 km²
Distance to Receiving Water: Mitishto River
4.2 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	8.2
Channel Width (m)	8.2

Banks (%)

Right Bank Stability	75
Left Bank Stability	75

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	71.9
Left Bank	29.8

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	10
--	----

Substrate

Substrate Type (%)

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

Cover Types

Total Cover Available (%) over Composition (% of Total)

Large Woody Debris	10
Overhanging Vegetation	90
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

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

Fish Presence: N/A

Comments:

The RoW at site 143 crosses this unnamed tributary of Mitishto River. The tributary is a perennial stream with moderate habitat diversity. Predominantly, minnows are anticipated at this site however some large bodied fish may also be present.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

An unstable bank combined with fish presence at the crossing results in a moderate sensitivity rating.

Site 144

Unnamed Tributary of Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 481655
Northing: 6051487
Data Source: DOI.Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 1.3 km²
Distance to Receiving Water: Mitishto River
2.2 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	9.1
Channel Width (m)	9.1

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	38.7
Left Bank	33.8

Riparian Distance (m)

Right Bank	58.1
Left Bank	50.3

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 (%)

10

Cover Composition (% of Total)

Large Woody Debris	-
Overhanging Vegetation	40
Instream Vegetation	40
Pool	20
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

Habitat Type

Habitat Composition

Pool	30
Run	70
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 144 crosses this unnamed tributary of Mitishto River. The tributary is an intermittent stream with low habitat diversity and low overwintering potential. Forage fish may be found at this site, but large bodied species are not expected.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Saturated floodplain is susceptible to rutting and erosion.

Site 145

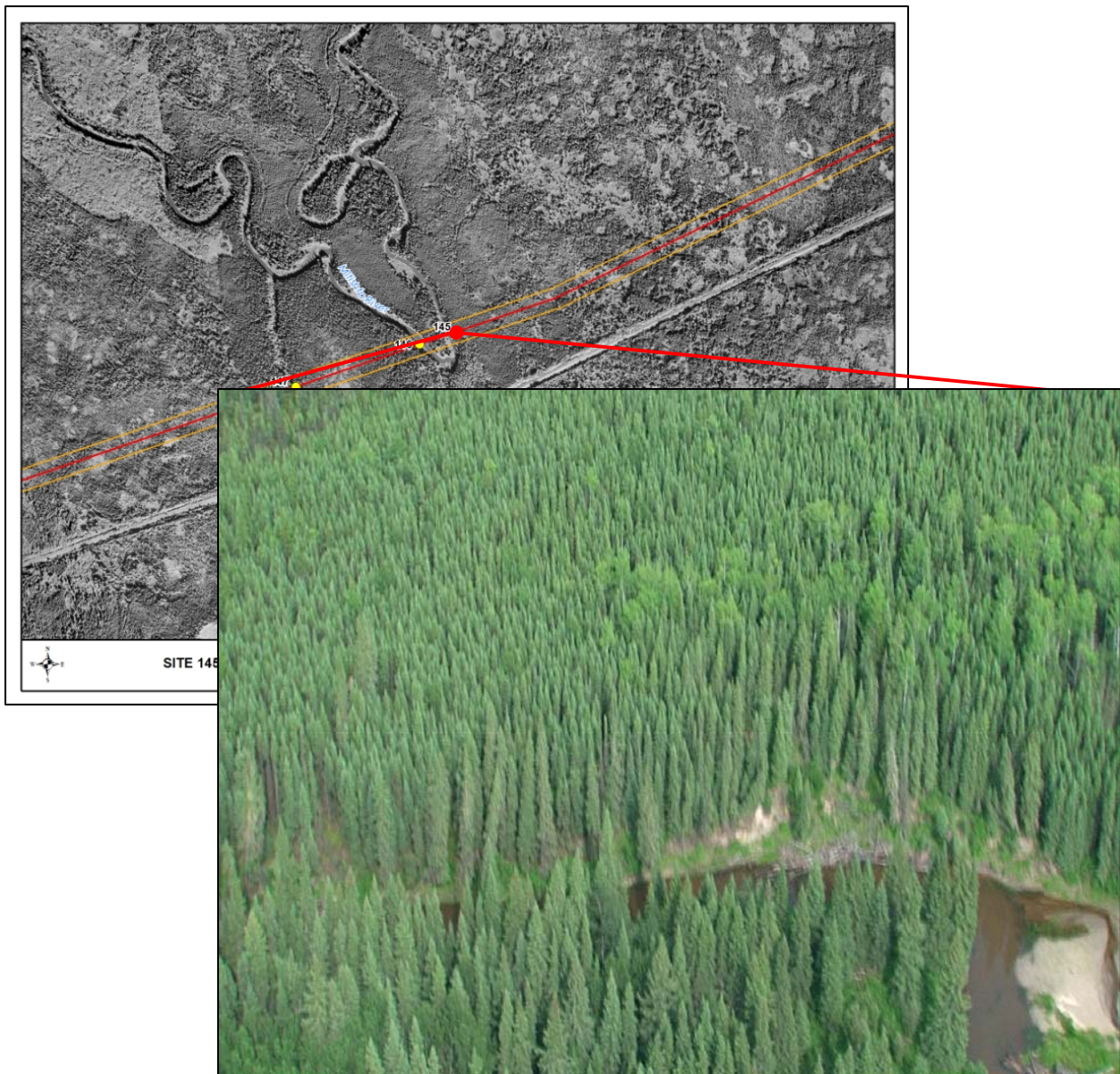
Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 479245
Northing: 6050363
Data Source: DOI.Video. Site Visit

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 873.8 km²
Distance to Receiving Water: Grass River 60 km



Site Conditions

+ Physical Data

Survey Date: 15 October 2010

Stage: Moderate

Transect

	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)	~15	-	-	-	-
Wetted Width (m)	~17	-	-	-	-

Water Depths (m)

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

Banks

Right Bank Stability (%)	90	90	90	-	-
Left Bank Stability (%)	20	80	70	-	-
Right Bank Slope (°)	~25	~25	~25	-	-
Left Bank Slope (°)	~25	~20	~35	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~4	-	-	-	-
Left Bank	2.8	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	10	-	-	-	-
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Substrate Type (%)

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

Habitat Type

Habitat Composition (%)

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

Cover Types

Total Cover Available (%)

	US	DS
Cover Composition (% of Total)	10	30
Large Woody Debris	5	80
Overhanging Vegetation	5	10
Instream Vegetation	90	10
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Upstream view of site 145 (transect 1).



Downstream view at site 145 (transect 3).



Left bank to right bank (transect 2) at site 145.



Left bank slumping at site 145.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

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

Fish Presence: N/A

Comments:

The RoW at site 145 crosses Mitishto River. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. A variety of minnows and large bodied species are expected. Left bank shows prominent slumping at this crossing, notably at transect 1.

+ Habitat Sensitivity

Sensitivity Rating: High

Comments:

Unstable slumping banks within a reach of important fish habitat results in a high sensitivity rating.

Site 146

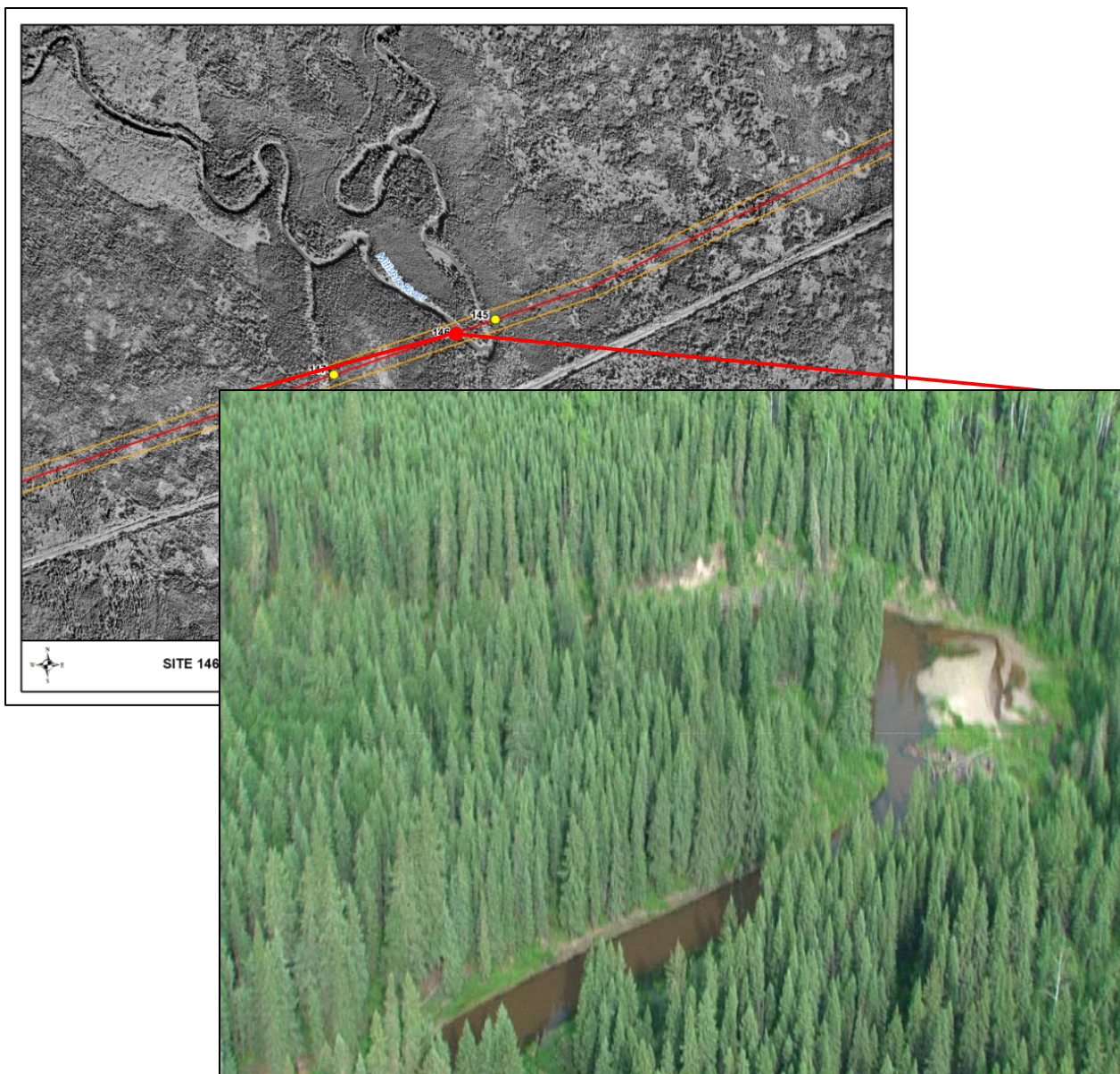
Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 479126
Northing: 6050322
Data Source: DOI.Video. Site Visit

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 860.8 km²
Distance to Receiving Water: Grass River 60 km



Site Conditions

+ Physical Data

Survey Date: 15 October 2010

Stage: Moderate

Transect

	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)	~20	~20	~20	-	-
Wetted Width (m)	~22	~22	~22	-	-

Water Depths (m)

25%	0.65	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

Banks

Right Bank Stability (%)	90	80	80	-	-
Left Bank Stability (%)	80	80	100	-	-
Right Bank Slope (°)	~45	~45	~50	-	-
Left Bank Slope (°)	~65	~65	~25	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~3	-	-	-	-
Left Bank	2.8	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

20	-	-	-	-
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Substrate Type (%)

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

Habitat Type

Habitat Composition (%)

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

Cover Types

Total Cover Available (%)

US	DS
----	----

Cover Composition (% of Total)

Large Woody Debris	25	40
Overhanging Vegetation	25	10
Instream Vegetation	50	50
Pool	-	-
Boulder	-	-
Undercut Bank	-	-



Overhead view of site 146.



Upstream view at site 146 (transect 3).



Downstream view at site 146 (transect 2).



Left bank approach at site 146.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

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

Fish Presence: N/A

Comments:

The RoW at site 146 crosses Mitishto River at the tight bend in the river just upstream of site 143. This site provides high habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. A variety of minnows and large bodied species are expected.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Unstable banks and important fish habitat result in a moderate sensitivity rating.

Site 147

Unnamed Tributary of Mitishto River



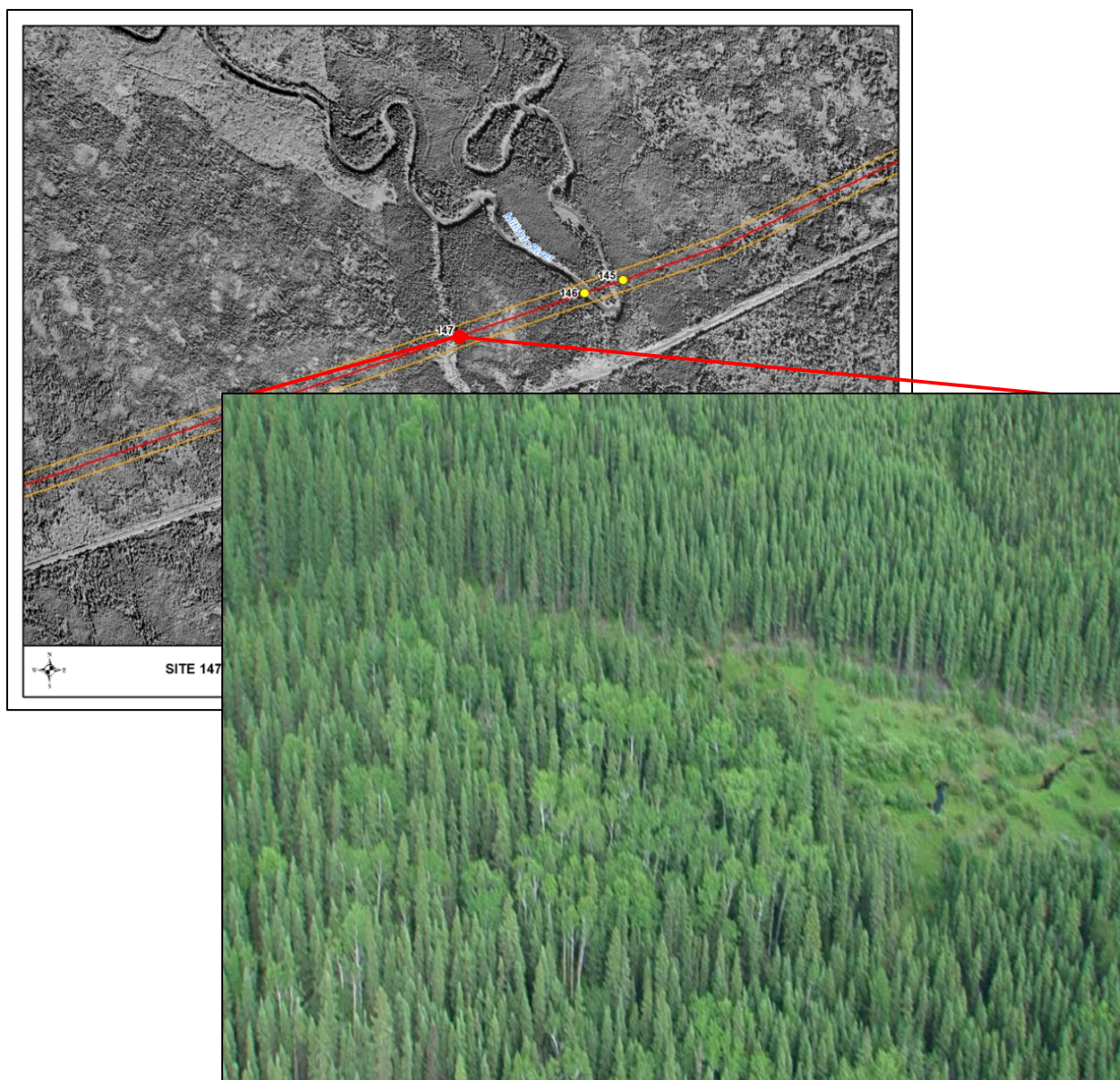
Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 478743
Northing: 6050191
Data Source: DOI.Video. Site Visit



General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: CO
Stage: Moderate
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 3.9 km²
Distance to Receiving Water: Mitishto River 0.9 km



Site Conditions

+ Physical Data

Survey Date: 15 October 2010

Stage: Moderate

Transect

	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)	22.5	-	-	-	-
Wetted Width (m)	-	-	-	-	-

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	10.7	-	-	-	-
Left Bank	9.5	-	-	-	-

Riparian Distance (m)

Right Bank	13.6	-	-	-	-
Left Bank	18.4	-	-	-	-

Riparian Vegetation Type (Y/N)

None	-	-	-	-	-
Grasses/sedges	Y	-	-	-	-
Shrubs	Y	-	-	-	-
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

Total Cover Available (%)

US	DS
----	----

Cover Composition (% of Total)

Large Woody Debris	-	-
Overhanging Vegetation	-	-
Instream Vegetation	-	-
Pool	-	-
Boulder	-	-
Undercut Bank	-	-





Overhead view of site 147.



Aerial upstream view of site 147.



Aerial downstream view of site 147.

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 147 crosses this unnamed tributary of Mitishto River. This site provides moderate habitat diversity for fish including habitat for spawning, rearing, feeding, overwintering and migration. The site is close to the Mitishto River and fish movements from the river are expected. Both forage fish and large bodied species are expected at this crossing.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Floodplain may be sensitive to damage during construction.

Site 148

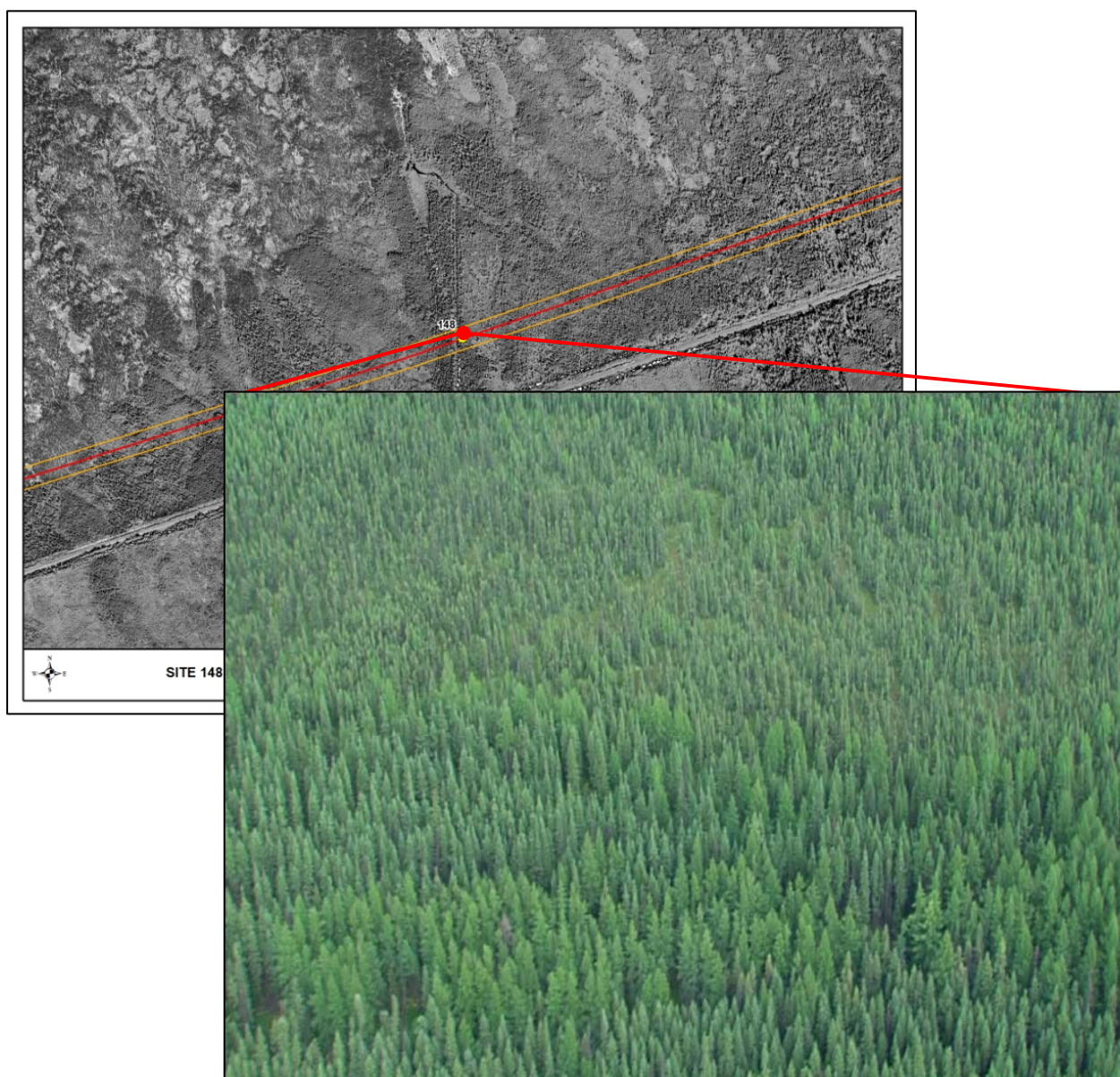
Unnamed Tributary of Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 476192
Northing: 6049320
Data Source: DOI.Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: CO
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 0.4 km²
Distance to Receiving Water: Mitishto River
1.92 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	6

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	11
Left Bank	9

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Trace

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

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Marginal

Fish Presence: N/A

Comments:

This unnamed tributary of Mitishto River likely provides habitat for forage fish, and no overwintering potential. It is channelized as a diversion channel of the CN railway line at the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 149

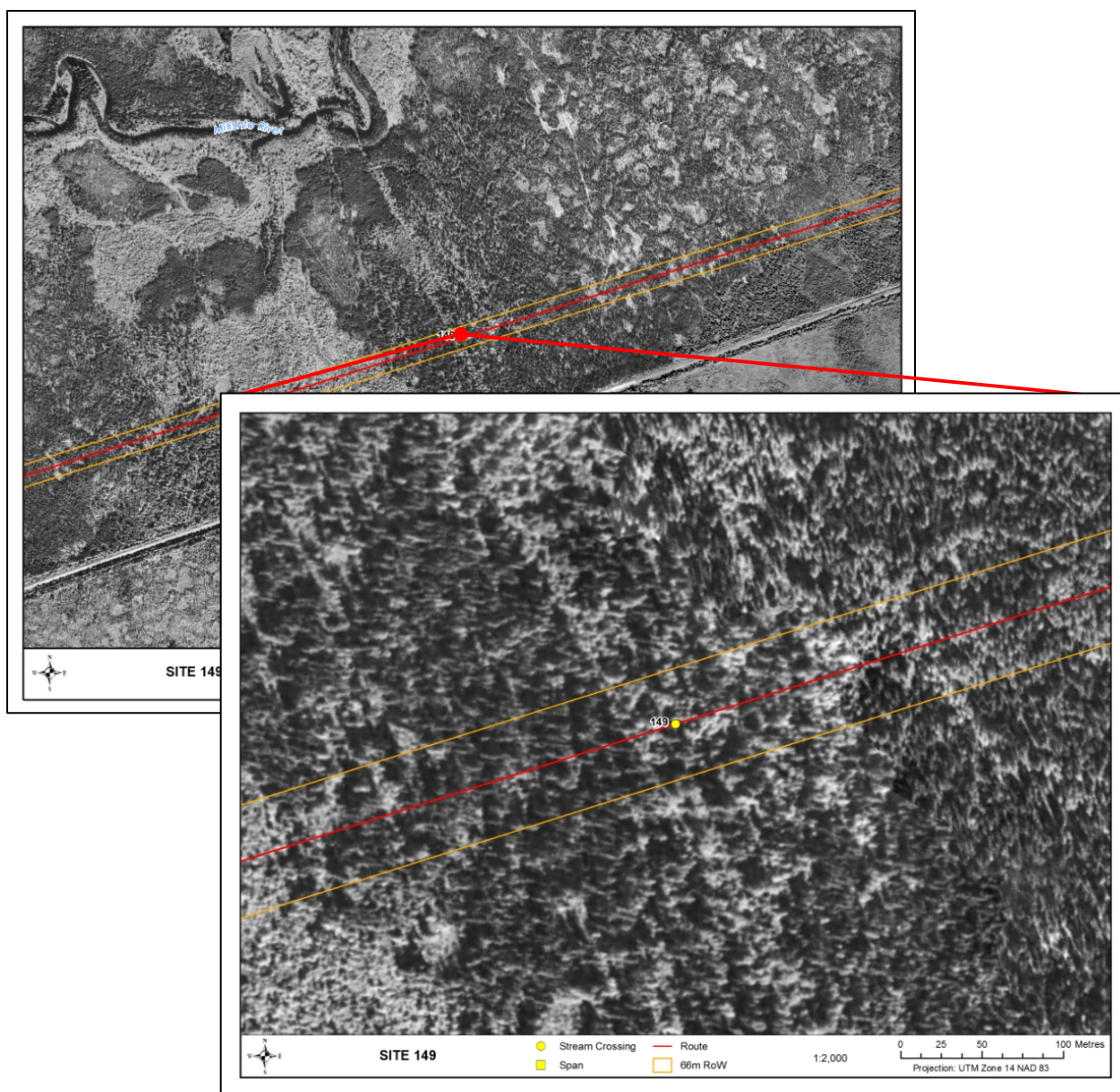
Unnamed Tributary of Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 473894
Northing: 6048590
Data Source: DOL

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: CO
Stage: Low
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 0.8 km²
Distance to Receiving Water: Mitishto River
0.68 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	Y
Deciduous	-
Mixed Forest	-

Canopy Cover (%)

	-
--	---

Substrate

Substrate Type (%)

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

Cover Types

Total Cover Available (%)

	-
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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	No
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	Marginal

Fish Presence: N/A

Comments:

This unnamed tributary of the Mitishto River likely provides habitat for forage fish, with no overwintering potential. The tributary is channelized as a diversion channel of the CN railway line at the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Channelized habitat and marginal fish habitat result in a low sensitivity rating.

Site 150

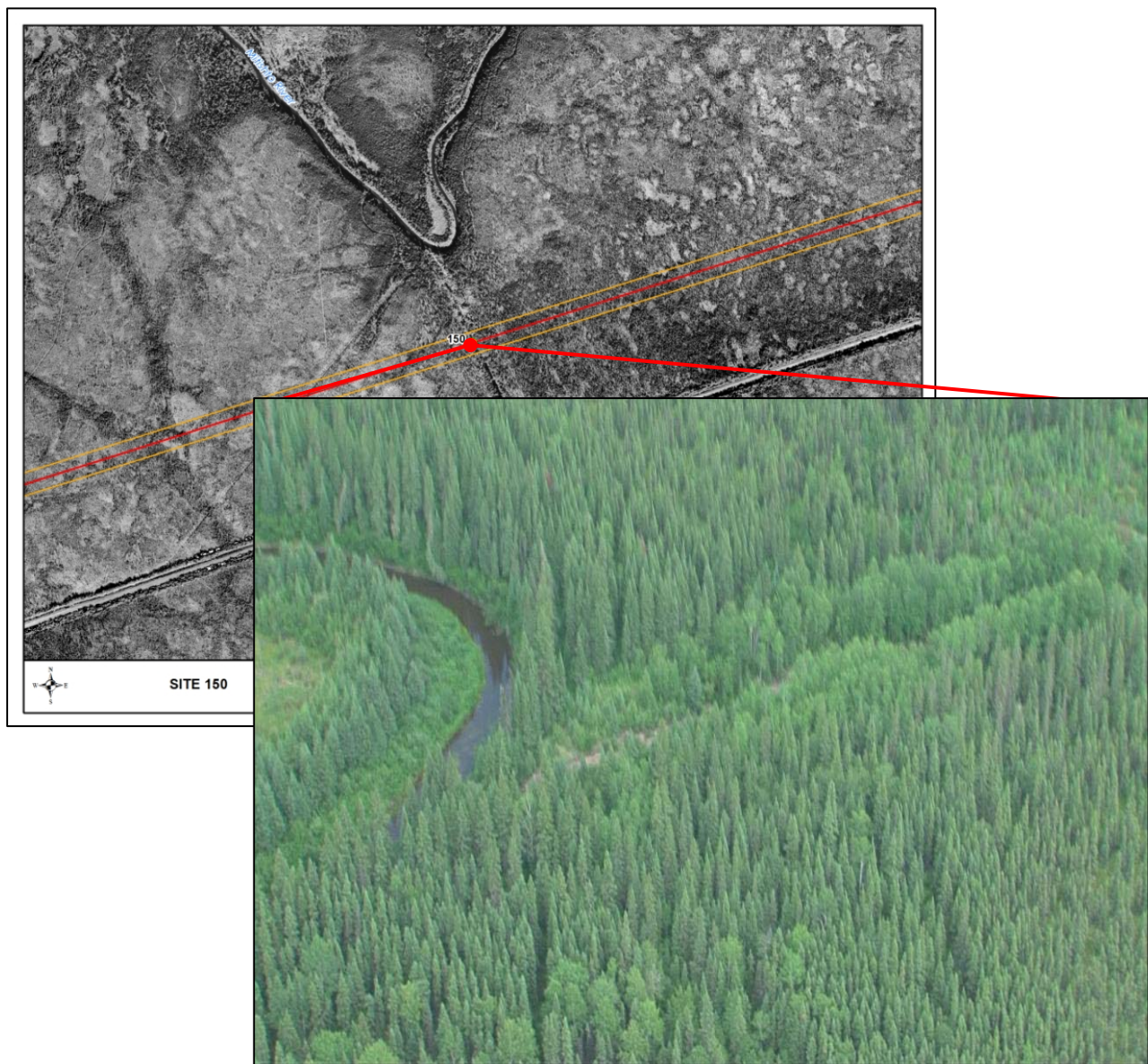
Unnamed Tributary of Mitishto Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 470609
Northing: 6047554
Data Source: DOI. Video. Site visit

General Morphology

Stream/Lake: Stream
Pattern: ST
Confinement: CO
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 0.3 km²
Distance to Receiving Water: Mitishto River 0.3 m



Site Conditions

+ Physical Data

Survey Date: 15 October 2010

Stage: Moderate

Transect

	1	2	3	4	5
Distance from Crossing (m)	0	33 US	33 DS	130 US	150 DS

Channel Profile

Channel and Flow

Channel Width (m)	~2.5	-	-	-	-
Wetted Width (m)	~2.5	-	-	-	-

Water Depths (m)

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

Banks

Right Bank Stability (%)	45	-	-	-	-
Left Bank Stability (%)	20	-	-	-	-
Right Bank Slope (°)	~45	-	-	-	-
Left Bank Slope (°)	~60	-	-	-	-

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	9	-	-	-	-
Left Bank	12	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)	45	-	-	-	-
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Substrate

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





Aerial upstream view of unnamed tributary of Mitishto River at site 150.



Aerial downstream view of unnamed tributary of Mitishto River at site 150.



Aerial overhead view of unnamed tributary of Mitishto River at site 150.

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 Mitishto River likely provides habitat for forage fish species, with low overwintering potential. It is channelized as a diversion channel of the CN Railway Line. The assessment was conducted 287m upstream of the site, however conditions appear similar at both sites.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Channelized habitat results in a low sensitivity rating.

Site 151

Unnamed Tributary of Mitishto River



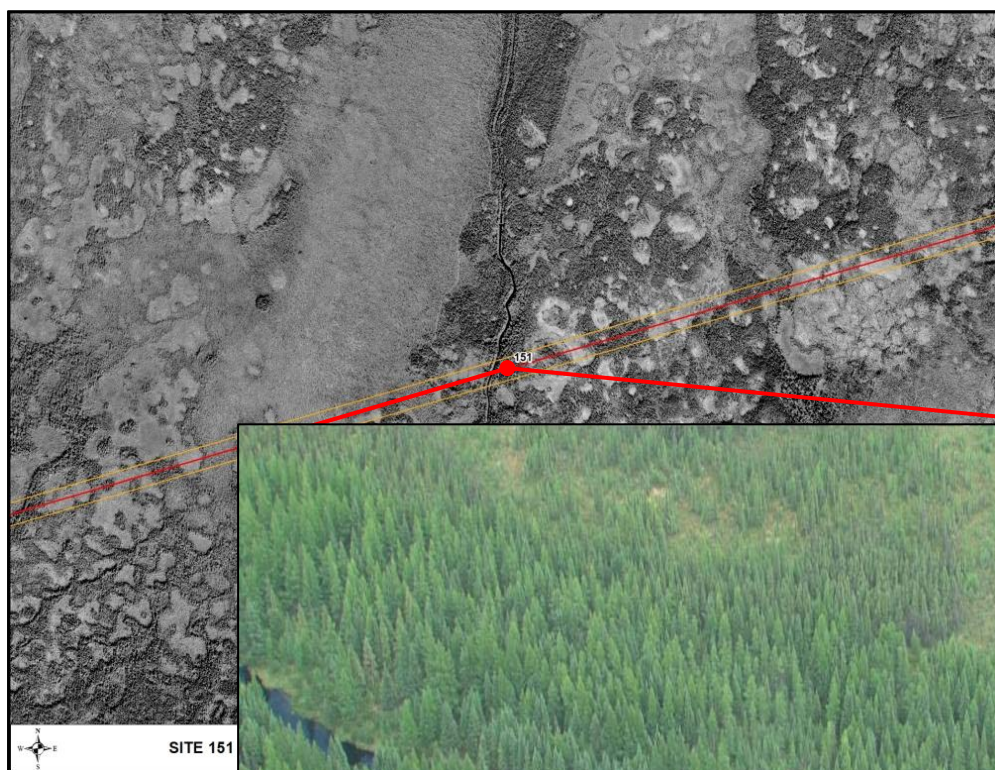
Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 466453
Northing: 6046243
Data Source: DOI. Video



General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: CO
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 1.1 km²
Distance to Receiving Water: Mitishto River 2.28km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	6
Channel Width (m)	6

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	16
Left Bank	11

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Tr

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

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

Fish Presence: N/A

Comments:

This unnamed tributary of the Mitishto River likely provides habitat for forage fish only, with no overwintering potential. The tributary is channelized as diversion channel of the CN Railway Line at the RoW, and the RoW follows the channel for 89m downstream of the site.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Channelized habitat results in a low sensitivity rating.

Site 152

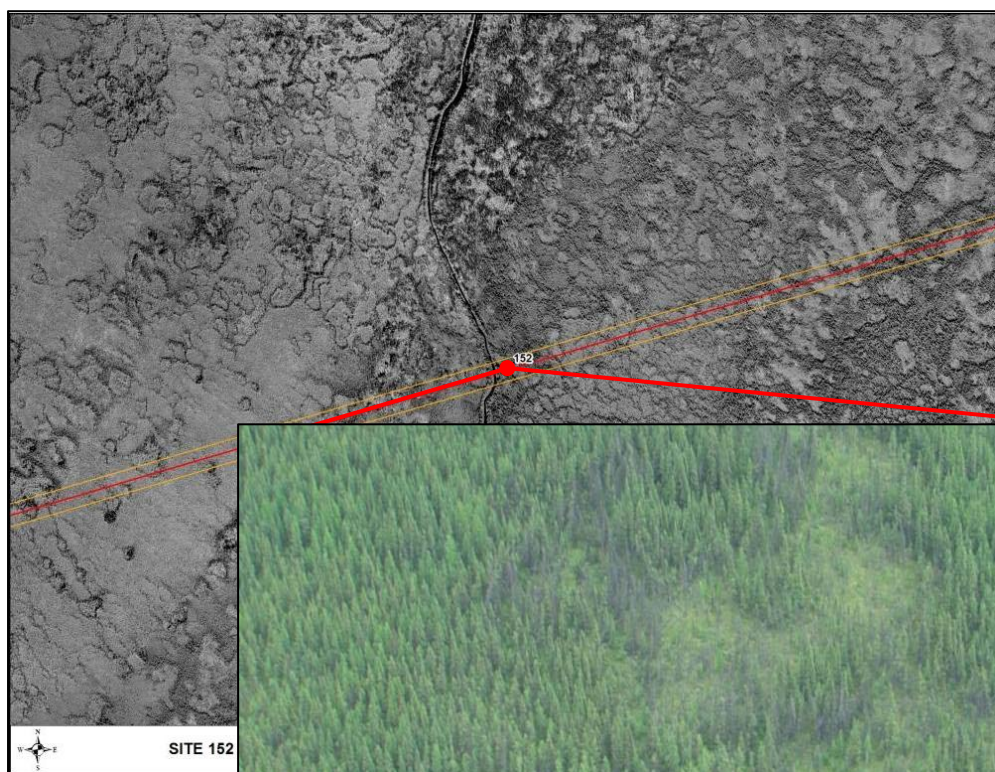
Unnamed Tributary of Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 462156
Northing: 6044888
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: CO
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 1.9 km²
Distance to Receiving Water: Mitishto River 2.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	7
Channel Width (m)	7

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	12
Left Bank	8

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Tr

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 Mitishto River likely provides habitat for forage fish only, with low overwintering potential. The tributary is channelized as a diversion channel of the CN Railway Line at the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Channelized habitat results in a low sensitivity rating.

Site 153

Unnamed Tributary of Mitishto River



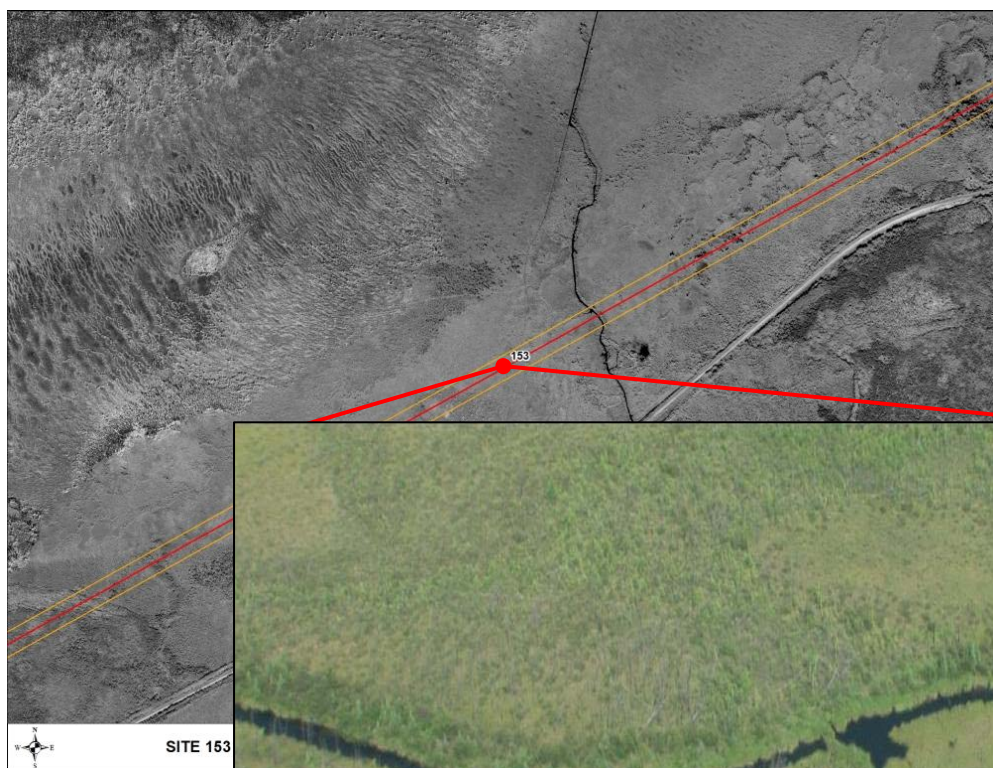
Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 444794
Northing: 6036784
Data Source: DOI. Video



General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: LC
U/S Drainage: 0.1 km²
Distance to Receiving Water: Mitishto River 1.9 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	5.2
Channel Width (m)	5.2

Banks (%)

Right Bank Stability	80
Left Bank Stability	80

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	15.5
Left Bank	15.5

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Tr

Substrate

Substrate Type (%)

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

Cover Types

Total Cover Available (%)

10

Cover Composition (% of Total)

Large Woody Debris	Tr
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

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Marginal

Fish Presence: N/A

Comments:

This unnamed tributary of the Mitishto River likely provides habitat for forage fish only. The channel is within a headwater bog area, and it is channelized as diversion channel of the CN Railway Line upstream of the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

The boggy habitat is susceptible to rutting.

Site 154

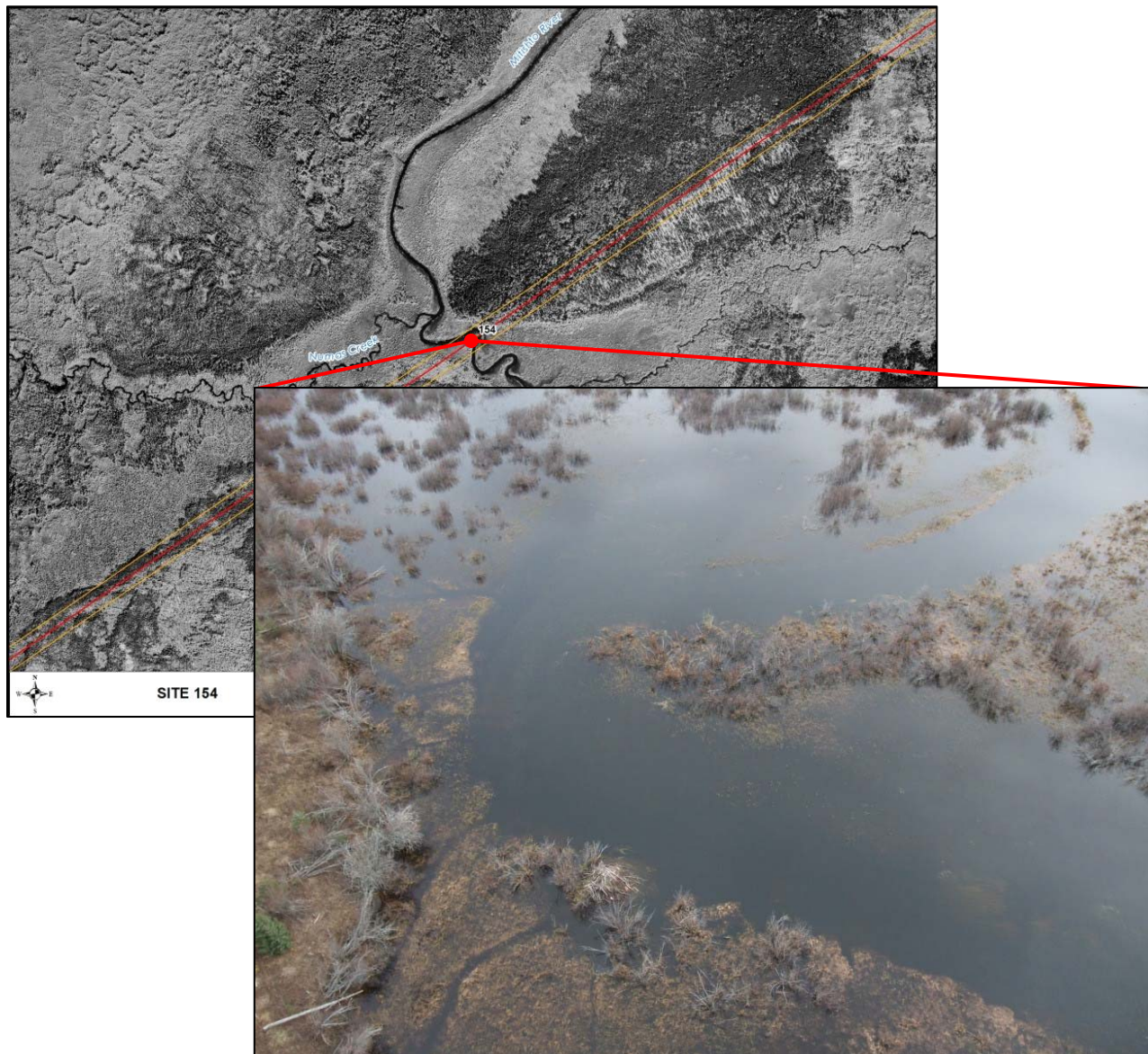
Mitishto River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 435728
Northing: 6032669
Data Source: DOI. Video. Site visit

General Morphology

Stream/Lake: Stream
Pattern: IM
Confinement: CO
Stage: High
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 183.5 km²
Distance to Receiving Water: Grass River 121 km



Site Conditions

+ Physical Data

Survey Date: 17 October 2010

Stage: Moderate

Transect

	1	2	3	4	5
Distance from Crossing (m)	0	33 US	33 DS	130 US	150 DS

Channel Profile

Channel and Flow

Channel Width (m)	15	-	-	-	-
Wetted Width (m)	-	-	-	-	-

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	88	-	-	-	-
Left Bank	20	-	-	-	-

Riparian Distance (m)

Right Bank	198	-	-	-	-
Left Bank	32	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	0	-	-	-	-
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Substrate

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





Aerial northeast view of Mitishto River, showing area downstream of site 154.



Aerial northeast view of Mitishto River, showing site 154.



Aerial southeast view of Mitishto River, showing site 154.



Left bank of Mitishto River at site 154, showing beaver lodge.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

The Mitishto River likely provides complex habitat for indicator fish species, with high overwintering potential. It is surrounded by a soft grass/shrub floodplain.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 155

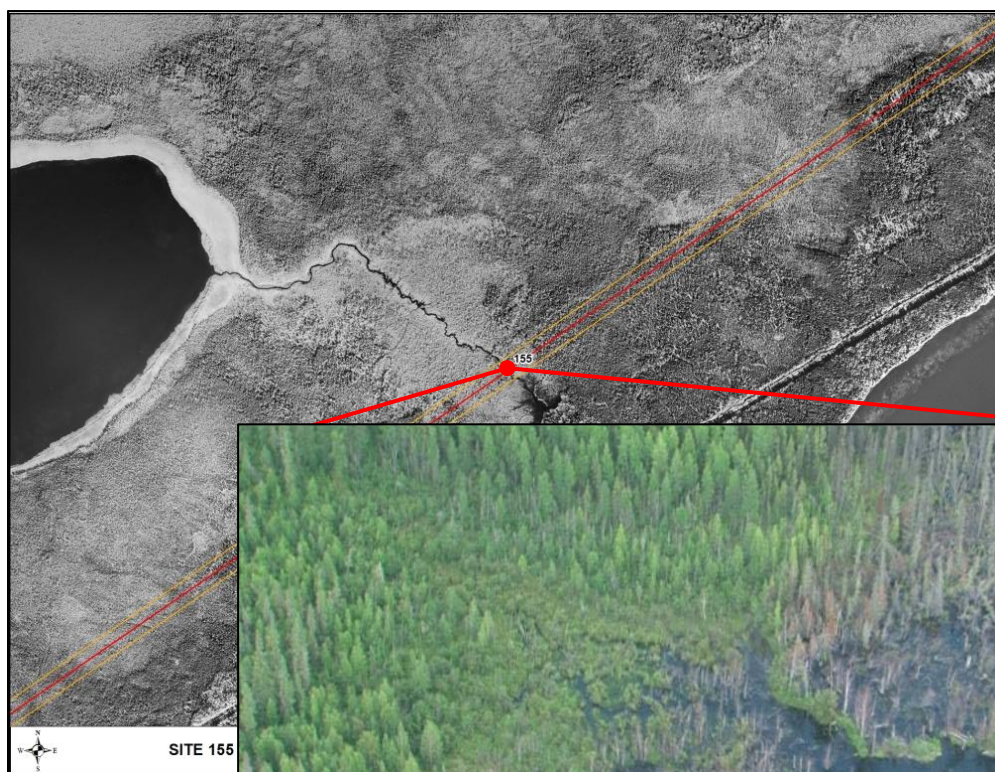
Unnamed Tributary of Dyce Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 431069
Northing: 6029459
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: CO
Stage: Moderate
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 11.0 km²
Distance to Receiving Water: Dyce Lake 0.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	8
Channel Width (m)	-

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	92
Left Bank	180

Riparian Distance (m)

Right Bank	99
Left Bank	286

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
Deciduous	Y
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	40
Overhanging Vegetation	10
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:

This unnamed tributary of Dyce Lake likely is a small stream within a broad floodplain with wetland habitats. Access to Dyce Lake is unimpeded and both small and large bodied species are expected at the site.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 156

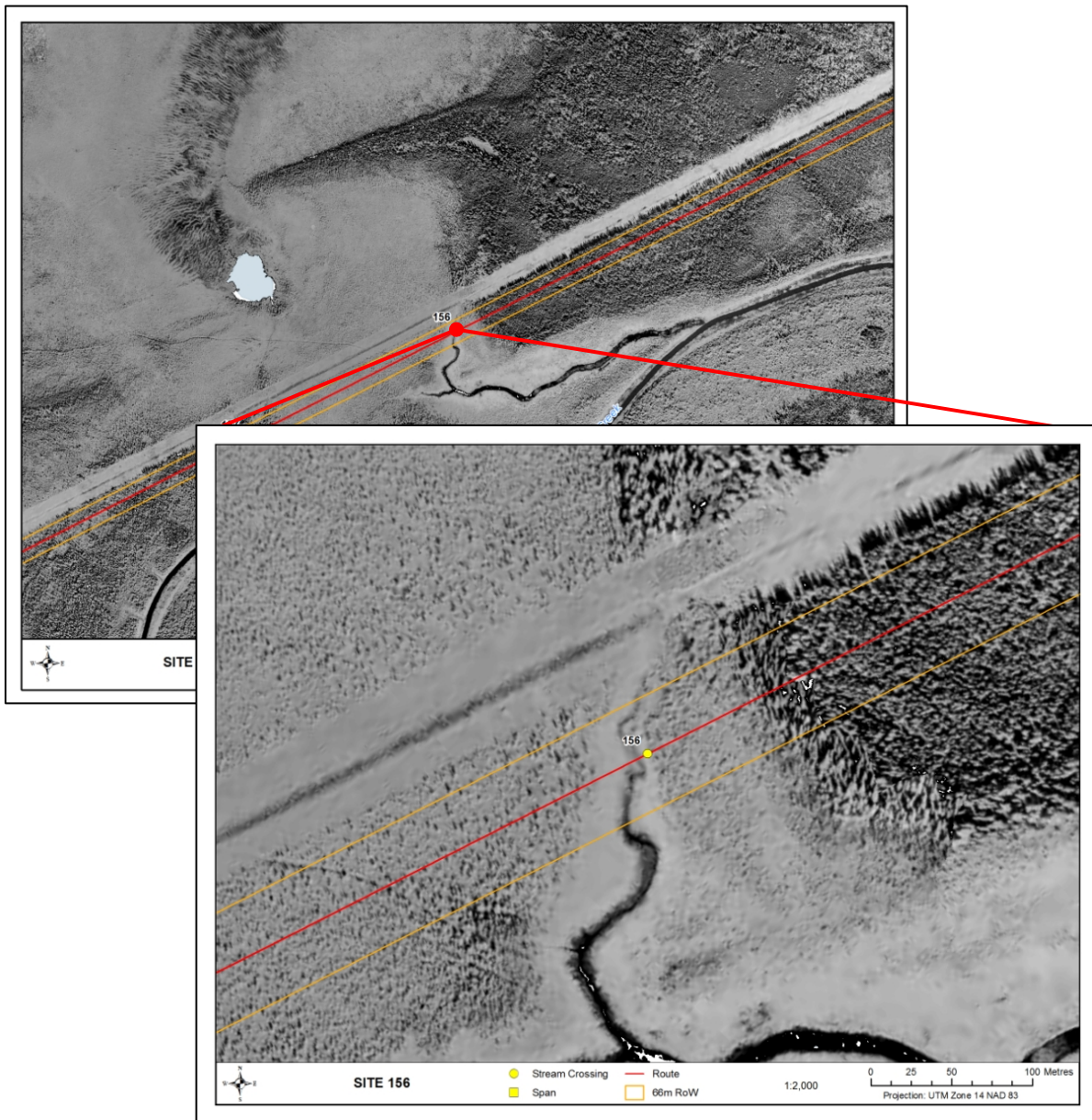
Unnamed tributary of Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 404764
Northing: 6006118
Data Source: DOL

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 0 km²
Distance to Receiving Water: Frog Creek 1.02 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	5
Left Bank	28

Riparian Distance (m)

Right Bank	67
Left Bank	55+

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 (%)

-

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:

The RoW crosses the headwaters of this unnamed tributary of Frog Creek. It likely provides habitat for forage fish, with low overwintering potential. It is surrounded by a soft floodplain, and the riparian merges with a larger marshy area on the left bank.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 157 Unnamed Tributary of Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 404107
Northing: 6005786
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: LC
U/S Drainage: 1.2 km²
Distance to Receiving Water: Frog Creek 0.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	9
Left Bank	12

Riparian Distance (m)

Right Bank	22
Left Bank	27

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 (%)

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

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

Fish Presence: N/A

Comments:

This unnamed tributary of Frog Creek likely provides habitat for forage fish and those species found in boreal wetland habitats (e.g., brook stickleback).

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Floodplain is susceptible to rutting and erosion, but habitat is marginal at best and therefore a low sensitivity rating.

Site 158

Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 399766
Northing: 6003587
Data Source: DOI. Video. Site visit

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: High
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 3293 km²
Distance to Receiving Water: North Moose Lake
12.6 km



Site Conditions

+ Physical Data

Survey Date: 17 October 2010

Stage: Moderate

Transect

	1	2	3	4	5
Distance from Crossing (m)	0	33 US	33 DS	130 US	150 DS

Channel Profile

Channel and Flow

Channel Width (m)	~20	-	-	-	-
Wetted Width (m)	~20	-	-	-	-

Water Depths (m)

25%	0.7	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

Banks

Right Bank Stability (%)	100	-	-	-	-
Left Bank Stability (%)	100	-	-	-	-
Right Bank Slope (°)	~3	-	-	-	-
Left Bank Slope (°)	~3	-	-	-	-

Riparian

Floodplain Distance (m)

Right Bank	~23.2	-	-	-	-
Left Bank	23.2	-	-	-	-

Riparian Distance (m)

Right Bank	~31	-	-	-	-
Left Bank	31	-	-	-	-

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	0	-	-	-	-
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Substrate

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)	5	10
Large Woody Debris	-	-
Overhanging Vegetation	-	-
Instream Vegetation	100	100
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-





Aerial downstream view of Frog Creek at site 158 from crossing,



Upstream view of Frog Creek at site 158 from crossing.



Right bank of Frog Creek at site 158 from crossing.



Left bank of Frog Creek at site 158 from crossing.

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

Frog Creek connects Cormorant Lake with North Moose Lake and provides complex habitat for indicator fish species. It is surrounded by a soft grass floodplain. The site assessment was conducted 51m downstream of the actual site, however conditions appear similar at both locations.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 159

Unnamed Tributary of Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 397137
Northing: 6002256
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.8 km²
Distance to Receiving Water: Frog Creek 3.5 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	Y
Shrubs	-
Conifers	-
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

Fish Habitat Present	No
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. The channel is faintly defined and surrounded by wetland.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

No fish habitat results in a low sensitivity rating.

Site 160

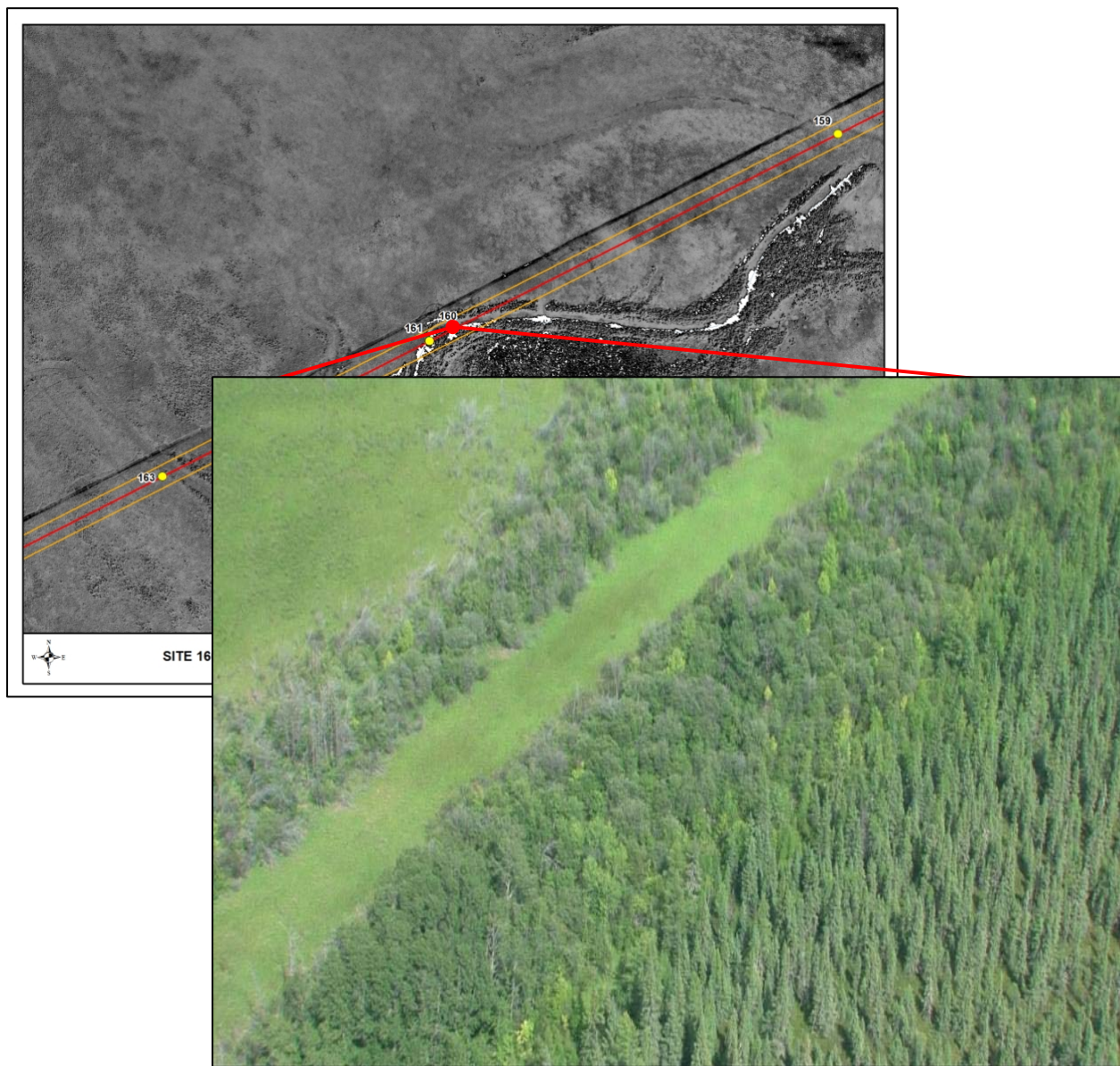
Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 395929
Northing: 6001644
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.6 km²
Distance to Receiving Water: Little Frog Creek 15 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	18

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	36
Left Bank	41

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	10
--	----

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

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 161

Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 395853
Northing: 6001605
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.8 km²
Distance to Receiving Water: Little Frog Creek 14.4 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	126
Left Bank	116

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	10
--	----

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

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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



Site 162

Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 395519
Northing: 6001436
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.4 km²
Distance to Receiving Water: Little Frog Creek 12.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	35

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	61
Left Bank	26

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 163

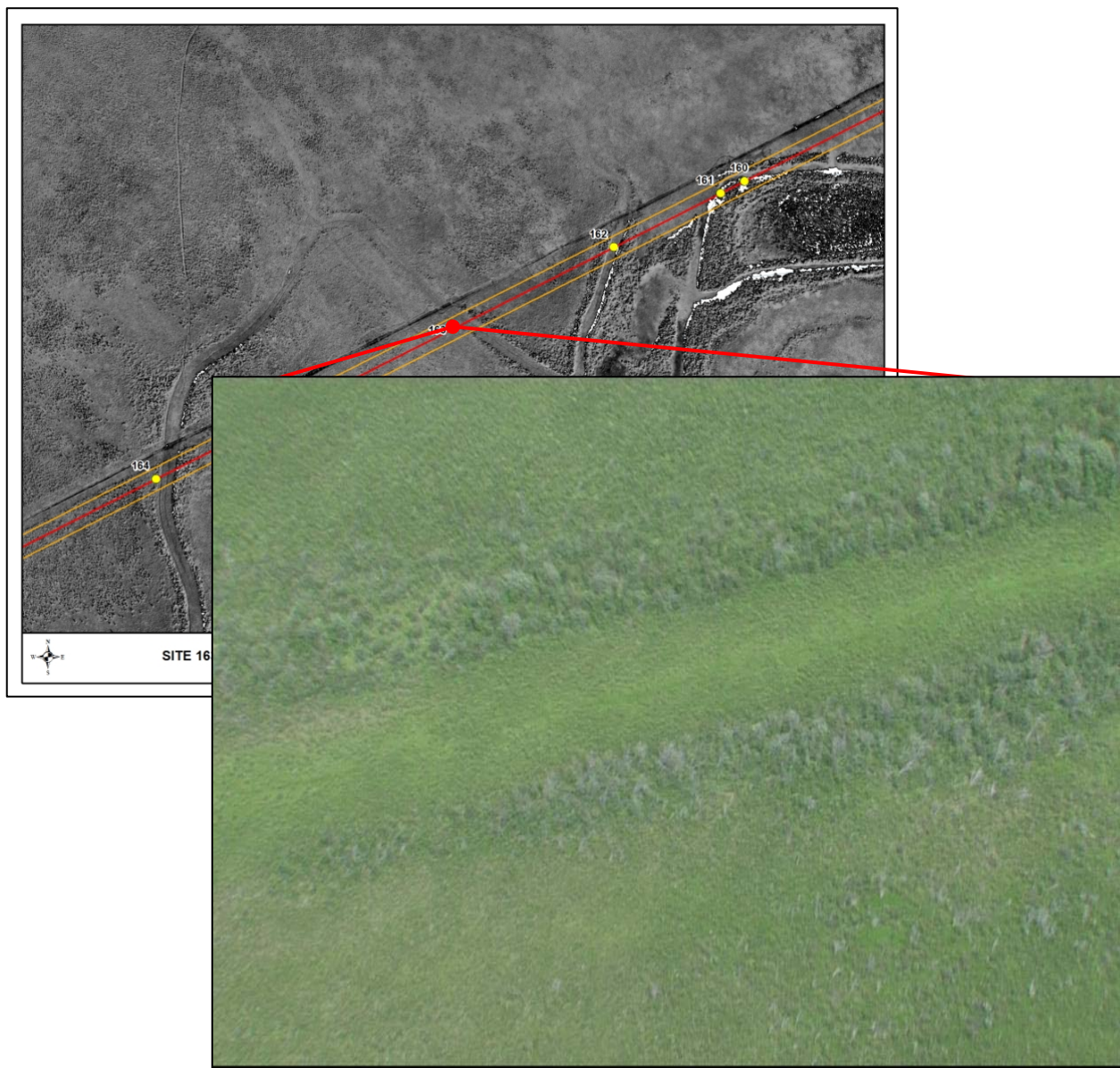
Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 395013
Northing: 6001180
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.5 km²
Distance to Receiving Water: Little Frog Creek 12.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	40

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	34
Left Bank	28

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 164

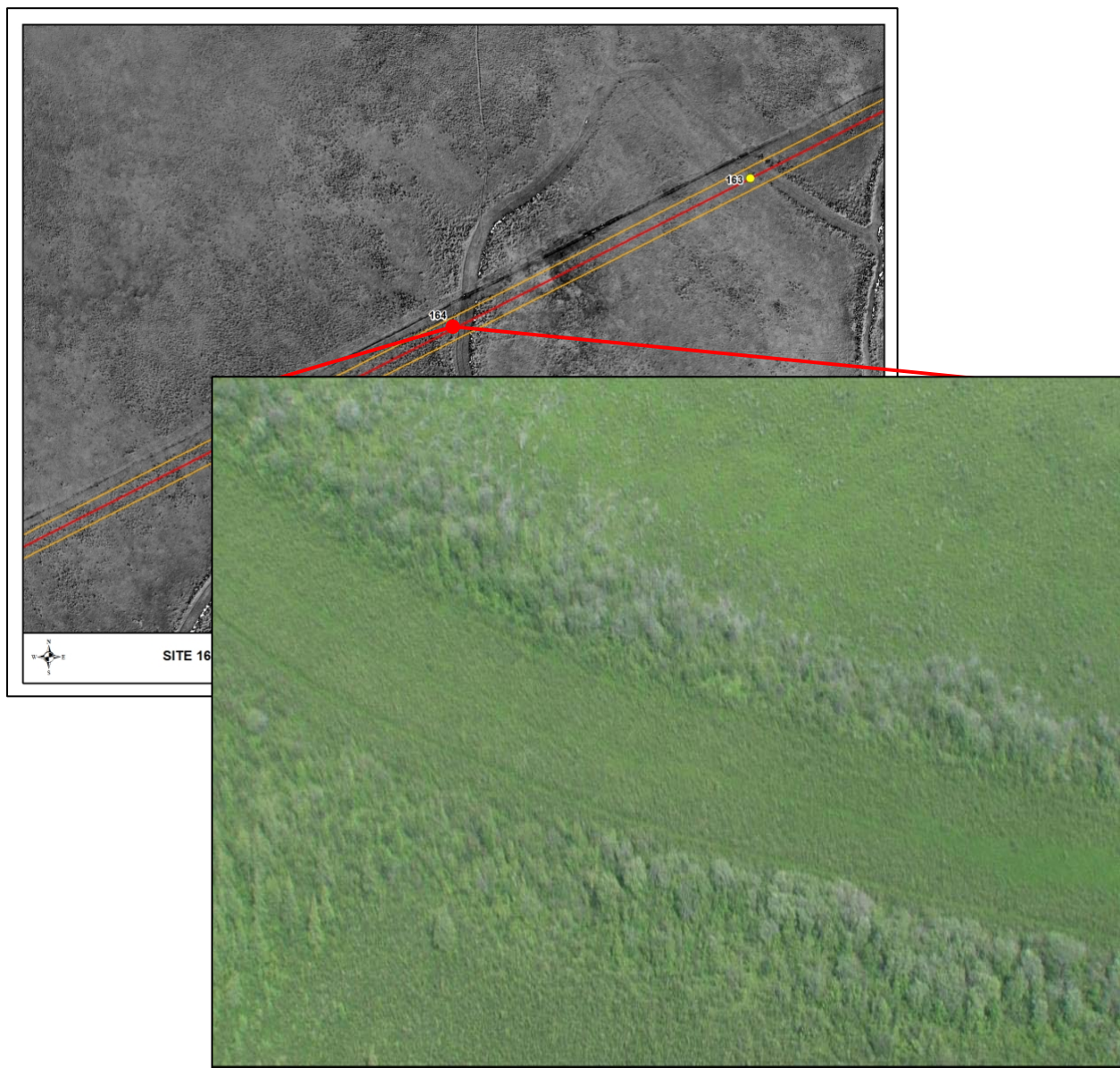
Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 394081
Northing: 6000708
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 1.6 km²
Distance to Receiving Water: Little Frog Creek 10.4 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	40

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	34
Left Bank	28

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 165

Unnamed Tributary of Little Frog Creek



Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 391421
Northing: 5999361
Data Source: DOI. Video



General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 4.8 km²
Distance to Receiving Water: Little Frog Creek 5.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	32

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	27
Left Bank	26

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 166

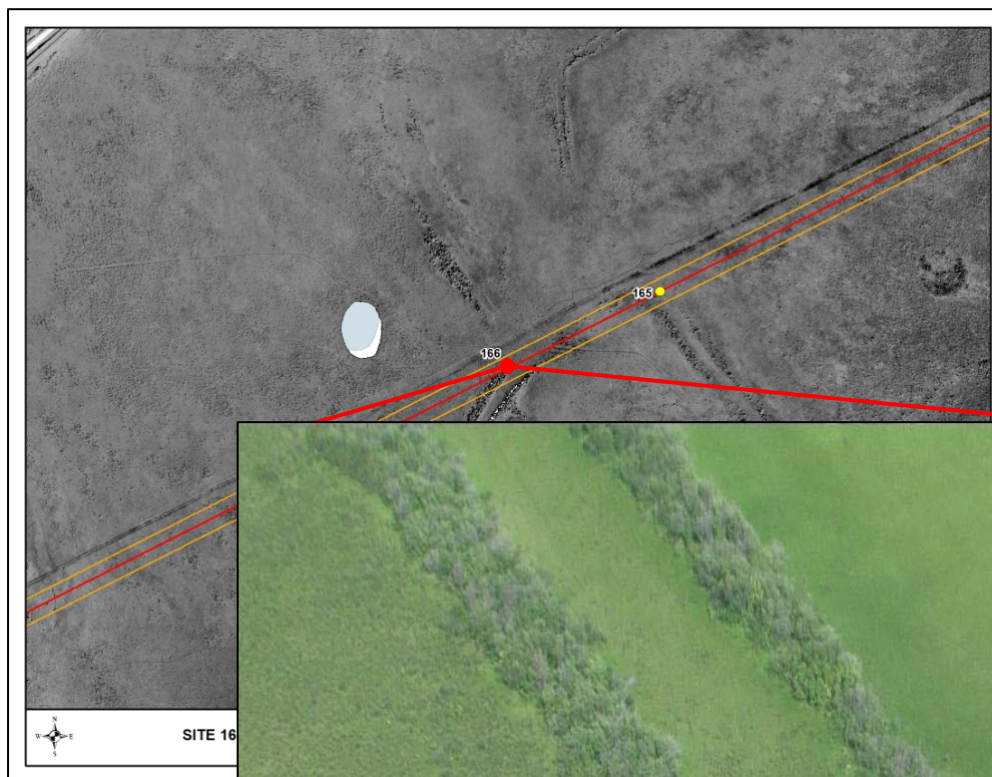
Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 390995
Northing: 5999145
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 5.7 km²
Distance to Receiving Water: Little Frog Creek 4.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	35

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	20
Left Bank	20

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary likely provides only indirect fish habitat in the form of water and nutrients flowing downstream.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 167

Unnamed Tributary of Unnamed Lake

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 384752
Northing: 5993780
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 2.4 km²
Distance to Receiving Water: Unnamed Lake 0.5 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	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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It appears to be channelized, and surrounded by wetland.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

No fish habitat results in a low sensitivity rating.

Site 168

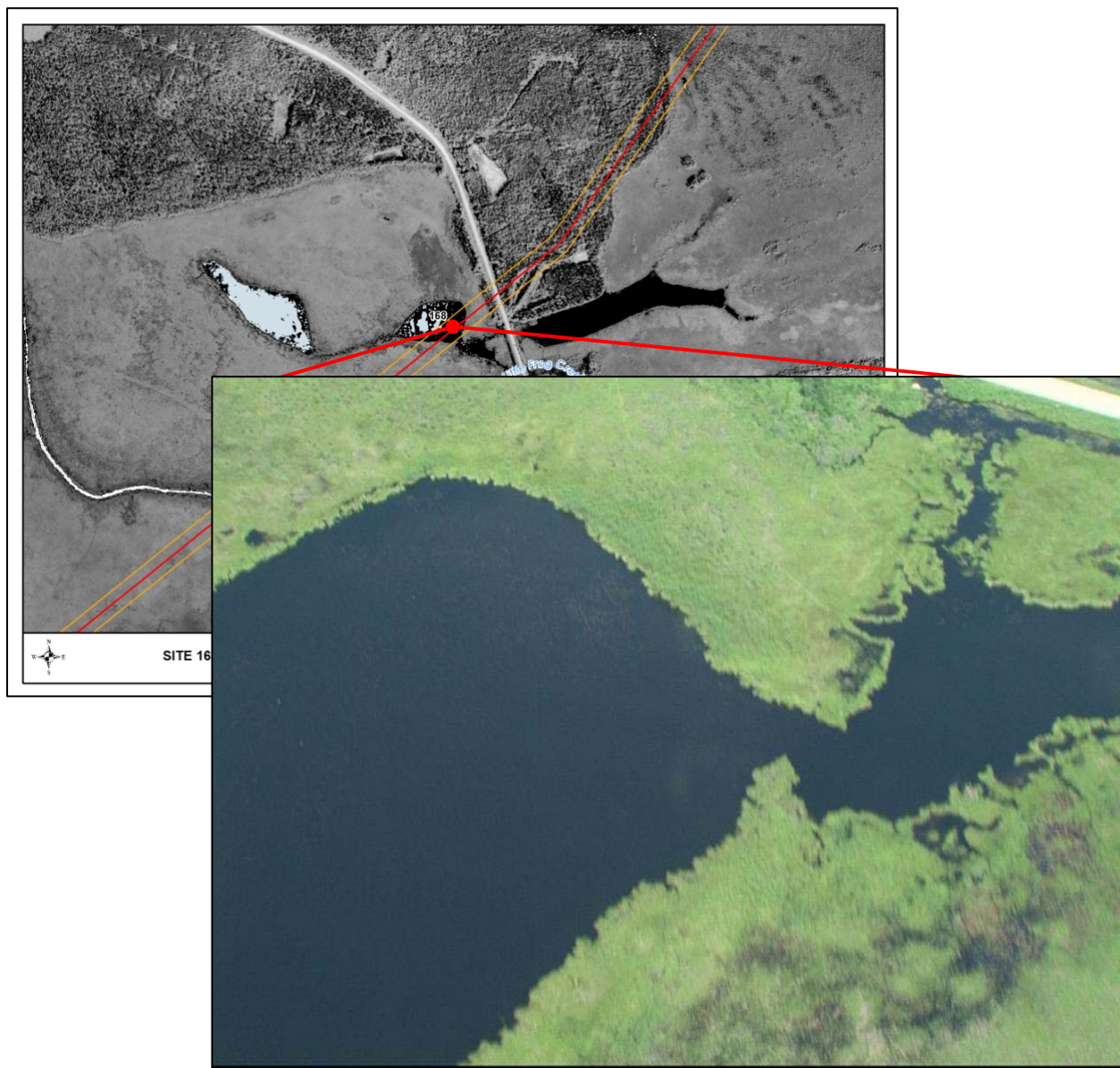
Unnamed Tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 372649
Northing: 5979846
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 0.4 km²
Distance to Receiving Water: Little Frog Creek
0.2 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	100
Channel Width (m)	100

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	29
Left Bank	56

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 (%)

5

Cover Composition (% of Total)

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

Habitat Type

Habitat Composition

Pool	100
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 crosses this unnamed tributary of Little Frog Creek at a large ponded area. It likely provides complex habitat for forage fish species, with moderate overwintering potential and may support large bodied species such as northern pike from Little Frog Creek. The riparian area appears soft.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 169

Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 371988
Northing: 5979313
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: CO
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 132.7 km²
Distance to Receiving Water: Little Muddy Creek
41.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	8
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	179
Left Bank	21

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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	Tr
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

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

Fish Presence: N/A

Comments:

Little Frog Creek likely provides complex habitat for indicator fish species, with moderate overwintering potential. The riparian area appears soft.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 170

Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 369031
Northing: 5976931
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 0.3 km²
Distance to Receiving Water: Little Frog Creek 9.9 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	23

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	20
Left Bank	26

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is surrounded by wetland.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 171

Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 368266
Northing: 5976314
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: SI
Confinement: UN
Stage: Low
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 0.7 km²
Distance to Receiving Water: Little Frog Creek 8.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	19

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	34
Left Bank	15

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

Tr

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

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is surrounded by wetland.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 172 Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 368131
Northing: 5976205
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: CO
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 13.5 km²
Distance to Receiving Water: Little Frog Creek 8.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	28
Channel Width (m)	28

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	38
Left Bank	29

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

5

Substrate

Substrate Type (%)

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

Cover Types

Total Cover Available (%)

20

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	-
Run	100
Flat	-
Riffle	-
Rapid	-

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides complex habitat for indicator fish species, with moderate overwintering potential.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

The area adjacent to the creek and beyond is characterized by saturated ground and is susceptible to rutting and erosion.

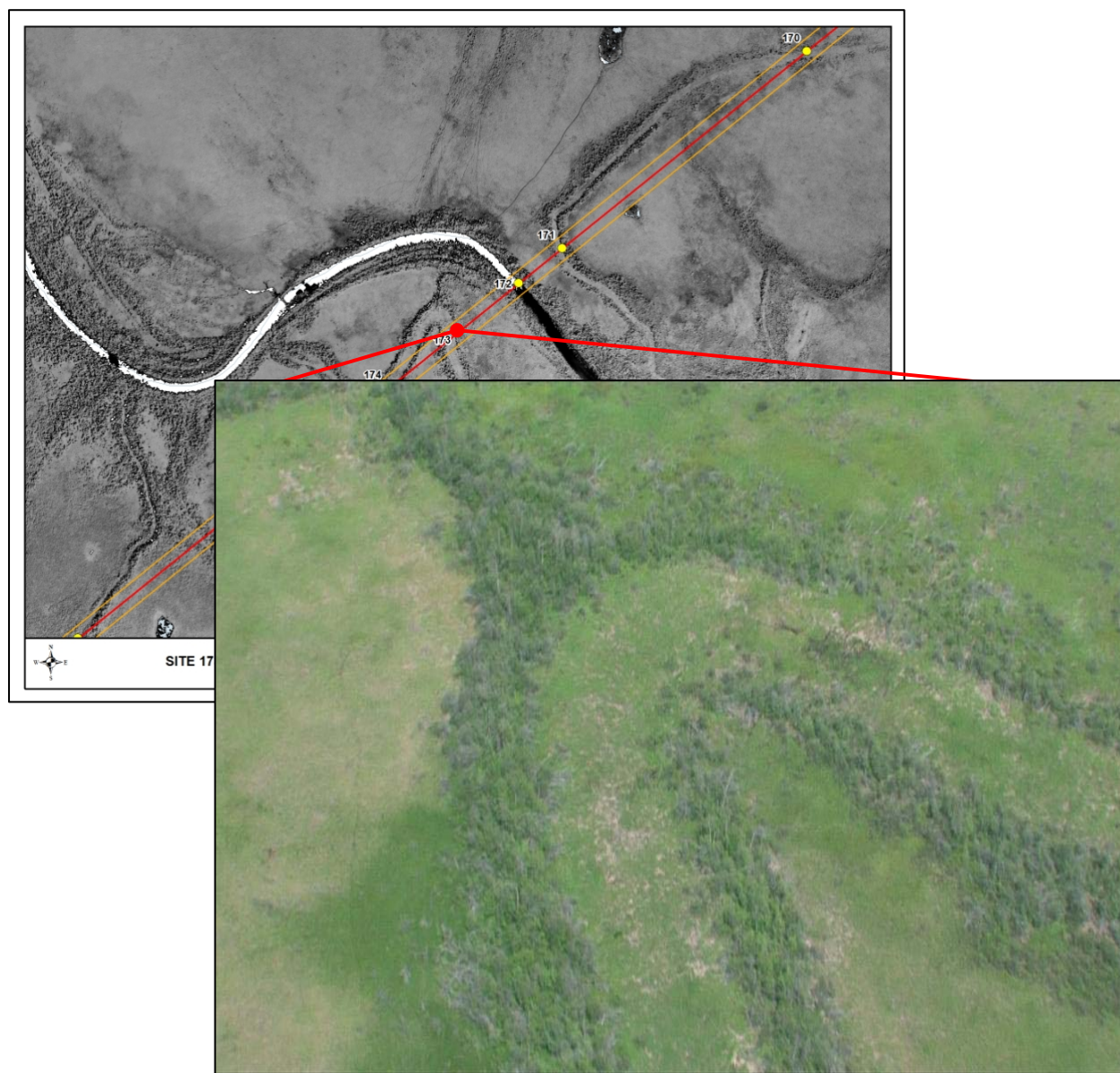
Site 173 Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 367940
Northing: 5976052
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 13.6 km²
Distance to Receiving Water: Little Frog Creek 9 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	30

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	26
Left Bank	24

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present	No
DFO Manitoba Agricultural Watershed Classification:	-
Fish Habitat Classification:	No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is surrounded by wetland. It appears to be an inactive channel, only connected to the active channel at high water levels.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

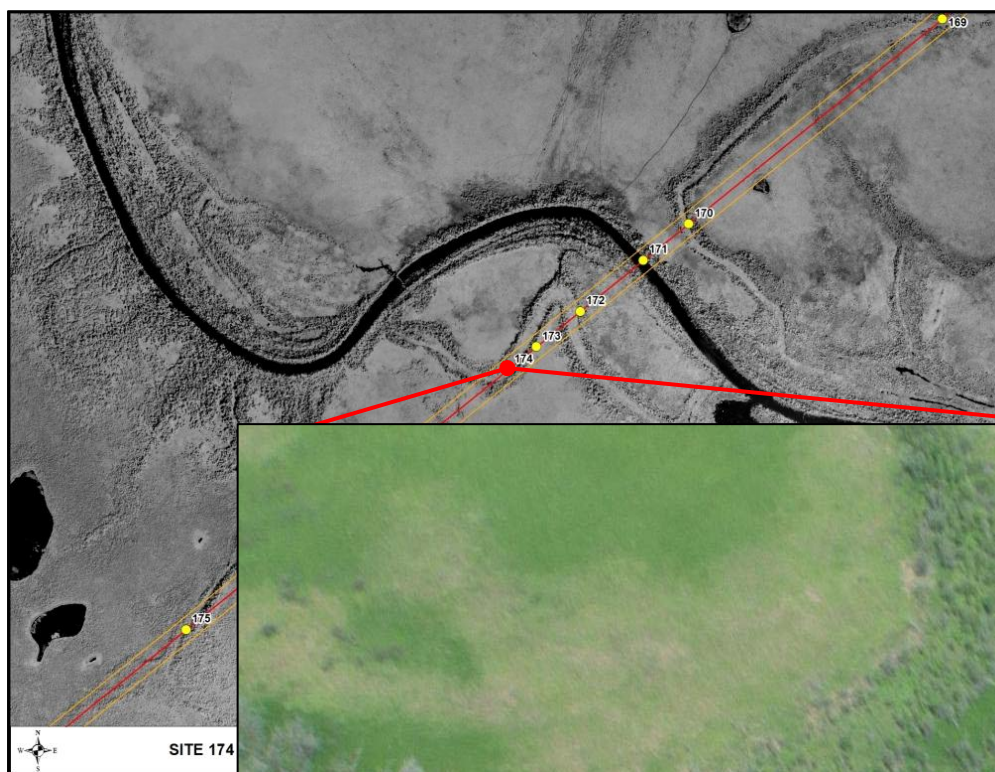
Site 174 Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 367724
Northing: 5975877
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 13.4 km²
Distance to Receiving Water: Little Frog Creek 9.4 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	26

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	32
Left Bank	28

Riparian Vegetation Type (Y/N)

None	-
Grasses/sedges	-
Shrubs	Y
Conifers	-
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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is surrounded by wetland. It appears to be an inactive channel, only connected to the active channel at high water levels.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 175

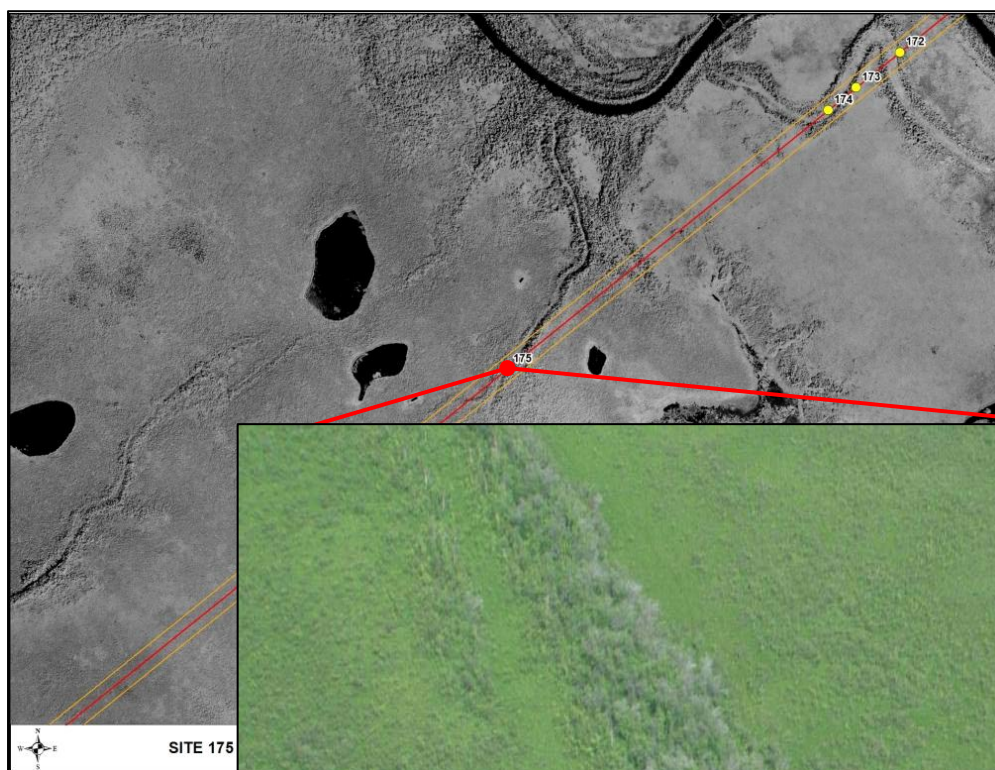
Unnamed tributary of Little Frog Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 366753
Northing: 5975095
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Low
Flow Regime: Ephemeral
Morphology: -
U/S Drainage: 0.1 km²
Distance to Receiving Water: Little Frog Creek 11.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	-
Channel Width (m)	16

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	12
Left Bank	20

Riparian Vegetation Type (Y/N)

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

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No Fish Habitat

Fish Presence: N/A

Comments:

This unnamed tributary of Little Frog Creek likely provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is surrounded by wetland, with a large pond to the south of the site.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

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

Site 176

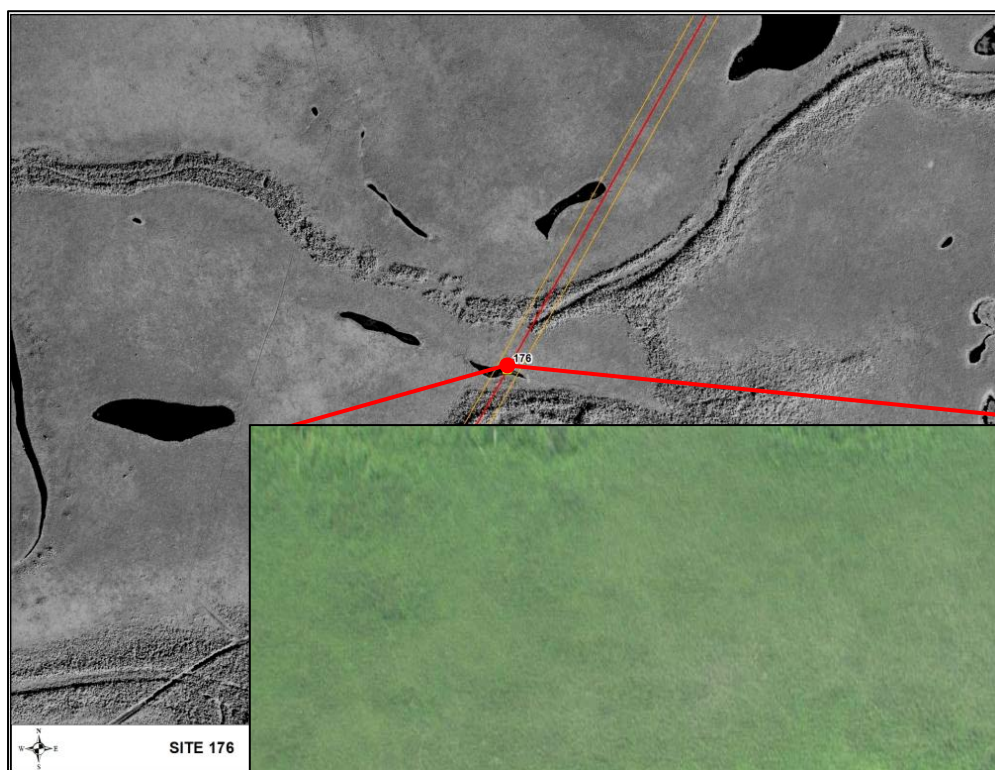
Unnamed pond

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 364207
Northing: 5972090
Data Source: DOI. Video

General Morphology

Stream/Lake: Lake
Pattern: -
Confinement: -
Stage: Moderate
Flow Regime: Intermittent
Morphology: -
U/S Drainage: -
Distance to Receiving Water: -



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Lake size (ha)	0.3
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	-
Conifers	-
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	100
Run	-
Flat	-
Riffle	-
Rapid	-

Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

No

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

No fish habitat

Fish Presence: N/A

Comments:

This unnamed, intermittent pond is unlikely to support fish. It is within a larger wetland area.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

No fish habitat results in a low sensitivity rating.

Site 177

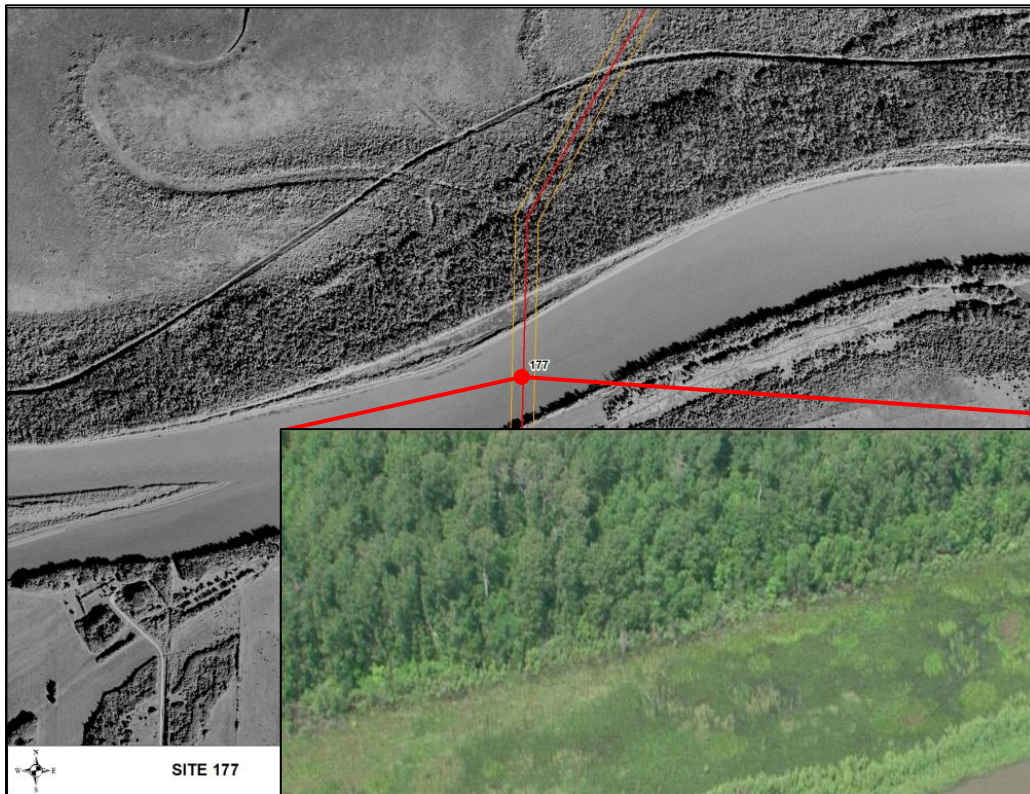
Saskatchewan River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 363605
Northing: 5970575
Data Source: DOI. Video. Site visit

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 400,031 km²
Distance to Receiving Water: Cedar Lake 80 km



Site Conditions

+ Physical Data

Survey Date: 17 October 2010

Stage: Moderate

Transect

	1	2	3	4	5
Distance from Crossing (m)	0	33 US	33 DS	130 US	150 DS

Channel Profile

Channel and Flow

Channel Width (m)	~250	~250	~250	~250	~250
Wetted Width (m)	~250	~250	~250	~250	~250

Water Depths (m)

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

Banks

Right Bank Stability (%)	100	100	100	100	100
Left Bank Stability (%)	20	20	20	30	40
Right Bank Slope (°)	~5	~5	~5	~5	~5
Left Bank Slope (°)	~90	~90	~90	~90	~90

Riparian

Floodplain Distance (m)

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

Riparian Distance (m)

Right Bank	~5	~5	~5	~5	~5
Left Bank	2.6	1.3	3.6	3.1	7.4

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	Tr	0	5	Tr	Tr
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Substrate

Substrate Type (%)

Fines	100	100	100	100	90
Small Gravel	-	-	-	-	-
Large Gravel	-	-	-	-	-
Cobble	-	-	-	-	10
Boulder	-	-	-	-	-

Habitat Type

Habitat Composition (%)

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

Cover Types

Total Cover Available (%)

	US	DS
Cover Composition (% of Total)	5	5
Large Woody Debris	100	100
Overhanging Vegetation	-	-
Instream Vegetation	-	-
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-





Upstream view of the Saskatchewan River at site 177 from crossing.



Downstream view of the Saskatchewan River at site 177 from crossing.



Right bank of the Saskatchewan River at site 177 from transect 2.



Left bank of the Saskatchewan River at site 177 from transect 5.



Fish Habitat Classification and Sensitivity

+ Fish Habitat

Fish Habitat Present

Yes

DFO Manitoba Agricultural Watershed Classification:

-

Fish Habitat Classification:

Important

Fish Presence: Blacknose shiner, Burbot, Emerald shiner, Fathead minnow, Freshwater drum, Goldeye, Johnny darter, Lake chub, Lake sturgeon, Lake whitefish, Logperch, Longnose sucker, Ninespine stickleback, Northern pike, Quillback, Sauger, Shorthead redhorse, Silver redhorse, Spottail shiner, Trout perch, Walleye, White sucker, Yellow perch (FIHCS 2009)

Comments:

The Saskatchewan River is a major river that provides complex habitat for indicator fish species, with high overwintering potential. The banks are unstable at the RoW.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Unstable banks and important fish habitat result in a moderate sensitivity rating.

Site 178

Unnamed tributary of Saskatchewan River



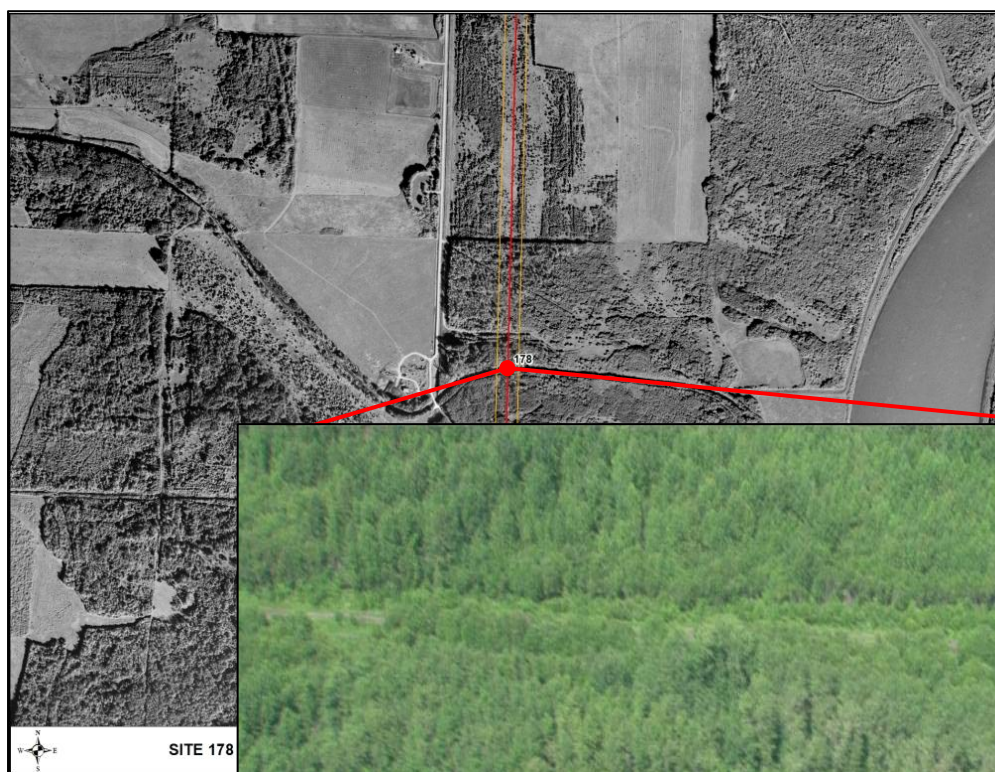
Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 363523
Northing: 5967181
Data Source: DOI. Video



General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Intermittent
Morphology: -
U/S Drainage: 3.2 km²
Distance to Receiving Water: Saskatchewan River
7.1 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	~9
Channel Width (m)	~9

Banks (%)

Right Bank Stability	-
Left Bank Stability	-

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	24
Left Bank	24

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	50
--	----

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:

A

Fish Habitat Classification:

Important

Fish Presence: N/A

Comments:

This unnamed tributary of the Saskatchewan River provides complex habitat for indicator fish species, with low overwintering potential. It is partially hidden by canopy cover; however it appears to be a large channel with stable banks.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

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

Site 179

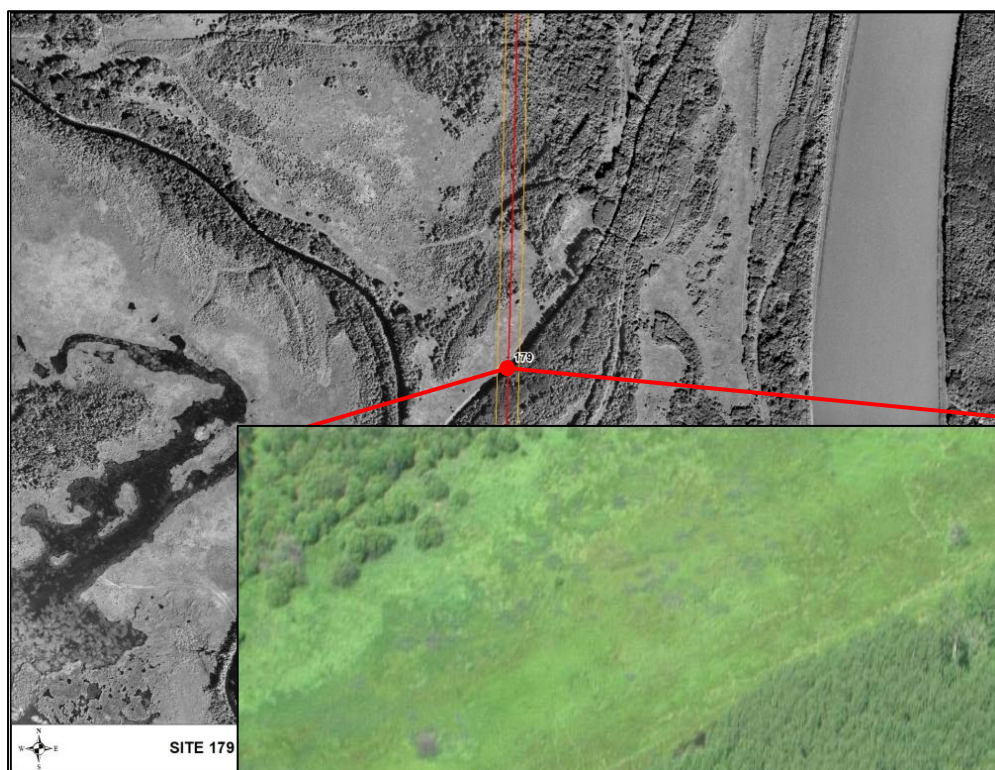
Unnamed tributary of Saskatchewan River

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 363448
Northing: 5964184
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 km²
Distance to Receiving Water: Saskatchewan River
3.3 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

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

Banks (%)

Right Bank Stability	-
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	-
Deciduous	Y
Mixed Forest	-

Canopy Cover (%)

	50
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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	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

Fish Habitat Present	Yes
DFO Manitoba Agricultural Watershed Classification:	A
Fish Habitat Classification:	Important

Fish Presence: N/A

Comments:

This unnamed tributary of the Saskatchewan River provides complex habitat for indicator fish species, with low overwintering potential. It appears to be small, and the right bank is hidden by canopy cover.

+ Habitat Sensitivity

Sensitivity Rating: Moderate

Comments:

Unknown stability of right bank and important fish habitat results in a moderate sensitivity rating.

Site 180

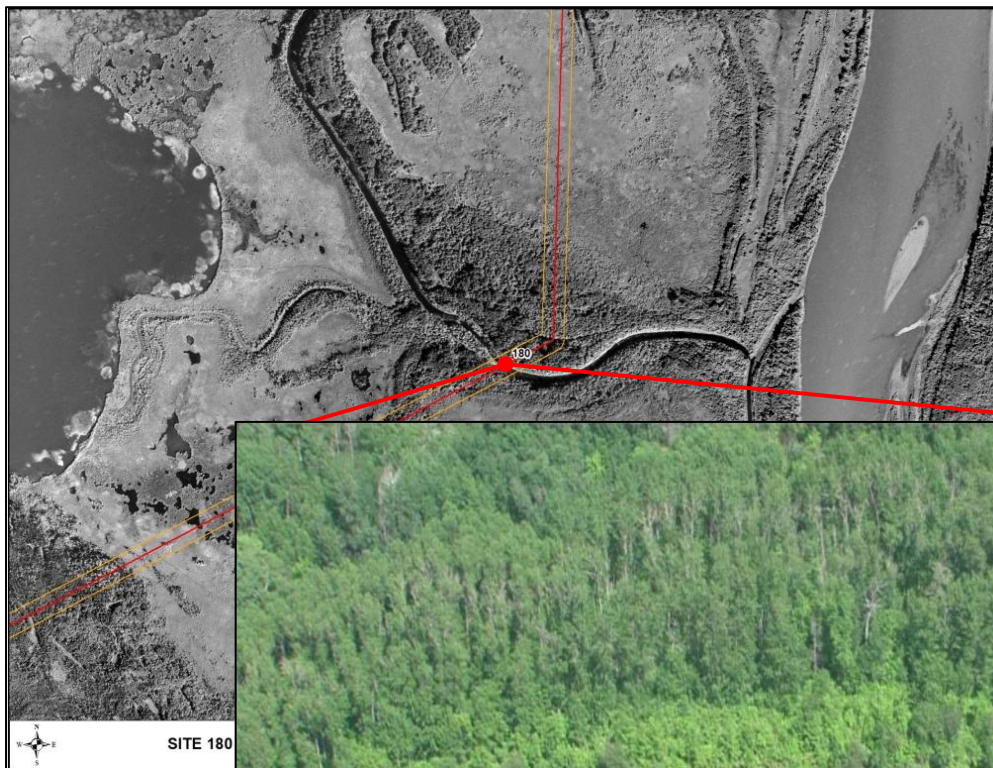
Rall's Creek

Location

Datum: NAD 83
UTM: Zone: 14N
Easting: 363254
Northing: 5962290
Data Source: DOI. Video

General Morphology

Stream/Lake: Stream
Pattern: IR
Confinement: UN
Stage: Moderate
Flow Regime: Perennial
Morphology: LC
U/S Drainage: 37.5 km²
Distance to Receiving Water: Saskatchewan River
0.8 km



Site Conditions

+ Physical Data

Channel Profile

Channel and Flow

Wetted Width (m)	15
Channel Width (m)	15

Banks (%)

Right Bank Stability	100
Left Bank Stability	100

Riparian

Floodplain Distance (m)

Right Bank	-
Left Bank	-

Riparian Distance (m)

Right Bank	25
Left Bank	8

Riparian Vegetation Type (Y/N)

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

Canopy Cover (%)

	10
--	----

Substrate

Substrate Type (%)

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

Cover Types

Total Cover Available (%)

Cover Composition (% of Total)

Large Woody Debris	10
Overhanging Vegetation	10
Instream Vegetation	80
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:	Important

Fish Presence: N/A

Comments:

Rall's Creek, a tributary of the Saskatchewan River, provides complex habitat for indicator fish species, with moderate overwintering potential.

+ Habitat Sensitivity

Sensitivity Rating: Low

Comments:

Stable vegetated banks result in a low sensitivity rating, despite important fish habitat.