

# Site 281

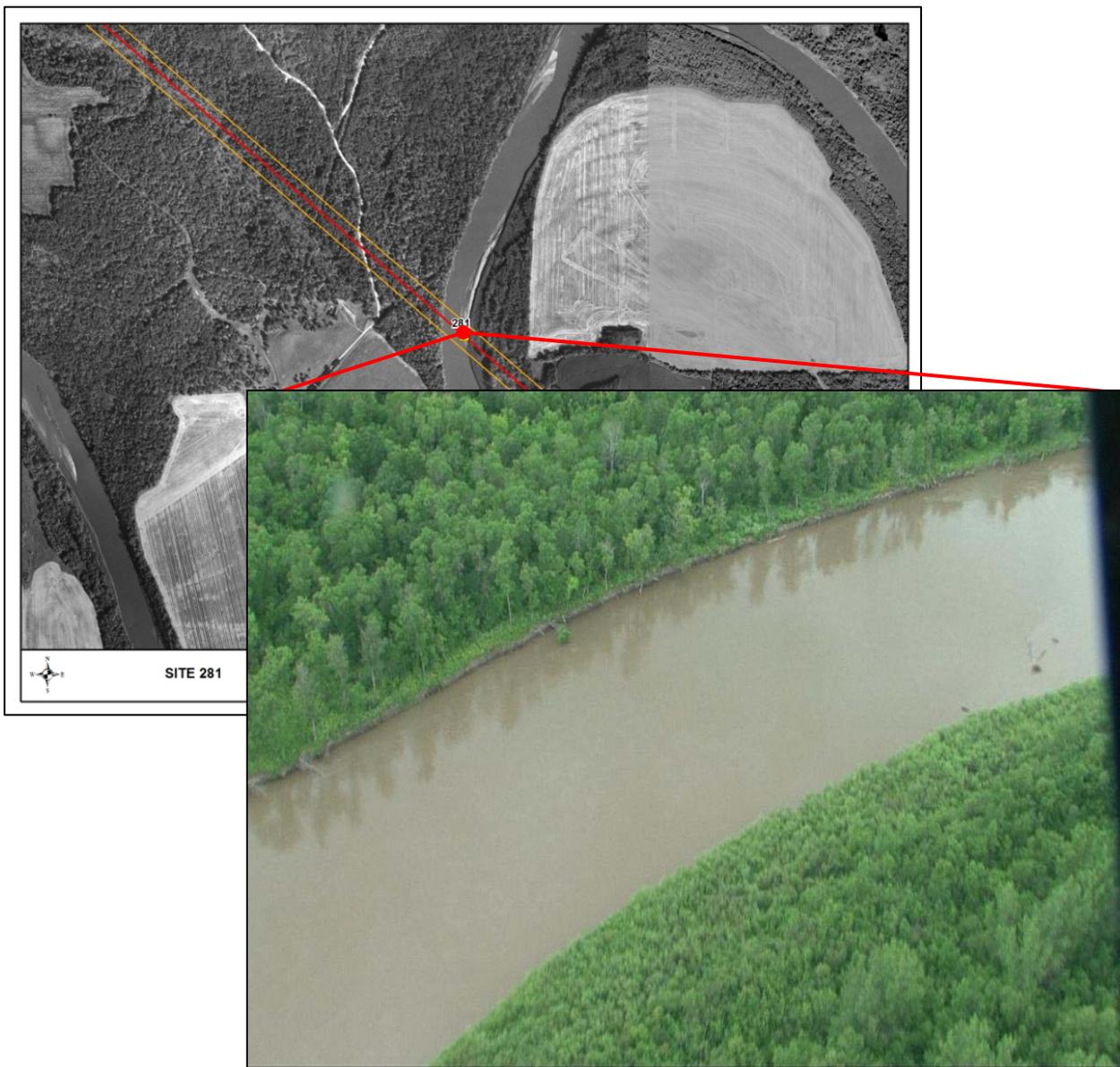
## Assiniboine River

### Location

**Datum:** NAD 83  
**UTM:** *Zone:* 14N  
*Easting:* 532328  
*Northing:* 5512298  
**Data Source:** DOI. Video. Site visit

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** TM  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 160,985 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 141 km



## Site Conditions

### + Physical Data

Survey Date: 20 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

Channel Width (m)	~55	~55	~55	-	~55
Wetted Width (m)	~55	~55	~55	-	~55

#### Water Depths (m)

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

#### Banks

Right Bank Stability (%)	0	0	0	-	0
Left Bank Stability (%)	45	45	45	-	45
Right Bank Slope (°)	~90	~90	~90	-	~90
Left Bank Slope (°)	~20	~35	~45	-	~30

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	18	32	22.5	-	20.5
Left Bank	~20	~20	~20	-	~20

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

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

#### Canopy Cover (%)

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

### Substrate

#### Substrate Type (%)

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

### Habitat Type

#### Habitat Composition (%)

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

### Cover Types

#### Total Cover Available (%)

	US	DS
Cover Composition (% of Total)	Tr	5
Large Woody Debris	50	100
Overhanging Vegetation	-	-
Instream Vegetation	50	Tr
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-





Upstream view of the Assiniboine River at site 281 from crossing.



Downstream view of the Assiniboine River at site 281 from crossing.



Right bank (west) approach of the Assiniboine River at site 281 from transect 3.



Left bank approach of the Assiniboine River at site 281 from transect 4.

## ↘ Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Bigmouth buffalo, Bigmouth shiner, Black bullhead, Black crappie, Blackchin shiner, Blacknose dace, Blacknose shiner, Blackside darter, Brook stickleback, Brown bullhead, Burbot, Carp, Central mudminnow, Channel catfish, Chestnut lamprey, Common shiner, Creek chub, Emerald shiner, Fathead minnow, Finescale dace, Flathead chub, Freshwater drum, Golden redhorse, Golden shiner, Goldeye, Iowa darter, Johnny darter, Lake sturgeon, Logperch, Longnose dace, Mimic shiner, Mooneye, Ninespine stickleback, Northern pike, Pearl dace, Quillback, River darter, River shiner, Rock bass, Sand shiner, Sauger, Shorthead redhorse, Silver chub, Silver redhorse, Spotfin shiner, Spottail shiner, Stonecat, Tadpole madtom, Trout perch, Walleye, White sucker, Yellow perch (FIHCS 2009)

#### Comments:

The Assiniboine River is a perennial river providing complex habitat for indicator fish species, with high overwintering potential. Within and beyond the RoW the right bank is a highly unstable cutbank, while the left bank is sloping and unstable. A small tributary enters the river approximately 60 m upstream of the crossing, blocking transect 4 from being assessed. The site assessment was conducted 50m upstream of the crossing, however conditions appears similar at both locations.

## + Habitat Sensitivity

**Sensitivity Rating:** High

**Comments:**

The unstable and eroding right (west) bank is susceptible to further erosion and instream sedimentation.

# Site 282

## Unnamed wetland

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 539813  
Northing: 5500668  
**Data Source:** DOI. Video

### General Morphology

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



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Lake size (ha)	1.46
Lake width at RoW (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

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed, ephemeral wetland appears unconnected 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 283

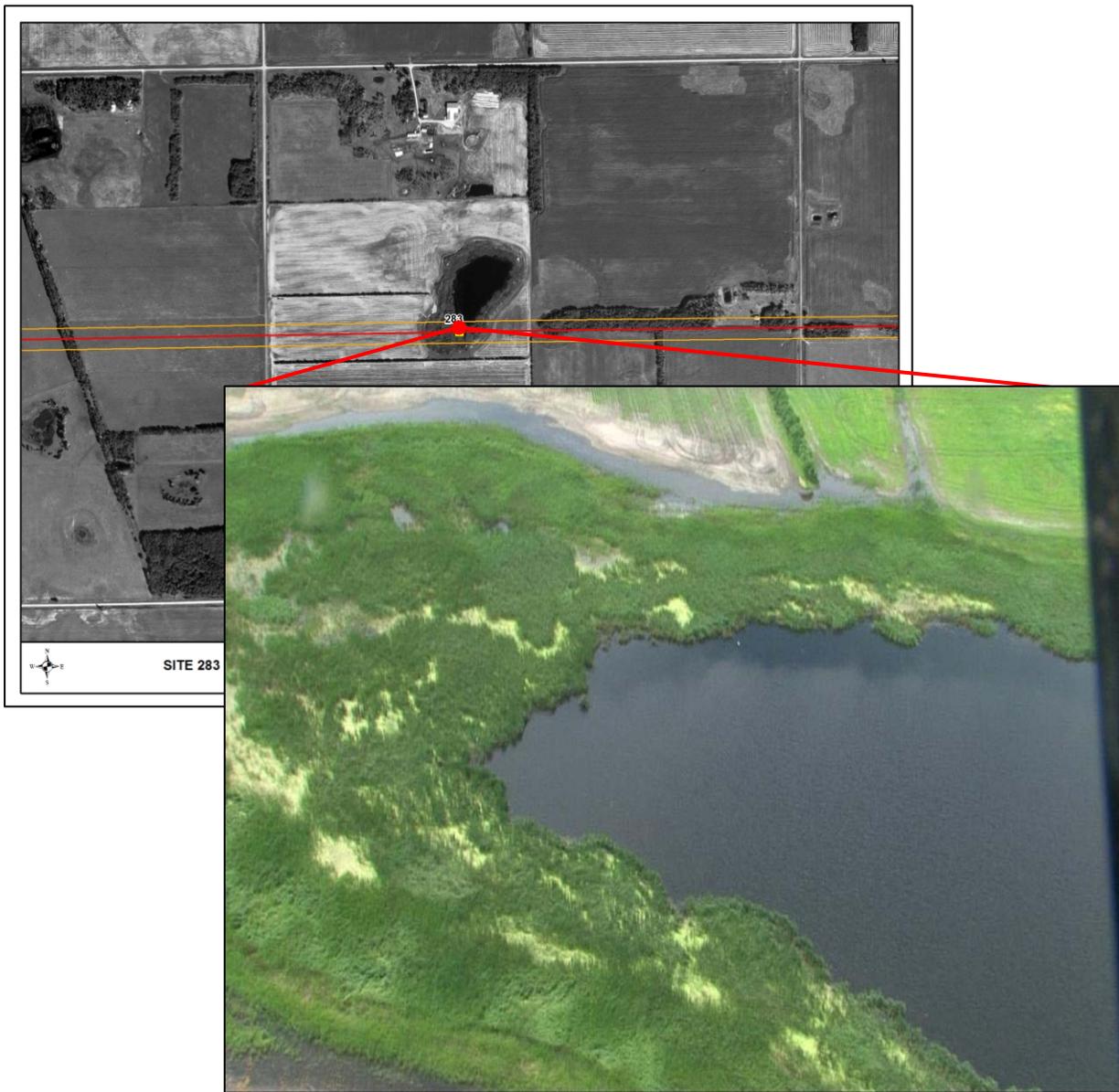
## Unnamed pond

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 567492  
Northing: 5497740  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Lake  
**Pattern:** -  
**Confinement:** -  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** -  
**U/S Drainage:** -  
**Distance to Receiving Water:** -



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Lake size (ha)	6.66
Lake width at RoW	0

##### Banks (%)

Right Bank Stability	-
Left Bank Stability	-

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	179 (total)
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

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed, perennial pond appears unconnected to other waterbodies, and is unlikely to support fish. The RoW crosses over the southern tip of the pond.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

No fish habitat results in a low sensitivity rating.

# Site 284

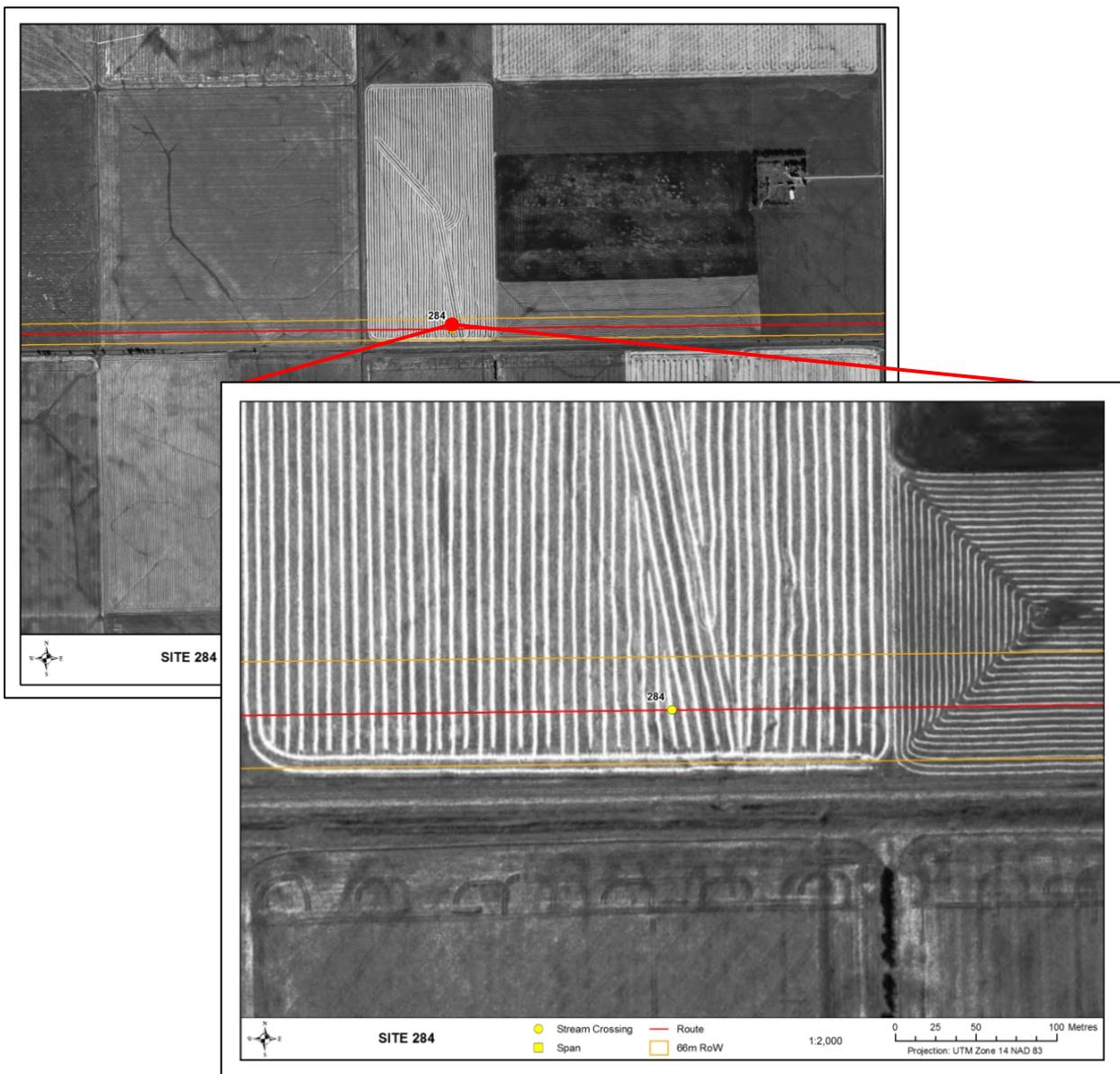
## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 583634  
Northing: 5497172  
**Data Source:** DOL.

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** -  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 114.2 km<sup>2</sup>  
**Distance to Receiving Water:** 11-A Drain 4.4 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	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

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed drain provides only indirect fish habitat in the form of water and nutrients flowing downstream. The drain flows into a road ditch downstream of the ROW, and the ROW parallels this ditch both upstream and downstream of the site.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

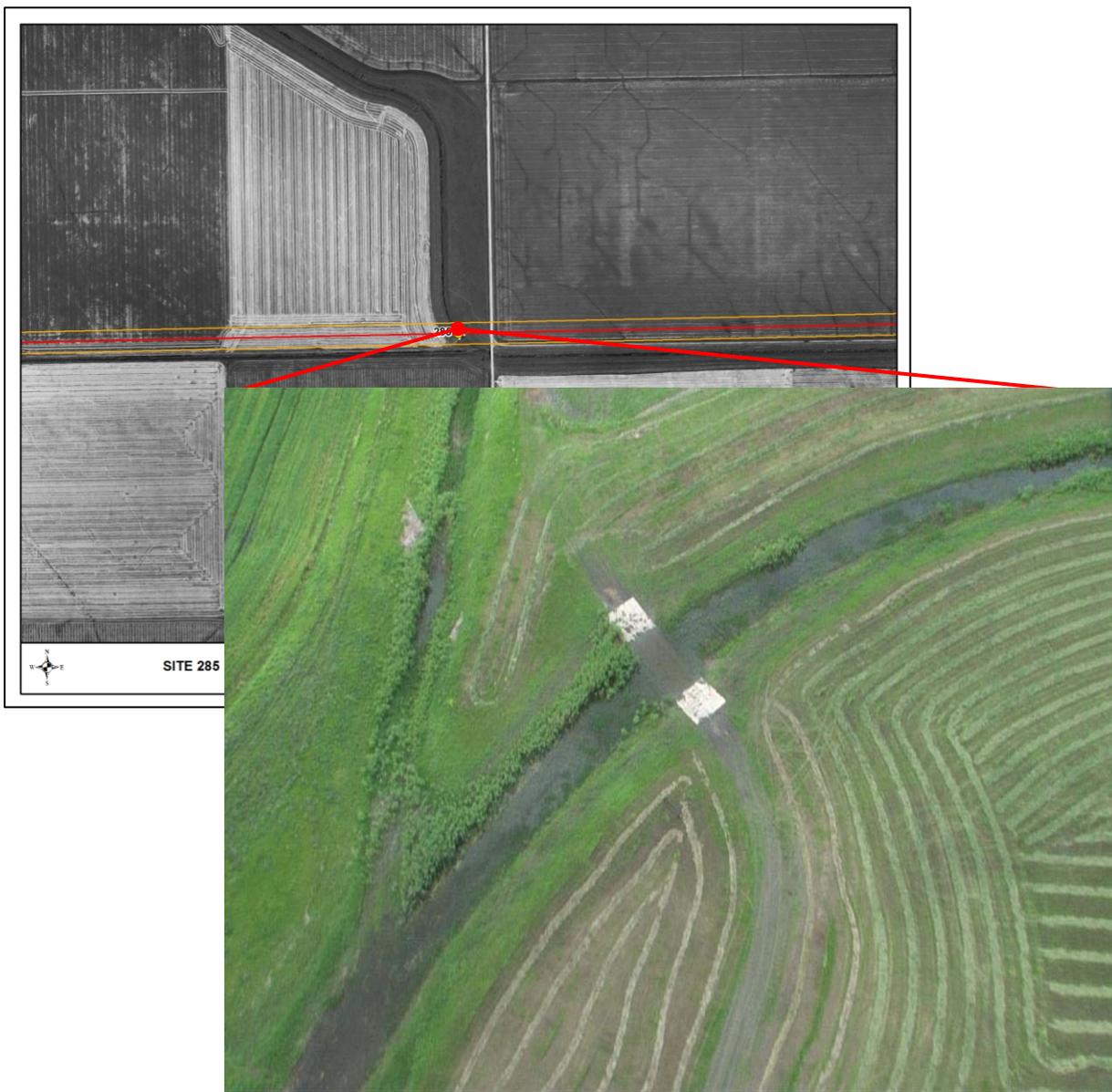
Very marginal fish habitat results in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 601591  
Northing: 5497029  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 327.4 km<sup>2</sup>  
**Distance to Receiving Water:** Morris River 14.8 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### 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	13

##### 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 (%)** 10

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This intermittent stream has been channelized into a drain and rated by DFO as providing marginal habitat for forage fish species. There is a trail crossing within the ROW, as well as a road crossing downstream. The ROW parallels the drain for 13.5 km downstream of this crossing.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

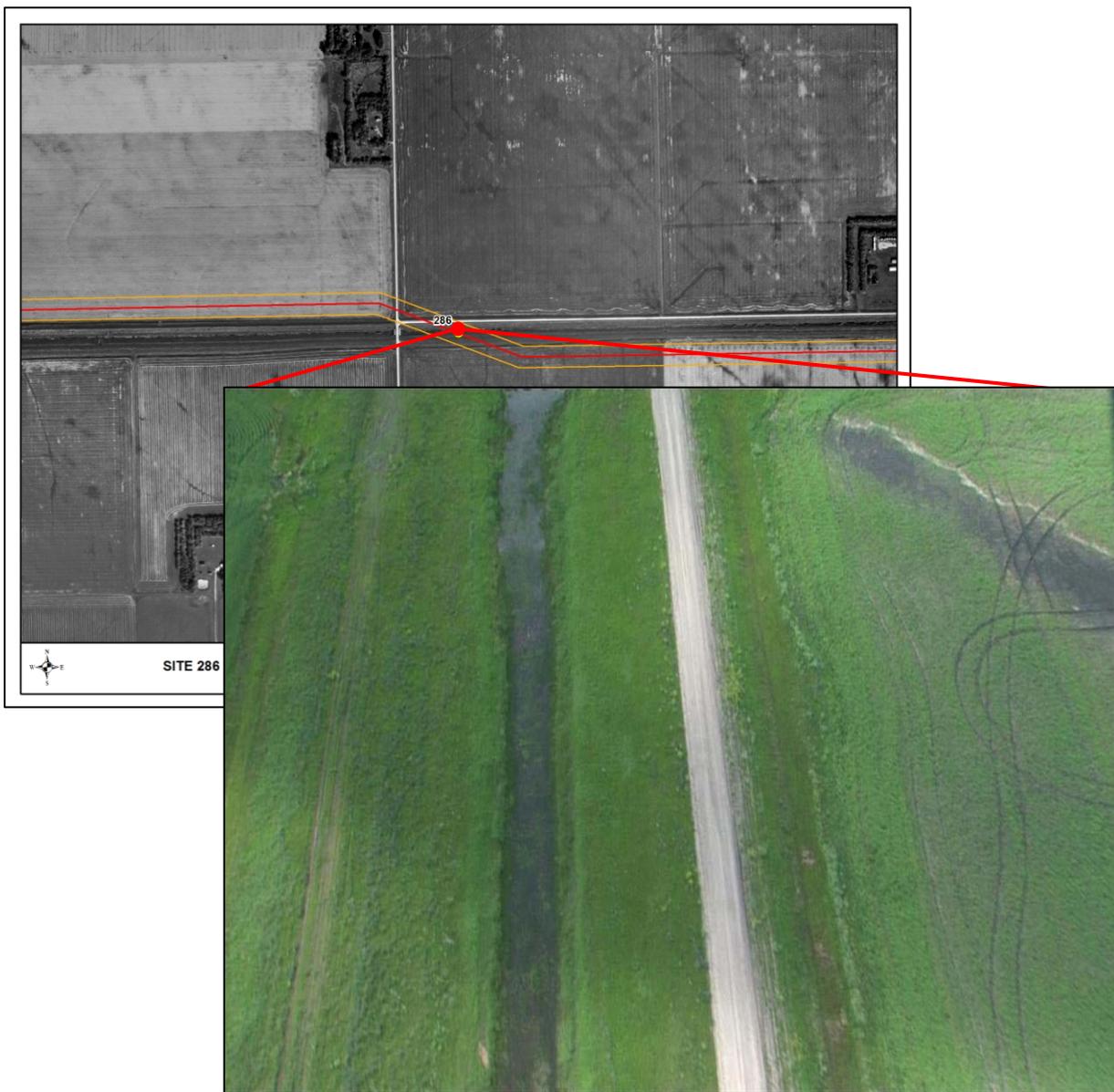
Stable vegetated banks and marginal fish habitat result in a low sensitivity rating.

## Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 595038
	<i>Northing:</i> 5497289
<b>Data Source:</b>	DOI. Video

## General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	ST
<b>Confinement:</b>	CO
<b>Stage:</b>	Low
<b>Flow Regime:</b>	Intermittent
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	348.5 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Morris River 8 km



## Site Conditions

### + Physical Data

#### Channel Profile

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

Wetted Width (m)	-
Channel Width (m)	12

##### **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	13

##### **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

<b>Total Cover Available (%)</b>	15
<b>Cover Composition (% of Total)</b>	
Large Woody Debris	-
Overhanging Vegetation	-
Instream Vegetation	100
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### **Habitat Composition**

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The 11-A Drain is a channelized stream that has been rated by DFO as providing simple habitat for forage fish only.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

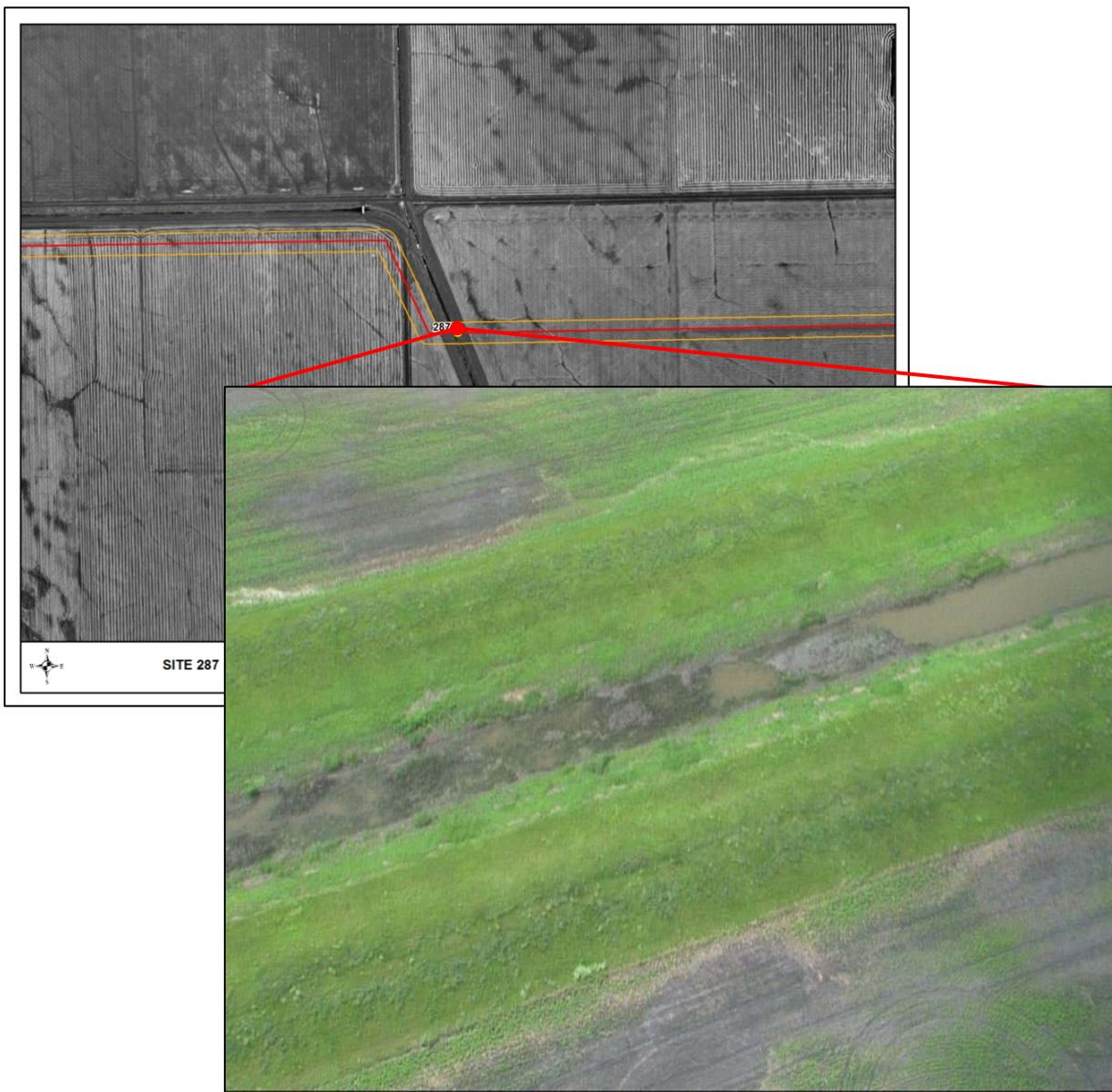
Stable vegetated banks and marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 601591  
Northing: 5497029  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 442.7 km<sup>2</sup>  
**Distance to Receiving Water:** Morris River 1.2 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	90
Left Bank Stability	90

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	11
Left Bank	13

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

15

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The ROW crosses the 11-A drain 1.2 km from its confluence with the headwaters of the Morris River. This stream has been channelized into a drainage ditch and has been rated by DFO as simple habitat supporting forage fish only.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 288

## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 603924  
Northing: 5497067  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 3.0 km<sup>2</sup>  
**Distance to Receiving Water:** Morris River 2.7 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	80

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	4
Left Bank	5

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

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

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

**Total Cover Available (%)** 50

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This intermittent drain provides only indirect fish habitat in the form of water and nutrients flowing downstream.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Relatively stable vegetated banks and very marginal fish habitat result in a low sensitivity rating.

# Site 289

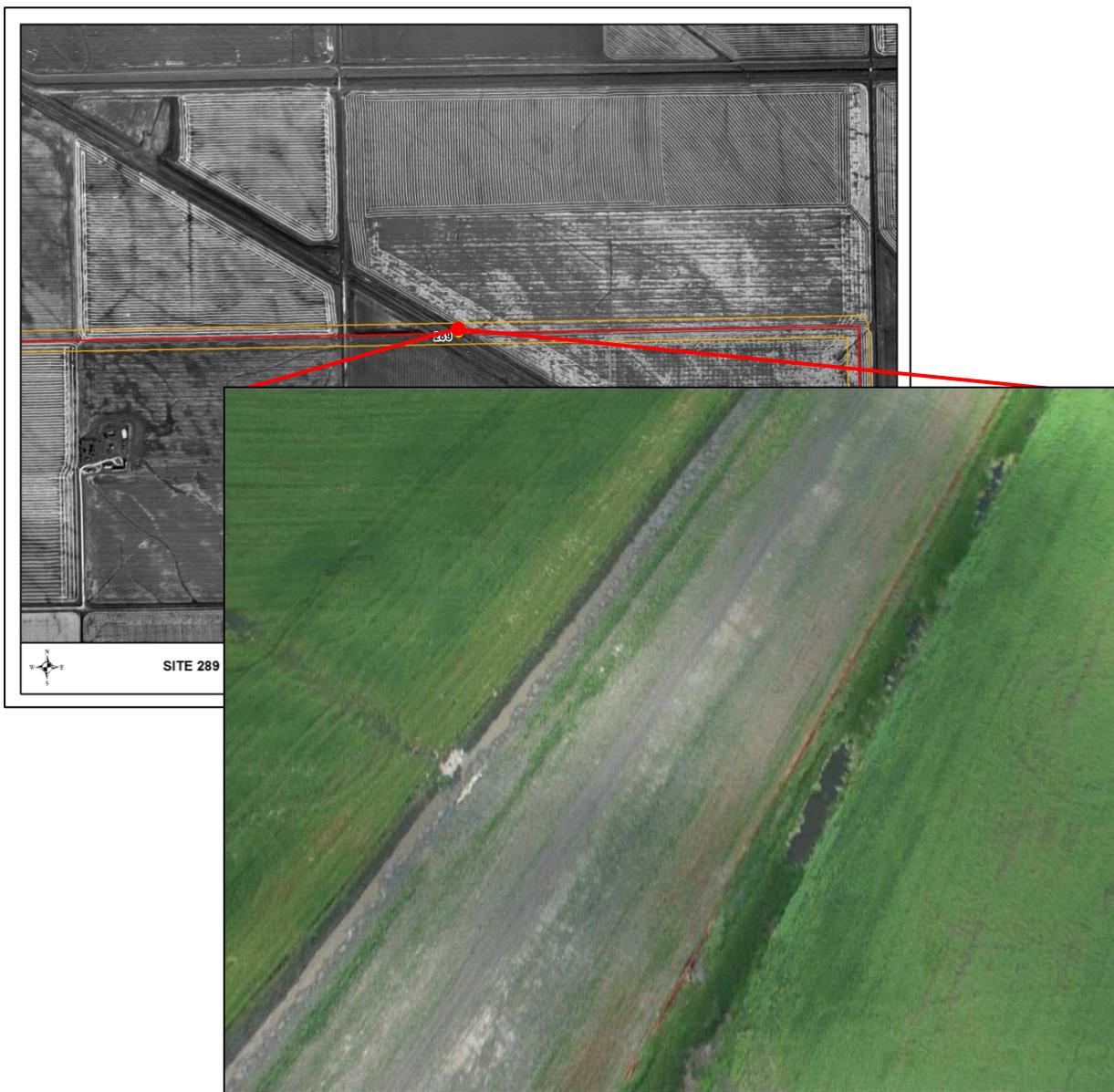
# Parker Drain

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 610026  
Northing: 5496771  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 8.5 km<sup>2</sup>  
**Distance to Receiving Water:** Barnland Drain 8 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4
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	4
Left Bank	4

##### 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 (%)** 80

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Parker Drain is channelized as a road ditch at the RoW. This intermittent drain provides only indirect fish habitat in the form of water and nutrients flowing downstream.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

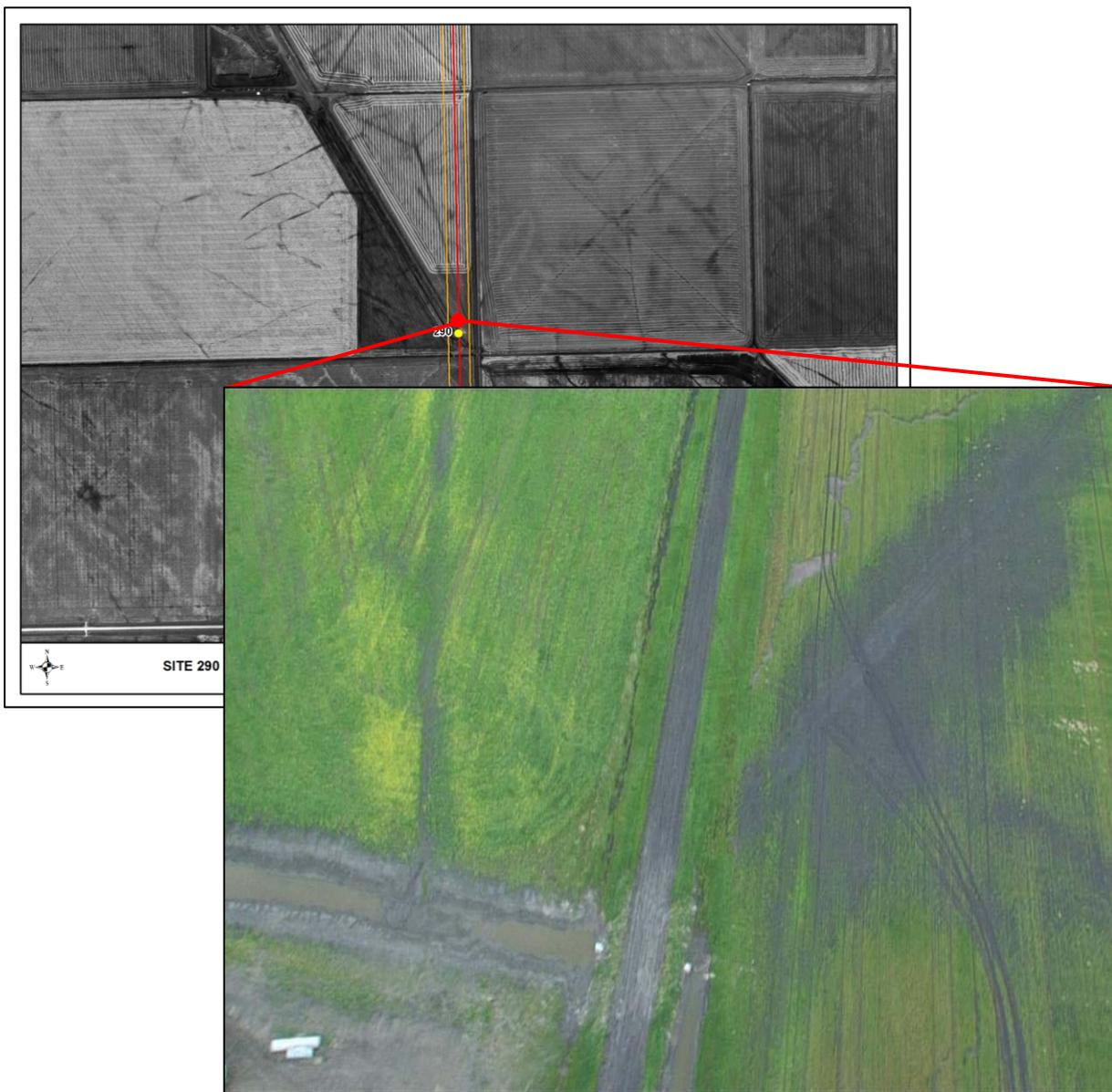
Stable vegetated banks and very marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 611298  
Northing: 5495205  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 4.1 km<sup>2</sup>  
**Distance to Receiving Water:** Barnland Drain 5.8 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4
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	4
Left Bank	3

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Parker Drain is an intermittent channelized drain providing simple habitat for forage fish species, with no overwintering potential. The drain meets with a road ditch directly upstream of the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 291

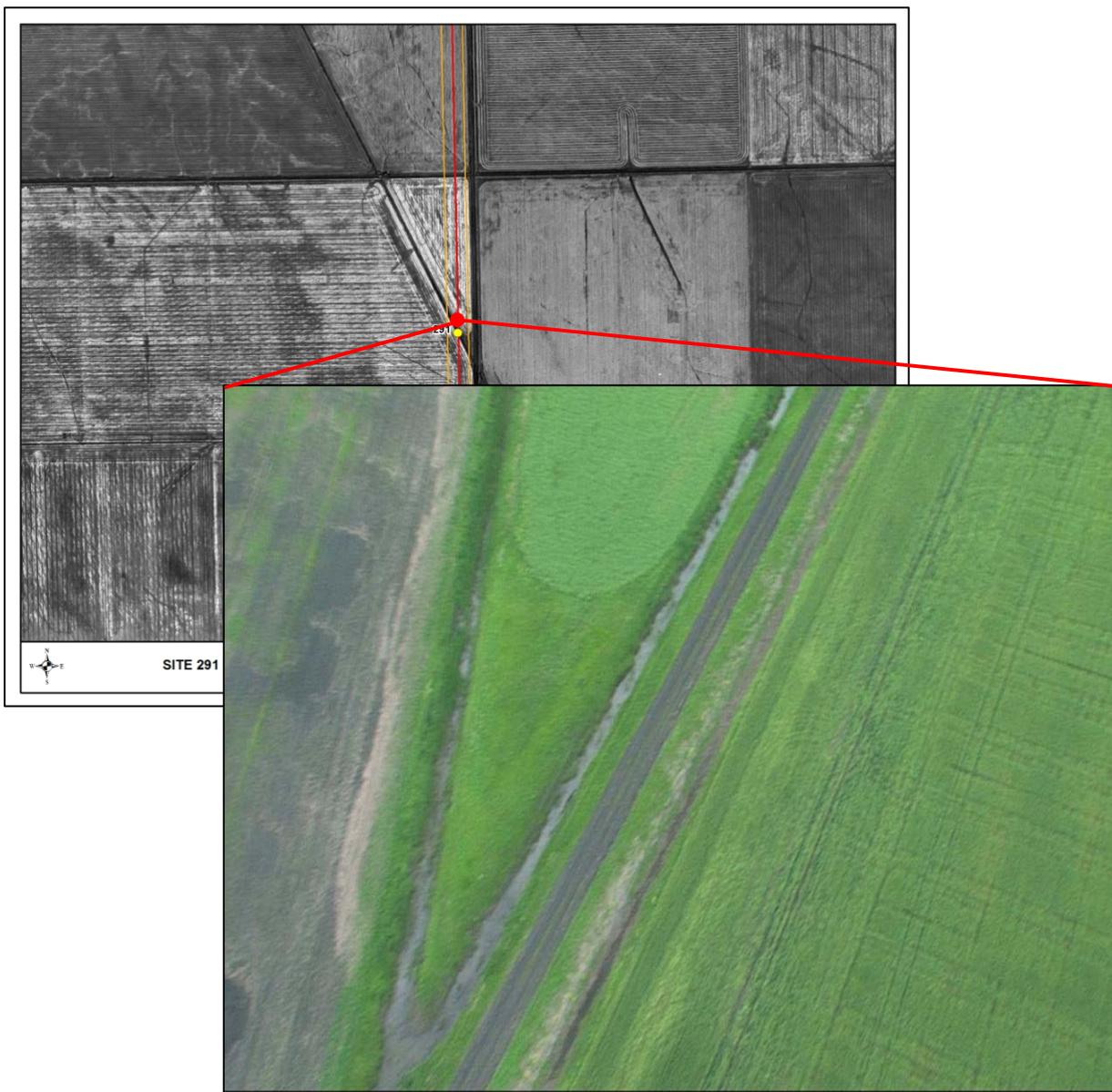
## Garber Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 6115557  
Northing: 5490221  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 6.9 km<sup>2</sup>  
**Distance to Receiving Water:** Blackhurst Drain  
2.8 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	7
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	13
Left Bank	10

##### 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 (%)** 60

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Garber Drain is an intermittent drain providing only indirect fish habitat, in the form of water and nutrients flowing downstream. The drain meets with a road ditch directly downstream of the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

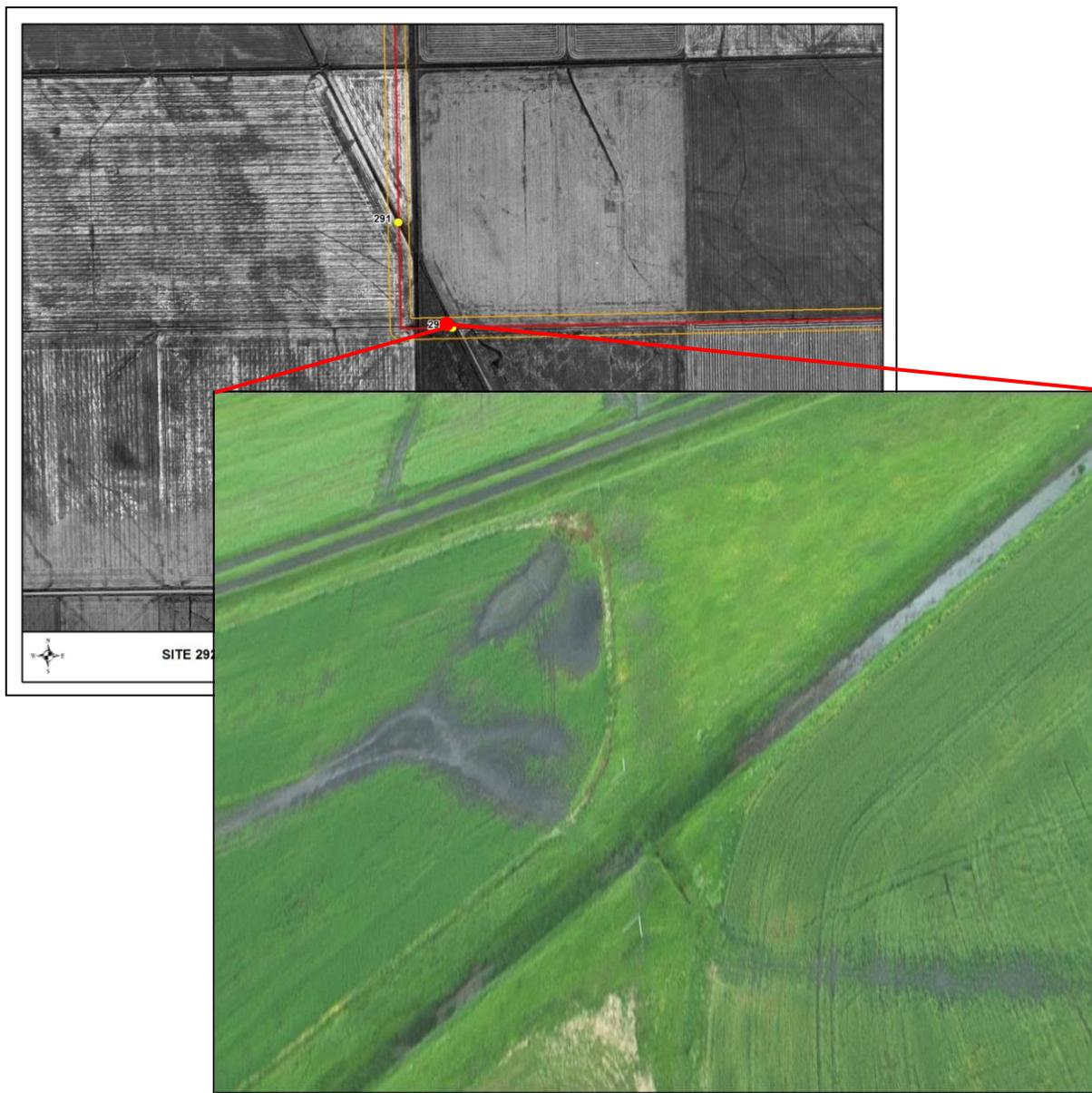
Stable vegetated banks and very marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 611395  
Northing: 5490534  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 8.0 km<sup>2</sup>  
**Distance to Receiving Water:** Blackhurst Drain  
3.2 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4
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	7
Left Bank	4

##### 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 (%) 50

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Garber Drain is an intermittent drain providing only indirect fish habitat, in the form of water and nutrients flowing downstream.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 293

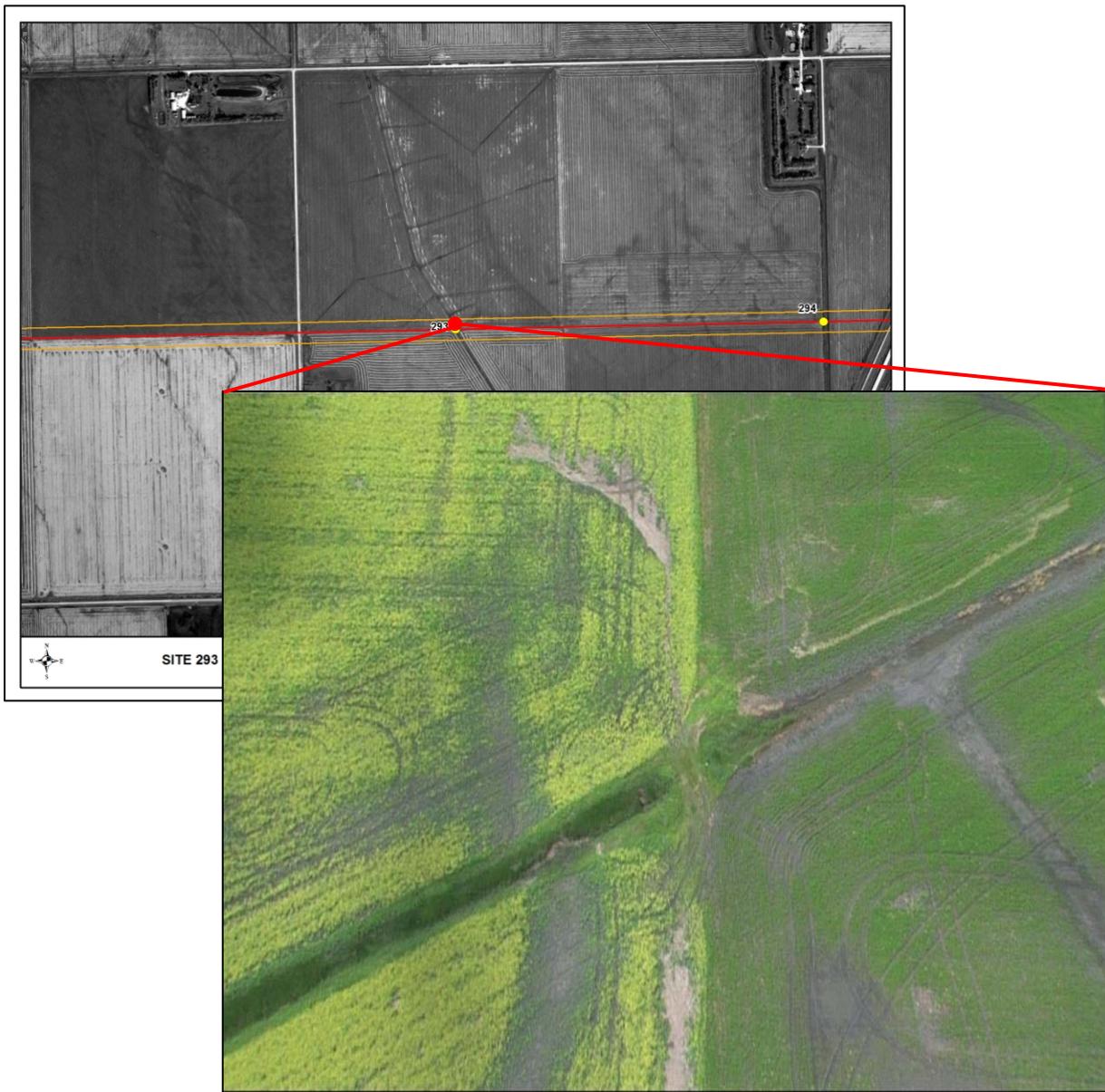
## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 616907  
Northing: 5490334  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 8.0 km<sup>2</sup>  
**Distance to Receiving Water:** Manness Drain 4.9km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	60
Left Bank Stability	70

#### 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	100
Small Gravel	-
Large Gravel	-
Cobble	-
Boulder	-

#### Cover Types

**Total Cover Available (%)** 10

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This intermittent agricultural drain provides only indirect fish habitat, in the form of water and nutrients flowing downstream. At the ROW there is bare soil along the banks, suggesting some bank instability. The ROW is at a road crossing over the drain.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Very marginal fish habitat results in a low sensitivity rating.

# Site 294

## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 618051  
Northing: 5490358  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 17.0 km<sup>2</sup>  
**Distance to Receiving Water:** Manness Drain 2.5km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	7
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	4
Left Bank	4

##### 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 (%)** 10

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed agricultural ditch/drain is channelized as a road ditch at the RoW. This intermittent ditch provides only indirect fish habitat, in the form of water and nutrients flowing downstream. At the ROW there are dry ephemeral streambeds from the surrounding agricultural fields flowing into the ditch.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 295

## Manness Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 620520  
Northing: 5490417  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 0.4 km<sup>2</sup>  
**Distance to Receiving Water:** La Salle River 12 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	80
Left Bank Stability	70

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	9
Left Bank	10

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

**Total Cover Available (%)** 50

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Manness Drain is an intermittent, channelized drain providing only indirect fish habitat in the form of water and nutrients flowing downstream. At the ROW there is bare soil on the banks where ephemeral streams from the surrounding agricultural fields flow into the drain.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Relatively stable vegetated banks and very marginal fish habitat result in a low sensitivity rating.

# Site 296

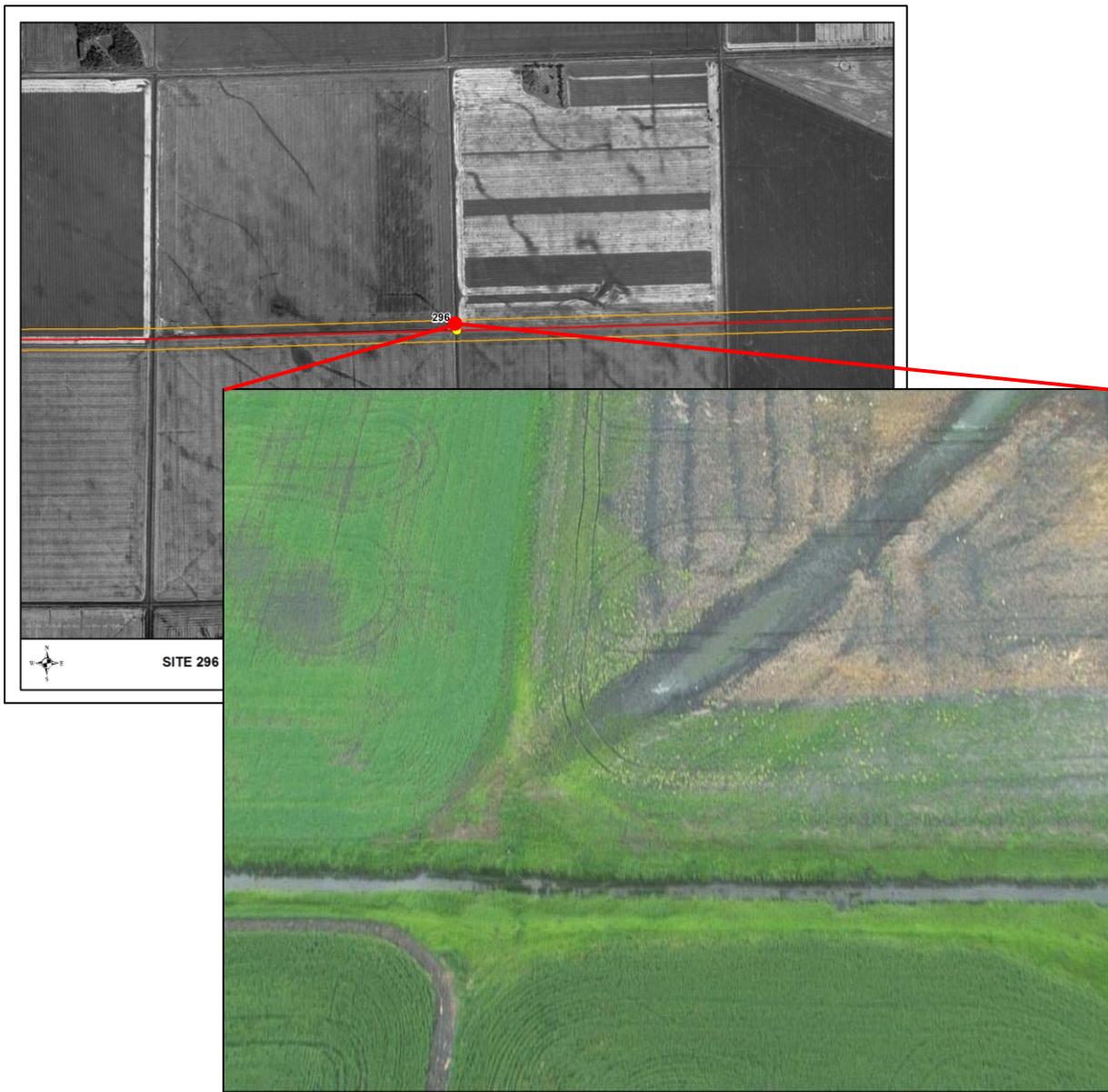
## Domain Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 623842  
Northing: 5490469  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 3.5 km<sup>2</sup>  
**Distance to Receiving Water:** La Salle River 15.2 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	2
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	3
Left Bank	3

##### 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 (%)** 15

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The ROW crosses the Domain Drain 15.2 km from its confluence with the La Salle River. This intermittent, channelized drain provides simple habitat for forage fish populations, with low overwintering potential.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 297

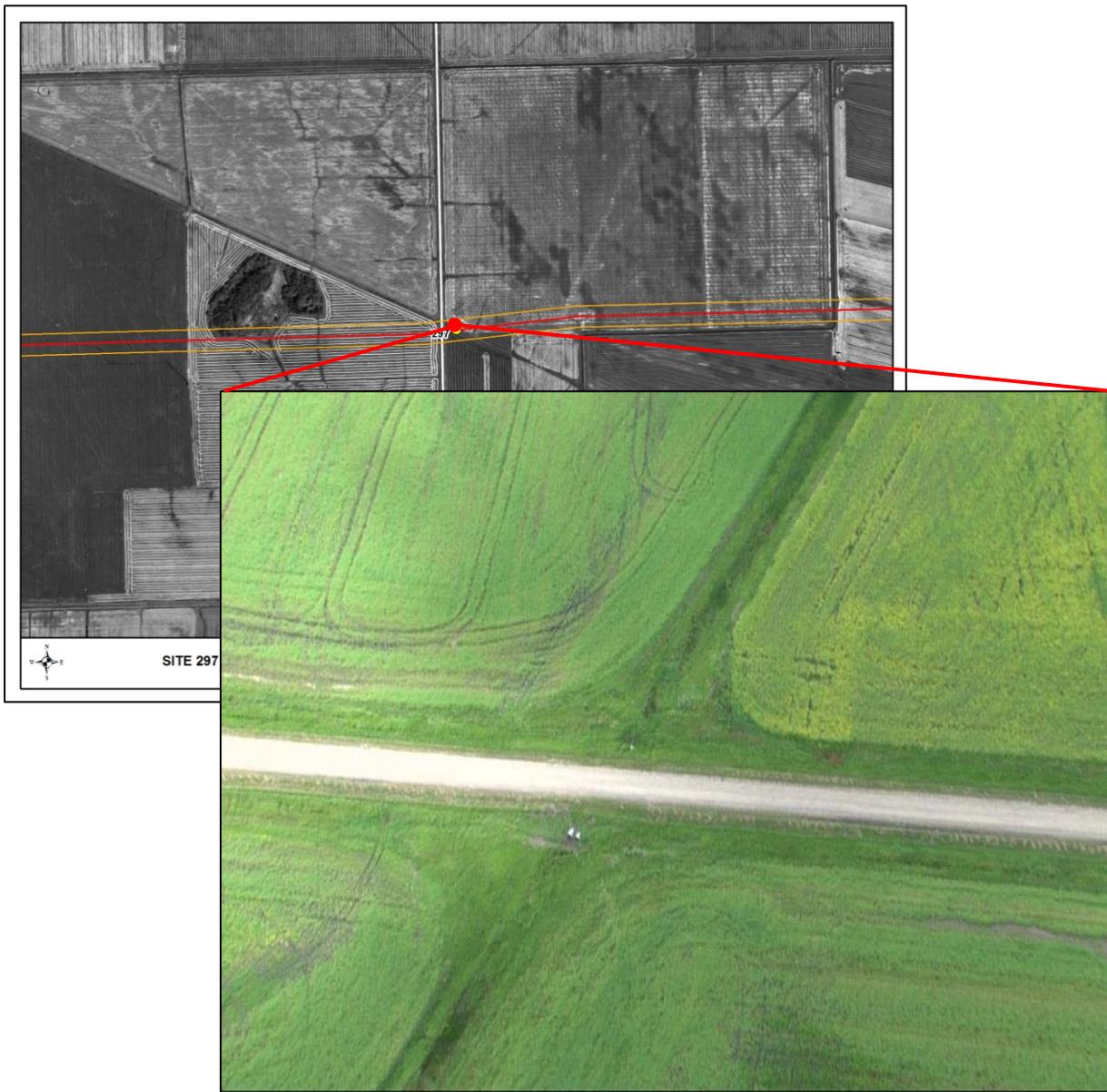
## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 626326  
Northing: 5490548  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 2.9 km<sup>2</sup>  
**Distance to Receiving Water:** La Pointe Coulee  
2.4km



## 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	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This ephemeral, channelized drain provides only indirect fish habitat in the form of water and nutrients flowing downstream. There is a road crossing upstream of the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 298

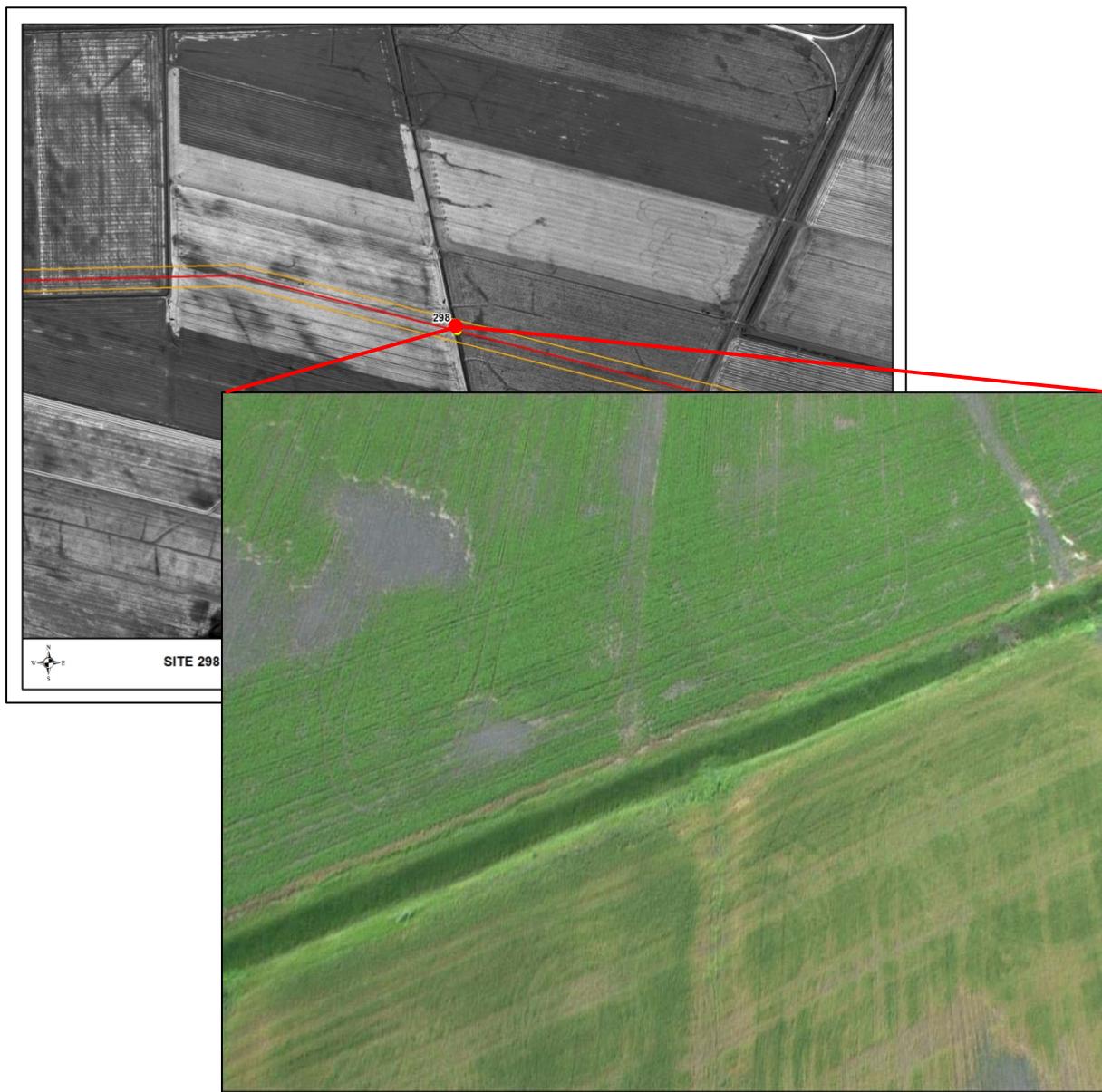
## La Pointe Coulee

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 628399  
Northing: 5490441  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Ephemeral  
**Morphology:** -  
**U/S Drainage:** 4.8 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 2.3 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	4
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	7
Left Bank	4

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

La Pointe Coulee is channelized as an agricultural drain at the RoW. This ephemeral channel provides only indirect fish habitat in the form of water and nutrients flowing downstream. It is not channelized 300m downstream of the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

## Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 630070
	<i>Northing:</i> 5489841
<b>Data Source:</b>	DOI. Video. Site visit

## General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	IM
<b>Confinement:</b>	UN
<b>Stage:</b>	Moderate
<b>Flow Regime:</b>	Perennial
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	115,344 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Lake Winnipeg 116 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

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

#### Water Depths (m)

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

#### Banks

Right Bank Stability (%)	35	-	-	-	-
Left Bank Stability (%)	40	-	-	-	-
Right Bank Slope (°)	~40	-	-	-	-
Left Bank Slope (°)	~80	-	-	-	-

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	~20	-	-	-	-
Left Bank	~30	-	-	-	-

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

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

#### Canopy Cover (%)

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

### Substrate

#### Substrate Type (%)

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

### Habitat Type

#### Habitat Composition (%)

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

### Cover Types

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



Upstream view of the Red River at site 299 from crossing.



Downstream view of the Red River at site 299 from crossing.



Right bank approach of the Red River at site 299 from crossing.



Left bank approach of the Red River at site 299 from crossing.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Banded Killifish, Bigmouth buffalo, Bigmouth shiner, Black bullhead, Black crappie, Blackchin shiner, Blacknose dace, Blacknose shiner, Blackside darter, Bluntnose minnow, Brassy minnow, Brook stickleback, Brown bullhead, Burbot, Carp, Central mudminnow, Channel catfish, Chestnut lamprey, Cisco, Common shiner, Creek chub, Emerald shiner, Fathead minnow, Flathead chub, Freshwater drum, Golden redhorse, Golden shiner, Goldeye, Goldfish, Hornyhead chub, Iowa darter, Johnny darter, Lake chub, Lake sturgeon, Lake whitefish, Logperch, Longnose dace, Longnose sucker, Mimic shiner, Mooneye, Ninespine stickleback, Northern pike, Pearl dace, Quillback, River darter, River shiner, Rock bass, Rosyface shiner, Sand shiner, Sauger, Shorthead redhorse, Silver chub, Silver lamprey, Silver redhorse, Smallmouth bass, Spottfin shiner, Spottail shiner, Stonecat, Tadpole madtom, Trout perch, Walleye, White bass, White sucker, Yellow perch (FIHCS 2009)

#### Comments:

The Red River was not accessible at the ROW; therefore it was assessed from a highway west of the ROW. This perennial river provides complex habitat for indicator fish species, with high overwintering potential. The banks are sloping to vertical, and have unstable areas with bare soil.

## + Habitat Sensitivity

**Sensitivity Rating:** High

**Comments:**

Unstable, steep banks are susceptible to erosion.



# Site 300

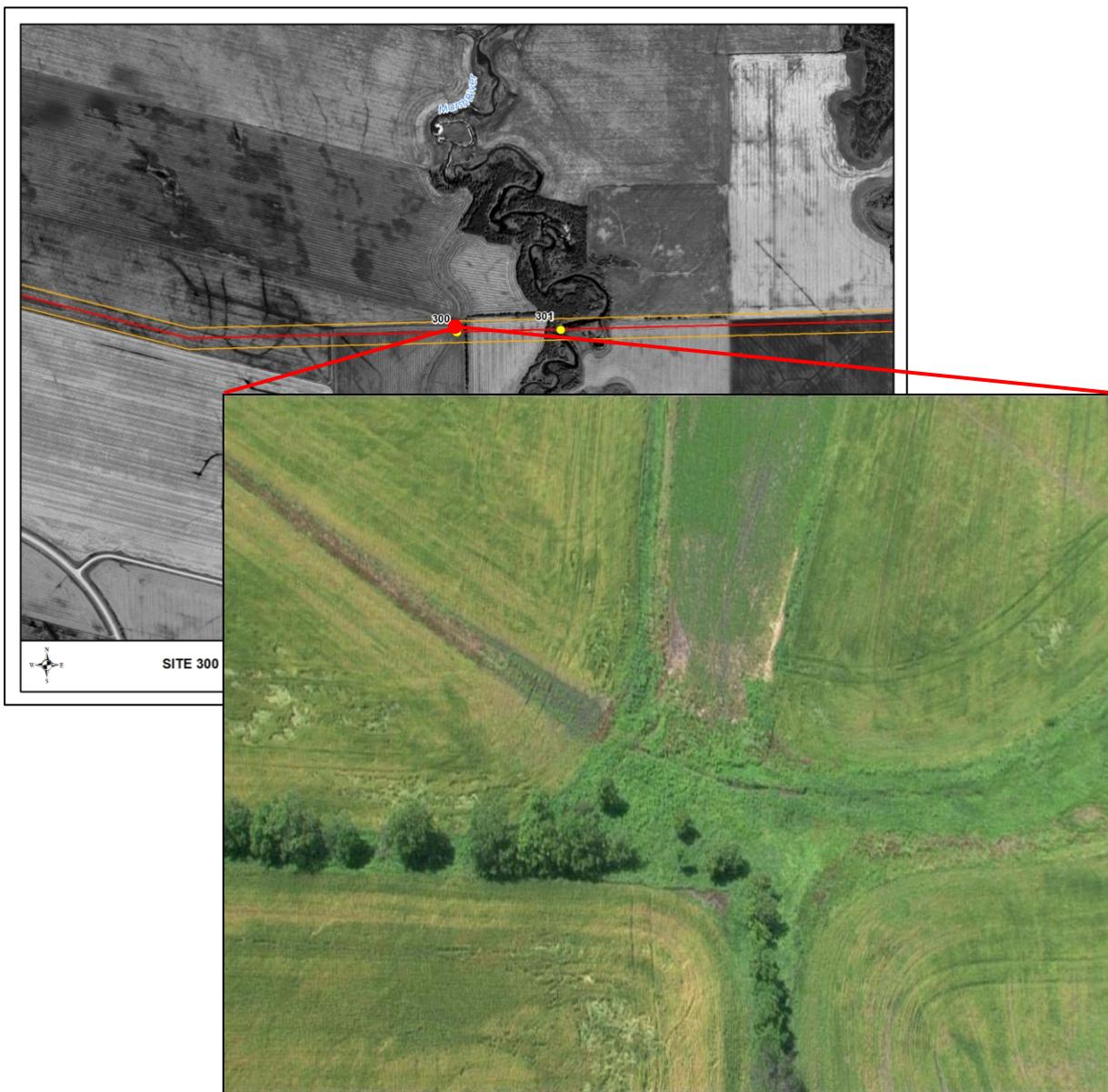
## Unnamed tributary of Marsh River

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 633750  
Northing: 5489058  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 8.3 km<sup>2</sup>  
**Distance to Receiving Water:** Marsh River 0.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The ROW crosses this unnamed tributary approximately 500m from its confluence with the Marsh River. This intermittent channel likely supports forage fish populations in the spring and summer when water persists.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

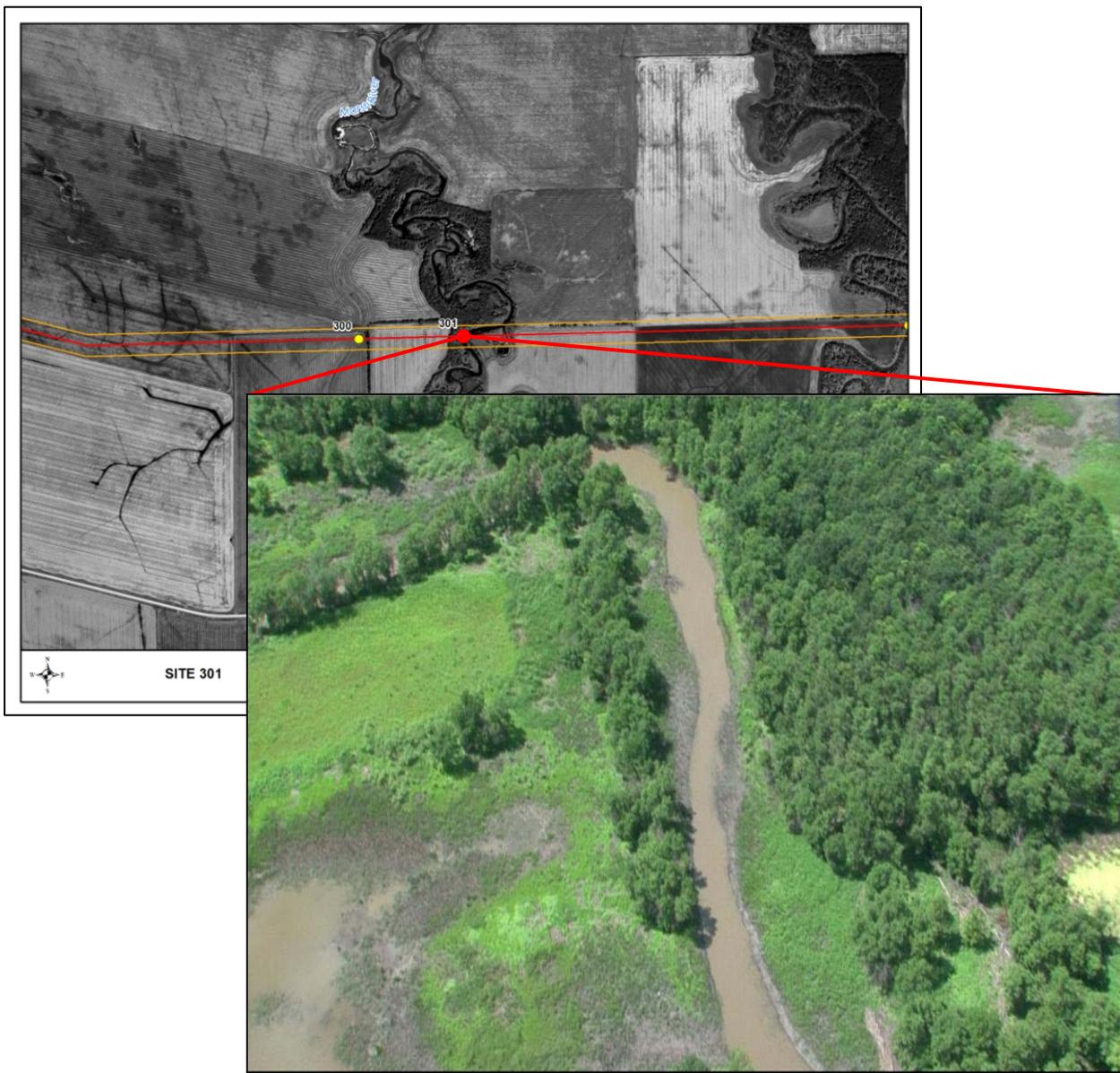
Stable vegetated banks and marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 634072  
Northing: 5489067  
**Data Source:** DOI. Video. Site visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** TM  
**Confinement:** UN  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 409.3 km<sup>2</sup>  
**Distance to Receiving Water:** Rat River 6.6 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

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

#### Water Depths (m)

25%	0.4	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

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

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	13.2	-	-	-	-
Left Bank	10.5	-	-	-	-

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

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

#### Canopy Cover (%)

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

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



Upstream view of the Marsh River 2 km upstream of site 301.



Downstream view of the Marsh River 2 km upstream of site 301.



Right bank approach of the Marsh River 2 km upstream of site 301.



Left bank approach of the Marsh River 2 km upstream of site 301.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

**Comments:**

The Marsh River was not accessible at the ROW; therefore it was assessed approximately 2 km upstream. This perennial river provides complex habitat for indicator fish species, with high overwintering potential. The banks are somewhat unstable, with bare soil on both banks. From the video unstable banks with bare soil are also visible at the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

**Comments:**

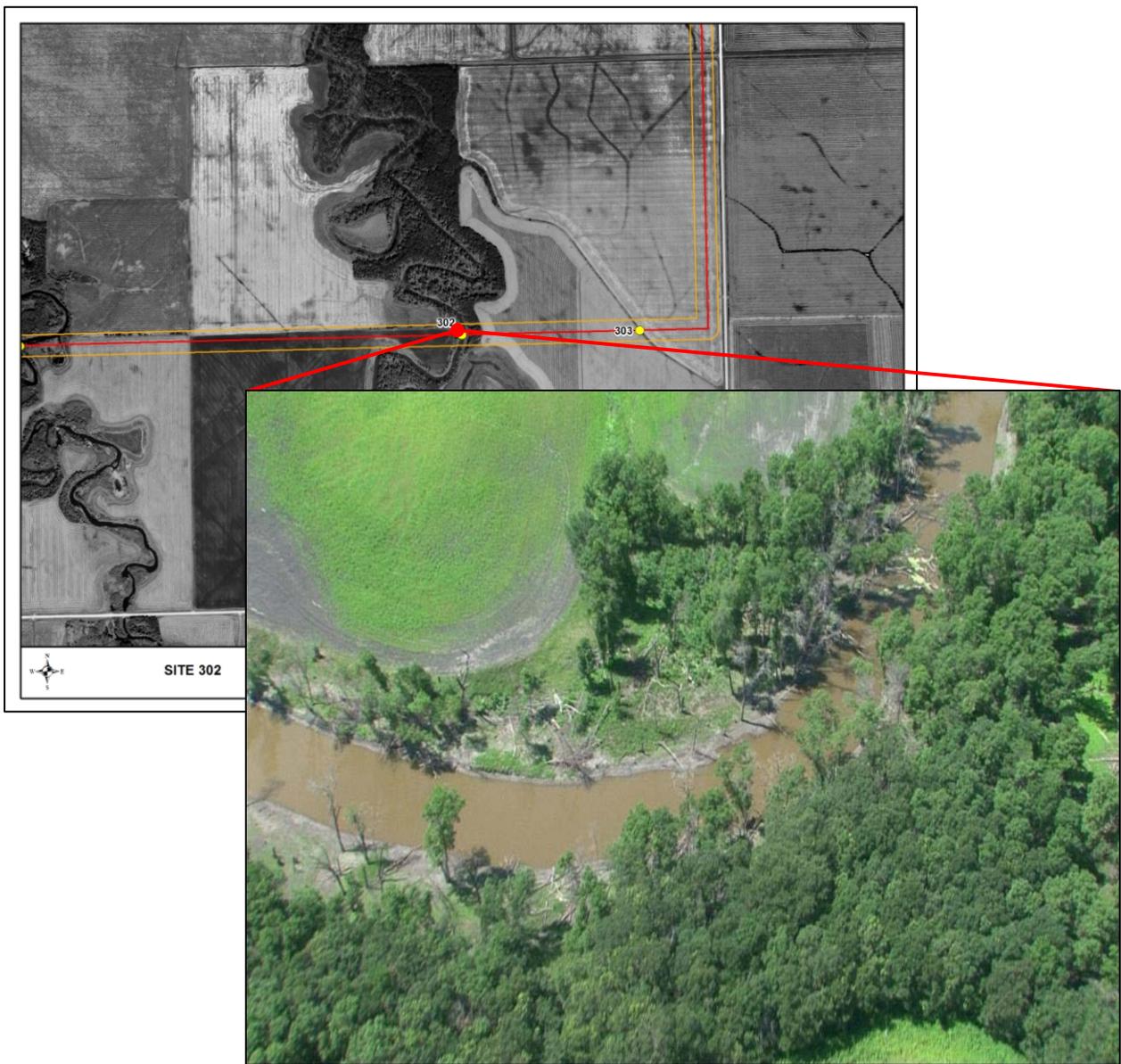
Unstable banks and important fish habitat result in a moderate sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 635429  
Northing: 5489101  
**Data Source:** DOI. Video. Site visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** TM  
**Confinement:** UN  
**Stage:** Moderate  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 1,576 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 13 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

Channel Width (m)	~14	-	-	-	-
Wetted Width (m)	~12	-	-	-	-

#### Water Depths (m)

25%	1	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	30	-	-	-	-
Left Bank Stability (%)	70	-	-	-	-
Right Bank Slope (°)	~25	-	-	-	-
Left Bank Slope (°)	~45	-	-	-	-

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	17.2	-	-	-	-
Left Bank	22.5	-	-	-	-

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

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

#### Canopy Cover (%)

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

### 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)	Tr	5
Large Woody Debris	33	100
Overhanging Vegetation	33	Tr
Instream Vegetation	33	-
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Upstream view of the Rat River 2 km upstream of site 302.



Downstream view of the Rat River 2 km upstream of site 302.



Right bank approach of the Rat River 2 km upstream of site 302.



Left bank approach of the Rat River 2 km upstream of site 302.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Black bullhead, Black crappie, Blacknose dace, Black-sided darter, Bluegill, Brook stickleback, Brook trout, Brown bullhead, Brown trout, Burbot, Carp, Central mudminnow, Channel catfish, chestnut lamprey, Common shiner, Emerald shiner, Fathead minnow, Finescale dace, Golden redhorse, Goldeye, Iowa darter, Johnny darter, Longnose dace, Northern pike, Northern redbelly dace, Quillback, Rainbow trout, River shiner, Rock bass, Sand shiner, Sauger, Shorthead redhorse, Silver chub, Silver lamprey, Silver redhorse, Spotfin shiner, Stonecat, Tadpole madtom, Walleye, White sucker, Yellow perch (FIHCS 2009)

#### **Comments:**

The Rat River was not accessible at the ROW; therefore it was assessed approximately 2 km upstream. . This perennial river provides complex habitat for indicator fish species, with high overwintering potential. The banks are unstable, with bare soil on both banks. From the video sloping, unstable banks are also visible at the ROW.

## + Habitat Sensitivity

**Sensitivity Rating:** High

**Comments:**

Unstable, sloping banks and important fish habitat result in a high sensitivity rating.

# Site 303

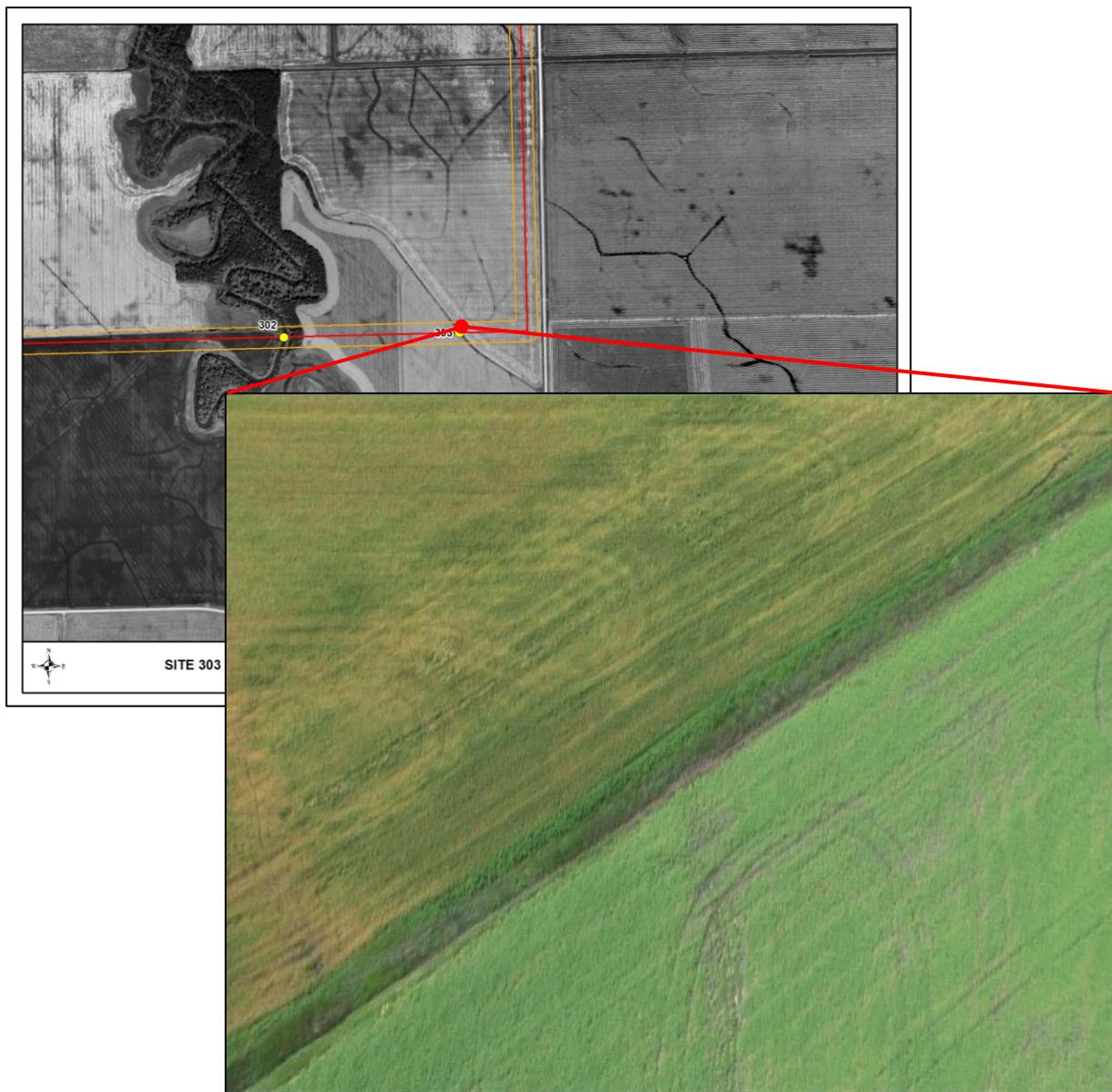
## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 635973  
Northing: 5489115  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** CO  
**Stage:** Low  
**Flow Regime:** Intermittent  
**Morphology:** -  
**U/S Drainage:** 2.5 km<sup>2</sup>  
**Distance to Receiving Water:** Rat River 1 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	7
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	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed drain provides simple habitat for forage fish populations, with low overwintering potential. The drain is not channelized approximately 500m upstream of the ROW, occurring as a naturally meandering channel with riparian forest.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 304

# Tourond Creek

## Location

**Datum:** NAD 83  
**UTM:** *Zone:* 14N  
*Easting:* 637881  
*Northing:* 5491117  
**Data Source:** DOI. Video. Site visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** SI  
**Confinement:** UN  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 261.4 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 12.2 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

Channel Width (m)	9	-	-	-	-
Wetted Width (m)	8.3	-	-	-	-

#### Water Depths (m)

25%	0.25	-	-	-	-
50%	0.3	-	-	-	-
75%	0.2	-	-	-	-
Max	0.3	-	-	-	-

#### Banks

Right Bank Stability (%)	80	-	-	-	-
Left Bank Stability (%)	80	-	-	-	-
Right Bank Slope (°)	~30	-	-	-	-
Left Bank Slope (°)	~30	-	-	-	-

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	19	-	-	-	-
Left Bank	28.5	-	-	-	-

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

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

#### Canopy Cover (%)

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

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



Upstream view of Tourond Creek at site 304 from crossing.



Downstream view of Tourond Creek at site 304 from crossing.



Right bank approach of Tourond Creek at site 304 from crossing.



Left bank approach of Tourond Creek at site 304 from crossing.

## ↓ Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Brook stickleback, Central mudminnow, Northern pike, White sucker (FIHCS 2009)

**Comments:**

The ROW crosses Tourond Creek 12.2 km from its confluence with the Red River. This perennial creek provides complex habitat for indicator fish species. The banks are mostly vegetated but with some patches of bare soil.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

**Comments:**

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

# Site 305

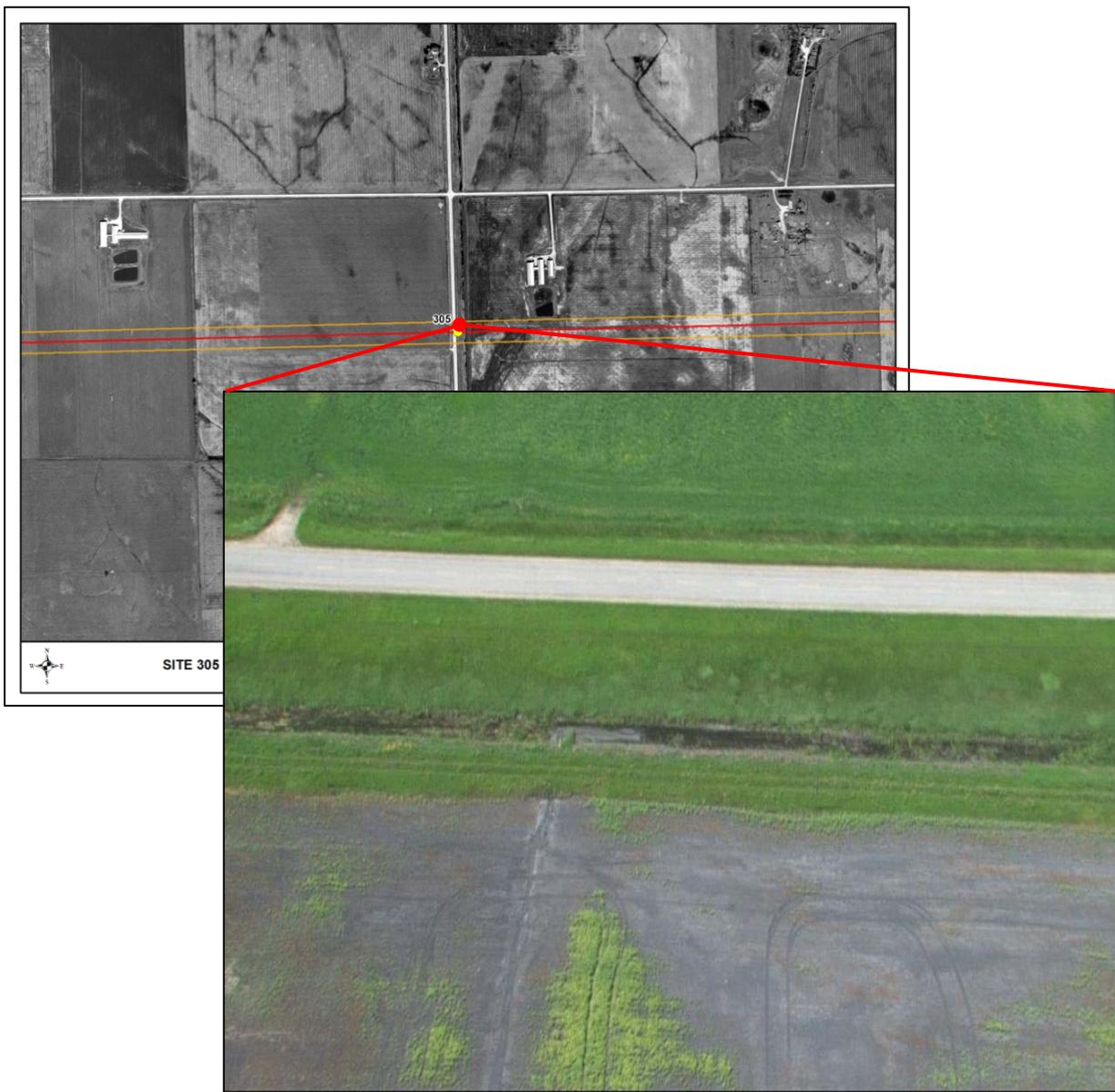
## Old South Lateral Drain

### Location

<b>Datum:</b>	NAD 83
<b>UTM:</b>	<i>Zone:</i> 14N
	<i>Easting:</i> 652663
	<i>Northing:</i> 5491561
<b>Data Source:</b>	DOI. Video

### General Morphology

<b>Stream/Lake:</b>	Stream
<b>Pattern:</b>	ST
<b>Confinement:</b>	CO
<b>Stage:</b>	Moderate
<b>Flow Regime:</b>	Intermittent
<b>Morphology:</b>	LC
<b>U/S Drainage:</b>	5.6 km <sup>2</sup>
<b>Distance to Receiving Water:</b>	Manning Canal 7.3km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	0
Channel Width (m)	24

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	7
Left Bank	9

##### 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 (%)** 20

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The ROW crosses the Old South Lateral Drain 7.3km from its confluence with Manning Canal, at which point it is channelized as a road ditch. This intermittent agricultural drain provides simple habitat for forage fish populations.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 306

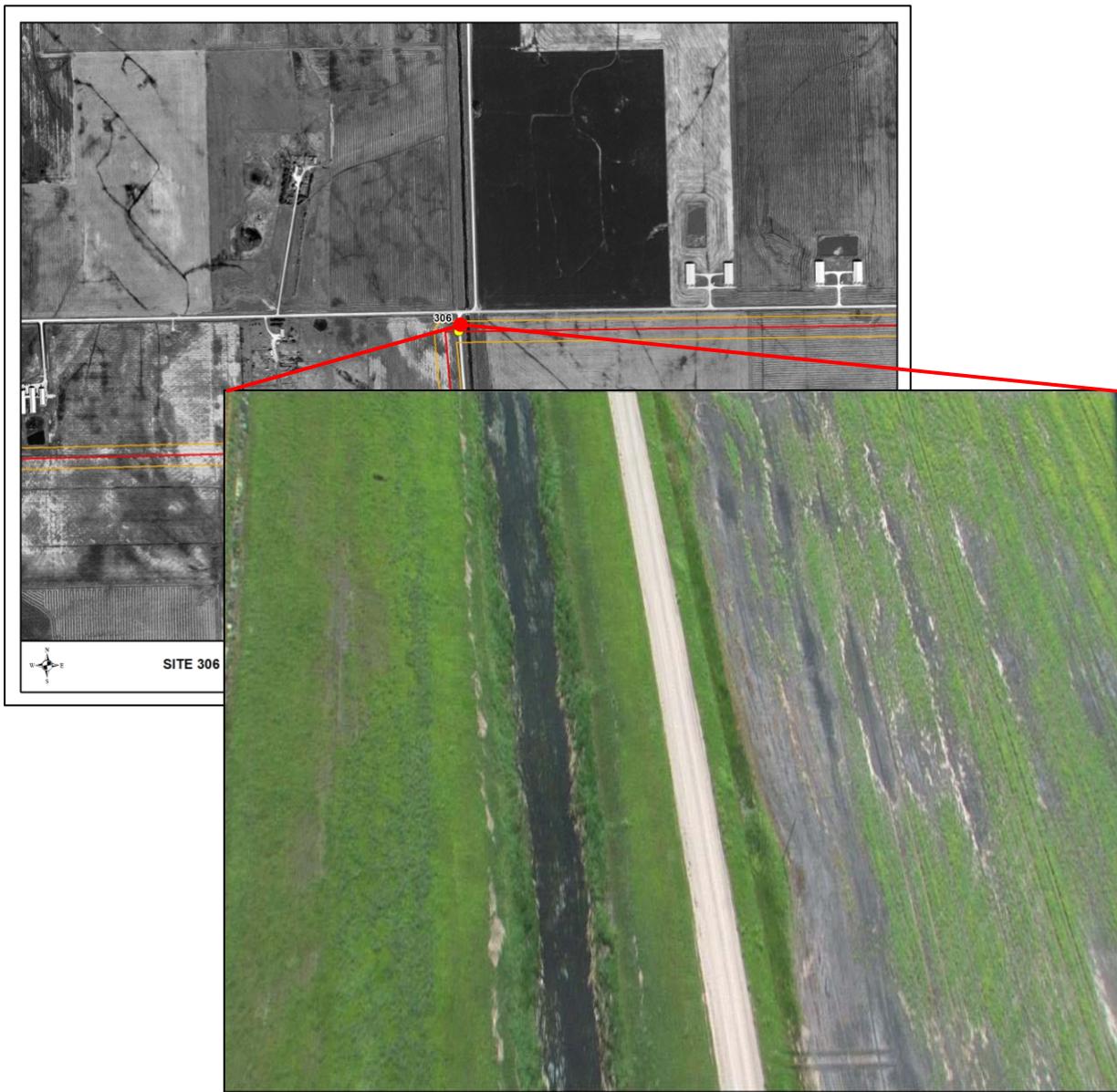
## South Lateral Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 654236  
Northing: 5491969  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 165.2 km<sup>2</sup>  
**Distance to Receiving Water:** Manning Canal  
5.8 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	7
Left Bank	9

##### 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 (%)** 10

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The South Lateral Drain is an intermittent agricultural drain providing simple habitat for forage fish populations, with low overwintering potential.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

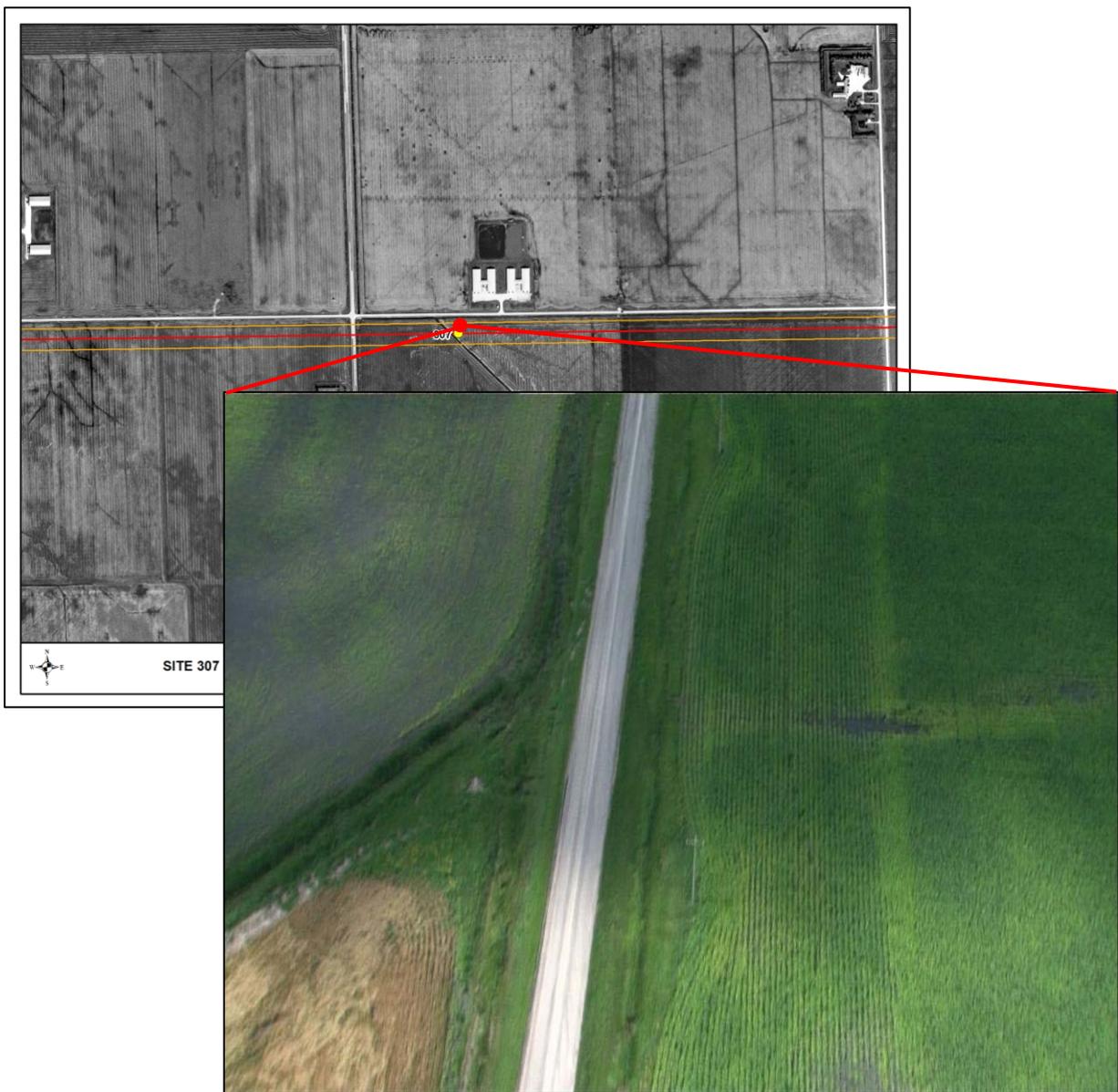
Stable vegetated banks and marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 657894  
Northing: 5492021  
**Data Source:** DOI. Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 19 km<sup>2</sup>  
**Distance to Receiving Water:** Manning Canal 4 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	4
Left Bank	3

##### 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

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

**Fish Presence:** N/A

#### **Comments:**

The Chorlitz Drain is an intermittent agricultural drain providing simple habitat for forage fish populations, with low overwintering potential.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 308

# Manning Canal

## Location

**Datum:** NAD 83  
**UTM:** Zone: 15N  
Easting: 659523  
Northing: 5494468  
**Data Source:** DOI. Video. Site visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** IR  
**Confinement:** CO  
**Stage:** Mod  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 209.1 km<sup>2</sup>  
**Distance to Receiving Water:** Seine River Diversion  
19km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

Channel Width (m)	6.8	-	-	-	-
Wetted Width (m)	6.2	-	-	-	-

#### Water Depths (m)

25%	0.9	-	-	-	-
50%	0.9	-	-	-	-
75%	0.8	-	-	-	-
Max	0.9	-	-	-	-

#### Banks

Right Bank Stability (%)	75	-	-	-	-
Left Bank Stability (%)	80	-	-	-	-
Right Bank Slope (°)	~45	-	-	-	-
Left Bank Slope (°)	~90	-	-	-	-

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	5	-	-	-	-
Left Bank	4	-	-	-	-

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

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

#### Canopy Cover (%)

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

### 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	15
Large Woody Debris	-	-
Overhanging Vegetation	20	10
Instream Vegetation	80	90
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Upstream view of Manning Canal 800m downstream of site 308.



Downstream view of Manning Canal 800m downstream of site 308.



Right bank approach of Manning Canal 800m downstream of site 308.



Left bank approach of Manning Canal 800m downstream of site 308.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Manning Canal was not accessible at the crossing; therefore it was assessed approximately 800m downstream. It is a channelized, agricultural drain. It is rated by DFO as providing complex fish habitat for indicator fish species. The banks are relatively stable and vegetated with some patches of bare soil, and the riparian area is sloped on both banks. Riffle habitat at the ROW is visible from the video.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

#### **Comments:**

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

# Site 309

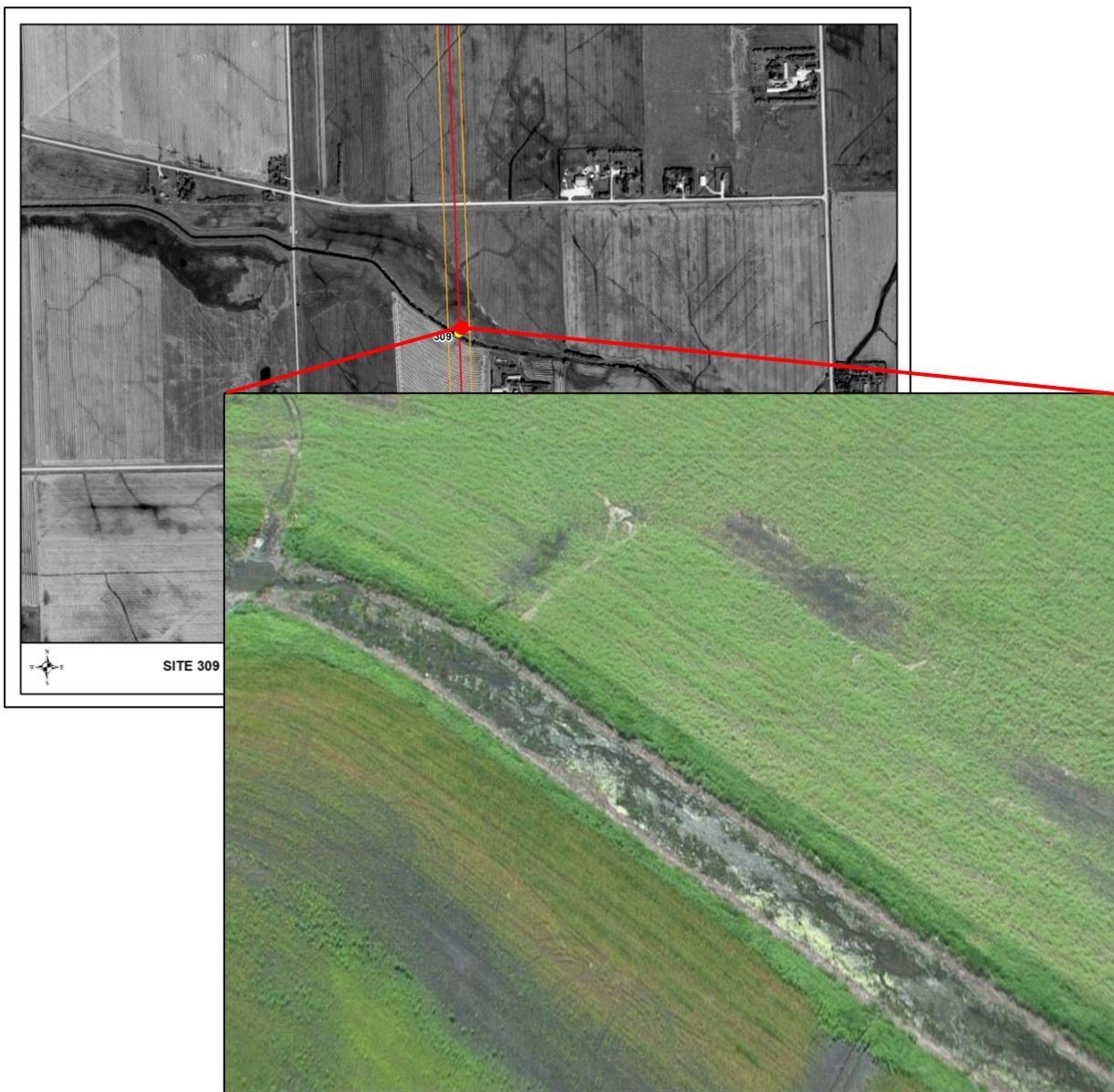
## Youville Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 659460  
Northing: 5500727  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 31.7 km<sup>2</sup>  
**Distance to Receiving Water:** Seine River Diversion  
9 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	6
Channel Width (m)	11

##### Banks (%)

Right Bank Stability	90
Left Bank Stability	90

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	9
Left Bank	6

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

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

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

**Total Cover Available (%)** 20

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Youville drain is an intermittent channelized stream providing simple habitat for indicator and forage fish populations, with low overwintering potential.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

Relatively stable vegetated banks and simple fish habitat result in a low sensitivity rating.

# Site 310

## Seine River Diversion

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 659279  
Northing: 5505793  
**Data Source:** DOI. Video. Site visit

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 85.7 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 23 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### Channel and Flow

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

#### Water Depths (m)

25%	1	-	-	-	-
50%	-	-	-	-	-
75%	-	-	-	-	-
Max	-	-	-	-	-

#### Banks

Right Bank Stability (%)	85	-	-	-	-
Left Bank Stability (%)	90	-	-	-	-
Right Bank Slope (°)	~45	-	-	-	-
Left Bank Slope (°)	~45	-	-	-	-

### Riparian

#### Floodplain Distance (m)

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

#### Riparian Distance (m)

Right Bank	4.5	-	-	-	-
Left Bank	~4.5	-	-	-	-

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

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

#### Canopy Cover (%)

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

### 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)	Tr	Tr
Large Woody Debris	-	-
Overhanging Vegetation	-	-
Instream Vegetation	100	100
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Upstream view of the Seine River Diversion at site 310 from crossing.



Downstream view of the Seine River Diversion at site 310 from crossing.



Right bank approach of the Seine River Diversion at site 310 from crossing.



Left bank approach of the Seine River Diversion at site 310 from crossing.

## 📌 Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Bigmouth buffalo, Black crappie, Black-sided darter, Burbot, Fathead minnow, Johnny darter, Longnose dace, Northern pike, River darter, River Shiner, Rock bass, Sauger, Shorthead redhorse, Silver redhorse, Trout perch, Walleye, White Sucker, Yellow perch (FIHCS 2009)

**Comments:**

The Seine River Diversion is a channelized, perennial drain providing simple habitat for indicator fish species. It provides moderate overwintering potential. The banks are vegetated and stable, and the riparian area is sloped on both banks.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

**Comments:**

Stable banks and channelized, simple habitat result in a low sensitivity rating, despite important fish habitat.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 665050  
Northing: 5507082  
**Data Source:** DOI. Video. Site visit

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** High  
**Flow Regime:** Perennial  
**Morphology:** LC  
**U/S Drainage:** 722.2 km<sup>2</sup>  
**Distance to Receiving Water:** Red River 37 km



## Site Conditions

### + Physical Data

Survey Date: 21 October 2010

Stage: Moderate

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

### Channel Profile

#### **Channel and Flow**

Channel Width (m)	8.7	11.2	10.7	8.5	8
Wetted Width (m)	7.8	9.6	5.8	7.5	8

#### **Water Depths (m)**

25%	0.4	0.2	0.4	0.3	0.25
50%	0.4	0.2	0.4	0.6	0.25
75%	0.2	0.4	0.25	0.45	0.3
Max	0.4	0.4	0.4	0.6	0.3

#### **Banks**

Right Bank Stability (%)	50	40	60	80	70
Left Bank Stability (%)	100	45	85	90	85
Right Bank Slope (°)	~30	~50	~45	~50	~45
Left Bank Slope (°)	~45	~45	~50	~45	~45

### Riparian

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

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

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

Right Bank	12.1	7.0	9.3	6.3	9.4
Left Bank	6.1	9.4	6.6	17.6	7.6

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

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

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

	30	20	25	Tr	20
--	----	----	----	----	----

### Substrate

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

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

### Habitat Type

#### **Habitat Composition (%)**

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

### Cover Types

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

	US	DS
<b>Cover Composition (% of Total)</b>	15	15
Large Woody Debris	90	90
Overhanging Vegetation	-	-
Instream Vegetation	10	10
Pool	-	-
Boulder	-	-
Undercut Bank	-	-
Surface Turbulence	-	-



Upstream view of the Seine River at site 311 from crossing.



Downstream view of the Seine River at site 311 from crossing.



Left bank approach of the Seine River at site 311 from transect 2.



Left bank approach of the Seine River at site 311 from transect 3.

## ↘ Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** Bigmouth buffalo, Black bullhead, Black crappie, Blacknose dace, Blackside darter, Brook stickleback, Brown bullhead, Burbot, Carp, Central mudminnow, Channel catfish, Common shiner, Emerald shiner, Fathead minnow, Freshwater drum, Golden redhorse, Goldeye, Goldfish, Johnny darter, Longnose dace, Northern pike, Pearl dace, Quillback, Rock bass, Sauger, Shorthead redhorse, Spottail shiner, Tadpole madtom, Trout perch, Walleye, White sucker, Yellow perch (FIHCS 2009)

**Comments:**

The Seine River has been channelized where the ROW crosses it. This perennial channel provides complex habitat for indicator fish species, with moderate overwintering potential. There is some bare soil on the banks and the riparian area is sloped on both banks. There is a road crossing US of the ROW.

### + Habitat Sensitivity

**Sensitivity Rating:** Moderate

**Comments:**

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

# Site 312

## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 666926  
Northing: 5508551  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 23.1 km<sup>2</sup>  
**Distance to Receiving Water:** Seine River 2.5 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	-
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	100
Pool	-
Boulder	-
Undercut Bank	-
Surface Turbulence	-
Turbidity	-

#### Habitat Type

##### **Habitat Composition**

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This ephemeral agricultural ditch/drain provides simple habitat for forage fish populations, with low overwintering potential.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 313

## Unnamed agricultural ditch/drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 667083  
Northing: 5508717  
**Data Source:** DOI. Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 67.8 km<sup>2</sup>  
**Distance to Receiving Water:** Seine River 2.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	10
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	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

**Total Cover Available (%)** 20

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

This unnamed agricultural ditch/drain provides simple habitat for forage fish populations, with low overwintering potential. It is channelized as a road ditch at the RoW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

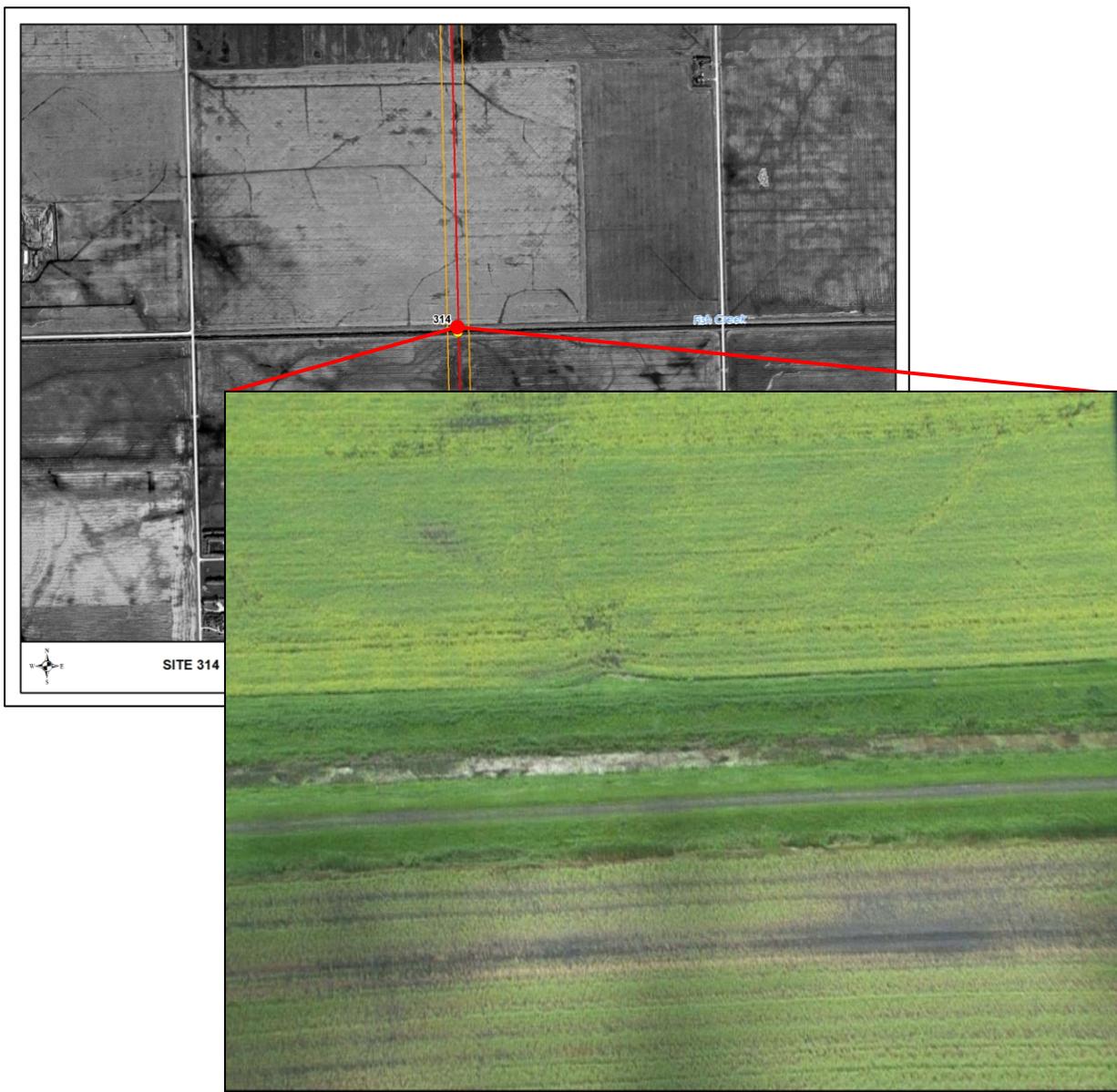
Stable vegetated banks and marginal fish habitat result in a low sensitivity rating.

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 667638  
Northing: 5512024  
**Data Source:** DOI/Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Intermittent  
**Morphology:** LC  
**U/S Drainage:** 41.7 km<sup>2</sup>  
**Distance to Receiving Water:** Seine River 4.5 km



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

Wetted Width (m)	7
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	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

	0
--	---

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

15

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

Fish Creek has been channelized into a ditch and provides simple habitat for forage fish populations, with low overwintering potential. It is channelized into a road ditch at the RoW.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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

# Site 315

## Unnamed pond/wetland

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 667540  
Northing: 5516242  
**Data Source:** DOI/Video

### General Morphology

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



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	100
Left Bank Stability	100

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

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

None	-
Grasses/sedges	Y
Shrubs	-
Conifers	-
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	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:

The ROW crosses the western edge of the unnamed pond/wetland. This ephemeral pond/wetland likely provides no fish habitat, as it appears isolated within an agricultural field with no connection to other waterbodies.

### + Habitat Sensitivity

#### Sensitivity Rating: Low

#### Comments:

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

# Site 316 Unnamed agricultural ditch/drain

## Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 662489  
Northing: 5524097  
**Data Source:** DOI/Video

## General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** TBA km<sup>2</sup>  
**Distance to Receiving Water:** Cooks Creek 249m



## Site Conditions

### + Physical Data

#### Channel Profile

##### Channel and Flow

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

##### Banks (%)

Right Bank Stability	40
Left Bank Stability	60

#### Riparian

##### Floodplain Distance (m)

Right Bank	-
Left Bank	-

##### Riparian Distance (m)

Right Bank	-
Left Bank	-

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

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

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

##### Total Cover Available (%)

-

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	-
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 this unnamed agricultural ditch/drain close to its confluence with the headwaters of Cooks Creek. This ephemeral agricultural drain provides indirect, simple fish habitat. It is expected to support no fish populations within the drain itself, and provide water and nutrients to fish populations downstream within Cooks Creek.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

No fish habitat results in a low sensitivity rating, despite somewhat unstable banks.

# Site 317

## Swede Drain

### Location

**Datum:** NAD 83  
**UTM:** Zone: 14N  
Easting: 659918  
Northing: 5525149  
**Data Source:** DOI/Video

### General Morphology

**Stream/Lake:** Stream  
**Pattern:** ST  
**Confinement:** CO  
**Stage:** Moderate  
**Flow Regime:** Ephemeral  
**Morphology:** LC  
**U/S Drainage:** 1.5 km<sup>2</sup>  
**Distance to Receiving Water:** Cooks Creek 13 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	-
Deciduous	-
Mixed Forest	-

##### Canopy Cover (%)

0

#### Substrate

##### Substrate Type (%)

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

#### Cover Types

**Total Cover Available (%)** 50

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

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

#### Habitat Type

##### Habitat Composition

Pool	-
Run	100
Flat	-
Riffle	-
Rapid	-

## Fish Habitat Classification and Sensitivity

### + Fish Habitat

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

**Fish Presence:** N/A

#### **Comments:**

The Swede Drain is channelized as a road ditch at the RoW. It provides only indirect fish habitat in the form of water and nutrients flowing downstream to Cooks Creek.

### + Habitat Sensitivity

**Sensitivity Rating:** Low

#### **Comments:**

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