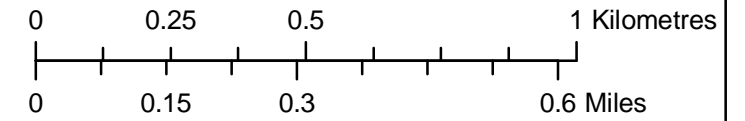


Coordinate System: UTM Zone 14N



DATA SOURCE:  
Manitoba Hydro

DATE CREATED: 29 DEC 2010  
CREATED BY: Water Resources Engineering

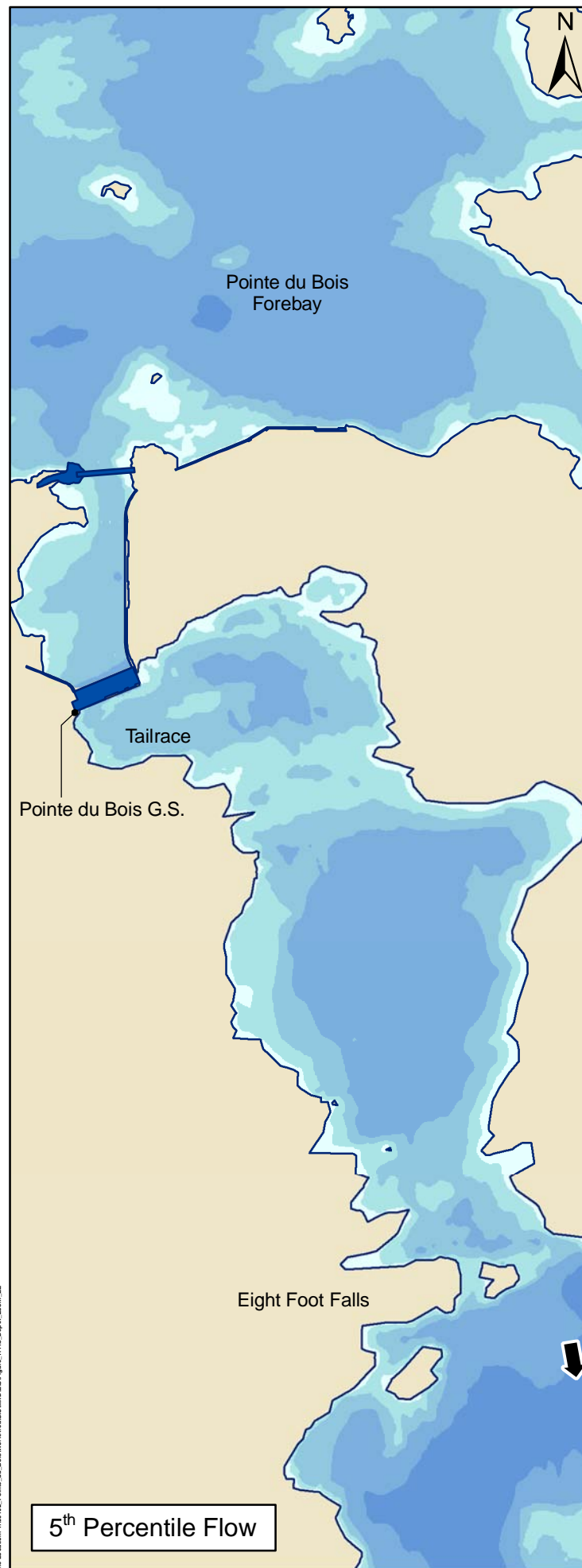
REVISION NO: VERSION 1.0  
REVISION DATE: 06 JUN 2011  
QA/QC: KMS / MWZ

### Legend

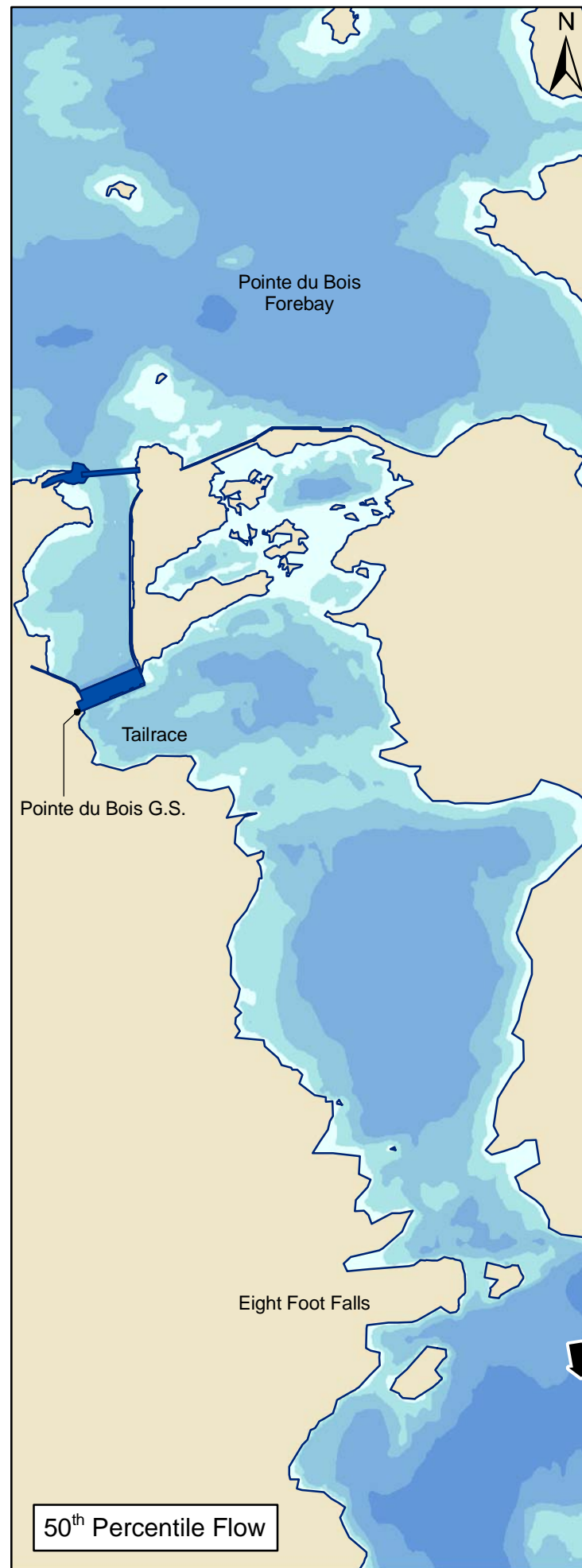
#### Depth [m]

- 0 - 2
- 2 - 5
- 5 - 10
- 10 - 30
- Greater than 30

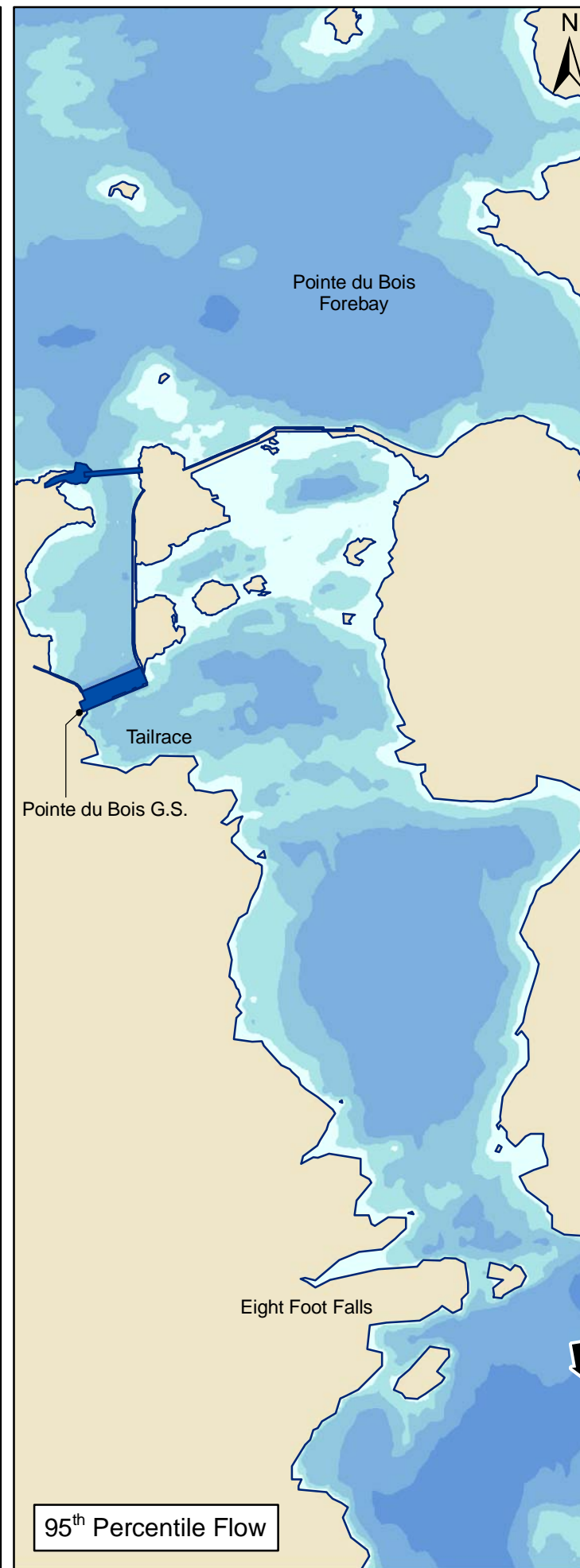
Direction of Flow  
Generating Station (G.S.)



5<sup>th</sup> Percentile Flow



50<sup>th</sup> Percentile Flow



95<sup>th</sup> Percentile Flow

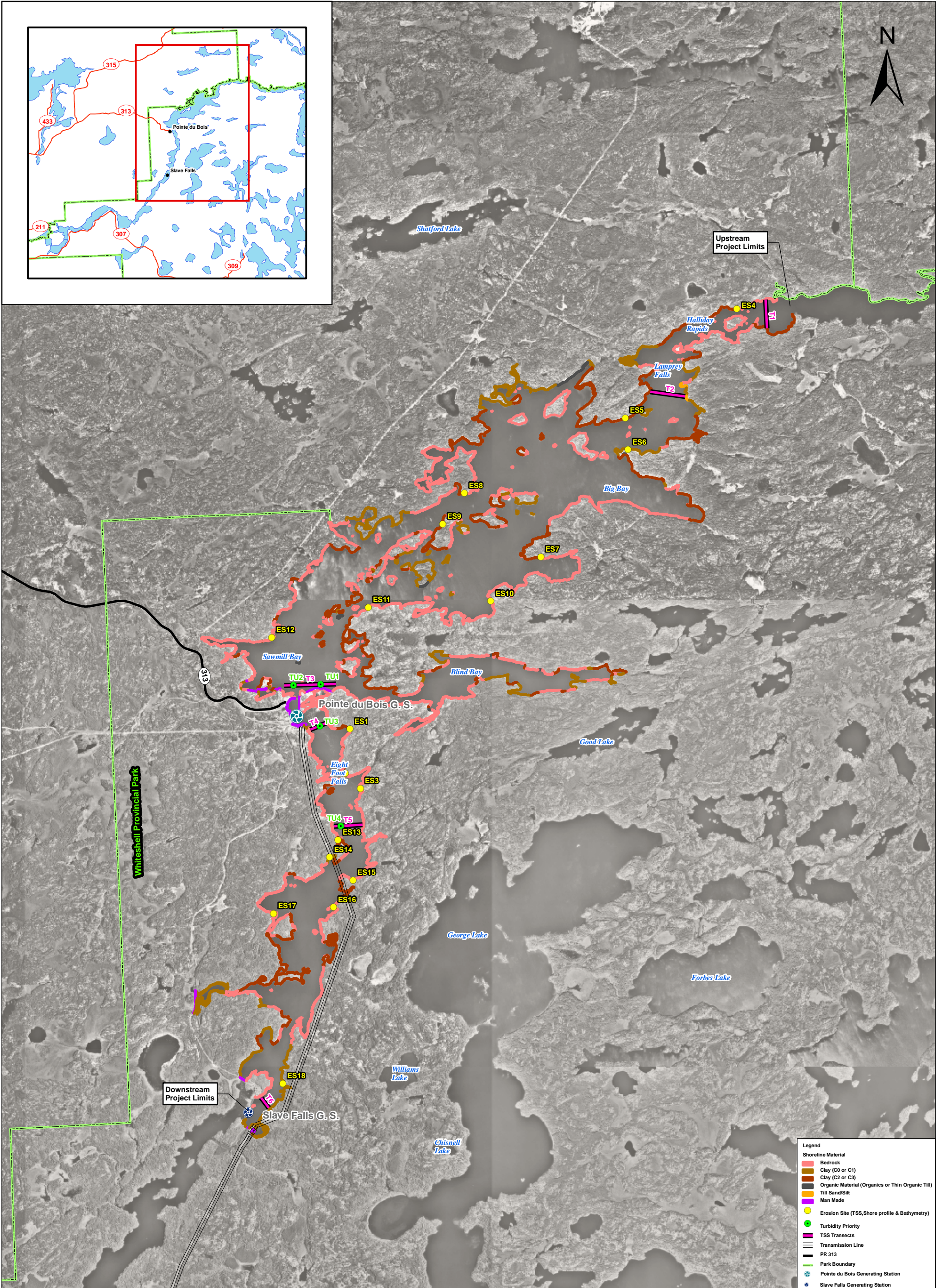
## Pointe du Bois Spillway Replacement Project

Existing Environment  
Water Depth Near Pointe du Bois G.S.

Figure:  
7.11B

File Location: I:\06102\_Points du Bois\Water\Map\06102\06102\Figure 7.11B\_DrpgR\_Zone\_FE





**Legend**

- Shoreline Material
- Bedrock
- Clay (C0 or C1)
- Clay (C2 or C3)
- Organic Material (Organics or Thin Organic Till)
- Till Sand/Silt
- Man Made
- Erosion Site (TSS, Shore profile & Bathymetry)
- Turbidity Priority
- TSS Transects
- Transmission Line
- PR 313
- Park Boundary
- Pointe du Bois Generating Station
- Slave Falls Generating Station



Coordinate System: UTM NAD 1983 Z14



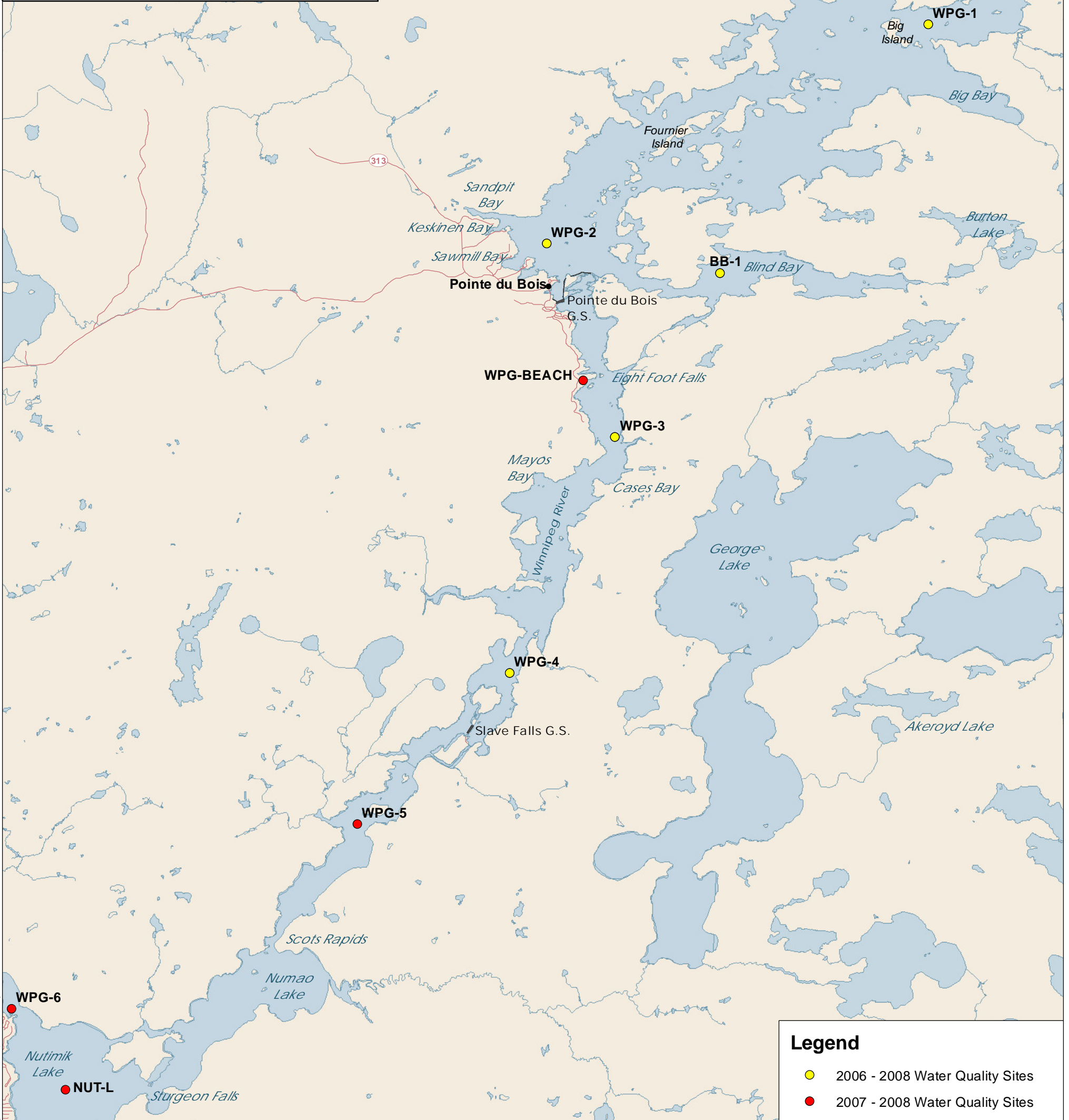
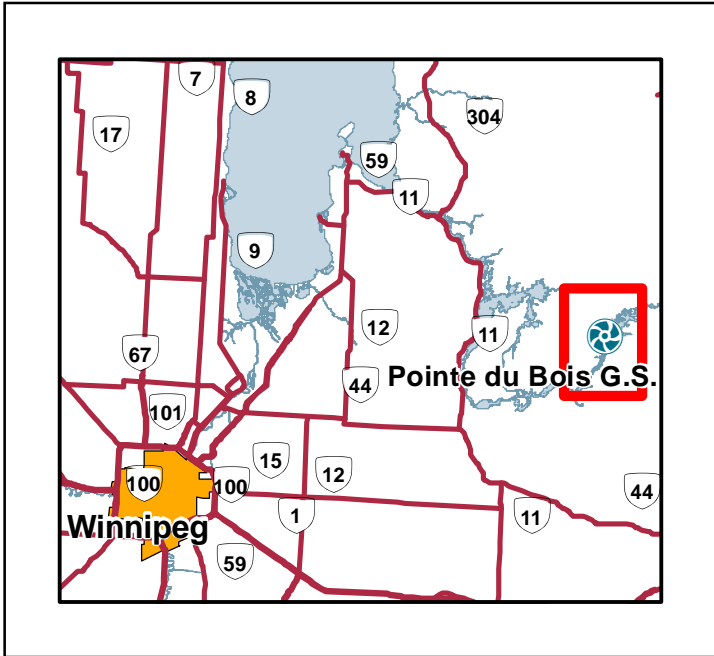
DATA SOURCE: Manitoba Hydro, KGS Acres		
DATE CREATED: 20 MAY 2011	CREATED BY: KGSA	
REVISION NO: VERSION 1.0	REVISION DATE: 24 MAY 2011	QA/QC: RHP, MWZ, BMP

## Pointe du Bois Spillway Replacement Project

**Shoreline Classification**

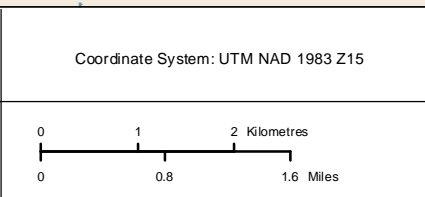
**Figure:  
7.13**





**Legend**

- 2006 - 2008 Water Quality Sites
- 2007 - 2008 Water Quality Sites

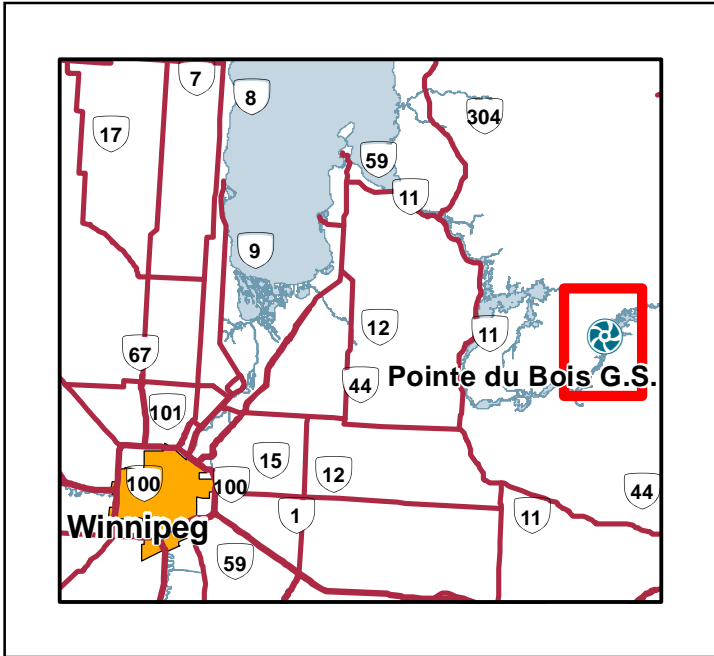


DATA SOURCE: Manitoba Hydro, North/South Consultants		
DATE CREATED: 10 MAY 2011	CREATED BY: North/South Consultants	
REVISION NO: VERSION 1.0	REVISION DATE: 26 May 2011	QA/QC: SB/MWZ

**Pointe du Bois  
Spillway Replacement Project**

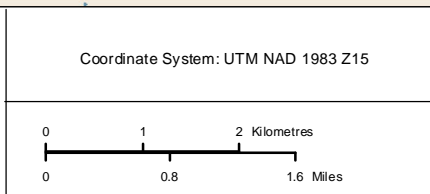
**Water Quality Monitoring Sites  
Open-water Season**

Figure:  
7.15



**Legend**

- + March 2008 Water Quality Sites
- February 2007 Water Quality Sites

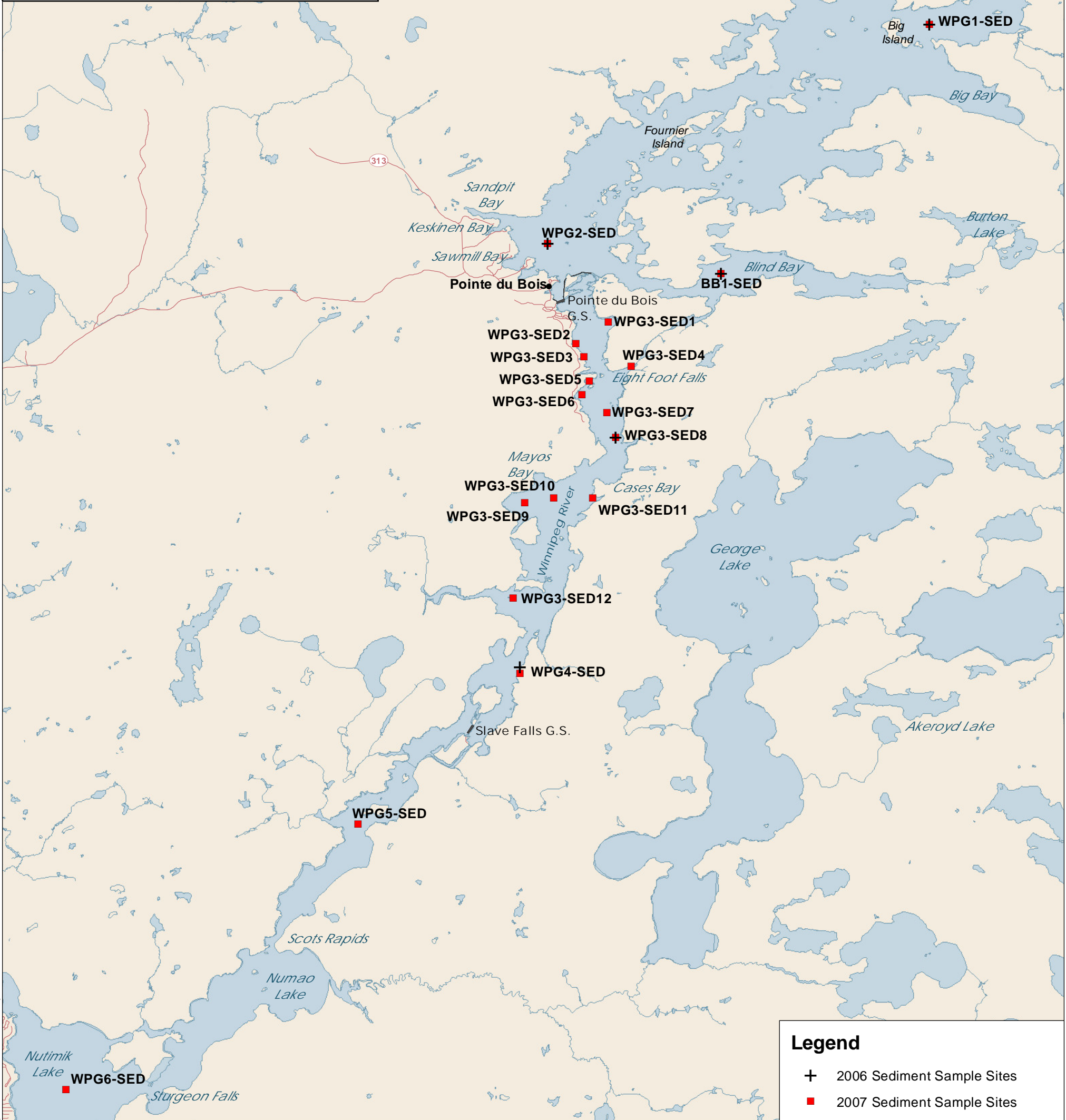
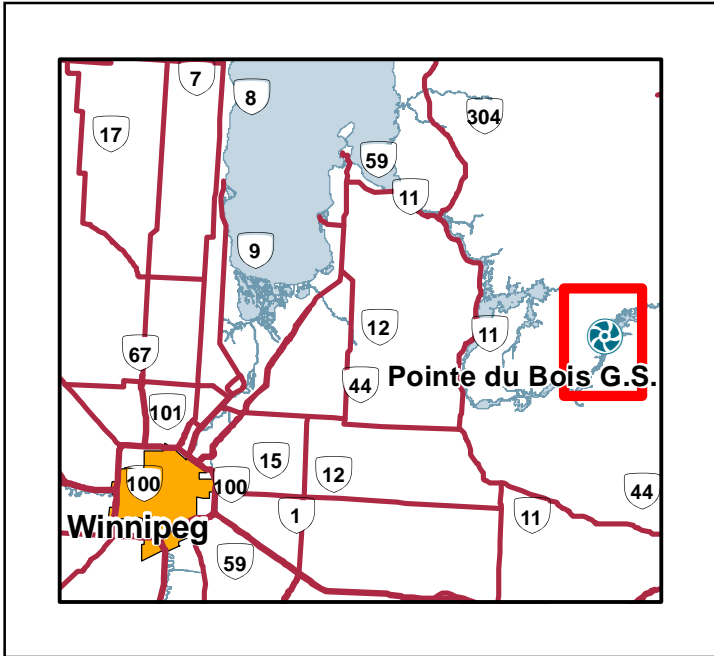


DATA SOURCE: Manitoba Hydro, North/South Consultants		
DATE CREATED: 10 MAY 2011	CREATED BY: North/South Consultants	
REVISION NO: VERSION 1.0	REVISION DATE: 26 May 2011	QA/QC: SB/MWZ

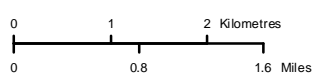
**Pointe du Bois  
Spillway Replacement Project**

**Water Quality Monitoring Sites  
Ice-covered Season**

Figure:  
7.16



Coordinate System: UTM NAD 1983 Z15



DATA SOURCE:  
Manitoba Hydro, North/South Consultants

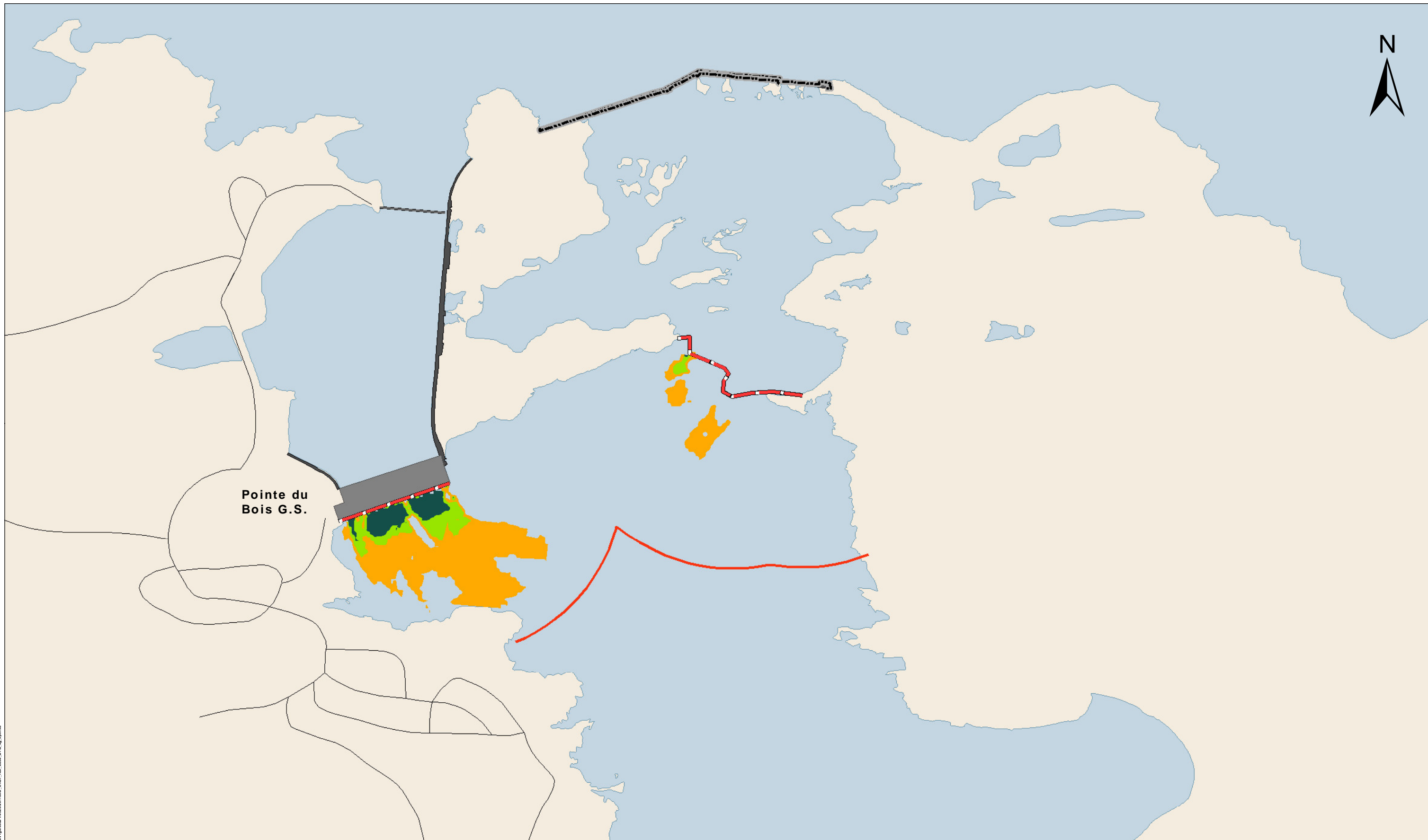
DATE CREATED: 10 MAY 2011  
CREATED BY: North/South Consultants

REVISION NO: VERSION 1.0  
REVISION DATE: 26 May 2011  
QA/QC: SB/MWZ

### Pointe du Bois Spillway Replacement Project

Sediment Quality Sampling Sites

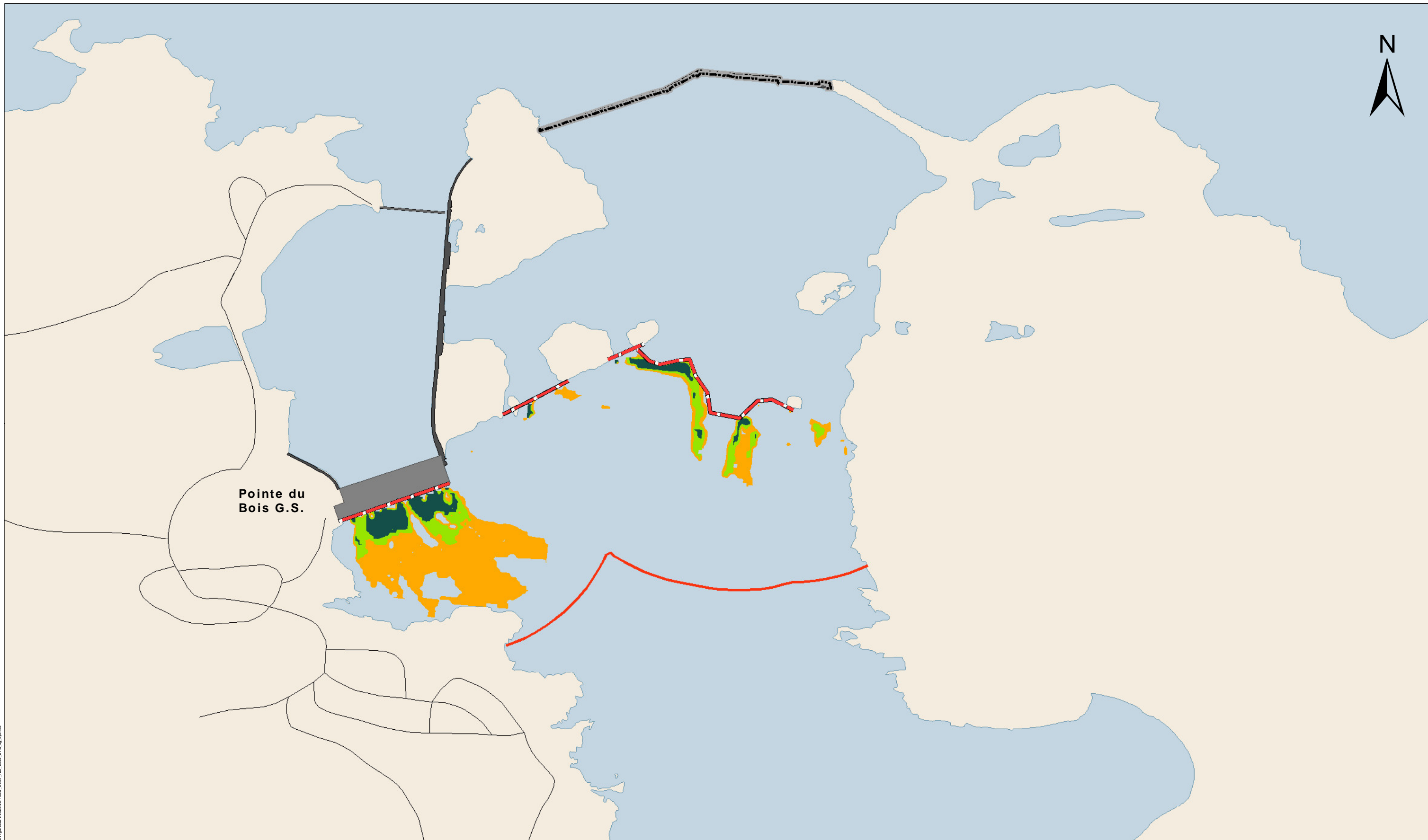
Figure: 7.17



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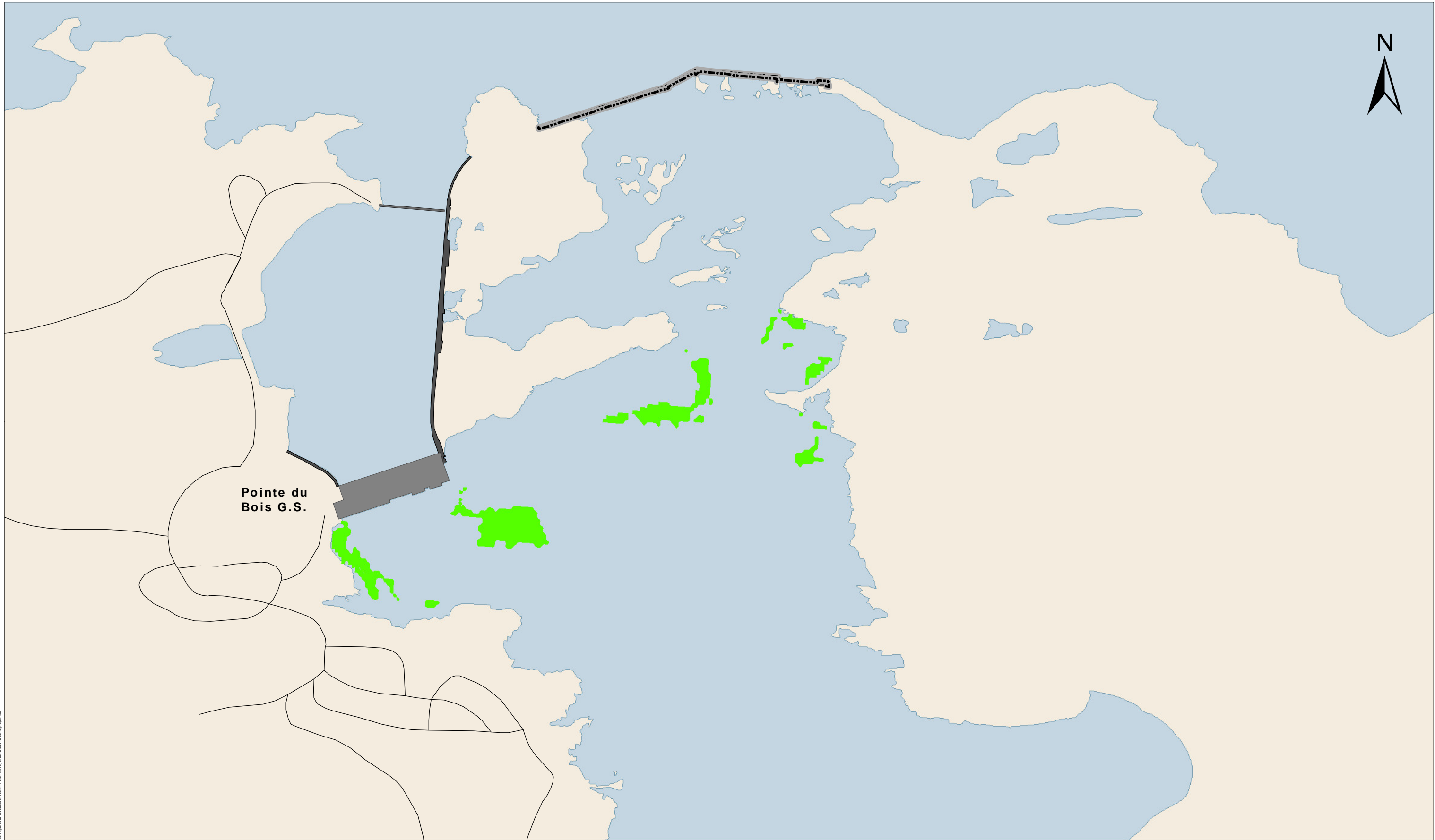
	Coordinate System: UTM NAD 1983 Z15	DATA SOURCE: Manitoba Hydro, North/South Consultants	<b>Legend</b> Spawning Barrier Critical Distance (238m) Post Project Infrastructure Existing Infrastructure	<b>Habitat Suitability Index (Egg Deposition)</b> 0.25 - 0.5     0.5 - 0.75 0.75 - 1	<b>Pointe du Bois Spillway Replacement Project</b> 50 <sup>th</sup> Percentile Flow Conditions Lake Sturgeon Habitat Suitability Index Existing Environment		Figure: 7.18A
		DATE CREATED: 24 May 11					





File Location: G:\SE\Projects\01\_Bioscience\haddock\GIS\95th\_Percentile\_Flow\_Conditions\_Lake\_Sturgeon\_Habitat\_Suitability\_Index.mxd

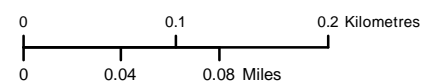
	Coordinate System: UTM NAD 1983 Z15	DATA SOURCE: Manitoba Hydro, North/South Consultants	<b>Legend</b> Spawning Barrier Critical Distance (238m) Post Project Infrastructure Existing Infrastructure	<b>Habitat Suitability Index (Egg Deposition)</b> 0.5 - 0.75 0.25 - 0.5 0.75 - 1	<b>Pointe du Bois Spillway Replacement Project</b> 95 <sup>th</sup> Percentile Flow Conditions Lake Sturgeon Habitat Suitability Index Existing Environment		Figure: 7.18B
		DATE CREATED: 24 May 11 REVISION NO: VERSION 1.0					



File Location: G:\SE\Projects\_04\_Basil\Public\hatched\DF\game2\110263211007\_PDB\_WalleyeHSI\_E50\_17B\_14\_10.mxd



Coordinate System: UTM NAD 1983 Z15



DATA SOURCE:  
Manitoba Hydro, North/South Consultants

DATE CREATED:  
24 May 11




CREATED BY:  
North/South Consultants

REVISION NO:  
VERSION 1.0

REVISION DATE:  
07 Jun 11

QA/QC:  
SB/MWZ

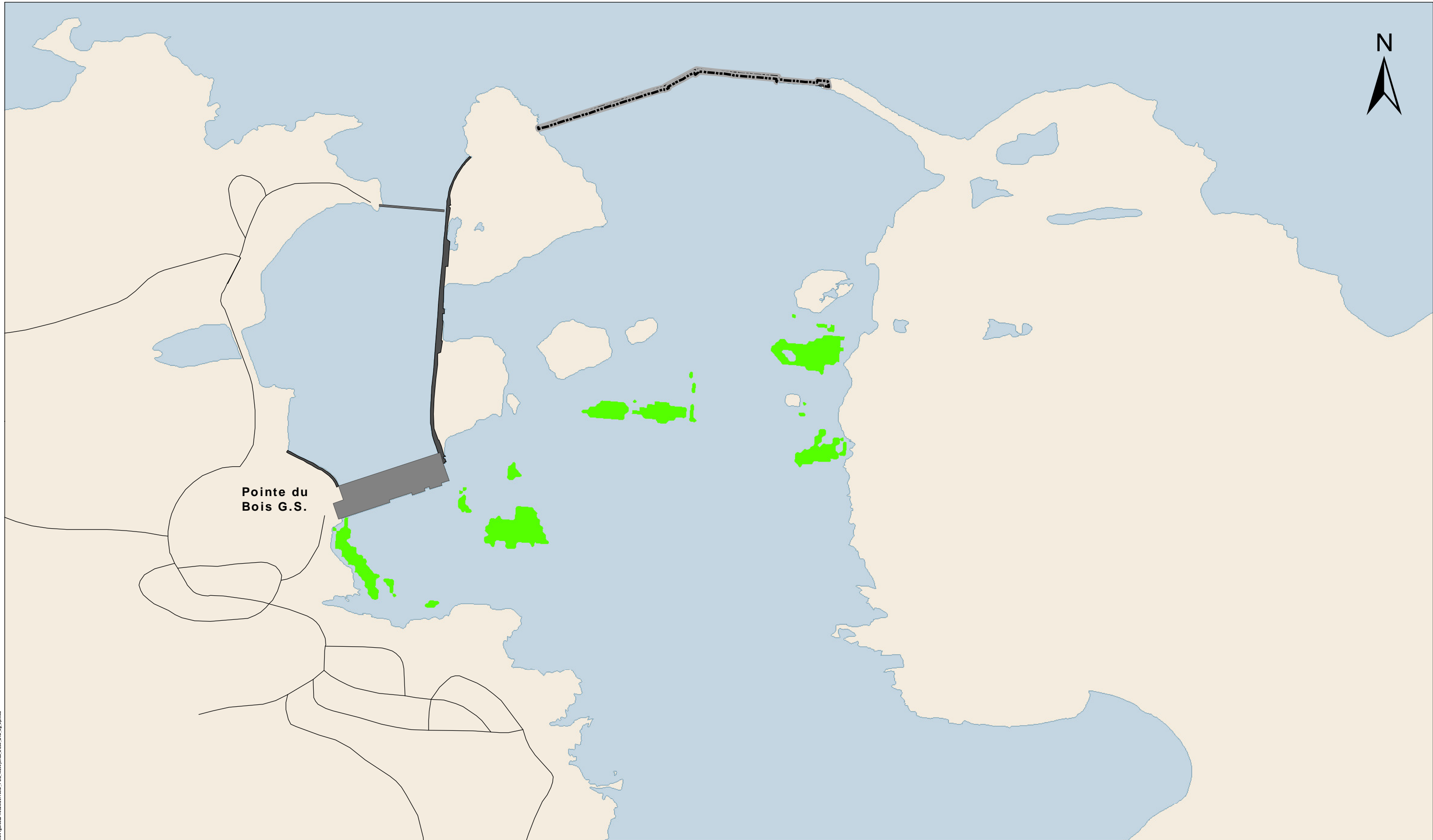
**Legend**

-  Spillway Gates
-  Suitable Walleye Habitat (Spawning/Egg Deposition)
-  Powerhouse

**Pointe du Bois  
Spillway Replacement Project**

50<sup>th</sup> Percentile Flow  
Walleye Habitat Suitability Index  
Existing Environment

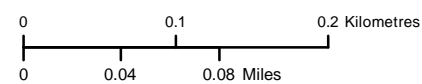
Figure:  
7.19A



File Location: G:\SE\Projects\_04\_Basil\Public\hatched\DF\game2\110263211007\_PDB\_WalleyeHSI\_EIS9\_19\_10.mxd



Coordinate System: UTM NAD 1983 Z15



**DATA SOURCE:**

Manitoba Hydro, North/South Consultants

**DATE CREATED:**

24 May 11

**CREATED BY:**

North/South Consultants

**REVISION NO:**

VERSION 1.0

**REVISION DATE:**

07 Jun 11

**QA/QC:**

SB/MWZ

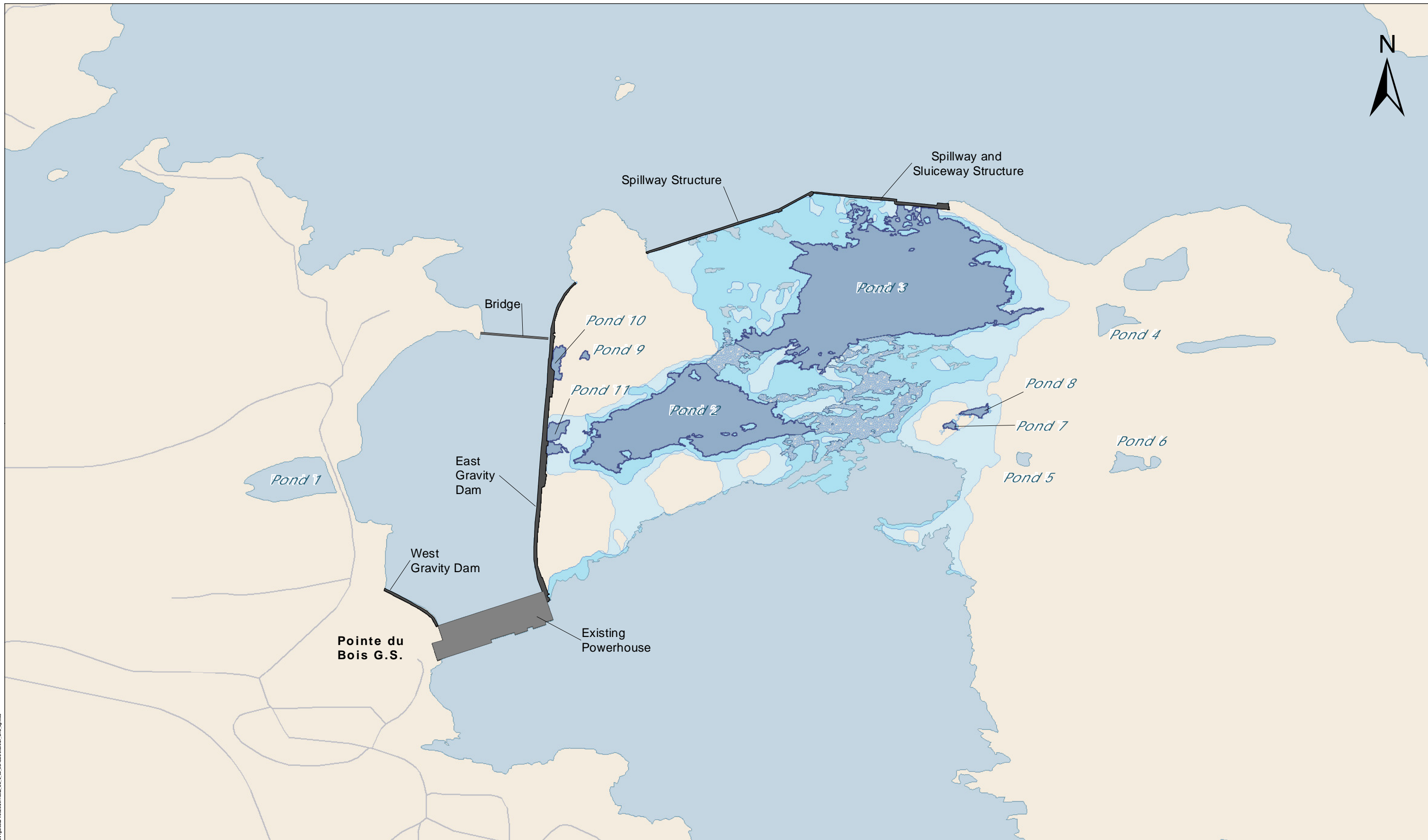
**Legend**

- Spillway Gates
- Suitable Walleye Habitat (Spawning/Egg Deposition)
- Powerhouse

**Pointe du Bois  
Spillway Replacement Project**

**95<sup>th</sup> Percentile Flow  
Walleye Habitat Suitability Index  
Existing Environment**

**Figure:  
7.19B**



File Location: G:\S\B\Pointe du Bois\Public\hwd\DF\game2\1102631025\_EE\_0\_95\FlowConditions\_07B.jpg.mxd

	Coordinate System: UTM NAD 1983 Z15	DATA SOURCE: Manitoba Hydro, North/South Consultants	<b>Legend</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682B4; border: 1px solid black;"></span> Reach 2 Ponds</p> <p><span style="display: inline-block; width: 15px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, #4682B4 2px, #4682B4 4px); border: 1px solid black;"></span> Connecting Water Ways</p> </div> <div style="width: 45%;"> <p><b>Existing Environment Flow Conditions</b></p> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: #A9C9D9; border: 1px solid black;"></span> No Spill</p> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: #66B3E0; border: 1px solid black;"></span> 50<sup>th</sup> Percentile</p> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: #90CAF9; border: 1px solid black;"></span> 95<sup>th</sup> Percentile</p> </div> </div>	<b>Pointe du Bois Spillway Replacement Project</b> No Spill, 50 <sup>th</sup> and 95 <sup>th</sup> Percentile Flow Conditions Existing Environment	Figure: 7.20
		DATE CREATED: 24 May 11 REVISION NO: VERSION 1.0 CREATED BY: North/South Consultants REVISION DATE: 26 May 11 QA/QC: SB/MWZ			