

# APPENDIX B

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## Fish Habitat Assessment Fact Sheets

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-121a204</b>
General Site Location:	Nuttby
Watercourse Name	Middle Branch North River
Field Assessor(s)	MB, NH
Field Assessment Date:	13-Dec-22
UTM Coordinates:	20 T 0481507 5044250
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Good
Spawning	Moderate
Rearing	Good
Foraging	Good
Migration	Excellent
Overwintering	Moderate
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	4.7
pH	6.06
Dissolved Oxygen (mg/l)	12.37
Dissolved Oxygen (%)	100.4
Conductivity (µs/cm)	26.6
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	17.5
Turbidity (NTU)	
Average Velocity (m/sec)	
Velocity Location	

CHANNEL MEASUREMENTS	
Average Channel Width (m)	2.90
Average Wetted Width (m)	2.88
Average Bankful Depth (m)	0.45
Average Water Depth (m)	0.41
Average Pool Depth (m)	
WATERCOURSE MORPHOLOGY	
Watercourse Type	Large Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 3: <0.5m
Pattern	Irregular Meandering
Slope	0.5
Confinement	Unconfined
INSTREAM COVER	
Dominant	Deep Pool
Subdominant	Undercut Banks
Subdominant	Small Woody Debris
Subdominant	
Subdominant	
Trace	Large Woody Debris
Trace	Boulder
Trace	Instream Vegetation
Trace	Overhanging Vegetation
SUBSTRATE	
Dominant	Cobble
Subdominant	Gravel
Subdominant	Fines
Trace	Boulder
Trace	Organics
BARRIERS	
Yes, Full Barrier	
STREAM INVERTEBRATES	
Low (5-20%)	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Sugar Maple	<i>Acer saccharum</i>
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	1-25%	
Bank Texture	Fines	
Bank Shape	Shallow Slope (<100% / 45 deg.)	
Bank Stability	Fair 50-80% Stable	
Vegetation Stage	Mature Forest	
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input checked="" type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		
Waterfall (~ 4 m high) located ~80 m upstream of centreline / crossing. Larger waterfall located >500 m downstream of centreline (did not observe size).		
Waterfall/cascade (6-8 m high by 20 - 30 m long, with 1 to 1.5 m drops) at 150 m downstream of centreline.		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-121a204**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (Waterfall ~80 m upstream from crossing)**



**Photo 4: Feature 2 (Cascade 200 m downstream of crossing)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122f162</b>
General Site Location:	Nuttby
Watercourse Name	
Field Assessor(s)	CT, MT
Field Assessment Date:	28-Nov-22
UTM Coordinates:	WP 1509
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Moderate
Spawning	Moderate
Rearing	Good
Foraging	Good
Migration	Poor
Overwintering	Poor
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	5.39
pH	5.27
Dissolved Oxygen (mg/l)	10.9
Dissolved Oxygen (%)	
Conductivity (µs/cm)	0.025
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	0.016
Turbidity (NTU)	3.3
Average Velocity (m/sec)	0.68
Velocity Location	Upstream

CHANNEL MEASUREMENTS	
Average Channel Width (m)	1.78
Average Wetted Width (m)	1.53
Average Bankful Depth (m)	0.29
Average Water Depth (m)	0.16
Average Pool Depth (m)	0.39
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	High
Morphology (assumed in dry area)	Run
Channel Depth Class	Class 3: <0.5m
Pattern	Sinuuous
Slope	
Confinement	Frequently Confined
INSTREAM COVER	
Dominant	Overhanging Vegetation
Subdominant	Undercut Banks
Subdominant	Large Woody Debris
Subdominant	
Subdominant	
Trace	Deep Pool
Trace	Boulder
Trace	Instream Vegetation
Trace	
SUBSTRATE	
Dominant	Gravel
Subdominant	Cobble
Subdominant	Fines
Trace	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2	Yellow Birch	<i>Betula alleghaniensis</i>
3	White Birch	#N/A
4	Eastern Hemlock	<i>Tsuga canadensis</i>
5	Shag moss	#N/A
6	American Beech	<i>Fagus grandifolia</i>
7	Gold Tread	#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	51-75%	
Bank Texture	Fines	
Bank Shape	Undercut	
Bank Stability	Poor <50% Stable	
Vegetation Stage	Young Forest	
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122f162**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (Upriver tree in stream, downstream of crossing)**



**Photo 4: Feature 2 (Small section of channel upstream of crossing)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-121b244</b>
General Site Location:	Nuttby
Watercourse Name	Middle Branch North River
Field Assessor(s)	CT, MT
Field Assessment Date:	21-Nov-22
UTM Coordinates:	WP 1333
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Poor
Spawning	Poor
Rearing	Moderate
Foraging	Poor
Migration	Poor
Overwintering	Poor
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	5.39
pH	5.27
Dissolved Oxygen (mg/l)	10.9
Dissolved Oxygen (%)	
Conductivity (µs/cm)	0.025
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	0.016
Turbidity (NTU)	3.3
Average Velocity (m/sec)	0.11
Velocity Location	Upstream

CHANNEL MEASUREMENTS	
Average Channel Width (m)	1.48
Average Wetted Width (m)	0.97
Average Bankful Depth (m)	0.24
Average Water Depth (m)	0.07
Average Pool Depth (m)	0.17
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Run
Channel Depth Class	Class 3: <0.5m
Pattern	Sinuuous
Slope	
Confinement	Frequently Confined
INSTREAM COVER	
Dominant	Large Woody Debris
Subdominant	Small Woody Debris
Subdominant	Overhanging Vegetation
Subdominant	Deep Pool
Subdominant	
Trace	Uprooted Tree Area
Trace	Boulder
Trace	Instream Vegetation
Trace	Undercut Banks
SUBSTRATE	
Dominant	Cobble
Subdominant	Gravel
Subdominant	Fines
Trace	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2	Yellow Birch	<i>Betula alleghaniensis</i>
3		#N/A
4	white spruce	<i>Picea glauca</i>
5	sugar maple	<i>Acer saccharum</i>
6	American Beech	<i>Fagus grandifolia</i>
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	26-50%	
Bank Texture	Fines	
Bank Shape	Undercut	
Bank Stability	Fair 50-80% Stable	
Vegetation Stage	Young Forest	
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-121b244**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (Upstream substrates)**



**Photo 4: Feature 2 (Downstream substrates)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122h34</b>
General Site Location:	Nuttby
Watercourse Name	West Branch North River Tri
Field Assessor(s)	CT, MT
Field Assessment Date:	21-Nov-22
UTM Coordinates:	WP 1324
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Poor
Spawning	Poor
Rearing	Moderate
Foraging	Poor
Migration	Poor
Overwintering	Poor
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	2.6
pH	5.67
Dissolved Oxygen (mg/l)	7.78
Dissolved Oxygen (%)	
Conductivity (µs/cm)	0.027
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	0.017
Turbidity (NTU)	4.4
Average Velocity (m/sec)	0.13
Velocity Location	Crossing

CHANNEL MEASUREMENTS	
Average Channel Width (m)	1.48
Average Wetted Width (m)	0.97
Average Bankful Depth (m)	0.24
Average Water Depth (m)	0.07
Average Pool Depth (m)	0.17
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Run
Channel Depth Class	Class 3: <0.5m
Pattern	Sinuuous
Slope	
Confinement	Occasionally Confined
INSTREAM COVER	
Dominant	Undercut Banks
Subdominant	Overhanging Vegetation
Subdominant	
Subdominant	
Subdominant	
Trace	Small Woody Debris
Trace	Instream Vegetation
Trace	Uprooted Tree Area
Trace	Deep Pool
SUBSTRATE	
Dominant	Cobble
Subdominant	Gravel
Subdominant	Fines
Trace	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2	Yellow Birch	<i>Betula alleghaniensis</i>
3		#N/A
4		#N/A
5	sugar maple	<i>Acer saccharum</i>
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	51-75%	
Bank Texture	Fines	
Bank Shape	Undercut	
Bank Stability	Fair 50-80% Stable	
Vegetation Stage	Young Forest	
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		
Will freeze in winter due to shallow depth.		



**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122h34**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (Narrow channel with riffle section)**



**Photo 4: Feature 2 (Small riffle section)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122b81</b>
General Site Location:	Nuttby
Watercourse Name	
Field Assessor(s)	CT, MT
Field Assessment Date:	28-Nov-22
UTM Coordinates:	WP 1524
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	
Spawning	Poor
Rearing	
Foraging	
Migration	Moderate
Overwintering	
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	5.66
pH	5.64
Dissolved Oxygen (mg/l)	9.74
Dissolved Oxygen (%)	
Conductivity (µs/cm)	0.03
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	0.023
Turbidity (NTU)	47
Average Velocity (m/sec)	
Velocity Location	

CHANNEL MEASUREMENTS	
Average Channel Width (m)	
Average Wetted Width (m)	
Average Bankful Depth (m)	
Average Water Depth (m)	
Average Pool Depth (m)	
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	High
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 2: 0.5-1.0m
Pattern	Sinuuous
Slope	>1%
Confinement	
INSTREAM COVER	
Dominant	Boulder
Subdominant	Undercut Banks
Subdominant	Deep Pool
Subdominant	
Trace	
Trace	
Trace	
Trace	
SUBSTRATE	
Dominant	Cobble
Subdominant	Boulder
Subdominant	Gravel
Trace	
Trace	
BARRIERS	
Yes, Temporary Barrier	
STREAM INVERTEBRATES	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1		#N/A
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %		
Bank Texture		
Bank Shape		
Bank Stability		
Vegetation Stage		
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input checked="" type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		
Small cascade, potentially seasonal barrier to movement for smaller fish species.		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122b81**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**

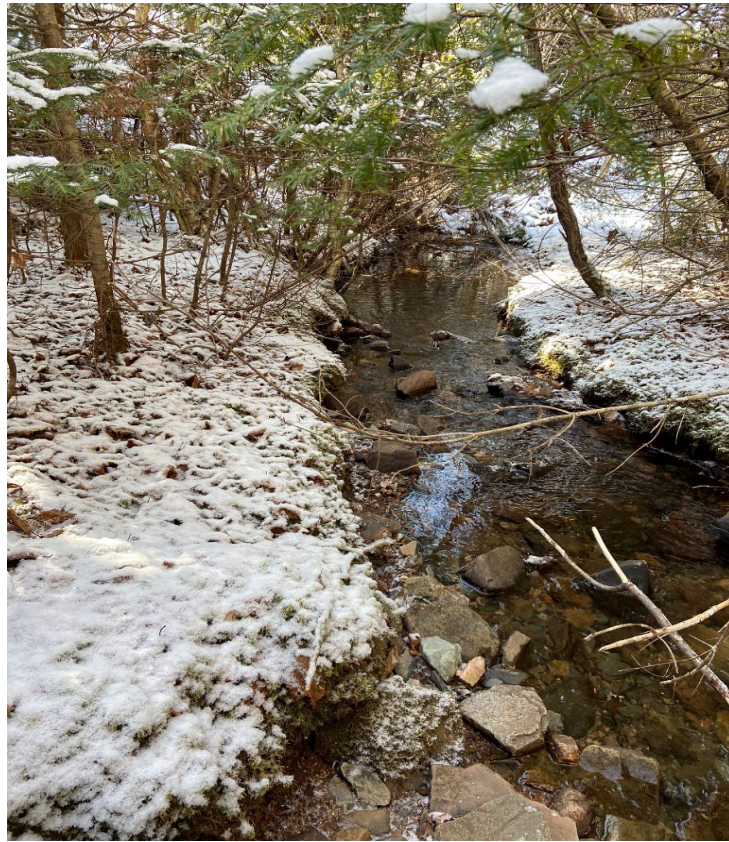
**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
<b>Watercourse ID:</b>	<b>Nuttby Watercourse NR- WC-122h26</b>
General Site Location:	Nuttby
Watercourse Name	West Branch North River
Field Assessor(s)	SF, CJ
Field Assessment Date:	21-Nov-22
UTM Coordinates:	WP 1959
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Poor
Spawning	Poor
Rearing	Moderate
Foraging	Moderate
Migration	Poor
Overwintering	Moderate
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Low
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	1.66
pH	5.68
Dissolved Oxygen (mg/l)	8.2
Dissolved Oxygen (%)	
Conductivity (µs/cm)	0.03
Salinity (mg/L)	0.01
Total Dissolved Solids (g/L)	0.019
Turbidity (NTU)	3.7
Average Velocity (m/sec)	0.06
Velocity Location	Crossing

CHANNEL MEASUREMENTS	
Average Channel Width (m)	2.62
Average Wetted Width (m)	1.22
Average Bankful Depth (m)	0.61
Average Water Depth (m)	0.10
Average Pool Depth (m)	0.34
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 3: <0.5m
Pattern	
Slope	
Confinement	None
INSTREAM COVER	
Dominant	Overhanging Vegetation
Subdominant	
Subdominant	
Subdominant	Boulder
Trace	Large Woody Debris
Trace	Uprooted Tree Area
Trace	Instream Vegetation
Trace	Deep Pool
Trace	Small Woody Debris
SUBSTRATE	
Dominant	Gravel
Subdominant	Fines
Subdominant	Cobble
Trace	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	51-75%	
Bank Texture	Fines	
Bank Shape	Undercut	
Bank Stability	Good >80% Stable	
Vegetation Stage	Pole-Sapling	
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input checked="" type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input checked="" type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		
Will likely freeze due to shallow depth.		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122h26**



**Photo 1: Upstream at Crossing Location**



**Photo 2: 50 m Upstream of Crossing Location**



**Photo 3: Feature 1 (Culvert at crossing with angular cobble)**



**Photo 4: Feature 2 (100 m downstream of crossing with downed woody debris)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122d34</b>
General Site Location:	Nuttby
Watercourse Name	
Field Assessor(s)	CJ, LG
Field Assessment Date:	03-Nov-22
UTM Coordinates:	WP 1854
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Poor
Spawning	Poor
Rearing	Moderate
Foraging	Moderate
Migration	Poor
Overwintering	Poor
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Moderate
FISH OBSERVED	
No	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	5.8
pH	7.55
Dissolved Oxygen (mg/l)	10.57
Dissolved Oxygen (%)	85.4
Conductivity (µs/cm)	49.2
Salinity (mg/L)	0.02
Total Dissolved Solids (g/L)	0.019
Turbidity (NTU)	
Average Velocity (m/sec)	
Velocity Location	

CHANNEL MEASUREMENTS	
Average Channel Width (m)	0.86
Average Wetted Width (m)	0.72
Average Bankful Depth (m)	0.43
Average Water Depth (m)	0.08
Average Pool Depth (m)	0.21
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 3: <0.5m
Pattern	
Slope	
Confinement	None
INSTREAM COVER	
Dominant	Overhanging Vegetation
Subdominant	Small Woody Debris
Subdominant	Boulder
Subdominant	
Trace	Large Woody Debris
Trace	Undercut Banks
Trace	Instream Vegetation
Trace	
Trace	
SUBSTRATE	
Dominant	Gravel
Subdominant	Fines
Subdominant	Cobble
Subdominant	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	
Low (5-20%)	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %		
Bank Texture		
Bank Shape		
Bank Stability		
Vegetation Stage		
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input checked="" type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: Watercourse NR-WC-122d34**



**Photo 1: Downstream at Crossing Location**



**Photo 2: Feature 1 (Road side ditch connected to watercourse)**



**Photo 3: Feature 2 (Shallow ponding area wher fish was observed)**

## Watercourse Fact Sheet: Fish Habitat - Page 1

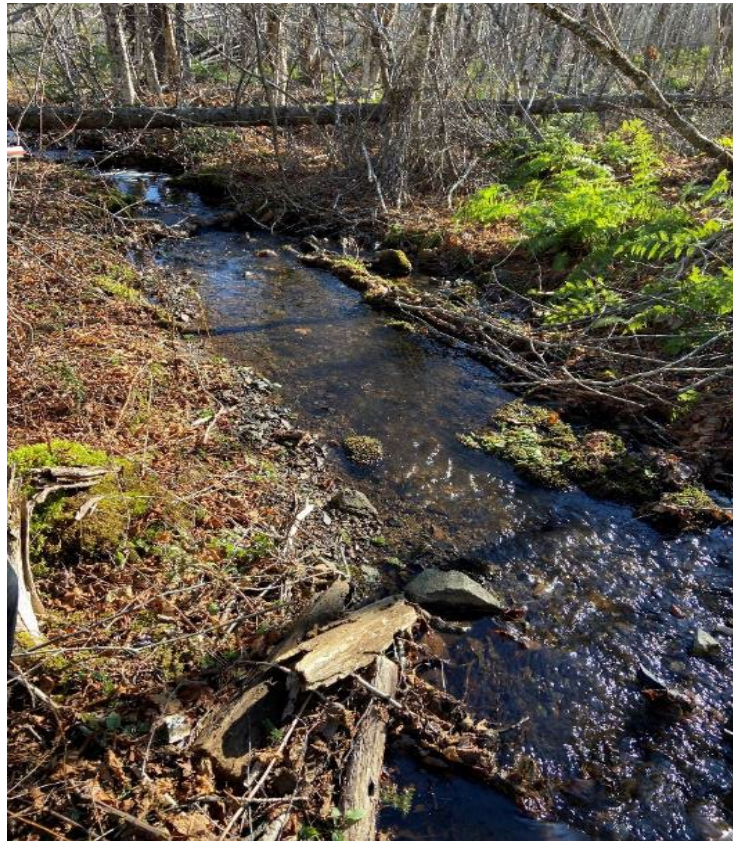
WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122d113</b>
General Site Location:	Nuttby
Watercourse Name	West Branch North River
Field Assessor(s)	CJ, LG
Field Assessment Date:	03-Nov-22
UTM Coordinates:	WP 1864
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Poor
Spawning	Poor
Rearing	Moderate
Foraging	Moderate
Migration	Poor
Overwintering	Moderate
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	High
FISH OBSERVED	
Yes, Salmonid	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	7.5
pH	7.57
Dissolved Oxygen (mg/l)	12.59
Dissolved Oxygen (%)	106.1
Conductivity (µs/cm)	35.4
Salinity (mg/L)	0.02
Total Dissolved Solids (g/L)	
Turbidity (NTU)	
Average Velocity (m/sec)	0.38
Velocity Location	Crossing

CHANNEL MEASUREMENTS	
Average Channel Width (m)	2.32
Average Wetted Width (m)	1.89
Average Bankful Depth (m)	0.68
Average Water Depth (m)	0.10
Average Pool Depth (m)	0.31
WATERCOURSE MORPHOLOGY	
Watercourse Type	Small Permanent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 3: <0.5m
Pattern	
Slope	
Confinement	None
INSTREAM COVER	
Dominant	Large Woody Debris
Subdominant	Small Woody Debris
Subdominant	Overhanging Vegetation
Subdominant	Boulder
Trace	Uprooted Tree Area
Trace	
Trace	
Trace	
Trace	
SUBSTRATE	
Dominant	Gravel
Subdominant	Fines
Subdominant	Cobble
Subdominant	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	
High (>60%)	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	51-75%	
Bank Texture	Mixed (Fines, Organics, Gravel)	
Bank Shape	Shallow Slope (<100% / 45 deg.)	
Bank Stability		
Vegetation Stage		
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input checked="" type="checkbox"/>	
ADDITIONAL NOTES		
Fish observed, possibly salmonid.		



**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122d113**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (unconfined channel section)**



**Photo 4: Feature 2 (bridge/crossing over watercourse)**

**Watercourse Fact Sheet: Fish Habitat - Page 1**

WATERCOURSE INFORMATION	
Watercourse ID:	<b>Nuttby Watercourse NR- WC-122d111</b>
General Site Location:	Nuttby
Watercourse Name	ib to West Branch North Riv
Field Assessor(s)	CJ, LG
Field Assessment Date:	03-Nov-22
UTM Coordinates:	WP 1872
Datum:	UTM
HABITAT QUALITY (AT CENTRELINE)	
Overall Habitat Quality	Moderate
Spawning	Poor
Rearing	Moderate
Foraging	
Migration	
Overwintering	Poor
POTENTIAL FOR FISH PRESENCE	
Overall Fish Potential	Moderate
FISH OBSERVED	
Yes, Salmonid	
WATER QUALITY AND VELOCITY	
Temperature (Deg. C)	
pH	
Dissolved Oxygen (mg/l)	
Dissolved Oxygen (%)	
Conductivity (µs/cm)	
Salinity (mg/L)	
Total Dissolved Solids (g/L)	
Turbidity (NTU)	
Average Velocity (m/sec)	
Velocity Location	

CHANNEL MEASUREMENTS	
Average Channel Width (m)	2.74
Average Wetted Width (m)	2.36
Average Bankful Depth (m)	0.53
Average Water Depth (m)	0.09
Average Pool Depth (m)	
WATERCOURSE MORPHOLOGY	
Watercourse Type	Intermittent
Stage (season was very dry)	Mid
Morphology (assumed in dry area)	Riffle
Channel Depth Class	Class 3: <0.5m
Pattern	
Slope	
Confinement	None
INSTREAM COVER	
Dominant	Instream Vegetation
Subdominant	Small Woody Debris
Subdominant	Overhanging Vegetation
Subdominant	Boulder
Trace	Uprooted Tree Area
Trace	Large Woody Debris
Trace	
Trace	
Trace	
SUBSTRATE	
Dominant	Cobble
Subdominant	Gravel
Subdominant	Fines
Subdominant	Boulder
Trace	
BARRIERS	
No Barriers	
STREAM INVERTEBRATES	
High (>60%)	

RIPARIAN VEGETATION SPECIES		
#	Common Name	Scientific Name
1	Balsam Fir	<i>Abies balsamea</i>
2		#N/A
3		#N/A
4		#N/A
5		#N/A
6		#N/A
7		#N/A
8		#N/A
9		#N/A
10		#N/A
RIPARIAN INFORMATION		
Crown Closure %	51-75%	
Bank Texture	Mixed (Fines, Organics, Gravel)	
Bank Shape	Shallow Slope (<100% / 45 deg.)	
Bank Stability		
Vegetation Stage		
IMPORTANT FEATURES OBSERVED		
Spawning Area / REDD	<input type="checkbox"/>	
Beaver Dam	<input type="checkbox"/>	
Beaver Pond	<input type="checkbox"/>	
Underground Sections	<input type="checkbox"/>	
Waterfall or Cascade	<input type="checkbox"/>	
No Defined Channel	<input type="checkbox"/>	
Hanging Culvert	<input type="checkbox"/>	
Blocked or Damaged Culvert	<input type="checkbox"/>	
Bridge	<input type="checkbox"/>	
ADDITIONAL NOTES		
Fish observed, likely Brook Trout YOY.		

**Watercourse Fact Sheet: Fish Habitat - Page 2**  
**Watercourse ID: NR-WC-122d111**



**Photo 1: Upstream at Crossing Location**



**Photo 2: Downstream at Crossing Location**



**Photo 3: Feature 1 (Side Stream)**