Unconstrained Headwater Drainage Feature Assessment

Date (yyyy/mm/dd):   Project #:   Recorder/Crew:

Stream Name: Stream Code: Site Code:

Site Limits: Upstream   WP#   Field Assessment: Sample 1   Unconnected HDF:
                 Downstream   WP#   Sample 2   Not connected to
Direction of Assessment: Upstream   Downstream   Sample 3   downstream network

Flow Influence	Freshet (1)		Spate (2)		Baseflow (3)
Flow Condition	Dry (1)		Interstitial Flow (3)		Substantial Flow (5)
	Standing Water (2)		Minimal Flow (4)		

Feature Type	Defined Natural Channel (1)	No Defined Feature (4)	Swale (7)
	Channelized or Constrained (2)	Tiled Feature (5)	Roadside Ditch (8)
	Multi-thread (3)	Wetland (6)	Pond (9)

Feature Vegetation	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland(6)	Forest (7)

Riparian Vegetation

		None	Lawn	Cropped	Meadow	Scrubland	Wetland	Forest
0 - 1.5 m	Left Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)
	Right Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)
1.5 - 10 m	Left Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)
	Right Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)
10 - 30 m	Left Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)
	Right Bank	None (1)	Lawn (2)	Cropped (3)	Meadow (4)	Scrubland (5)	Wetland (6)	Forest (7)

Channel Gradient (S4.M7)	Visual (1)	Clinometer (2)	Laser Level (3)	Survey Level (4)	Other (5)	LiDAR (6)

Distance (m):   Elevation (cm) :   Gradient (º):

Dominant Substrate (S2.M3)   Clay (Hard Pan)   Silt   Sand (0.06-2 mm)   Gravel (22-66 mm)   Cobble (67-249 mm)   Boulder (250 mm)   Bedrock

Sub-Dominant Substrate (S2.M3)

Feature Roughness	< 10% Minimal (1)	10 - 40% Moderate (2)	40 - 60% High (3)	> 60% Extreme (4)
Width Measurement	Can't Measure (1) Bankfull (2)	Mean Width (3) Estimated (4)	GIS (5)	Measure/GIS (6)

Channel Dimensions   Feature Width (m):   Bankfull Depth (mm)

Entrenchment   Total: >40 m   <40 m   Left Bank   m   Right Bank   m   Total width   m

Surface Flow Method	Perched Culvert (1)	Hydraulic Head (2)	Distance by Time (3)	Estimated (4)

Wetted Width (m)	Wetted Depth (mm)			Hydraulic head (mm)			Volume (L)			Distance (m)			Time (s)		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3

Sediment Transport	Adjacent	None (1)	Rill (2)	Rill and Gully (3)	Gully (4)	Outlet Scour (5)
		Sheet Erosion (6)		Instream Bank Erosion (7)		Other (8)
	Feature	None (1)	Rill (2)	Rill and Gully (3)	Gully (4)	Outlet Scour (5)
		Sheet Erosion (6)		Instream Bank Erosion (7)		Other (8)

Sediment Deposition   Measures (mm):

None (1)	Minimal: < 5 mm (2)	Moderate: 5-30 mm (3)	Substantial: 31-80 mm (4)	Extensive: > 80 mm (5)

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Date: Project #:   Field Assessment: Sample # 1   Sample # 2   Sample # 3

POINT FEATURE DATA

Fish Barrier Measurements: WP#   Perched Height (mm):   Jumping Height (mm):

                          WP#   Perched Height (mm):   Jumping Height (mm):

Groundwater Indicators   None   Watercress   Seepage   Bubbling   Stained   Other:

Fish Collection   Absent   Present   Comment:

WP#	Photo #	Code	Category	Description

Additional Notes:

Site Break	Feature Type	Feature Modifier	Flow Conditions	Feature Vegetation	Riparian Vegetation
Trigger	Other: Comments				
Point Data	Ongoing and Active (1)		Historic Evidence (2)	Reported but No Evidence (3)	
Category	No Evidence (4)		Unknown (5)		

POINT DATA KEY:

A   Spring/upwelling - estimate <0.5 l/sec or >0.5 l/sec; measure temp

B   Seepage area - measure or estimate length of bank where seepage occurs

C   Watercress - estimate total surface area occupied

D   Outlet (tile or other) - record flow status as per feature flow. Estimate volume <0.5 l/sec or >0.5 l/sec. Measure temperature.

E   Inlet (tile or other) - record flow status as per feature flow. Estimate volume to be <0.5 l/sec or >0.5 l/sec.

F   Beaver dam - measure perched height and jumping height

G   Manmade dam - measure perched height and jumping height

H   Other barrier to fish movement

I   Potential contamination source (storm sewer outlet or industrial discharge pipe).

J   Channel hardening - indicated by rip-rap, armour stone, or gabion baskets.

K   Culvert - note type, size and whether or not perched. If perched record perched height and jumping height.

L   Flow transition point D/S - flow condition changes from dry to standing water, independent of segment break

M   Flow transition point M/S- flow condition changes from minimal to substantial surface flow, independent of segment break

N   Flow transition point D-S/IF- flow condition changes from dry/standing water to interstitial flow, independent of segment break

O   Fish observed during non-fish sampling activities

P   Potential nutrient source

Q   Dredging of channel

R   Offline pond

S   Other