



<b>Watershed Features (Cont.)</b>		P	C	B	D		P	C	B	D
	Forest					Commercial/Industrial				
	Old field					Hay field				
	Residential					Other _____				
<b>Local Watershed Erosion (pertains to land use, not failing stream banks)</b> <input type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy										

Section F		
<b>Water Quality</b>	<b>Temperature (°C)</b> _____ <b>Conductivity uS/cm</b> _____ <b>Dissolved Oxygen mg/L</b> _____ <b>pH</b> _____ <b>Turbidity (mg/L)</b> _____ <b>Secchi depth (m.mm)</b> _____ <b>Meters used:</b> _____  <b>Hach Kit used Yes/No</b> _____ <b>Water Sample Collected for Lab analysis Yes/No</b> _____ <b>Flow at nearest USGS gauging station (cfs)</b> _____ <b>Gauging station:</b> _____	<b>Water Odors</b> <input type="checkbox"/> Normal/None <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Fishy <input type="checkbox"/> Other _____  <b>Turbidity (visual)</b> <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____  <b>Water Surface Oils</b> <input type="checkbox"/> Slick <input type="checkbox"/> Sheen <input type="checkbox"/> None <input type="checkbox"/> Globbs <input type="checkbox"/> Flecks <input type="checkbox"/> Other _____

Section G	
<b>Sediment/Substrate</b>	<b>Odors</b> <input type="checkbox"/> Normal <input type="checkbox"/> None <input type="checkbox"/> Sewage <input type="checkbox"/> Sludge <input type="checkbox"/> Leaf Litter <input type="checkbox"/> Sand <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Relict Shells <input type="checkbox"/> Other _____ <input type="checkbox"/> Anaerobic (methane) <input type="checkbox"/> Paper/fiber <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
	<b>Deposits</b> <input type="checkbox"/> Sludge <input type="checkbox"/> Leaf Litter <input type="checkbox"/> Sand <input type="checkbox"/> Relict Shells <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper/fiber <input type="checkbox"/> Other _____
	<b>Substrate Type (rank top three, 1 being dominant)</b> __Bedrock    __Boulder    __Cobble    __Gravel    __Sand    __Silt/clay

Section H	
<b>Streambank and Riparian Zone Characterization</b>	<b>Canopy Cover</b> <input type="checkbox"/> Mostly Open <input type="checkbox"/> Shaded <input type="checkbox"/> Mostly Shaded <input type="checkbox"/> None
	<b>Stream Bank Failure Present? (within survey reach only)</b> Right Descending Bank Yes/No    Left Descending Bank Yes/No
	<b>Riparian Zone (10 meters) fully intact</b> Right Descending Bank Yes/No    Left Descending Bank Yes/No

Notes: \_\_\_\_\_

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## Current Stream and Weather Conditions Variables

### Section A -- Event Documentation

1. **Collector Name**
3. **Stream Name** and **Site Name** (if applicable)
4. **LLID** : DNR USE
5. **Date** (MM/DD/YYYY)
6. **Project** :
9. **Permittee ID** :

### Section B -- Weather Conditions

#### **Precipitation:**

#### **Sky Conditions:**

**Past Week:** Make note as to whether there has been heavy rain in the past 7 days. This would be rain that created runoff.

### Section C -- Stream Characterization

**Human Influence** Check all boxes that apply. These refer to any man-made structure, object, equipment, or activity that occurs or has occurred within the stream channel.

**In Stream Cover** Check all boxes that apply. These refer to "natural" in stream occurrences that may affect stream morphology and provide cover for aquatic organisms.

**Debris Dam** – Is a complete obstruction of the stream channel created primarily by natural materials.

**Woody Debris** – Are those pieces of wood that can influence aquatic organism cover and stream morphology.

**Blow Down** – Is a recent fallen tree or large limb that can potentially affect stream morphology and provide cover for aquatic organisms.

**Beaver Dam** – Debris dam engineered by beavers.

### Section D-- Aquatic Vegetation

The general type and relative dominance of aquatic plants are documented in this section. Only an estimation of the extent of aquatic vegetation is made. List the species of aquatic vegetation if known.

**Rooted emergent** – refers to those plants that are rooted in the substrate and rise above the water surface. Example cattails

**Rooted submergent** – refers to those plants that are rooted in the substrate and only grow beneath the water surface. Example curly pondweed

**Rooted floating** – refers to those plants which are rooted in the substrate with tops floating on the surface. ie. water lilies

**Free floating** – refers to those plants which are not rooted and float on the water surface. ie. duckweed

**Floating algae** – refers to algae that are not attached to the substrate and are floating on or near the water surface.

**Attached algae** – refers to algae attached to the substrate. ie. green rocks, carpeted stream bottom

### Section E – Watershed Features

**Human Influence/Watershed Features** - This section refers to those human activities that influence the watershed within your survey reach or those you can see directly from your survey area. For each activity present, rate it as "P" for present but outside the 10m riparian zone, "C" for close being present within the 10m riparian zone or "B" for bank being present within the 10m riparian zone and located in the stream or on the stream bank. Indicate no more than the two most dominant land uses by checking "D". **When indicating Dominant, place an R, right descending bank, or L, left descending bank, or checkmark if occurs on both banks.**

**Local Watershed Erosion** – In this category rate the extent of erosion observed as a result of the above activities. This does not refer to failing banks. ie. cattle feedlot – high erosion

### Section F – Water Quality

4/29/2016

**Temperature:** Degrees Celcius

**Conductivity, Dissolved Oxygen, pH, and Turbidity** readings should be taken according to manufacturer instructions for particular meter used. Indicate what meters were used for each reading.

**Secchi depth** – is measured by lowering the secchi disc into the water until the black and white cannot be distinguished. Raise the disc to that point which you can distinguish black and white. Measure this depth to the nearest 1/10<sup>th</sup> meter.

**Water Odors, Turbidity (visual), and Water Surface Oils** sections should be filled out using criteria established in the EPA manual, Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers, Sections 5.1.10.

#### **Section G – Sediment/Substrate.**

**Odors and Deposits** sections should be filled out using criteria established in the EPA manual, Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers, Sections 5.1.11.

**Substrate Type** – rank the three most common substrate components from one to three with one being dominant. Pebble sizes are based on Wentworth categories.

#### **Section H – Streambank and Riparian Zone Characterization**

**Canopy Cover** – Note the general proportion of open to shaded area which best describes the amount of cover at the sampling reach or station.

**Mostly Open** - refers to more open than shaded.

**Mostly Shaded** - refers to more shaded than open.

**Shaded** - refers to completely shaded.

**None** – no shading at all.

**Stream Bank Failure Present** - Indicate whether there is stream bank failure on either the right or left bank within your survey reach or station only.

**Riparian Zone fully intact** – Indicate if there is a fully intact riparian zone (10 meters) within your survey reach or station only.