



## Watershed Tour

### Location:

- ☐ Upper Watershed ☐ Middle Watershed ☐ Lower Watershed

### Name of water body:

### Date and time:

### Today's weather:

- ☐ Clear ☐ Light rain ☐ Snow  
☐ Partly cloudy ☐ Steady rain  
☐ Partly sunny ☐ Heavy rain

### Stream characteristics

 Check all the terms that describe what you see.

#### Water appearance

- ☐ Clear ☐ Oily sheen ☐ Colored, if so describe:  
☐ Turbid ☐ Algae  
☐ Foamy

#### Stream Flow

- ☐ Slow ☐ Swift  
☐ Moderate ☐ Combination

#### Odor

- ☐ Nothing ☐ Chemicals ☐ Other, if so describe:  
☐ Sewage ☐ Anaerobic (rotten eggs)  
☐ Gas/oil

#### Tree Canopy

- ☐ 100% closed ☐ 75% closed ☐ 50/50  
☐ 100% open ☐ 75% open ☐ closed/open

#### Submerged vegetation

- ☐ Woody debris ☐ Aquatic plants  
☐ Leaves ☐ Submerged roots

#### Presence of litter in stream or on bank

- ☐ None ☐ Moderate  
☐ A few pieces ☐ A lot

#### Percent of impervious surfaces within 15m in all directions

- ☐ <20% ☐ 20-50% ☐ >50%

#### Human modifications to Stream channel

- ☐ None ☐ Pipe or ditch  
☐ Cement ☐ Rip Rap (rocks or rubble)

**Streambank Characteristics** The streambank is an area of land immediately adjacent to the bed of the stream.

Percent of Streambank Covered by Vegetation (grass, shrubs, trees, etc.)

Left Bank

☐ 0% (bare soil)

☐ 20-50%

☐ <20%

☐ >50%

Right Bank

☐ 0% (bare soil)

☐ 20-50%

☐ <20%

☐ >50%

Bank Slope (or Grade) To determine the slope or grade of a stream bank:

1. Have two people stand 100 feet apart and face one another; one uphill or further from the stream and one downhill, closer to the stream.

2. Have the person who is uphill hold a flat surface (e.g. notebook or clipboard) at horizontal sight level and look in the direction of the downhill person. If the uphill person can see any part of the downhill person's body, the slope is rated at less than 6%. If no part of the downhill person's body is visible, the rating is greater than 6%.

Left Bank ☐ <6% ☐ >6%

Right Bank ☐ <6 ☐ >6%

## Chemical Monitoring

**Temperature:**

Air: \_\_\_\_\_ °C x 1.8 + 32 = \_\_\_\_\_ °F

Water: \_\_\_\_\_ °C x 1.8 + 32 = \_\_\_\_\_ °F

**Nitrate Nitrogen (ppm) (please circle):**

0 1 2 4 6 8 10 15

**Phosphates (ppm) (please circle):**

<0.2 0.2 0.3 0.4 0.5 0.6 0.7 0.8 1.0 >1.0

**pH (please circle):**

<4.5 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 >10.0

**Turbidity:** Sample Size (mL) (circle) 25 50

Amount of Turbidity Reagent Added: \_\_\_\_\_ mL \_\_\_\_\_ JTU

**Dissolved Oxygen (ppm):** concentration: \_\_\_\_\_ ppm

**Salinity (ppt)** concentration: \_\_\_\_\_ ppt

**Stream Discharge** Make 3 measurements, then find the averages for the final equation.

	#1	#2	#3	Average
Stream <b>Width</b> (m)				
Stream <b>Depth</b> (m)				
Velocity Time (sec)				
Stream <b>Flow Rate</b> (m/sec) # m: _____ (distance used)				
Stream Discharge (m <sup>3</sup> /sec) = <b>Width</b> x <b>Depth</b> x <b>Flow Rate</b> =				

## Land-Use Characteristics

*The type of land use surrounding a stream contributes greatly to the health of the waterway. From agricultural uses to forests, commercial spaces to wetlands, it is important to know how the land is being used in the area around the stream and in the greater watershed.*

Make a tally mark each time you see one of these

RESIDENTIAL	COMMERCIAL	OPEN LAND
Houses with lawns	Smaller stores / industrial buildings	Open fields (meadows)
Apartment buildings	Larger warehouses or offices	Crop field
Row houses	Strip mall	Animal grazing
Housing construction	School/Hospital/ House of Worship	Forest/Woods
	Parking lots	Golf course
	Commercial construction	Ball field/Park
	Utilities/Public Service	Body of water