



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 Width (m) | | | | |
| Stream Depth (m) | | | | |
| Velocity Time (sec) | | | | |
| Stream Flow Rate (m/sec) # m: _____ (distance used) | | | | |
| Stream Discharge (m ³ /sec) = Width x Depth x Flow Rate = | | | | |

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 |