



# NEW SITE??

IF SO:

- PLEASE SEND MAP(S)
- MARK MONITORING SITE(S) WITH AN "X"
- IF DATA IS SUBMITTED WITHOUT A MAP, IT WILL DELAY THE ENTRY OF THAT DATA INTO THE *VOLUNTEER WATER QUALITY MONITORING* DATABASES.

**Refer to Chapter 2, "*Site Selection & Identification*," in your Introductory VWQM training notebook for instructions on what information to put on the Site Map.**

# ***NEED MORE DATA SHEETS?***



**Just let us know and we will get some in the mail to you *right away!***

**Call the  
Stream Team Voice Mail:  
1-800-781-1989**

**OR**

**Send us an email:  
[streamteam@mdc.mo.gov](mailto:streamteam@mdc.mo.gov)**

**OR**

**Download them off the Stream Team website:**

**<http://www.mostreamteam.org>**



## SITE SELECTION DATA SHEET INSTRUCTIONS

This data sheet has been developed to help you to become familiar with your 300-foot monitoring site and to identify it to program staff. Fill out all of the data sheet items and any additional notes you feel help describe the stream and riparian corridor. Return this data sheet, a map with your site clearly marked, as well as the Stream Discharge data sheet to the address below to receive your biological monitoring equipment.

### Data Sheet Items

**Site Number.** You must designate this number. It becomes very important if you choose to monitor more than one site. Number your sites as you chronologically choose them.

**Stream and County.** List the name of the stream as it appears on your map (e.g., a USGS topographic map). Locating your site on a map also ensures you record the appropriate county.

**Site Description.** This refers to a verbal description. Verbally describe where you are on the stream using street or highway names, bridges, approximate distances from landmarks, etc. Please be consistent and use the same verbal description for the same site (e.g., 100 feet upstream of Hwy. P bridge).

**Date and Time.** Please use military time (e.g., 2:00 p.m. is 1400, or 2:45 p.m. is 1445).

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**Water Temperature.** 0° - 34° C is *within the normal range*.

Be sure to read water temperature while the thermometer is submerged and shaded.

**Trained Data Submitter.** List the name of the person assuming responsibility for these data.

**Stream Team Number.** Enter your Stream Team number.

**Trained Participants.** List the names of other volunteers trained at VWQM classes.

**Weather Conditions.** Please describe the cloud cover (e.g., sunny, partly cloudy, etc...).

**Temperature.** Measure the air temperature before measuring the water temperature. Read the water temperature while the thermometer is in the water to guarantee an exact reading.

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**Streambank Vegetation.** Indicate what types of vegetation are present along the banks and in the riparian area at your monitoring site.

**Algae.** Indicate where on the stream bottom algae is located and if it is filamentous or close-growing.

**Stream Bed.** Rank the various sized sediments listed 0-5 with 5 being the substrate that is most prevalent and covers the most of the stream bed, rank a substrate 0 if it appears to be not present.

**Aquatic Organisms.** Check the box if there are fish or aquatic invertebrates present. You may also note any other aquatic vertebrates you see.

**Land Use in the Watershed.** Indicate the dominant land uses within your stream's watershed.

Comments \_\_\_\_\_

PLEASE KEEP A COPY AND SEND ORIGINAL DATA TO: Stream Team Coordinator  
Water Protection Program  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176



# SITE SELECTION DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

<b>Weather Conditions:</b> <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Rain Other: _____																																											
<b>Temperature:</b> Air Temperature (°C) _____      Water Temperature (°C) _____																																											
<b>Water Appearance:</b> <input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Milky <input type="checkbox"/> Oily Other: _____																																											
<b>Water Odor:</b> <input type="checkbox"/> Rotten <input type="checkbox"/> Musty <input type="checkbox"/> Fishy <input type="checkbox"/> Chlorine <input type="checkbox"/> None Other: _____																																											
<b>Habitat:</b> (Check all that apply) <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Pool</td> <td><input type="checkbox"/> Root Wads</td> <td><input type="checkbox"/> Undercut Banks</td> </tr> <tr> <td><input type="checkbox"/> Riffle</td> <td><input type="checkbox"/> Logs or Stumps</td> <td><input type="checkbox"/> Rock Ledges</td> </tr> <tr> <td><input type="checkbox"/> Run</td> <td><input type="checkbox"/> Aquatic Vegetation</td> <td><input type="checkbox"/> Log Piles</td> </tr> <tr> <td><input type="checkbox"/> Backwater</td> <td><input type="checkbox"/> Large Boulders</td> <td><input type="checkbox"/> Artificial Objects</td> </tr> </table> Other: _____		<input type="checkbox"/> Pool	<input type="checkbox"/> Root Wads	<input type="checkbox"/> Undercut Banks	<input type="checkbox"/> Riffle	<input type="checkbox"/> Logs or Stumps	<input type="checkbox"/> Rock Ledges	<input type="checkbox"/> Run	<input type="checkbox"/> Aquatic Vegetation	<input type="checkbox"/> Log Piles	<input type="checkbox"/> Backwater	<input type="checkbox"/> Large Boulders	<input type="checkbox"/> Artificial Objects																														
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<b>Riparian Cover:</b> Stream is ... <input type="checkbox"/> Fully Exposed (0-25% of stream is shaded from the sun) <input type="checkbox"/> Partially Exposed (25-50%) <input type="checkbox"/> Partially Shaded (50-75%) <input type="checkbox"/> Fully Shaded (75-100%)																																											
<b>Streambank Vegetation:</b> <input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses/Weeds <input type="checkbox"/> Root Mats (Check all that apply) <input type="checkbox"/> Bare Ground    Other: _____																																											
<b>Algae:</b> Is the algae located: <input type="checkbox"/> In Spots <input type="checkbox"/> Everywhere <input type="checkbox"/> Absent Is the algae: <input type="checkbox"/> Close-Growing (< 2") <input type="checkbox"/> Filamentous (> 2") Other: _____																																											
<b>Stream Bed:</b> (Rank each substrate 0-5 with 5 being most prevalent.) <table style="width: 100%; border: none;"> <tr> <td>Silt/Mud</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Sand</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Gravel</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Cobble</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Boulder</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Bedrock</td> <td><input type="checkbox"/> 0</td> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> </table>		Silt/Mud	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Sand	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Gravel	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Cobble	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Boulder	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Bedrock	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
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# STREAM DISCHARGE DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

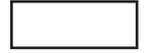
Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

## Instructions for Calculation of Stream Discharge (Flow)

Select a section of stream that is relatively straight, free from large objects such as logs or large boulders, with a noticeable current, and with a depth as uniform as possible. Stretch the tape measure provided by the program across the stream. The "0" point should be anchored at the wetted edge of the stream. The end of the tape measure should be anchored at the opposite end so that it is taut and even with the other wetted edge.



Stream Width  
(Feet)

**Step 1: Determine stream cross-sectional area.** The first step in determining cross-sectional area is to measure and calculate the average stream depth. In the table below, record the depth measurements at one-foot intervals along the tape measure you have stretched across the stream. The depth must be measured in **tenths of a foot** (e.g. 1.7 feet equals one foot and seven tenths). **DO NOT MEASURE DEPTH IN INCHES.**

Record Depth at 1-Foot Intervals					
Interval Number	Depth in Feet	Interval Number	Depth in Feet	Interval Number	Depth in Feet
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	
Sum		Sum		Sum	

The average depth is calculated by dividing the sum of the depth measurements by the number of intervals at which measurements were taken.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Sum of Depths} & & \text{Number of} \\
 \text{(Feet)} & & \text{Intervals} \\
 & & \text{Average Depth} \\
 & & \text{(Feet)}
 \end{array}$$

The final step in calculating the cross-sectional area is to multiply the average depth (in feet) by the stream width (in feet) at the point where the tape measure is stretched across the stream.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Average Depths} & & \text{Stream Width} \\
 \text{(Feet)} & & \text{(Feet)} \\
 & & \text{Cross Sectional} \\
 & & \text{Area (Feet)}^2
 \end{array}$$

**Step 2: Determine the average velocity for the stream.** For a stream less than ten feet in width, select three points in the stream approximately equal distances apart for velocity measurements. For streams greater than ten feet in width, no fewer than four velocity measurements should be taken at approximately equal distances across the stream. For example, if the stream were eight feet wide, then velocity measurements would be taken at approximately two foot intervals across the stream in order to derive three measurements. If the stream were sixteen feet across, then velocity measurements would be taken at approximately three foot intervals across the stream in order to derive four measurements. This method of measuring the stream velocity will insure that velocity measurements are recorded for the slow and fast portions of the stream.

Once you have determined the number of velocity float trials you need to complete, measure the water's surface velocity in the following manner. Select two points located equal distance upstream and downstream from the tape measure you have stretched across the stream. Determine the distance between these two points and record this value (in feet) in the **Distance Box** on the back of this page. Count the number of seconds it takes a mutually buoyant object (such as a wiffle practice golf ball) to float this distance. Record this time (in seconds) in the table on the back of this page for each float trial you complete



Velocity Float Trials	
Trial Number	Time (Seconds)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Sum	

**Distance Box**

**Distance Floated (in Feet)**

The next step in calculating the surface velocity is to determine the average float time. Average float time is equal to the sum of the float times (in seconds) divided by the number of float trials.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Sum of Float Times} & & \text{Number of Trials} \qquad \qquad \text{Average Float Time} \\
 \text{(Seconds)} & & \text{(Seconds)}
 \end{array}$$

The final step is to divide the distance floated (from the **Distance Box** at top) by the average float time.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Distance Floated} & & \text{Average Float Time} \qquad \qquad \text{Average Surface Velocity} \\
 \text{(Feet)} & & \text{(Seconds)} \qquad \qquad \text{(Feet per Second)}
 \end{array}$$

Water in the stream does not all travel at the same speed. Water near the bottom travels slower than water at the surface because of friction (or drag) on the stream bottom. When calculating stream discharge, the water's velocity for the entire depth (surface to bottom) needs to be determined. Therefore, you must multiply the average **surface** velocity (from above) by a correction factor to make it represent the water velocity of the **entire stream depth**.

Choose the correction factor that best describes the bottom of your stream and multiply it by the average surface velocity to calculate the corrected average stream velocity.

**Stream Bottom Type:** Rough, loose rocks or coarse gravel: **correction value = 0.8**

Smooth, mud, sand, or hard pan rock: **correction value = 0.9**

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Correction Value} & & \text{Average Surface Velocity} \qquad \qquad \text{Corrected Average Stream Velocity} \\
 & & \text{(Feet per Second)} \qquad \qquad \text{(Feet per Second)}
 \end{array}$$

**Step 3: Calculate the stream discharge.** Multiply the cross-sectional area (Feet)<sup>2</sup> from **Step 1** by the corrected average stream velocity (Feet/Second) from **Step 2**.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Cross-Sectional Area} & & \text{Corrected Average Stream Velocity} \qquad \qquad \text{Stream Discharge} \\
 \text{(Feet)}^2 & & \text{(Feet per Second)} \qquad \qquad \text{(Feet)}^3 \text{ per Second or} \\
 & & \text{Cubic Feet per Second (CFS)}
 \end{array}$$

**Comments** (mention any changes from your usual readings) \_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

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9		19		29	
10		20		30	
Sum		Sum		Sum	

The average depth is calculated by dividing the sum of the depth measurements by the number of intervals at which measurements were taken.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Sum of Depths} & & \text{Number of} \\
 \text{(Feet)} & & \text{Intervals} \\
 & & \text{Average Depth} \\
 & & \text{(Feet)}
 \end{array}$$

The final step in calculating the cross-sectional area is to multiply the average depth (in feet) by the stream width (in feet) at the point where the tape measure is stretched across the stream.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Average Depths} & & \text{Stream Width} \\
 \text{(Feet)} & & \text{(Feet)} \\
 & & \text{Cross Sectional} \\
 & & \text{Area (Feet)}^2
 \end{array}$$

**Step 2: Determine the average velocity for the stream.** For a stream less than ten feet in width, select three points in the stream approximately equal distances apart for velocity measurements. For streams greater than ten feet in width, no fewer than four velocity measurements should be taken at approximately equal distances across the stream. For example, if the stream were eight feet wide, then velocity measurements would be taken at approximately two foot intervals across the stream in order to derive three measurements. If the stream were sixteen feet across, then velocity measurements would be taken at approximately three foot intervals across the stream in order to derive four measurements. This method of measuring the stream velocity will insure that velocity measurements are recorded for the slow and fast portions of the stream.

Once you have determined the number of velocity float trials you need to complete, measure the water's surface velocity in the following manner. Select two points located equal distance upstream and downstream from the tape measure you have stretched across the stream. Determine the distance between these two points and record this value (in feet) in the **Distance Box** on the back of this page. Count the number of seconds it takes a mutually buoyant object (such as a wiffle practice golf ball) to float this distance. Record this time (in seconds) in the table on the back of this page for each float trial you complete



Velocity Float Trials	
Trial Number	Time (Seconds)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Sum	

**Distance Box**

**Distance Floated (in Feet)**

The next step in calculating the surface velocity is to determine the average float time. Average float time is equal to the sum of the float times (in seconds) divided by the number of float trials.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Sum of Float Times} & & \text{Number of Trials} & & \text{Average Float Time} \\
 \text{(Seconds)} & & & & \text{(Seconds)}
 \end{array}$$

The final step is to divide the distance floated (from the **Distance Box** at top) by the average float time.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Distance Floated} & & \text{Average Float Time} & & \text{Average Surface Velocity} \\
 \text{(Feet)} & & \text{(Seconds)} & & \text{(Feet per Second)}
 \end{array}$$

Water in the stream does not all travel at the same speed. Water near the bottom travels slower than water at the surface because of friction (or drag) on the stream bottom. When calculating stream discharge, the water's velocity for the entire depth (surface to bottom) needs to be determined. Therefore, you must multiply the average **surface** velocity (from above) by a correction factor to make it represent the water velocity of the **entire stream depth**.

Choose the correction factor that best describes the bottom of your stream and multiply it by the average surface velocity to calculate the corrected average stream velocity.

**Stream Bottom Type:** Rough, loose rocks or coarse gravel: **correction value = 0.8**

Smooth, mud, sand, or hard pan rock: **correction value = 0.9**

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Correction Value} & & \text{Average Surface Velocity} & & \text{Corrected Average Stream Velocity} \\
 & & \text{(Feet per Second)} & & \text{(Feet per Second)}
 \end{array}$$

**Step 3: Calculate the stream discharge.** Multiply the cross-sectional area (Feet)<sup>2</sup> from **Step 1** by the corrected average stream velocity (Feet/Second) from **Step 2**.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Cross-Sectional Area} & & \text{Corrected Average Stream Velocity} & & \text{Stream Discharge} \\
 \text{(Feet)}^2 & & \text{(Feet per Second)} & & \text{(Feet)}^3 \text{ per Second or} \\
 & & & & \text{Cubic Feet per Second (CFS)}
 \end{array}$$

**Comments** (mention any changes from your usual readings) \_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

PLEASE KEEP A COPY AND SEND ORIGINAL DATA TO: Stream Team Coordinator  
 Water Protection Program  
 Department of Natural Resources  
 PO Box 176  
 Jefferson City, MO 65102-0176



# STREAM DISCHARGE DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

## Instructions for Calculation of Stream Discharge (Flow)

Select a section of stream that is relatively straight, free from large objects such as logs or large boulders, with a noticeable current, and with a depth as uniform as possible. Stretch the tape measure provided by the program across the stream. The "0" point should be anchored at the wetted edge of the stream. The end of the tape measure should be anchored at the opposite end so that it is taut and even with the other wetted edge.



Stream Width  
(Feet)

**Step 1: Determine stream cross-sectional area.** The first step in determining cross-sectional area is to measure and calculate the average stream depth. In the table below, record the depth measurements at one-foot intervals along the tape measure you have stretched across the stream. The depth must be measured in **tenths of a foot** (e.g. 1.7 feet equals one foot and seven tenths). **DO NOT MEASURE DEPTH IN INCHES.**

Record Depth at 1-Foot Intervals					
Interval Number	Depth in Feet	Interval Number	Depth in Feet	Interval Number	Depth in Feet
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	
Sum		Sum		Sum	

The average depth is calculated by dividing the sum of the depth measurements by the number of intervals at which measurements were taken.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Sum of Depths} & & \text{Number of} \\
 \text{(Feet)} & & \text{Intervals} \\
 & & \text{Average Depth} \\
 & & \text{(Feet)}
 \end{array}$$

The final step in calculating the cross-sectional area is to multiply the average depth (in feet) by the stream width (in feet) at the point where the tape measure is stretched across the stream.

$$\begin{array}{ccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} = \boxed{\phantom{000}} \\
 \text{Average Depths} & & \text{Stream Width} \\
 \text{(Feet)} & & \text{(Feet)} \\
 & & \text{Cross Sectional} \\
 & & \text{Area (Feet)}^2
 \end{array}$$

**Step 2: Determine the average velocity for the stream.** For a stream less than ten feet in width, select three points in the stream approximately equal distances apart for velocity measurements. For streams greater than ten feet in width, no fewer than four velocity measurements should be taken at approximately equal distances across the stream. For example, if the stream were eight feet wide, then velocity measurements would be taken at approximately two foot intervals across the stream in order to derive three measurements. If the stream were sixteen feet across, then velocity measurements would be taken at approximately three foot intervals across the stream in order to derive four measurements. This method of measuring the stream velocity will insure that velocity measurements are recorded for the slow and fast portions of the stream.

Once you have determined the number of velocity float trials you need to complete, measure the water's surface velocity in the following manner. Select two points located equal distance upstream and downstream from the tape measure you have stretched across the stream. Determine the distance between these two points and record this value (in feet) in the **Distance Box** on the back of this page. Count the number of seconds it takes a mutually buoyant object (such as a wiffle practice golf ball) to float this distance. Record this time (in seconds) in the table on the back of this page for each float trial you complete



Velocity Float Trials	
Trial Number	Time (Seconds)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Sum	

**Distance Box**

**Distance Floated (in Feet)**

The next step in calculating the surface velocity is to determine the average float time. Average float time is equal to the sum of the float times (in seconds) divided by the number of float trials.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Sum of Float Times} & & \text{Number of Trials} & & \text{Average Float Time} \\
 \text{(Seconds)} & & & & \text{(Seconds)}
 \end{array}$$

The final step is to divide the distance floated (from the **Distance Box** at top) by the average float time.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \div & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Distance Floated} & & \text{Average Float Time} & & \text{Average Surface Velocity} \\
 \text{(Feet)} & & \text{(Seconds)} & & \text{(Feet per Second)}
 \end{array}$$

Water in the stream does not all travel at the same speed. Water near the bottom travels slower than water at the surface because of friction (or drag) on the stream bottom. When calculating stream discharge, the water's velocity for the entire depth (surface to bottom) needs to be determined. Therefore, you must multiply the average **surface** velocity (from above) by a correction factor to make it represent the water velocity of the **entire stream depth**.

Choose the correction factor that best describes the bottom of your stream and multiply it by the average surface velocity to calculate the corrected average stream velocity.

**Stream Bottom Type:** Rough, loose rocks or coarse gravel: **correction value = 0.8**

Smooth, mud, sand, or hard pan rock: **correction value = 0.9**

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Correction Value} & & \text{Average Surface Velocity} & & \text{Corrected Average Stream Velocity} \\
 & & \text{(Feet per Second)} & & \text{(Feet per Second)}
 \end{array}$$

**Step 3: Calculate the stream discharge.** Multiply the cross-sectional area (Feet)<sup>2</sup> from **Step 1** by the corrected average stream velocity (Feet/Second) from **Step 2**.

$$\begin{array}{ccccc}
 \boxed{\phantom{000}} & \times & \boxed{\phantom{000}} & = & \boxed{\phantom{000}} \\
 \text{Cross-Sectional Area} & & \text{Corrected Average Stream Velocity} & & \text{Stream Discharge} \\
 \text{(Feet)}^2 & & \text{(Feet per Second)} & & \text{(Feet)}^3 \text{ per Second or} \\
 & & & & \text{Cubic Feet per Second (CFS)}
 \end{array}$$

**Comments** (mention any changes from your usual readings) \_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

PLEASE KEEP A COPY AND SEND ORIGINAL DATA TO: Stream Team Coordinator  
 Water Protection Program  
 Department of Natural Resources  
 PO Box 176  
 Jefferson City, MO 65102-0176



# MACROINVERTEBRATE DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

<i><b>Invertebrate Type</b></i>	<i><b>Net Set #1</b></i>	<i><b>Net Set #2</b></i>	<i><b>Net Set #3</b></i>	<i><b>Score</b></i>
<i><b>Habitat type</b> →</i>				<i>After entering the number(#) of organisms collected, circle the number below for every type of organism collected. Add the numbers circled and record the totals as your Water Quality Rating.</i>
<i><b>Net Type</b> (circle type) →</i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	
<i>Time Spent Picking (Minutes picking x number of people picking)</i>	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	
<b>Sensitive</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Caddisfly Larvae				3
Hellgrammites				3
Mayfly Nymphs				3
Gilled Snails (right)				3
Riffle Beetles				3
Stonefly Nymphs				3
Water Penny Larvae				3
<b>Somewhat Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Other Beetle Larvae				2
Clams/Mussels				2
Crane Fly Larvae				2
Crayfish				2
Dragonfly Nymphs				2
Damselfly Nymphs				2
Scuds				2
Sowbugs				2
Fishfly Larvae				2
Alderfly Larvae				2
Watersnipe Fly				2
<b>Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Aquatic Worms				1
Black Fly Larvae				1
Leeches				1
Midge Larvae				1
Pouch Snails (left)				1
Other Snails (flat)				1

< 12 = Poor
12-17 = Fair
18-23 = Good
>23 = Excellent
**Water Quality Rating** \_\_\_\_\_

Comments (mention any changes from your usual readings) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

## Instructions for Biological Monitoring

- Collect three net sets of invertebrates from three different microhabitats. This ensures a more complete picture of what lives in your stream and more accurately reflects health. Adequate sampling can be achieved by one person with a D-frame net, but you may need two people if you use a kick net.
- If possible, take all three net sets from different areas within a stable riffle. Microhabitats to sample include differences in: rock size, flow, leaf packs and emergent vegetation.
- Always work in an upstream direction so that sampling activities do not disturb portions of the riffle to be sampled later.
- If, and only if, you do not have enough riffle habitat within your 300 ft. sampling site to collect three net sets, you may also want to sample alternative microhabitats.
  - Prioritize sampling of habitat types as follows:
    - Riffle
    - Root mat
    - Snags
    - Non-flow
  - Whatever you decide to sample at your site (e.g., two riffle net sets and one root mat), always sample those same three microhabitats at the site every time you sample there and list the habitat type for each sample. This will ensure that the data you collect remains consistent over time.

### Sampling Streams With Riffles

Sampling may require two people, one to hold the net and the other to dislodge invertebrates from the substrate.

1. **Place** the net in the riffle facing upstream, and tilt it enough to provide a “pocket.”
2. **Ensure the bottom of the net** is on the stream bottom leaving no room between the net and the substrate (prevents organisms from washing under the net.)
3. **Rub all large stones** in the 3-foot by 3-foot (3'x3') area immediately upstream of the net to dislodge invertebrates and wash them into the net.
4. **Dance and Kick** with your feet in the 3'x3' area until you have disturbed all the substrate 3 inches to 6 inches deep to dislodge the invertebrates into the net.

### Streams Without Riffles (or without riffles large enough for 3 net sets)

**Sample Collection from Root Mats** - Adequate sampling requires two people

1. Have one person place the side of the kick net against the bank on the downstream side of the root mat.
2. Make sure that the net is anchored to the stream bed.
3. The other person will then kick the root mat **in a swirling motion** with one foot to create a circular current in order to dislodge the invertebrates from the root mat. The circular motion of the sampler's foot will drive the invertebrates into the net, even if there is no current.

**Sample Collection from Snags** - Adequate sampling requires two people.

1. Have one person hold the net horizontal position about 6-12 inches under the water.
2. The 2nd volunteer will remove the snag from the water. When removing the snag from the water pull the snag out of the water quickly. If the snag is removed too slowly, the invertebrates may swim off.
3. Brush the snag down with a brush above the net to dislodge invertebrates.
4. Sample approximately 3-5 snags for one net set.

**Sample non-flow areas** in the same manner as a riffle, collecting three separate samples. However, the sampler will need to use a swirling motion with the foot to create a current to move debris into the net. Although this habitat can be sampled using a kick net, it is easier with a D-frame net.

PLEASE KEEP A COPY AND SEND ORIGINAL DATA TO:

Stream Team Coordinator/Water Protection Program  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176

Volunteer Monitoring - 11/11



# MACROINVERTEBRATE DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

<i><b>Invertebrate Type</b></i>	<i><b>Net Set #1</b></i>	<i><b>Net Set #2</b></i>	<i><b>Net Set #3</b></i>	<i><b>Score</b></i>
<i><b>Habitat type</b> →</i>				<i>After entering the number(#) of organisms collected, circle the number below for every type of organism collected. Add the numbers circled and record the totals as your Water Quality Rating.</i>
<i><b>Net Type</b> (circle type) →</i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	
<i>Time Spent Picking (Minutes picking x number of people picking)</i>	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	
<b>Sensitive</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Caddisfly Larvae				3
Hellgrammites				3
Mayfly Nymphs				3
Gilled Snails (right)				3
Riffle Beetles				3
Stonefly Nymphs				3
Water Penny Larvae				3
<b>Somewhat Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Other Beetle Larvae				2
Clams/Mussels				2
Crane Fly Larvae				2
Crayfish				2
Dragonfly Nymphs				2
Damselfly Nymphs				2
Scuds				2
Sowbugs				2
Fishfly Larvae				2
Alderfly Larvae				2
Watersnipe Fly				2
<b>Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Aquatic Worms				1
Black Fly Larvae				1
Leeches				1
Midge Larvae				1
Pouch Snails (left)				1
Other Snails (flat)				1

< 12 = Poor
12-17 = Fair
18-23 = Good
>23 = Excellent
**Water Quality Rating** \_\_\_\_\_

Comments (mention any changes from your usual readings) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

## Instructions for Biological Monitoring

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**Sample Collection from Root Mats** - Adequate sampling requires two people

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2. Make sure that the net is anchored to the stream bed.
3. The other person will then kick the root mat **in a swirling motion** with one foot to create a circular current in order to dislodge the invertebrates from the root mat. The circular motion of the sampler's foot will drive the invertebrates into the net, even if there is no current.

**Sample Collection from Snags** - Adequate sampling requires two people.

1. Have one person hold the net horizontal position about 6-12 inches under the water.
2. The 2nd volunteer will remove the snag from the water. When removing the snag from the water pull the snag out of the water quickly. If the snag is removed too slowly, the invertebrates may swim off.
3. Brush the snag down with a brush above the net to dislodge invertebrates.
4. Sample approximately 3-5 snags for one net set.

**Sample non-flow areas** in the same manner as a riffle, collecting three separate samples. However, the sampler will need to use a swirling motion with the foot to create a current to move debris into the net. Although this habitat can be sampled using a kick net, it is easier with a D-frame net.

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Stream Team Coordinator/Water Protection Program  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176

Volunteer Monitoring - 11/11



# MACROINVERTEBRATE DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

<i><b>Invertebrate Type</b></i>	<i><b>Net Set #1</b></i>	<i><b>Net Set #2</b></i>	<i><b>Net Set #3</b></i>	<i><b>Score</b></i>
<i><b>Habitat type</b> →</i>				<i>After entering the number(#) of organisms collected, circle the number below for every type of organism collected. Add the numbers circled and record the totals as your Water Quality Rating.</i>
<i><b>Net Type</b> (circle type) →</i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	<i><b>Kick Net or D-Net</b></i>	
<i>Time Spent Picking (Minutes picking x number of people picking)</i>	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	min. picking _____ × # people _____ = total min. _____	
<b>Sensitive</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Caddisfly Larvae				3
Hellgrammites				3
Mayfly Nymphs				3
Gilled Snails (right)				3
Riffle Beetles				3
Stonefly Nymphs				3
Water Penny Larvae				3
<b>Somewhat Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Other Beetle Larvae				2
Clams/Mussels				2
Crane Fly Larvae				2
Crayfish				2
Dragonfly Nymphs				2
Damselfly Nymphs				2
Scuds				2
Sowbugs				2
Fishfly Larvae				2
Alderfly Larvae				2
Watersnipe Fly				2
<b>Tolerant</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b># of Organisms</b>	<b>Circle Types Present</b>
Aquatic Worms				1
Black Fly Larvae				1
Leeches				1
Midge Larvae				1
Pouch Snails (left)				1
Other Snails (flat)				1

< 12 = Poor
12-17 = Fair
18-23 = Good
>23 = Excellent
**Water Quality Rating** \_\_\_\_\_

Comments (mention any changes from your usual readings) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Fish Present** (Please Mark) Yes  or No

## Instructions for Biological Monitoring

- Collect three net sets of invertebrates from three different microhabitats. This ensures a more complete picture of what lives in your stream and more accurately reflects health. Adequate sampling can be achieved by one person with a D-frame net, but you may need two people if you use a kick net.
- If possible, take all three net sets from different areas within a stable riffle. Microhabitats to sample include differences in: rock size, flow, leaf packs and emergent vegetation.
- Always work in an upstream direction so that sampling activities do not disturb portions of the riffle to be sampled later.
- If, and only if, you do not have enough riffle habitat within your 300 ft. sampling site to collect three net sets, you may also want to sample alternative microhabitats.
  - Prioritize sampling of habitat types as follows:
    - Riffle
    - Root mat
    - Snags
    - Non-flow
  - Whatever you decide to sample at your site (e.g., two riffle net sets and one root mat), always sample those same three microhabitats at the site every time you sample there and list the habitat type for each sample. This will ensure that the data you collect remains consistent over time.

### Sampling Streams With Riffles

Sampling may require two people, one to hold the net and the other to dislodge invertebrates from the substrate.

1. **Place** the net in the riffle facing upstream, and tilt it enough to provide a “pocket.”
2. **Ensure the bottom of the net** is on the stream bottom leaving no room between the net and the substrate (prevents organisms from washing under the net.)
3. **Rub all large stones** in the 3-foot by 3-foot (3’x3’) area immediately upstream of the net to dislodge invertebrates and wash them into the net.
4. **Dance and Kick** with your feet in the 3’x3’ area until you have disturbed all the substrate 3 inches to 6 inches deep to dislodge the invertebrates into the net.

### Streams Without Riffles (or without riffles large enough for 3 net sets)

**Sample Collection from Root Mats** - Adequate sampling requires two people

1. Have one person place the side of the kick net against the bank on the downstream side of the root mat.
2. Make sure that the net is anchored to the stream bed.
3. The other person will then kick the root mat **in a swirling motion** with one foot to create a circular current in order to dislodge the invertebrates from the root mat. The circular motion of the sampler’s foot will drive the invertebrates into the net, even if there is no current.

**Sample Collection from Snags** - Adequate sampling requires two people.

1. Have one person hold the net horizontal position about 6-12 inches under the water.
2. The 2nd volunteer will remove the snag from the water. When removing the snag from the water pull the snag out of the water quickly. If the snag is removed too slowly, the invertebrates may swim off.
3. Brush the snag down with a brush above the net to dislodge invertebrates.
4. Sample approximately 3-5 snags for one net set.

**Sample non-flow areas** in the same manner as a riffle, collecting three separate samples. However, the sampler will need to use a swirling motion with the foot to create a current to move debris into the net. Although this habitat can be sampled using a kick net, it is easier with a D-frame net.

PLEASE KEEP A COPY AND SEND ORIGINAL DATA TO:

Stream Team Coordinator/Water Protection Program  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176

Volunteer Monitoring - 11/11



# GPS DATA SHEET

Please check the box next to the "Site #" *if this is a new site and please be sure to attach a map.* (PLEASE PRINT)

Site # \_\_\_\_\_ Stream \_\_\_\_\_ County \_\_\_\_\_

Site Location \_\_\_\_\_

Date \_\_\_\_\_ Time (military time) \_\_\_\_\_ Rainfall (inches in last 7 days) \_\_\_\_\_ Water Temp. (°C) \_\_\_\_\_

Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

Trained Participants \_\_\_\_\_

## GPS RECEIVER INFORMATION

1. GPS Make and Model: \_\_\_\_\_

2. Wide Angle Augmentation System (WAAS) Enabled:  Yes

## DATUM

3. Horizontal Datum:  North American Datum (NAD) 1983

## POSITION ERROR INFORMATION (less than 7 meters preferred)

\*4. Estimated Position Error (EPE): \_\_\_\_\_  Meters (preferred)  Feet

\*5. Horizontal Accuracy: \_\_\_\_\_  Meters (preferred)  Feet

\*6. Point Dilution of Precision (PDOP): \_\_\_\_\_

(\*see Position Error Information section on back for instructions)

## COORDINATES - UNIVERSAL TRANSVERSE MERCATOR (UTM) OPTION (preferred option)

7. Easting: \_\_\_\_\_

8. Northing: \_\_\_\_\_

9. UTM Zone:  Zone 15

## COORDINATES - LATITUDE AND LONGITUDE OPTION

10. Latitude: \_\_\_\_\_ N

11. Longitude: \_\_\_\_\_ W

12. Format:  Decimal Degrees (ddd.dddd°)

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Water Protection Program  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176



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### COORDINATES

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Site Location \_\_\_\_\_

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Trained Data Submitter (responsible volunteer) \_\_\_\_\_ Stream Team Number \_\_\_\_\_

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COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Water Protection Program  
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Jefferson City, MO 65102-0176



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## ACTIVITY PRIZE DRAWING

Activity Prize items will change every three months.

If you would like to be included in our "Activity Prize Drawing," please check box at right and **attach a list of participant names**. Please print clearly. The more activities you submit, the better your chances! New prizes will be drawn every three months.

Activity Prize

or

Attention teachers and youth group leaders: For a youth group prize, please check the box at right, but you do not need to include a participant list for group prizes. New prizes will be available and drawn every three months.

Youth group prize

## THANK YOU ITEMS

You may request these free items in any combination.

ITEM:	Number requested:
Bookmarks (dragonfly)	
Bookmarks (spring peeper)	
Bumper Stickers (Quality Water, 3 1/2" x 9 1/4")	
Buttons (Stream Team mini-buttons 1 1/2" pins)	
Colorbook (Stream Team Most Wanted, Grades 4-6)	
Colorbook (Stream Team Superstars, Grades K-3)	
Koozies (Stream Team)	
Mood Cups (Stream Team, 17 oz. plastic)	
Patches (Stream Team, 3" round, embroidered)	
Pencils (Get Into Missouri Streams, blue sparkle)	
Post-it Notes (Stream Team, 3" x 4")	
Scratch Pads (Stream Team, 5 1/2" x 8")	
Stickers (Get Into Missouri Streams, 3" round)	
T-Shirts (Stream Team, adult sizes only)	S ___ M ___ L ___ XL ___ XXL ___

Please allow up to three weeks for delivery. Thanks!

## ACTIVITY SUPPLIES

These free supplies are available for your activities.

ITEM:	Number requested:
First Aid Kits (limited availability)	
Litter Pickup Bags (green mesh 24" x 36") for larger trash	
Litter Pickup Bags (red mesh 14" x 26")	
Work Gloves (adult size)	
Work Gloves (youth size)	

## Missouri Stream Team Activity Report

This report can be turned in after only 1 activity.

Stay active -- you make a difference for Missouri streams!

### Stream Team Identification:

Team Number: \_\_\_\_\_

Team Name: \_\_\_\_\_

Reporter Name: \_\_\_\_\_

Business/School: (if applicable) \_\_\_\_\_

Please check one:

Commercial

Residential

Shipping Address: (no PO Box please) \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Home Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_ Work Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_

Updated E-mail: \_\_\_\_\_

Contact Person for Team: \_\_\_\_\_

Is there a change in Contact Person? Yes No

Is there a change in Contact Person address? Yes No

If yes, new address: \_\_\_\_\_

Please provide details about your activities on the reverse side.

Mail this Activity Report to:

MISSOURI STREAM TEAM

PO BOX 180

JEFFERSON CITY MO 65102-0180

For more information, contact us at:

Phone: 1-800-781-1989 (voice mail)

E-mail: streamteam@mdc.mo.gov

Website: www.mostreamteam.org

Fax: 573/526-0990

We welcome your activity photos. Be aware they may be published in our newsletter or annual report. Thank you!

5/12/2011

# Stream Team Activity Report

## Stream Team Activity 1

Type of activity: (see code list at right) \_\_\_\_\_

Activity date: \_\_\_\_\_

Stream name: \_\_\_\_\_

Activity county: \_\_\_\_\_

Activity basin: \_\_\_\_\_

Miles of river covered: \_\_\_\_\_

Number of volunteers involved: \_\_\_\_\_

Hours spent on project: \_\_\_\_\_

**Measurement** : Please list number of monitoring trips, bags of trash collected, letters written, trees planted, events held, etc. See code list at right.

**Location Description**: Please provide a detailed location for your activity. (Example: 100 yds. upstream from Hwy. 63 bridge.) Include township, range, and section if possible. A good source for maps can be found at [www.digital-topo-maps.com](http://www.digital-topo-maps.com).

**Project Description**: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

## Stream Team Activity 2

Type of activity: (see code list at right) \_\_\_\_\_

Activity date: \_\_\_\_\_

Stream name: \_\_\_\_\_

Activity county: \_\_\_\_\_

Activity basin: \_\_\_\_\_

Miles of river covered: \_\_\_\_\_

Number of volunteers involved: \_\_\_\_\_

Hours spent on project: \_\_\_\_\_

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## Stream Team Activity 3

Type of activity: (see code list at right) \_\_\_\_\_

Activity date: \_\_\_\_\_

Stream name: \_\_\_\_\_

Activity county: \_\_\_\_\_

Activity basin: \_\_\_\_\_

Miles of river covered: \_\_\_\_\_

Number of volunteers involved: \_\_\_\_\_

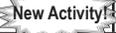
Hours spent on project: \_\_\_\_\_

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**Project Description**: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

## Stream Team Activity code List

Activity	Code	Measurement
Litter pickup	LPU	Number of litter bags
Water quality monitoring	WQM	Number of trips
Pre-activity planning	PLN	Number of events
Stream Team meeting	MTG	Number of attendees
Stream workshop attended	WKS	Number of attendees
Education project	EDU	Number of events
Letter written on stream issue	LET	Number of letters
Article written for newspaper, etc	ART	Number of articles
Media contact/interview	MED	Number of interviews
Tree planting	PLT	Number of trees
Presentation to groups	PRE	Number of presentations
ST display at school, fair, etc.	DIS	Number of events
ST Inventory Guide submitted	INV	Number of inventories
GPS Reading 	TRP	Number of trips
Zebra mussel monitoring form	ZEB	Number of trips
Storm drain stenciling	SDS	Number of drains stenciled
Monofilament recycling project	MRP	Weight of line recycled
Streambank stabilization project	SSP	Number of events
Habitat improvement	HAI	Number of projects
Advocacy on stream issue	ADV	Number of hours
Photo Point Monitoring	PPM	Number of photos
Greenway development	GRE	Number of projects
Recruited new Team/members	REC	Number of people recruited
Stream Team mentoring	MEN	Team mentored & hours
Stream Access Maintenance	SAM	Number of litter bags/events
Adopt-An-Access project	AAA	Number of litter bags/hours
Forestkeepers monitoring	FOR	Number of events
ST Association activity	ASC	Number of hours
Award received	AWA	Number of awards
Grant applied/received	GRT	Number of projects
Watershed mapping	WAT	Number of trips
Assisted MDC fish stocking	FIS	Number of events
Other: please describe	OTH	Number of Projects

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Activity Prize

or

Attention teachers and youth group leaders: For a youth group prize, please check the box at right, but you do not need to include a participant list for group prizes. New prizes will be available and drawn every three months.

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## THANK YOU ITEMS

You may request these free items in any combination.

ITEM:	Number requested:
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Bookmarks (spring peeper)	
Bumper Stickers (Quality Water, 3 1/2" x 9 1/4")	
Buttons (Stream Team mini-buttons 1 1/2" pins)	
Colorbook (Stream Team Most Wanted, Grades 4-6)	
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Koozies (Stream Team)	
Mood Cups (Stream Team, 17 oz. plastic)	
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Pencils (Get Into Missouri Streams, blue sparkle)	
Post-it Notes (Stream Team, 3" x 4")	
Scratch Pads (Stream Team, 5 1/2" x 8")	
Stickers (Get Into Missouri Streams, 3" round)	
T-Shirts (Stream Team, adult sizes only)	S ___ M ___ L ___ XL ___ XXL ___

Please allow up to three weeks for delivery. Thanks!

## ACTIVITY SUPPLIES

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Litter Pickup Bags (red mesh 14" x 26")	
Work Gloves (adult size)	
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Team Name: \_\_\_\_\_

Reporter Name: \_\_\_\_\_

Business/School: (if applicable) \_\_\_\_\_

Please check one:

Commercial

Residential

Shipping Address: (no PO Box please) \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Home Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_ Work Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_

Updated E-mail: \_\_\_\_\_

Contact Person for Team: \_\_\_\_\_

Is there a change in Contact Person? Yes No

Is there a change in Contact Person address? Yes No

If yes, new address: \_\_\_\_\_

Please provide details about your activities on the reverse side.

Mail this Activity Report to:

MISSOURI STREAM TEAM

PO BOX 180

JEFFERSON CITY MO 65102-0180

For more information, contact us at:

Phone: 1-800-781-1989 (voice mail)

E-mail: streamteam@mdc.mo.gov

Website: www.mostreamteam.org

Fax: 573/526-0990

We welcome your activity photos. Be aware they may be published in our newsletter or annual report. Thank you!

5/12/2011

# Stream Team Activity Report

## Stream Team Activity 1

Type of activity: (see code list at right) \_\_\_\_\_

Activity date: \_\_\_\_\_

Stream name: \_\_\_\_\_

Activity county: \_\_\_\_\_

Activity basin: \_\_\_\_\_

Miles of river covered: \_\_\_\_\_

Number of volunteers involved: \_\_\_\_\_

Hours spent on project: \_\_\_\_\_

**Measurement** : Please list number of monitoring trips, bags of trash collected, letters written, trees planted, events held, etc. See code list at right.

**Location Description**: Please provide a detailed location for your activity. (Example: 100 yds. up-stream from Hwy. 63 bridge.) Include township, range, and section if possible. A good source for maps can be found at [www.digital-topo-maps.com](http://www.digital-topo-maps.com).

**Project Description**: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

## Stream Team Activity 2

Type of activity: (see code list at right) \_\_\_\_\_

Activity date: \_\_\_\_\_

Stream name: \_\_\_\_\_

Activity county: \_\_\_\_\_

Activity basin: \_\_\_\_\_

Miles of river covered: \_\_\_\_\_

Number of volunteers involved: \_\_\_\_\_

Hours spent on project: \_\_\_\_\_

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## Stream Team Activity 3

Type of activity: (see code list at right) \_\_\_\_\_

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Miles of river covered: \_\_\_\_\_

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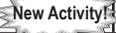
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Activity	Code	Measurement
Litter pickup	LPU	Number of litter bags
Water quality monitoring	WQM	Number of trips
Pre-activity planning	PLN	Number of events
Stream Team meeting	MTG	Number of attendees
Stream workshop attended	WKS	Number of attendees
Education project	EDU	Number of events
Letter written on stream issue	LET	Number of letters
Article written for newspaper, etc	ART	Number of articles
Media contact/interview	MED	Number of interviews
Tree planting	PLT	Number of trees
Presentation to groups	PRE	Number of presentations
ST display at school, fair, etc.	DIS	Number of events
ST Inventory Guide submitted	INV	Number of inventories
GPS Reading 	TRP	Number of trips
Zebra mussel monitoring form	ZEB	Number of trips
Storm drain stenciling	SDS	Number of drains stenciled
Monofilament recycling project	MRP	Weight of line recycled
Streambank stabilization project	SSP	Number of events
Habitat improvement	HAI	Number of projects
Advocacy on stream issue	ADV	Number of hours
Photo Point Monitoring	PPM	Number of photos
Greenway development	GRE	Number of projects
Recruited new Team/members	REC	Number of people recruited
Stream Team mentoring	MEN	Team mentored & hours
Stream Access Maintenance	SAM	Number of litter bags/events
Adopt-An-Access project	AAA	Number of litter bags/hours
Forestkeepers monitoring	FOR	Number of events
ST Association activity	ASC	Number of hours
Award received	AWA	Number of awards
Grant applied/received	GRT	Number of projects
Watershed mapping	WAT	Number of trips
Assisted MDC fish stocking	FIS	Number of events
Other: please describe	OTH	Number of Projects

## ACTIVITY PRIZE DRAWING

Activity Prize items will change every three months.

If you would like to be included in our "Activity Prize Drawing," please check box at right and **attach a list of participant names**. Please print clearly. The more activities you submit, the better your chances! New prizes will be drawn every three months.

Activity Prize

or

Attention teachers and youth group leaders: For a youth group prize, please check the box at right, but you do not need to include a participant list for group prizes. New prizes will be available and drawn every three months.

Youth group prize

## THANK YOU ITEMS

You may request these free items in any combination.

ITEM:	Number requested:
Bookmarks (dragonfly)	
Bookmarks (spring peeper)	
Bumper Stickers (Quality Water, 3 1/2" x 9 1/4")	
Buttons (Stream Team mini-buttons 1 1/2" pins)	
Colorbook (Stream Team Most Wanted, Grades 4-6)	
Colorbook (Stream Team Superstars, Grades K-3)	
Koozies (Stream Team)	
Mood Cups (Stream Team, 17 oz. plastic)	
Patches (Stream Team, 3" round, embroidered)	
Pencils (Get Into Missouri Streams, blue sparkle)	
Post-it Notes (Stream Team, 3" x 4")	
Scratch Pads (Stream Team, 5 1/2" x 8")	
Stickers (Get Into Missouri Streams, 3" round)	
T-Shirts (Stream Team, adult sizes only)	S ___ M ___ L ___ XL ___ XXL ___

Please allow up to three weeks for delivery. Thanks!

## ACTIVITY SUPPLIES

These free supplies are available for your activities.

ITEM:	Number requested:
First Aid Kits (limited availability)	
Litter Pickup Bags (green mesh 24" x 36") for larger trash	
Litter Pickup Bags (red mesh 14" x 26")	
Work Gloves (adult size)	
Work Gloves (youth size)	

## Missouri Stream Team Activity Report

This report can be turned in after only 1 activity.  
Stay active -- you make a difference for Missouri streams!

### Stream Team Identification:

Team Number: \_\_\_\_\_

Team Name: \_\_\_\_\_

Reporter Name: \_\_\_\_\_

Business/School: (if applicable) \_\_\_\_\_

Please check one:

Commercial

Residential

Shipping Address: (no PO Box please) \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Home Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_ Work Phone: (\_\_\_\_)\_\_\_\_-\_\_\_\_

Updated E-mail: \_\_\_\_\_

Contact Person for Team: \_\_\_\_\_

Is there a change in Contact Person? Yes No

Is there a change in Contact Person address? Yes No

If yes, new address: \_\_\_\_\_

Please provide details about your activities on the reverse side.

Mail this Activity Report to:

MISSOURI STREAM TEAM

PO BOX 180

JEFFERSON CITY MO 65102-0180

For more information, contact us at:

Phone: 1-800-781-1989 (voice mail)

E-mail: streamteam@mdc.mo.gov

Website: www.mostreamteam.org

Fax: 573/526-0990

We welcome your activity photos. Be aware they may be published in our newsletter or annual report. Thank you!

5/12/2011

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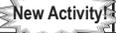
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