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**IF YOU DISCOVER A SERIOUS
WATER POLLUTION PROBLEM
OR A FISH KILL, PLEASE
REPORT IT IMMEDIATELY TO:**

**MISSOURI DEPARTMENT OF
NATURAL RESOURCES (DNR)
EMERGENCY RESPONSE UNIT
(573) 634-2436
-- 24 hours a day --**

Volunteer Water Quality Monitoring Program Staff

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All other Stream Team Staff
may be reached using the
STREAM TEAM 800 NUMBER (Voice Mail): (800) 781-1989
Stream Team Coordination Biologists
Missouri Department of Conservation
may be reached directly by calling (573) 522-4115

Stream Team Biologists
St. Louis/Southeast Region
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Kansas City Metro Area
Vacant
Springfield Metro Area
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(Carl.Romesburg@mdc.mo.gov)

STREAM TEAM Website:
<http://www.mostreamteam.org>

STREAM TEAM email:
streamteam@mdc.mo.gov or streamteam@dnr.mo.gov



MISSOURI DEPARTMENT OF NATURAL RESOURCES

REGIONAL AND SATELLITE OFFICES

Kansas City Area

- **Kansas City Regional Office**
500 NE Colbern Rd.
Lee's Summit, MO 64086-4710
816-622-7000
FAX: 816-622-7044
- **Northwest Missouri Satellite Office**
Northwest Missouri State University
Environmental Services Building,
800 University Dr.
Maryville, MO 64468-6015
660-562-1876 or 660-562-1877
FAX: 660-562-1878
- **Truman Lake Satellite Office**
Harry S Truman State Park
28761 State Park Road West
Warsaw, MO 65355
660-438-3039
FAX: 660-438-5271

Southwest Area

- **Southwest Regional Office**
2040 W. Woodland
Springfield, MO 65807-5912
417-891-4300
FAX: 417-891-4399
- **Lake of the Ozarks Satellite Office**
Camden County, 5570 Hwy. 54,
Osage Beach, MO 65065
2040 W. Woodland
Springfield, MO 65807-5912
573-348-2442
FAX: 573-348-2568
- **Newton County Satellite Office**
Crowder College
601 Laclede, Smith Hall, Room 201
Neosho, MO 64850
417-455-5180 or 417-455-5158
FAX: 417-455-5157

Northeast Area

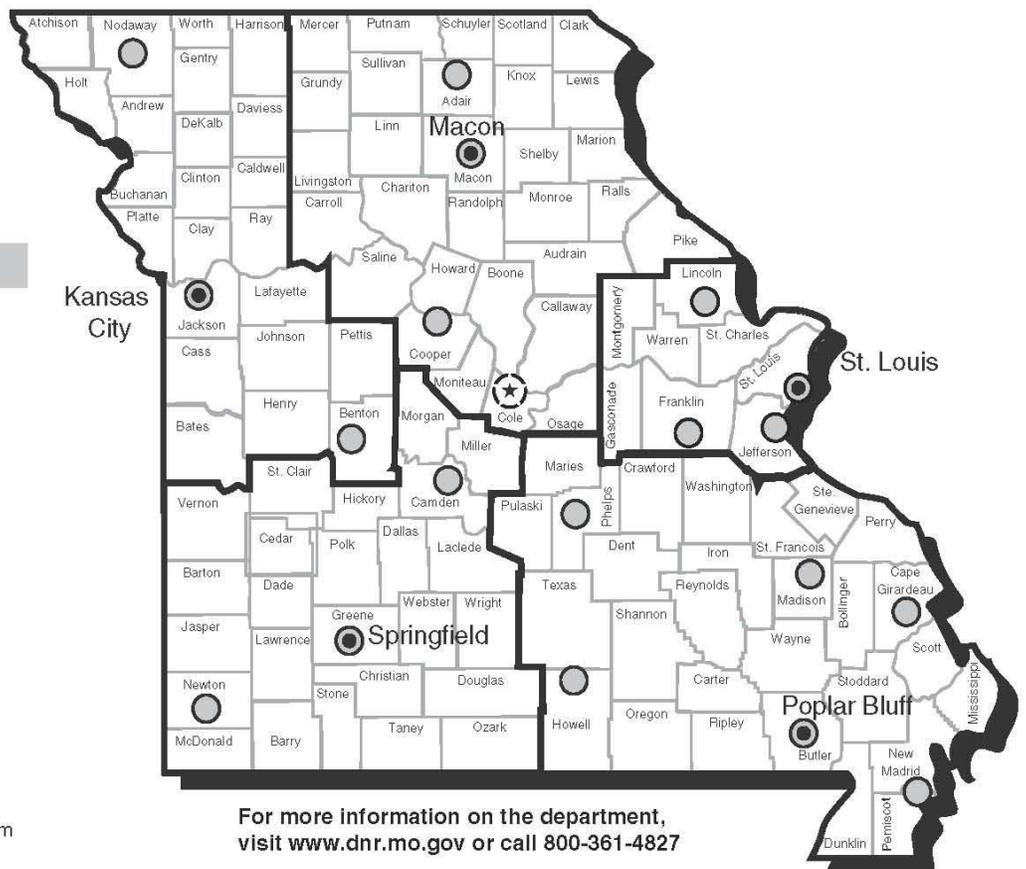
- **Northeast Regional Office**
1709 Prospect Drive
Macon, MO 63552-2602
660-385-8000
FAX: 660-385-8090
- **Boonville Satellite Office**
320 First St.
Boonville, MO 65233
660-882-1540
FAX: 660-882-1544
- **Kirksville Satellite Office**
Truman State University
Magruder Hall, Room 3068
100 E. Normal St.
Kirksville, MO 63501
660-785-4610
- ★ **Department Central Offices**
P.O. Box 176
Jefferson City, MO 65102-0176
573-751-3443
www.dnr.mo.gov/shared/map-jeffcity.htm

St. Louis Area

- **St. Louis Regional Office**
7545 S. Lindbergh, Ste 210
St. Louis, MO 63125
314-416-2960
FAX: 314-416-2970
- **Franklin County Satellite Office**
Meramec State Park
Hwy. 185 S.
Sullivan, MO 63080
573-860-4308
FAX: 573-468-5051
- **Jefferson County Satellite Office**
Eastern District Parks Office
Hwy. 61
Festus, MO 63028
636-931-5200
FAX: 636-931-5204
- **Lincoln County Satellite Office**
Cuivre River State Park
678 State Rt. 147
Troy, MO 63379
636-528-4779
FAX: 636-528-5817

Southeast Area

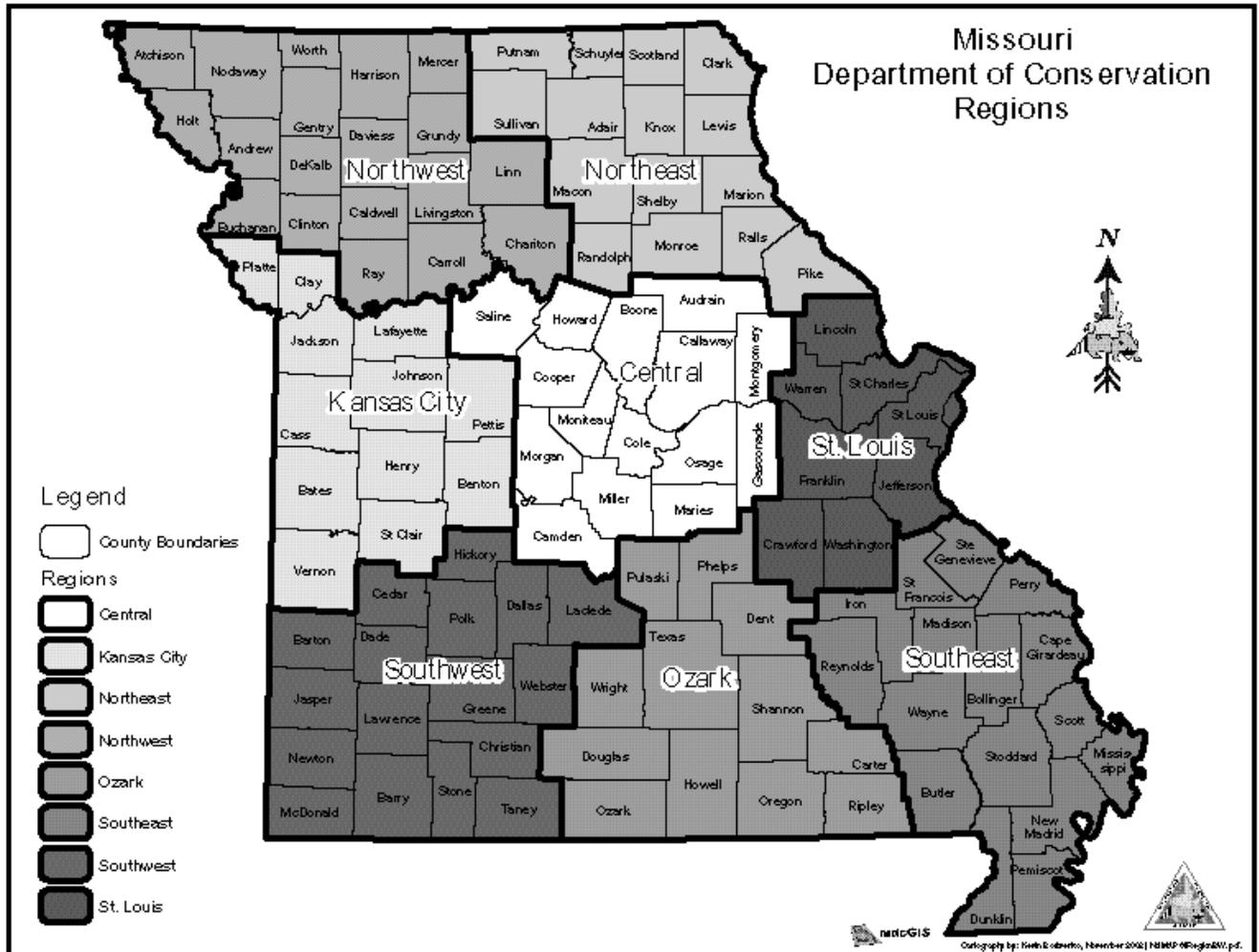
- **Southeast Regional Office**
2155 North Westwood Blvd.
Poplar Bluff, MO 63901
573-840-9750
FAX: 573-840-9754
- **Cape Girardeau County Satellite Office**
2007 Southern Expressway
Cape Girardeau, MO 63701
573-651-3008 (phone and FAX)
- **Delta Center Satellite Office**
P.O. Box 160
Portageville, MO 63873
573-379-5431
FAX: 573-379-5875
- **Howell County Satellite Office**
700 W. Main St.
Willow Springs, MO 65793
417-469-0025 (phone and FAX)
- **Madison County Satellite Office**
120 W. Main St.
Fredericktown, MO 63645
573-783-2385
FAX: 573-783-6294
- **Rolla Satellite Office**
111 Fairgrounds Rd.
Rolla, MO 65402
573-368-3625
FAX: 573-368-3912



For more information on the department,
visit www.dnr.mo.gov or call 800-361-4827



Missouri Department of Conservation Regional Offices



Northwest Regional Office
701 James McCarthy Drive
St. Joseph, MO 64507-2298
(816) 271-3100
Fax: (816) 271-3107

Northeast Regional Office
3500 S. Baltimore
Kirksville, MO 63501
(660) 785-2420
Fax: (660) 785-2553

Kansas City Regional Office
12405 S.E. Ranson Road
Lees Summit, MO 64082
(816) 622-0900
Fax: (816) 622-0205

Central Regional Office
1907 Hillcrest Drive
Columbia, MO 65201
(573) 884-6861
Fax: (573) 882-9807

Southwest Regional Office
2630 N. Mayfair
Springfield, MO 65803
(417) 895-6880
Fax: (417) 895-6910

Ozark Regional Office
PO Box 138
551 Joe Jones Blvd.
West Plains, MO 65775
(417) 256-7161
Fax: (417) 256-0429

St. Louis Regional Office/August A. Busch Memorial Conservation Area
2360 Hwy D
St. Charles, MO 63304
(636) 441-4554
Fax: (636) 926-9125

Southeast Regional Office
2302 County Park Drive
Cape Girardeau, MO 63701
(573) 290-5730
Fax: (573) 290-5736

WATER QUALITY MONITORING PROCEDURES

What, When and Where

What	When	Where
Watershed mapping	Once every 2-5 years	Whole watershed
Biological monitoring	Minimum 2x/year (maximum 4x/year)	Monitoring site
Stream discharge	Every time you monitor	Monitoring site
Water temperature	Every time you monitor	Monitoring site

1. Obtain maps (see page 20 of this chapter) that include your stream’s watershed. If you choose to make a watershed map of your stream, determine land uses and locate point and nonpoint sources of pollution (see Ch. 6, *Watershed View*). Transfer this information onto the map and keep this for your records. Consider updating the map once every 5 years, but if your watershed is being developed or is rapidly changing, do this once every 2 years.
Remember, this exercise is optional. If you choose to make a watershed map, you do not have to submit the map to the program – it’s for your reference only. However, if you see a change in the watershed (like land-use changes) that you feel may be affecting your sampling results, be sure to make a note on all the data sheets you submit (e.g., “new subdivision being built ¼ mile upstream”).
2. Conduct biological monitoring two to four times per year (not more than four—you can negatively impact the site). At least one sample (three net sets per sample) should be collected in late winter/early spring (Feb., March or April, after snow melts) and the other in late summer/early autumn (before leaves fall). Collect three net sets at each site and report the results for each set. Each net set should be collected from a different part of the riffle, or a different type of habitat such as a leaf pack, root wad, root mass or old woody debris. Be sure to sample the same types of habitats each time you sample that site and make a note on your data sheets (e.g., 2 riffle sets and 1 root mass). Use the *Macroinvertebrate Data Sheet* for this activity.
3. Conduct stream discharge at your site (see Ch. 2. *Site Identification & Information* for definition of “~~ise~~”) every time you monitor (see Ch. 3. *Stream Discharge*). Use the *Stream Discharge Data Sheet* for this activity.
4. Maintain a file with copies of all of your field notes and data sheets. **Submit your data to the program AFTER you’ve made copies for your own files. Please submit the data as soon as possible after it’s collected.**

Send data to Attn: Stream Team Coordinator
 Missouri Department of Natural Resources
 Water Protection Program/WQMA Section
 P.O. Box 176
 Jefferson City, MO 65102-0176; Telephone: (573) 526-3406

5. **If you discover a serious water pollution problem or a fish kill, please report it immediately:**

Missouri Department of Natural Resources (DNR) – Jefferson City
 Emergency Response Unit at (573) 634-2436, 24 hours a day

SAMPLING PROCEDURES

1. **Do not collect invertebrates from disturbed areas.**

Do not collect invertebrates from a riffle that others have recently used to wade or drive across the stream. Inform others sampling with you of the importance of not disturbing the site just prior to sampling.

2. **Collect samples upstream from bridge structures when possible.**

Bridges can have a variety of impacts on a stream, including discarded trash, petroleum or metal compounds from cars and salt from roads in the winter. Collecting samples upstream of the bridge gives more accurate data regarding the watershed as opposed to impacts from the bridge.

3. **Collect samples in the same manner and in the same place each time you monitor.**

One of the uses of the data is to evaluate trends over time. This requires data that can be compared from one sampling event to another.

4. **Collect macroinvertebrate net sets by progressing in an upstream direction from one net set to another.**

Sample areas with different current speeds, substrate types or varying amounts of aquatic plants or woody debris. This helps ensure that several different types of habitat are assessed. Collect each net set from an undisturbed portion of the riffle.

5. **When sampling at point source discharges, samples should be collected at least 100 yards downstream of the facility's outfall.**

Discharge permits contain allowances for "mixing zones" below discharge pipes. This is an area where some pollutants may not have been evenly diluted by stream flow. To obtain accurate information, samples should be collected below the mixing zone.

INVERTEBRATE SPECIMEN PRESERVATION

After submitting your *Site Selection Data Sheet* as well as stream discharge and water temperature data, you will be sent vials to make a reference collection of the invertebrates found at your site.

The easiest way to preserve these animals is to use alcohol. However, you need to be aware of which kind of alcohol you are using as each requires a different concentration.

- **Isopropyl alcohol**

Isopropyl alcohol is relatively cheap and easy to obtain. It is rubbing alcohol and can be found in the health and beauty section of your local retailer. There are different strengths available (70% and 90%), so if you use isopropyl you want to *dilute it to a 40% alcohol solution*. Isopropyl alcohol can be hard on the specimens and tends to make them brittle over time. You can buffer it with a few drops of glycerin and a pinch of calcium carbonate antacid tablets (crush the tablets to a powder and add).

- **Ethyl alcohol**

The better solution for long term storage of invertebrate specimens is in an *80% solution* of ethyl alcohol. Ethyl alcohol can be found in the painting supplies, though it may not be specifically labeled as ethyl alcohol. It may be labeled “denatured alcohol” and should list ethyl alcohol, or ethanol, or methanol in the contents. This product can also be used for thinning shellac, cleaning glass and metal and as a clean burning fuel for marine stoves. You should also buffer the solution with the glycerin/antacid tablets.

- **Liquid hand sanitizer**

Another method you may wish to try is liquid hand sanitizer. Many of these products use ethyl alcohol as the sanitizer and have a moisturizer added. The high alcohol content preserves the bugs and the gel consistency keeps the animal suspended making it easier to view the critters in a vial. The gel will break down over time and become liquid, so you will need to occasionally replace the gel solution. While suitable for small specimens such as riffle beetles, black flies, or midges, this is not a recommended preservation method for crayfish, mussels, snails, or other larger invertebrates.

GUIDELINES FOR PROCESSING INVERTEBRATE NET SETS

Many volunteers find completing invertebrate sampling at the stream site difficult to complete. Sorting, counting and identifying the specimens can be a time-consuming process. When time is limited, the following alternative to completing biomonitoring at the stream site can be utilized. Always be sure to collect three net sets of invertebrates from your monitoring site.

You will need the following materials:

- Three Mason jars to be used as sample jars
- 80% ethyl alcohol diluted with 20% tap or stream water
- One 16" x 24" Rubbermaid™ tub with 10"-sides (tub measurements do not have to be exact)
- Empty plastic bottle with a squirt top
- Aquarium brine shrimp dip net

Sample Preservation Guidelines

1. Wash the invertebrates and all other debris collected in the net into a large pan with high sides. A Rubbermaid™ tub with 10" sides works well and a large, clean dishwashing liquid bottle works well for rinsing invertebrates and other materials from the net. Check the net for clinging invertebrates and add to the sample jar.
2. Allow the sample to settle in the pan and begin inspecting all large pieces of organic material (leaves, sticks, etc.) for clinging or encapsulated invertebrates. Remove the invertebrates from the organic material and place invertebrates in the sample jar.
3. Pour off any excess water from the tub into the brine shrimp dip net. Place any debris and invertebrates from the brine shrimp dip net into the sample jar.
4. Using a putty knife, place the remaining sample in the pan into the sample jar. Be sure the sample jar has a rubber seal. This will prevent the sample from leaking or evaporating from the container between the collection time and sorting/identification time.
5. Preserve the sample in a solution made of 80% ethyl alcohol and 20% water.
6. For future reference, each jar should be labeled with adhesive tape with the following information written in indelible ink: stream name, replicate sample number (net set 1, 2 or 3), date of collection, site number and site description.

**Example: Turkey Creek; Site 2; 3/3/2012;
1 of 3 samples; Hwy. K Bridge, Boone Co.**

7. When sufficient time allows, you may sort, count and identify the invertebrate sample. Remember to count each net set separately and enter on the data sheet separately. Remember to record ONLY the time spent *"picking" the sample* on the data sheet for this activity. DO NOT include time spent identifying

Weather/Rainfall Information

When we ask for rainfall data on Volunteer Water Quality Monitoring data sheets, we want the rainfall in that area the 7 days preceding your sampling event. There are various ways to obtain this information.

Possible sources on Internet:

<http://www.intellicast.com>

<http://agebb.missouri.edu/mass/bull5e.htm>

<http://www.weather.com>

<http://www.weatherunderground.com>

<http://www.noaa.gov>

<http://www.kait8.com>

<http://www.kfvs12.com>

<http://www.tamu.edu>

<http://www.weatherbug.com>

NOTE: For some weather sites you may have to provide the zip code of the town closest to your sampling site. If possible, use the zip code of a town in the same watershed as the stream you are sampling!

If you know the town's name, you can get the zip code from <http://www.usps.gov>.

Other possible sources:

Local airports
Television or radio stations
Local newspapers
Local college or university
Use a rain gauge

Information on naming a stream:

- US board of Geographic Names: <http://geonames.usgs.gov>

Volunteer Water Quality Monitoring FIELD CHECKLIST

- _____ *Introduction to Volunteer Water Quality Monitoring* training notebook
- _____ *Appropriate footwear (e.g., boots, waders, athletic shoes)
- _____ *Clipboard or other writing surface
- _____ *Paper/pen/pencil
- _____ *Trash bag

Site Identification

- _____ *Site Selection Data Sheet*
- _____ Thermometer

Stream Discharge

- _____ *Stream Discharge Data Sheet*
- _____ Float (wiffle golf balls)
- _____ * Stopwatch
- _____ Tape measure (100 foot) marked in tenths of a foot
- _____ * Two sticks or metal pins
- _____ * 10-foot-long rope
- _____ *Depth rod or stick marked in tenths of a foot

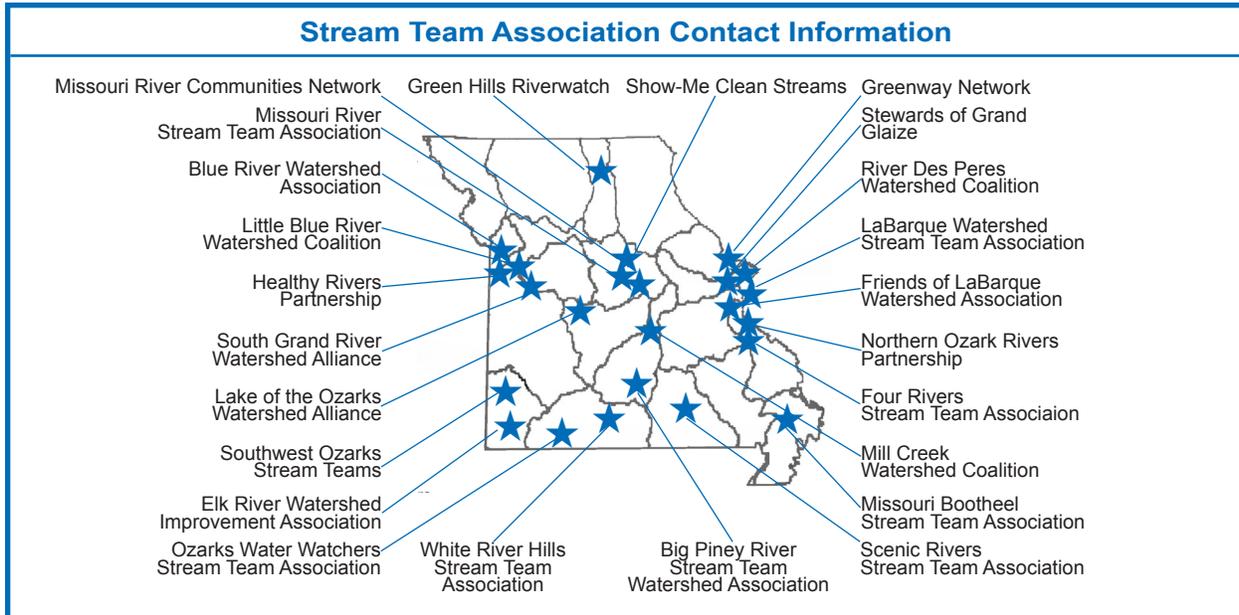
Biological Monitoring

- _____ *Macroinvertebrate Data Sheet*
- _____ Kick net (500-micron mesh)
- _____ * Two, 1 1/8-inch diameter poles (e.g., dowel rods, old broom sticks) to slide into the sides of your kick net
- _____ Hand lens or magnifying glass
- _____ Glass sample vials (for your macroinvertebrate collection)
- _____ *Alcohol for sample preservation (80% ethyl or 40% isopropyl)
- _____ *White ice cube trays and/or large white tray
- _____ *Squirt bottle(s)
- _____ *(Optional) 3-prong garden trowel (for digging into streambed in front of net)

*These items are **not** provided by the Program. The volunteer provides this equipment.

What is a Stream Team Association

A Stream Team Association is a group of Stream Teams in the same or adjoining watersheds working together on projects that affect their adopted streams. The Association enables Stream Teams to take on larger projects impacting a greater area.



1. Big Piney River Stream Team Watershed Association (Big Piney River Watershed)

Contact: Peter Maki
 Top of the Ozarks
 810 S Sam Houston Blvd.
 Houston, MO 65483-1938
 Home Phone: (417)967-0676
 E-mail: peter.maki@totorcd.org
 Website: <http://sites.google.com/site/bprstwa>

2. Blue River Watershed Association (Blue River Watershed)

Contact: Kate Delehunt
 PO Box 7276
 Kansas City, MO 64132-7276
 Home Phone: (816)309-0980
 E-mail: kdelehunt@brwa.net
 Website: www.brwa.net

3. Elk River Watershed Improvement Association (Elk River Watershed)

Contact: Drew Holt
 PO Box 6
 Pineville, MO 64856-0006
 Home Phone: (417)838-1939
 E-mail: holtdm@missouri.edu
 Website: www.erwia.org

4. Four Rivers Stream Team Association (Big River, Black River, Castor River, St. Francis River)

Contact: Sam Allison
 4802 Davis Crossing Road
 Park Hills, MO 63601-8189
 Home Phone: (573)366-8993

5. Friends of LaBarque Watershed Association (LaBarque Creek Watershed)

Contact: Sunny Oberkramer
 PO Box 316
 Eureka, MO 63025-0316
 Home Phone: (636)938-6473
 E-mail: greenholelodge@yahoo.com

6. Green Hills Riverwatch (North Central MO, Chariton & Grand River Watersheds)

Contact: Melody Torrey
 14747 State Highway 129
 Unionville, MO 63565-3219
 Home Phone: (660)947-2169
 E-mail: mrtmkt@nemr.net

7. Greenway Network, Inc. (St. Charles area)

Contact: Larry Ruff
 Greenway Network, Inc.
 3457 Riverchase Parkway
 St. Charles, MO 63301-4113
 Home Phone: (636)949-2793
 E-mail: Lruff001@gmail.com
 Website: www.greenwaynetwork.org

8. Healthy Rivers Partnership

Contact: Vicki Richmond
 5815 Central St.
 Kansas city MO 64113
 Home Phone: (816)812-5166
 Website: www.healthyriverspartnership.com

9. LaBarque Watershed Stream Team Association (NW Jefferson County)

Contact: Bob Coffing
 3949 Dogwood Hill Road
 Catawissa, MO 63015-2140
 Home Phone: (314)488-4013
 E-mail: robertcoffing@sbcglobal.net

10. Lake of the Ozarks Watershed Alliance (Camden, Miller, Morgan, & Benton)

Contact: Caroline Toole
 Lake of the Ozarks Watershed Alliance
 PO Box 836
 Sunrise Beach, MO 65079-0836
 Phone: (573)434-4400
 E-mail: contact@soslowa.org

**11. Little Blue River Watershed Coalition
(L Blue River Watershed & Kansas City area)**

Contact: Larry O'Donnell
6103 Noland Road
Kansas City, MO 64133-4501
Home Phone: (816)356-4040
E-mail: turtle5@aol.com

**12. Mill Creek Watershed Coalition
(Mill Creek Watershed)**

Contact: Jim Marsteller
12942 White Horse Lane
Saint Louis, MO 63131-2241
Home Phone: (314)984-9002
E-mail: jmarsteller@jamesmarsteller.com

13. Missouri Bootheel Stream Team Association (Little River Ditches Watershed)

Contact: Vanessa Frazier
102 E Eddie Street
Howardville, MO 63869-9739
Home Phone: (573)688-2774
E-mail: vfrazier_hcb@yahoo.com

**14. Missouri River Communities Network
(Missouri River)**

Contact: Steve Johnson
203 Outdoors Building
200 Old Business 63 South
Columbia, MO 65201-6081
Work Phone: (573)256-2602
E-mail: manitoubuffs@gmail.com
Website: www.moriver.org

15. Missouri River Stream Team Association (Missouri River Watershed)

Contact: Jeff Barrow
PO Box 463
Columbia, MO 65205-0463
Home Phone: (573) 443-0292
E-mail: jeff@riverrelief.org

**16. Missouri Stream Team Watershed Coalition
(Statewide)**

Contact: Holly Neill
Executive Director
Home Phone: (417)443-6246
E-mail: hollyneill@mstwc.org
Website: www.mstwc.org

17. Northern Ozark Rivers Partnership (Meramec, Huzzah, Courtois, Big, & Bourbeuse Rivers)

Contact: Burt Stewart
1720 Parkside Place
Imperial, MO 63052-2162
Home Phone: (314)225-8415

**18. Ozarks Water Watchers Stream Team Association
(Upper White River Basin)**

Contact: David Casaletto
PO Box 636
Kimberling City, MO 65686-0636
Home Phone: (417)739-5001
E-mail: contact@ozarkswaterwatch.org

**19. River Des Peres Watershed Coalition
(River Des Peres in Saint Louis)**

Contact: Danelle Haake
PO Box 300458
Saint Louis, MO 63130-0159
Home Phone: (314)941-0489
E-mail: danelle.haake@gmail.com

**20. Scenic Rivers Stream Team Association
(Current, Jacks Fork, Eleven Point, and North Fork of White River)**

Contact: Ted Haviland
PO Box 1262
Mountain View, MO 65548-1262
Home Phone: (417)932-4363
E-mail: tednpat@gotrain.org

21. Show-Me Clean Streams (Boone, Callaway, Cole, Cooper, Howard, & Moniteau Counties)

Contact: Diane Oerly
1712 Skylane Drive
Columbia, MO 65202-1709
Home Phone: (573)356-6938
E-mail: Diane.65202@gmail.com

**22. South Grand River Watershed Alliance
(Bates, Cass, & Henry Counties)**

Contact: Doris Sherrick
10807 E 205th Street
Peculiar, MO 64078-9018
Home Phone: (816)779-6708
E-mail: info@sgrwa.com
Website: http://sgrwa.org

**23. Southwest Ozarks Stream Teams
(Spring River Watershed)**

Contact: Linda Swaim
Home Phone: (479)268-5172
E-mail: swost.org@gmail.com
Website: www.sites.google.com/site/swostorg

24. Stewards of Grand Glaize (Grand Glaize Watershed)

Contact: Coralynne Westcot
309 Ballwin Avenue
Ballwin, MO 63021
Home Phone: (636)256-6893
Email: corikeys@aol.com

25. White River Hills Stream Team Association (White River Watershed)

Contact: George Sims
RR 2 Box 237-3
Mansfield, MO 65704-9564
Home Phone: (417)554-1682
E-mail: GeorgeSims@hotmail.com

EQUIPMENT SOURCES (a 2-page list)
Missouri Volunteer Water Quality Monitoring Program

NOTE: Items marked with an asterisk () on the next 2 pages indicate the basic equipment provided to all volunteers who have completed both the Introduction and Level 1 VWQM workshops. Prices can not be kept current.*

Companies

LaMotte Company
P.O. Box 329
Chesterfield, MD 21620
1-800-344-3100 or (410) 778-3100
www.lamotte.com

Ben Meadows Co.
3589 Broad Street
Atlanta, GA 30341
1-800-241-6401
www.benmeadows.com

Aquatic Research Instrument s
P.O. Box 98
Hope, ID 83836
1-800-320-9482
Fax: [208] 264-5263
www.aquaticresearch.com

Capitol Scientific, Inc.
2500 Rutland Drive
Austin, TX 78758
1-800-580-1167
www.capitolscientific.com

Hach Company
P.O. Box 608
Loveland, CO 80539
1-800-227-4224
www.hach.com

Lawrence Enterprises, Inc.
PO Box 344 – Rt 3
Seal Harbor, ME 04675-0344
(207) 276-5746
Fax: [207] 276-4058
www.watermonitoringequip.com

ToolMark, Inc
6S 221 Cape Road
Naperville, IL 60540
1-800-371-4513
Fax (866-630-6923
www.toolmark.net

Chemical Analysis

Item	Company	Catalog No.	Description	Price
* Dissolved Oxygen	Hach Company	1469-00	Test Kit, OX-2P Dissolved Oxygen	\$76.45
* Conductivity	Hach Company	25202-20	Oakton Conductivity ECO Tester	\$66.25
* pH	Hach Company	25202-20	Oakton pH ECO Tester 2	\$68.89
* Thermometer	Hach Company	26763-00	Pocket Celsius Thermometer (0° to 50°)	\$28.05
	Ben Meadows Company	5JB-111052	Pocket Thermometer 0° to 50°	\$8.10
* Nitrate	LaMotte Company	3110	Nitrate Kit, NCR	\$69.95
	Hach Company	1468-03	Test Kit, NI-11 Nitrate	\$76.15
Ammonia	Hach Company	5870040	Pocket Colorimeter Ammonia II	\$427.00
Phosphorus	Hach Company	5870006	Pocket Colorimeter Phosphate II	\$427.00
Hardness	Hach Company	1454-01	Test Kit 5-EP Hardness	\$28.29
Alkalinity	Hach Company	24443-01	Test Kit AL-AP Alkalinity	\$43.75

Replacement Reagents

Item	Company	Catalog No.	Description	Price
Dissolved Oxygen	Hach Company	981-99	DO 1 Reagent Powder pillows pk/100	\$ 17.35
	Hach Company	982-99	DO 2 Reagent Powder Pillows pk/100	\$ 17.35
	Hach Company	987-99	DO 3 Reagent Powder Pillows pk/100	\$ 25.55
	Hach Company	24089-32	Sodium Thiosulfate STD, 0.0109N	\$ 14.65
Conductivity Standard	Hach Company	14400-42	Sodium Chloride, 1000 µS/cm	\$ 15.45
pH 7.0 Buffer	Hach Company	22835-49	Yellow pH Buffer Solution	\$ 11.45
pH 10.0 Buffer	Hach Company	22836-49	Blue pH 10 Buffer Solution	\$ 11.45
Nitrates	LaMotte Company	V-6278-H	Mixed Acid Reagent	\$ 9.70
	LaMotte Company	V-6279-C	Nitrate Reducing Reagent (5g)	\$ 9.15

Additional Equipment and Resources Used by the Volunteer Water Quality Monitoring Program

Item	Company	Price
* Turbidity/Transparency Tube – NTU – 60 cm length	Lawrence Enterprises, Inc.	\$ 38.50 + S&H
Tape Measure (100 ft, marked in TENTHS, not inches)	Ben Meadows Company (Cat. #122386)	\$ 18.30 + S&H
	ToolMark (Cat. #OTR10100)	\$ 24.99 + S&H
* Kick Net (without poles; 1 square meter; 500-micron mesh; hemmed sides to accept 1 1/8"-diameter poles; reinforced bottom seam)	LaMotte Company (Cat. #3-0021 through Ben Meadows) OR	\$ 79.70
	Aquatic Research Instruments (500-micron mesh, flat)	\$ 75.00 + \$5 S&H
Long-Handled Nets (EPA Standard "D" Net; 500-micron mesh)	Aquatic Research Instrument: Discount, if mention for Mo.Stream Teams:	\$ 99.00 + \$16 S&H
Scintillation Vial Support Racks (24 place, 30 mm)	Capitol Scientific, Inc. (Cat. #S7300)	\$ 33.00/ea; \$132.00case/4

The white pans used for sorting invertebrates can be purchased from photographic equipment suppliers. Ask for "development pans."

Aquatic Entomology. The Fishermen's and Ecologist's Illustrated Guide to Insects and Their Relatives. 1998. W. Patrick McCafferty. Jones and Bartlett Publishers, 40 Tall Pine Drive, Sudbury, MA 01776. Tel: 1-800-832-0034. \$119.95 (\$96.00 if purchase 10 or more); OR check local bookstores or commercial Web sites (e.g., Barnes & Noble, Amazon.com, Borders, etc.)

The Streamkeeper's Field Guide. 1999. Murdoch, T. and Martha Cheo with Kate O'Laughlin. The Adopt-A-Stream Foundation, 600 128th St. SE, Everett, WA 98208. Tel: (425) 316-8592. e-mail: aasf@streamkeeper.org; Web site: www.streamkeeper.org; \$29.95 + shipping (cheaper if order 10 or more)

Plans for Freestanding Kicknet Support

(Submitted by Larry Magliola, ST 249)

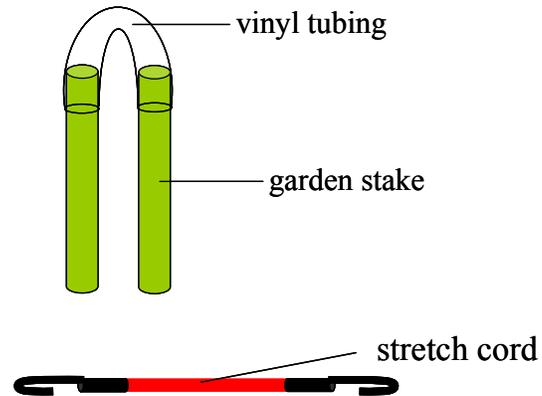
Materials:

Four steel core, plastic-coated garden stakes: 4 ft. long x 3/8 in. diameter
~ 6 in. clear vinyl tubing (soft): 7/16 in. outside diameter and 5/16 in. inside diameter
One 10 in. long stretch cord with hooked ends (rope will also work)

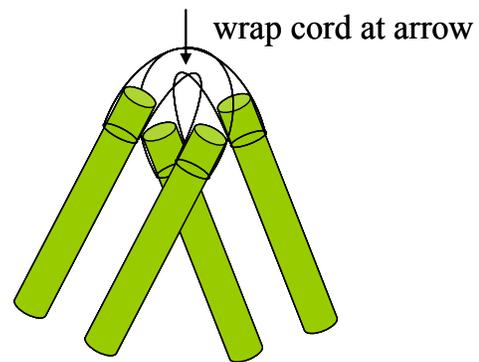
Construction:

Push ~ 3 in. piece of vinyl tubing onto the ends of two of the garden stakes as shown at right

Repeat for the other pair of garden stakes

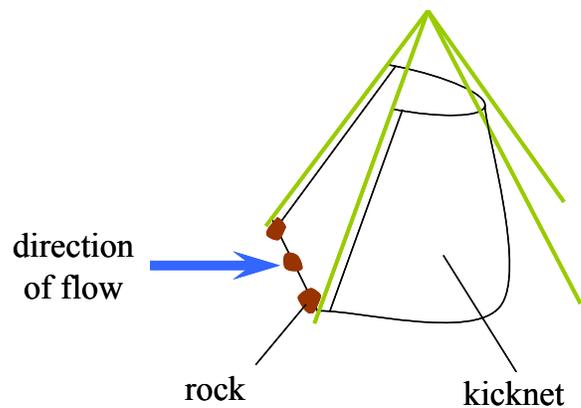


Wrap the stretch cord around both pieces of vinyl tubing and interlock the hooks to create a flexible joint as shown at right



Use:

Guide the looped edges on opposite sides of the kicknet onto two supports as shown. Lower the kicknet into the stream and step on the bottom edge to hold it in place in the flowing water. Have three or four heavy rocks nearby to place on the submerged edge of the kicknet to hold it firmly on the stream bottom. Position the downstream supports to make a stable structure. When removing the kicknet from the stream, grab the bottom edge as you remove the rocks to prevent loss of sample.



Plans for Wooden Vial Rack

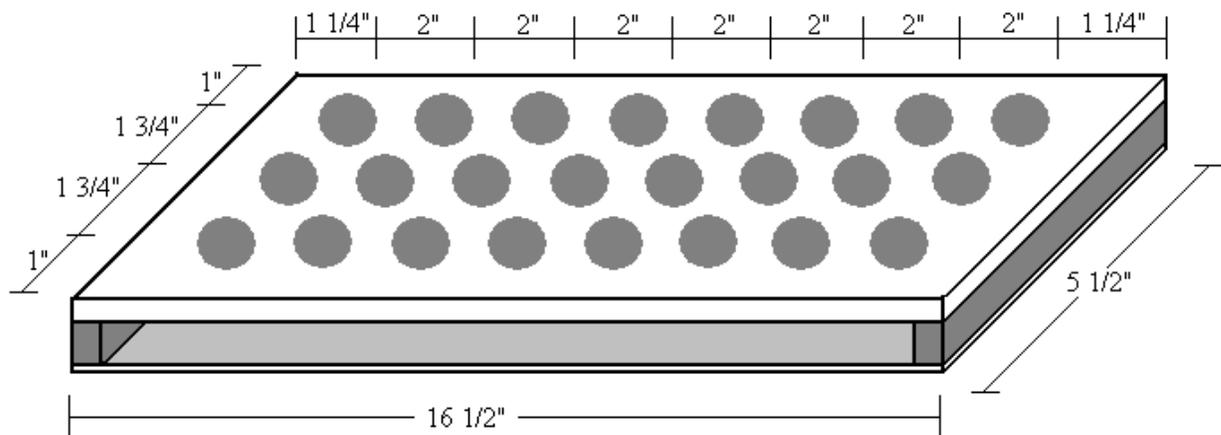
(Submitted by Henry and Janet Stealey, ST 11729)

Materials:

- ✓ One – 1" board cut to 5½" x 16½"
- ✓ Two – ¼" plywood pieces cut to 5½" x 16½"
- ✓ Two – ¾" x ¾" spacers 5½" long
- ✓ Eight – Finishing nails
- ✓ Wood glue

Directions:

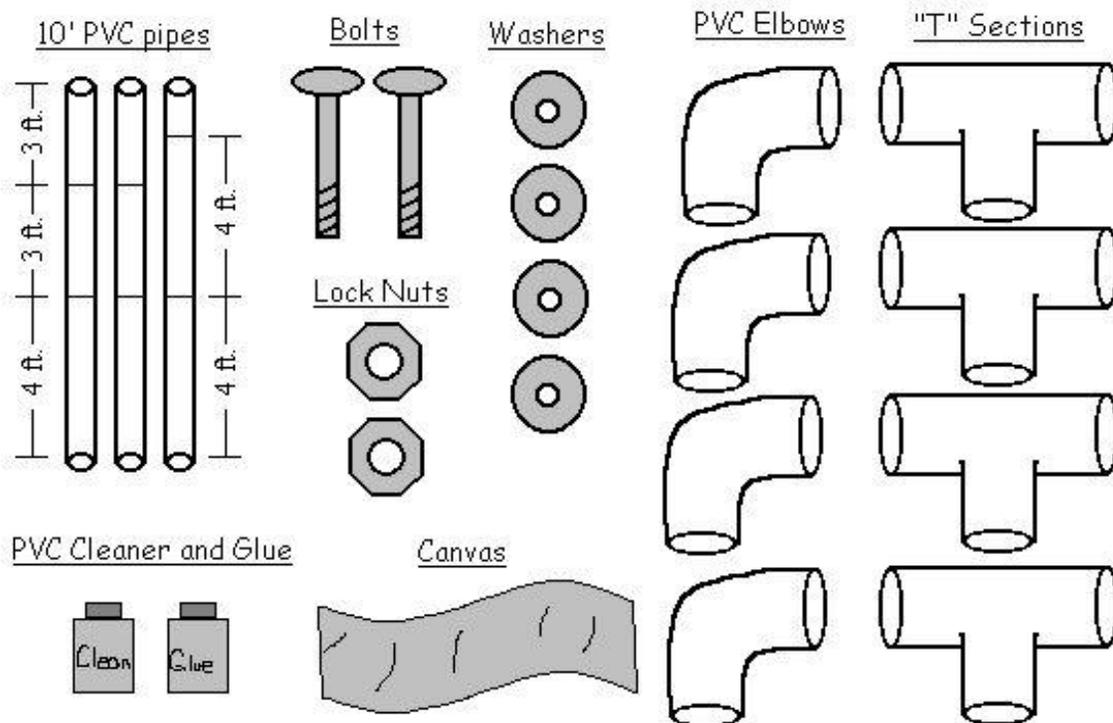
- 1) Cut the boards to the dimensions above.
- 2) In one of the 5½" x 16½" boards, drill 24 holes 1⅛" in diameter on 2" centers per the illustration below.
- 3) Assemble the pieces using the wood glue and finishing nails.



PLANS FOR PVC KICK NET RACK

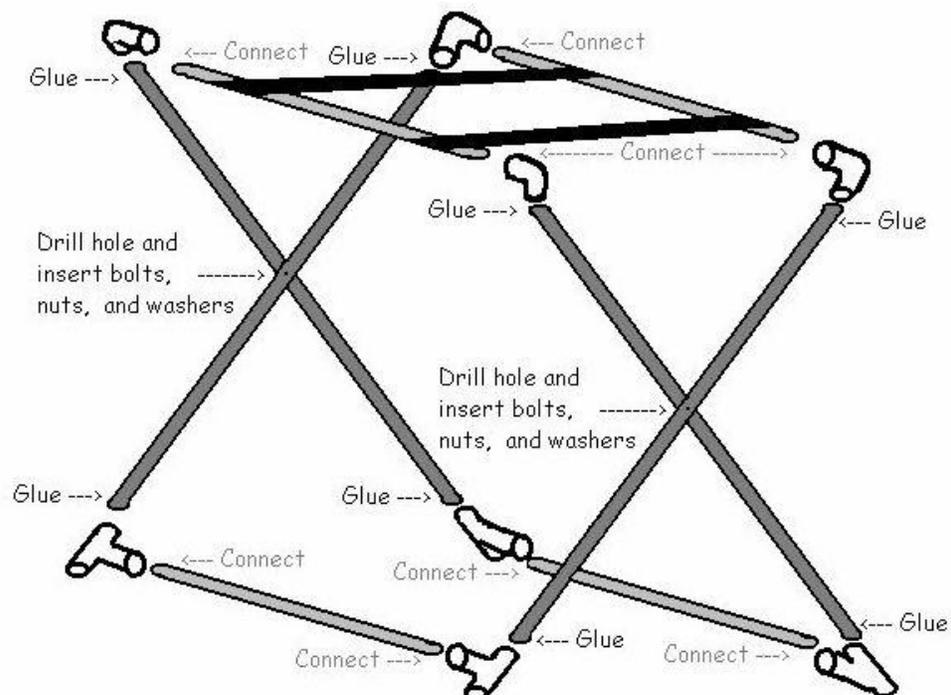
YOU WILL NEED:

- Three 10-foot sections of 1 inch PVC pipe (the high pressure pipe)
- Four PVC elbows (1 inch, 90°)
- Four PVC “T” connectors (1 inch, 90°)
- Two bolts (3 inch x ¼ inch)
- Three lock nuts (¼ inch)
- Four washers (¼ inch)
- Canvas
- Heavy duty thread/twine
- Needle
- Silicone (optional)
- PVC cleaner
- PVC glue
- Tape measure
- Hacksaw
- Pliers
- Scissors
- Drill and 3/8 inch bit
- Caulk gun (only if silicone is used)
- Clean rags
- 1 – 1 ½ hours



HOW TO DO IT:

1. Cut the first 10 ft. PVC pipe into a 4 ft. section and two 3 ft. sections with the hacksaw.
2. Repeat for the second 10 ft. piece of PVC pipe.
3. Cut the third 10 ft. PVC pipe into two 4 ft. sections.
4. You now have the legs (4 ft. pieces) and the cross supports (3 ft. sections).
5. Drill a hole in the 4 ft pieces 2 ft. from the end (in the middle). Make sure it is large enough to put your bolts through!
6. Connect the two sets of legs, the 4 ft. sections, with the bolt (the washers will prevent the bolt or nut from pulling through) and connect with the lock nut.
7. Once the legs are connected, clean the ends with the pipe cleaner and wipe with the rag.
8. Clean the inside of one of the "T" ends (either the left or right end) and wipe with a rag.
9. Put the "T" sections (the bottom of the "T") onto either end of two of the cross pieces and make sure that the "T's" are lined up the same way. **Do not glue these together; if you do you will not be able to take the bug rack apart for transport.**
10. Apply the PVC glue to both the ends of the legs and the insides of the "T" sections. Remember that the glue sets rather quickly, so only do one at a time! Hint: Once this is completed, get something heavy for both sides of the frame so it will stand by itself.
11. Attach the 90° elbows to the other end of the legs in the same manner as the "T" sections. Remember, one at a time!
12. Now that you have the frame built, cut the canvas [lawn chair webbing works too!] to a length that will allow you to work off the bug rack at a comfortable height (the shorter the canvas piece, the taller the rack).
13. Loop the end of the canvas around the top cross bar (connected with the 90° elbow) to the desired length and sew the canvas so the loop is closed.
14. If desired, you can silicone over these stitches to ensure the knots do not come apart and to reduce wear on the stitching.
15. Your bug rack is now complete. Allow the PVC glue and silicone (if used) to dry properly before using. You should be able to take the rack apart (except don't take the bolts out of the legs). Once apart, you can transport the rack and net together by laying your net flat across the canvas strips (as you would while picking your sample), then laying the folded legs and bottom cross segments across the flat net and then rolling the entire thing up like you'd roll a rug.

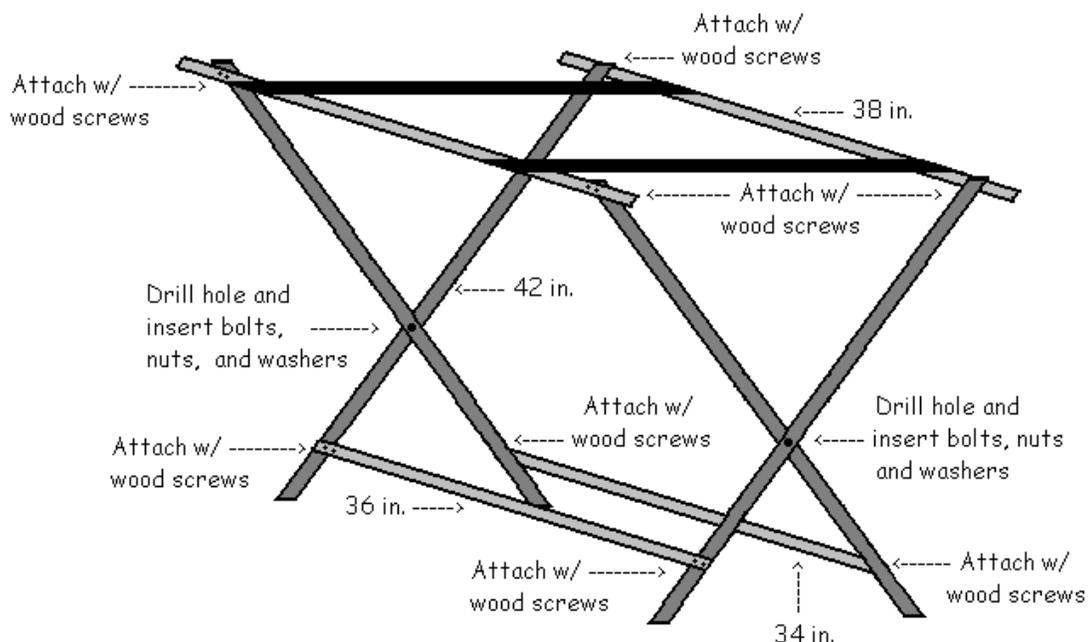
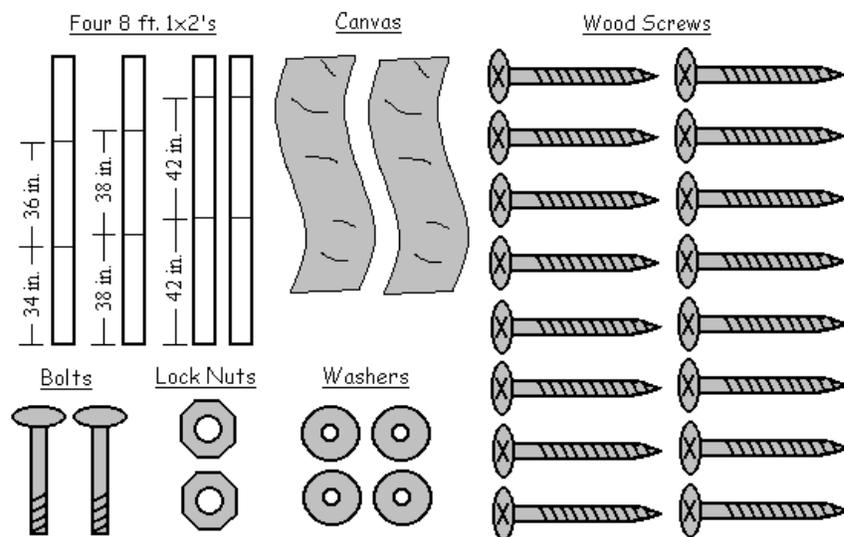


PLANS FOR WOODEN KICK NET RACK

Mary McBee, Bob King and Debbie Schlink, monitors in Jasper County, have come up with a great idea. A net rack to ease the strain of bug picking! It resembles a tray jack used in restaurants (see photo). Mary says the cost of materials is approximately \$23 (that was several years ago), but you might be able to make it more cheaply.

YOU WILL NEED:

- Four 1"x 2" boards, 42" long (the harder the wood, the sturdier the legs for the rack)
- Four 1"x 2" boards, one 34", one 36", and two 38" long
- Two 3" bolts with lock nuts
- Two 6" wide strips of canvas, 40" long
- Sixteen 1 3/4" drywall screws



Any material could be used across the ends of the rack, but the wide canvas has advantages. It provides a place to set ice cube trays, forceps and magnifying glasses!

“Watershed View” Chapter Information

The agencies listed below can provide you with:

Maps & Map Information

Topographic and other Maps

**United States Geological Survey
Missouri Water Science Center**
Independence Road, MS-100
Rolla, MO 65401
(573) 308-3500
Denver Customer Service (303) 202-4700
(\$8.00 + \$5.00 S&H out of Denver)
<http://www.usgs.gov/>

**Missouri Department of Natural Resources
Division of Geology and Land Survey**
111 Fairgrounds Road
Rolla, MO 65401
(573) 368-2125
<http://www.dnr.mo.gov/geology/adm/publications/>
(\$8.00 + \$1.50 S&H if rolled; \$4.00 to laminate)

State and County Road Maps

Missouri Atlas Gazatteer
DeLorme
P.O. Box 298
Yarmouth, Maine 04096
(207) 846-7000
Check local library, books stores, or internet book sellers.
If road names/numbers are wrong on the map, let us know.

Missouri Department of Transportation
General Services Division/Mapping & Graphics Section
P.O. Box 270
Jefferson City, MO 65102-0270
(573) 751-2825
Printable County maps:
<http://www.modot.mo.gov/newsandinfo/CountyMaps.htm>

Land use maps and aerial photos
U.S. Department of Agriculture’s Natural
Resources Conservation Service (NRCS)
office in each county

Online Maps and Map Info
<http://mdcgis.mdc.mo.gov/website/ststatecov/viewer.htm>
<http://www.cares.missouri.edu/>
<http://www.digital-topo-maps.com>
<http://www.mapsport.com>
<http://www.landvoyage.com>
<http://www.esri.com>
<http://www.terraserver.com/>
<http://www.dnr.mo.gov/env/wpp/wpp-map-gallery.htm>

Land ownership

Contact your city or county assessor’s office to discover who owns land within your watershed. If your watershed contains publicly owned lands, like National Forests or state or local parks, you can contact the following agencies for more information.

Public Lands

Missouri Department of Conservation
Contact the Regional Office
(See map on page 5 of this Appendix)
<http://www.mdc.mo.gov>

Missouri Department of Natural Resources
Division of State Parks
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-2479
1-800-334-6946
<http://www.mostateparks.com/>

U.S. Forest Service (USFS – Mark Twain National Forest)
401 Fairgrounds Road
Rolla, MO 65401
(573) 364-4621
<http://www.fs.fed.us/>

Contact your local parks department for information about city and county parks.

Physical and Biological Information

Physical and biological information can include data about climate, soils, geology and any fish or wildlife that occurs in your watershed.

National

United States Geological Survey

Missouri Water Science Center

1400 Independence Road, MS-100

Rolla, MO 65401-2602

(573) 308-3664

<http://mo.water.usgs.gov/>

<http://www.usgs.gov/>

The United States Geological Survey measures flow and tests water quality at nearly 100 locations in Missouri. They also collect water-use data throughout the state and have all types of mapping information. For Real-Time Water Data, Stage & Streamflow Data go to:

<http://water.usgs.gov/waterwatch/>

Weather Information

For local weather information, including daily rainfall:

<http://www.noaa.gov>

<http://www.weatherbug.com>

<http://www.weather.com>

<http://www.weatherunderground.com>

<http://www.kait8.com>

<http://www.kfvs12.com>

<http://www.tamu.edu>

Natural Resources Conservation Service of the U.S. Department of Agriculture

Roger A. Hansen, State Conservationist

601 Business Loop 70 West

Parkade Center, Suite 250

Columbia, MO 65203

(573) 876-0900

Missouri website:

<http://www.mo.nrcs.usda.gov/contact/>

National website:

<http://www.nrcs.usda.gov/>

The NRCS supplies soil maps and aerial photograph maps of your watershed. They can also provide information on geology, land use and other topics of interest.

NOTE: For some weather sites you will need the zip code of the town closest to your sampling site. If you know the town name, get zip code from <http://www.usps.gov>.

More weather sites:

<http://intellicast.com>

<http://agebb.missouri.edu/mass/bull5e.htm>

State

Missouri Department of Conservation

2901 West Truman Blvd.

P.O. Box 180

Jefferson City, MO 65102-0180

(573) 751-4115

<http://mdc.mo.gov/>

Missouri Department of Natural Resources

Lewis and Clark Bldg.

1101 Riverside Drive

P.O. Box 176

Jefferson City, MO 65102-0176

1-800-361-4827

<http://www.dnr.mo.gov/>

Local

- Electric utility companies, especially those that provide hydroelectric power, often have information on fish and wildlife populations.
 - Sewage treatment plant operators typically monitor water quality downstream of their discharges.
 - City or county public works departments can provide information about water quality, domestic water use, storm drains and sewage treatment systems.
-

Political, Regulatory and Other Information

Government agencies can tell you which laws, policies and regulations are working to protect watersheds and their inhabitants

National

U.S. Environmental Protection Agency Office of Wetlands, Oceans and Watersheds

1200 Pennsylvania Ave., NW (4501T)
Washington, DC 20460
(202) 566-1300

<http://www.epa.gov/OWOW>

The EPA Office of Wetlands, Oceans and Watersheds (OWOW) provides a wealth of information on watershed partnerships, water quality monitoring and the watershed approach to resource management.

U.S. Environmental Protection Agency, Region 7

901 N. 5th Street
Kansas City, KS 66101
(913) 551-7003 or 1-800-223-0425

<http://www.epa.gov/region7/>

The Water Quality Protection Division of the EPA issues National Pollutant Discharge Elimination System (NPDES) permits, and the Water Enforcement Branch ensures that all discharges are in compliance with NPDES permits. To learn more about federal NPDES permits in general, call the EPA Region 7 office. To learn about these permits in Missouri (where they are called “State Operating Permits”) contact the Department of Natural Resources’ Water Protection and Soil Conservation Division (address on next page) or the DNR Regional Office for your area (see map on Page 4 of this Appendix). Knowing the location of State Operating Permit sites within your watershed will help you better assess water quality and potential point source pollution.

U.S. Environmental Protection Agency

Surf Your Watershed Site and other watershed-related sites

<http://www.epa.gov/surf> AND www.epa.gov/water/waterplan provides information on NPDES discharge permits nationwide.

For information on environmental justice, see the EPA website,

http://www.epa.gov/compliance/resources/publications/ej/citizen_guide_ej.pdf

http://iaspub.epa.gov/waters10/w305b_report_control.get_report

Know Your Watershed

Conservation Technology Information Center (CTIC)

1220 Potter Drive, Suite 170
West Lafayette, IN 47906
(765) 494-9555; FAX: (765) 494-5969
Email: ctic@ctic.purdue.edu

<http://www.ctic.purdue.edu>

CTIC publishes several brochures and videos about building watershed partnerships and understanding watersheds. They also have a website with links to the National Watershed Network and the National Watershed Library.

U.S. Fish and Wildlife Service

101 Park DeVillie Drive, Suite A
Columbia, MO 65203-0007
(573) 234-2132; FAX: (573) 234-2181

Region 3 Web page: <http://midwest.fws.gov/> -- Click on the State of Missouri on the map to get Missouri information.

Have authority over federally “listed” species (e.g., endangered); manage federal refuges (e.g., Squaw Creek) and fish hatcheries (e.g., Neosho); and more.

Political, Regulatory and Other Information

(continued)

State

Missouri Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102-0176

(573) 751-3443 or toll-free 1-800-361-4827

Website: <http://www.dnr.mo.gov>

Regulatory agency in Missouri with authority over water, air, solid waste, environmental hazardous waste, and mining. DNR also has responsibility for parks, energy, and geology & land survey.

For lists of available DNR publications, check the following DNR Website: <http://www.dnr.mo.gov/pubs/pubs.htm> or call the Department of Natural Resources' toll-free number above.

NOTE: Due to budget reallocations, DNR no longer provides a service for obtaining DNR publications other than the option of downloading publications off their website.

For publications specifically from the Division of Geology and Land Survey call (473) 368-2125 in Rolla, or visit the DNR publications Website listed above.

Water Protection Program

(573) 751-1300

Website:

<http://www.dnr.mo.gov/env/wpp/index.html>

Division of State Parks

1-800-334-6946

Email: moparks@dnr.mo.gov

Website: <http://www.mostateparks.com/>

Missouri Department of Conservation

2901 West Truman Blvd.

P.O. Box 180

Jefferson City, MO 65102-0180

(573) 751-4115 (if you know the person's extension number, use 573-522-4115 and the 4-digit extension)

Website: <http://mdc.mo.gov/>

Agency mandated to protect and manage the fish, forest and wildlife resources of the state.

Conservation Federation of Missouri (the Missouri Chapter of the National Wildlife Federation)

728 West Main

Jefferson City, Missouri 65101

(573) 634-2322 or toll-free 1-800-575-2322; FAX: 573-634-8205

Email: confedmo@socket.net

Website: <http://www.confedmo.org>

Missouri Watershed Information Network (MoWIN)

205 Agricultural Engineering Building

Columbia, MO 65211-5200

(573) 882-0085 or toll-free (in Missouri only) 1-877- H2O-SHED (426-7433); FAX: (573) 884-5650

Email: mowin@missouri.edu

Website: <http://outreach.missouri.edu/mowin>

Missouri Stream Team Watershed Coalition (MSTWC)

PO Box 2132 Ozark, MO 65721

Stream Team Voice Mailbox: 1-800-781-1989

Email: hollyneill@mstwc.org

Website: <http://mstwc.org/>

Political, Regulatory and Other Information

(continued)

Local

County Soil and Water Conservation Districts (SWCDs) can provide information on local efforts to reduce both soil erosion and agriculture-related water pollution. The Soil and Water Conservation Program within DNR can provide contact information on local SWCDs.

Call (573) 751-4932, or click on the individual county in the map available at:

http://www.dnr.mo.gov/env/swcp/map_district_information.htm

City and county planning/zoning departments will provide information on zoning ordinances. They can tell you which areas within your watershed are zoned for commercial, industrial or residential development.

Local environmental and civic organizations may already be working in your area to protect aquatic habitats. They can assist you in forming watershed partnerships.

Also reference the list of **Stream Team Association Contacts** provided earlier in this Appendix chapter. If you would like an updated list, contact Stream Team personnel also listed earlier in this Appendix.

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Pflieger, William L. 1997. *The Fishes of Missouri*. Missouri Department of Conservation.

Restoration of Aquatic Ecosystems: Science, Technology and Public Policy. 1992. National Academy Press, Washington, D.C..

Soil and Water Quality: An Agenda for Agriculture. 1993. National Academy Press, Washington, D.C..

Tomelleri, Joseph R., and Mark E. Eberle. 1990. *Fishes of the Central United States*. University Press of Kansas.

Voshell, J. Reese, Jr. 2002. *A Guide to Common Freshwater Invertebrates of North America*. McDonald & Woodward Publishers, Blacksburg, VA.

Waters, Thomas F. 1995. *Sediment in Streams: Sources, Biological Effects and Control*. American Fisheries Society, Bethesda, MD.

MISSOURI VOLUNTEER WATER QUALITY MONITORING PROGRAM

SUMMARY OF PARTICIPANT EXPECTATIONS

- ★ Monitors will make safety a first priority when engaging in data collection activities.
- ★ Volunteers will enter private property only with the landowner's permission.
- ★ Participants will submit monitoring data and activity reports in a timely fashion. If a monitor chooses not to submit data, they will submit activity reports to indicate they are using the information and equipment to benefit the resource.
- ★ If a monitor chooses to no longer participate in the program, they will return all equipment and supplies to the program so they may be put to use by another volunteer.
- ★ Participants will foster cooperative partnerships within watersheds to resolve resource issues and not carelessly place blame or "point fingers" at others. The program's goal is to create alliances in local communities, not adversarial relationships.
- ★ Volunteers will continue to educate themselves about water resources and share the knowledge they gain with others.
- ★ Monitors will gather information as accurately as possible, whether they are collecting water quality data or researching a water issue.
- ★ Participants will examine their own behavior and minimize negative impacts on water resources.
- ★ Participants will try to see all points of view on water resource issues and recognize that waters in Missouri serve many purposes, some of which may appear to conflict.
- ★ All program participants will continue to enjoy and appreciate the extraordinary water resources of the State of Missouri!

VOLUNTEER WATER QUALITY MONITORING
LIABILITY WAIVER

The Volunteer Water Quality Monitoring Program is a program of citizen volunteers who monitor and collect water quality samples from Missouri streams. The data collected will be used by the citizens involved in the program and the Missouri Departments of Conservation and Natural Resources, and the Conservation Federation of Missouri.

WAIVER

In consideration of the foregoing, I, on behalf of my heirs, successors and executors, do hereby release and hold harmless the organizations that support the Volunteer Water Quality Monitoring Program (the Missouri Department of Natural Resources, Missouri Department of Conservation, and the Conservation Federation of Missouri) from and against any and all claims, damages, demands and causes of action of any form whatsoever arising from or connected with my participation in the Volunteer Water Quality Monitoring Program.

Name: (please print) _____

Signature: _____

Date: _____

If a volunteer is less than 18 years of age, a parent or guardian must sign this waiver.

IMPORTANT NOTE – LIABILITY

It is not the intention of the program sponsors (Missouri Department of Conservation, Missouri Department of Natural Resources, and the Conservation Federation of Missouri) for citizen volunteers participating in this program to act on behalf of these entities in any official capacity. As such, it is the sponsors' intent that citizen volunteers are not authorized to be considered agents, employees, or authorized representatives of the sponsoring entities for any purpose, and that citizen volunteers are not entitled to the same benefits enjoyed by sponsor entity employees.

Citizen volunteers must recognize the potential for injury to themselves and their real and personal property, and to other persons and their real and personal property, which may result from citizen volunteer activities conducted under the Volunteer Water Quality Monitoring Program. The program sponsors intend that citizen volunteers expressly assume all risks and liability for any injuries to, or caused by citizen volunteers under this program.

Citizen volunteers will be instructed in proper sampling techniques and handling of sampling-related equipment, including chemicals. They will also be cautioned that if there is ever any doubt, they should give safety priority over sampling. Every participant will also receive a copy of the training notebook, which covers sampling procedures, safety considerations, and trespass laws.

**INTRODUCTORY LEVEL
VWQM TRAINING RECORD FORM**

*Please **PRINT** legibly*

Location of Training: _____ Date: _____

Instructors' Names: _____

Your Name: _____

Mailing Address: _____

City, State, and Zip Code: _____

Shipping Address, *if different from above (No P.O. Box)*: _____

Home Telephone: _____ Work Telephone: _____

Email: _____ County of Residence: _____

If you are *already* in a Stream Team, list Team Number and/or Name: _____

If you are *NOT* already a Stream Team and *do not wish to be* a Stream Team, check here: _____
(*If you do not check this box, you will automatically become a Stream Team, be assigned a Stream Team Number, and a membership card will be mailed to you. If you are already a Stream Team member, please disregard.*)

If you will be a *NEW* Stream Team, please list the other people you know who will be members of your team. This is especially important if some of them are also at today's workshop. (It's okay to add or subtract members at any time!)

Are you leading this Stream Team as a teacher? Yes: _____ No: _____

If yes, name of the school: _____

Are you leading this Stream Team as a youth group leader? Yes: _____ No: _____

If yes, the name of the youth group: _____

Stream you are interested in (**if chosen**): _____ County of _____ stream: _____

Location(s) to be monitored (**if chosen**): _____

If you've listed a stream above, would you like a list of other Stream Team volunteers working in your watershed (this would include all Stream Team volunteers, not just monitors)? Yes: _____ No: _____

(continued on back of page)

LETTER OF AGREEMENT

Please ***PRINT*** legibly

NOTE: Please fill this form out even if you don't plan to pick up equipment today. If you intend to share equipment with someone else, it would help us a lot if you would write that fact on the bottom of the form. Thank you so much!

The individual named below has been trained at the Introductory level and may request equipment to conduct biological monitoring. In exchange for equipment and training, the named person agrees to:

1. Submit a Site Selection Datasheet indicating that they have chose a site to monitor and have permission to access that site
2. Become familiar with the monitoring equipment and learn the sampling techniques.
3. Share information received during training with other members of their STREAM TEAM or group who did not attend the workshop. (Note that in order for Team members to submit data under their name, they must have attended the appropriate VWQM workshop.)
4. Conduct visual stream survey twice per year and biological monitoring twice per year (early spring and early fall), weather permitting.
5. **Submit data** to the Mo. Dept of Natural Resources, Water Protection Program, WQMA Section, P.O. Box 176, Jefferson City, MO 65102-0176.
6. **Return the equipment to the Volunteer Water Quality Monitoring Program if the individual, STREAM TEAM, or group stops monitoring or participating in the program.**

In consideration of the foregoing, I do hereby agree to the stipulations placed forth in this document. I will fulfill this agreement to the best of my ability and if I am no longer able to meet the requirements placed upon me herin, I will send notification and return all equipment to the Volunteer Water Quality Monitoring Program.

Name: (please print) _____

Signature: _____

Date: _____

If a volunteer is under 18 years of age, a parent or adult sponsor must sign this agreement.

TO INSTRUCTOR: Please check items below that you provided to this volunteer:

Tape Measure _____ Thermometer _____ Wiffle Ball (flow) _____

Volunteer Water Quality Monitoring Workshop

EVALUATION FORM

Name of this course: **Introduction to Volunteer Water Quality Monitoring** (Stream Team Program)

Workshop Location: _____ Date: _____

Instructors' Names: _____

1. What did you like best about the workshop? _____

2. Did we answer all of your questions concerning water quality monitoring? Yes: _____ No: _____

If not, please explain. _____

3. Was the information easily understood? Yes: _____ No: _____ Somewhat: _____

4. Was the amount of material: Too much: _____ Just right: _____ Too little: _____

6. In what ways can we improve the workshop? _____

7. General comments: _____

