

ALABAMA WATER WATCH STREAMWALK ACTIVITY

WHAT IS THE STREAMWALK ACTIVITY?

StreamWalk is a simple, visual stream inspection activity.

WHY DO PEOPLE ORGANIZE STREAMWALK ACTIVITIES?

- To determine the condition of a stream and the surrounding riparian area
- To educate about watersheds, water quality and pollution prevention
- To detect specific pollution problems so that they can be prioritized and corrected
- To identify sites for water quality monitoring

WHO SHOULD I INVOLVE IN A STREAMWALK ACTIVITY?

- School classes, clubs, scout troops and other young people
- Recreational stream users
- Environmental group members
- Landowners and other watershed stakeholders
- Community leaders, politicians and the media

HOW LONG SHOULD A STREAMWALK ACTIVITY BE?

StreamWalk activities are conducted for a wide range of purposes. Therefore, StreamWalk activities can vary significantly. A StreamWalk activity for some groups such as younger school children might be as short as a few hundred yards. A StreamWalk activity sponsored by a watershed management group or stormwater project might involve a number of different streams and observations taken multiple times over the course of a StreamWalk several miles long. The length of the StreamWalk should match its purpose and the interest and physical abilities of participants.

WHAT ARE SOME PRECAUTIONS FOR CONDUCTING A STREAMWALK ACTIVITY?

- Obtain permission from landowners to cross their property
- Make sure the activity is appropriate for ages and abilities of participants
- Secure enough adult participants to supervise youthful participants
- Scout out the route of the StreamWalk in advance of the event
- Avoid severe conditions such as high water or severe cold or heat
- Know how to identify poisonous plants and prepare participants in advance of event
- Caution participants to watch out for broken glass and other sharp objects
- Remind participants to watch where they place their hands and feet in order to avoid snakebite
- Take a first-aid kit

WHAT MATERIALS ARE NEEDED FOR A STREAMWALK ACTIVITY?

- A current map area of the StreamWalk, preferably a U.S.G.S. map (a county map can be used)
- Clipboards, paper, writing instruments and a camera (a disposable waterproof camera works well)
- Suitable clothing, shoes, waders, boots, hat, insect repellent, sunscreen etc. as appropriate
- StreamWalk reporting forms (copy as many as are needed from this original)
- Water and snacks as desired (OPTIONAL)
- A first aid kit
- A backpack for carrying everything
- A walking stick (OPTIONAL)

SHOULD A STREAMWALK ACTIVITY BE PUBLICIZED? SHOULD IT BE PUBLIC?

The target audience for a StreamWalk activity depends upon the goals of the organizer. If the organizer's main purpose is to increase public awareness of the condition of a local stream or streams, the event should be conducted to involve as many citizens as can participate without damaging the stream or nearby riparian areas. If the major purpose of the StreamWalk is to collect information about the stream or streams, it may be best to conduct the StreamWalk in cooperation with water watch volunteers or to wait until you can plan, organize and conduct some training for citizens who wish to participate. In any event, when a StreamWalk is organized, each group that goes to the stream should have at least one person with previous streamwalk, monitoring or related experience present.

WHAT SHOULD BE DONE AFTER THE STREAMWALK?

- As soon as possible after the StreamWalk (while observations are still fresh in participants' minds) each group should review the field notes and complete the StreamWalk Reporting Form and map, adding tidbits of information that were omitted in the field. If necessary for readability or clarity, complete a new copy of the data form and a new map at this time.
- Report any serious problems or possible violations as soon as possible. For example, livestock in the water or riparian zone or a broken sewer pipe just above a site used for swimming could be a public health threat.
- Report all water quality problems or concerns observed (whether they represent a violation or health threat or not). If you live in a rural area, report problems to your county Soil and Water Conservation District (SWCD). If you live in a metropolitan area, report your findings to the stormwater program, the utility department and the SWCD.
- If problems observed during the StreamWalk are caused by the actions of persons that members of the group know and can communicate with personally, inform those persons of the impacts of their actions. Some polluters are not aware that their actions cause water quality impacts.
- If there are problems in the stream or streams that require increased public awareness or education, such as illegal trash or garbage dumping, contact a local newspaper reporter and see if you can get them to do a story on the problems and your StreamWalk findings. If you have good quality pictures from the StreamWalk event the reporter may utilize them. Hopefully a reporter will attend the event and have their own pictures.
- Make a copy of your StreamWalk report and send it to:
Michael Mullen, Ala. NPS Education Coordinator, CERS, Troy State University, Troy, AL 36082
- If you do not know if your stream or streams are being monitored by a local Alabama Water Watch group (i.e. there was not an AWW volunteer involved in your StreamWalk) you can find out if there is a local Alabama Water Watch group that might test the water in your stream. Better yet, you can find out how you and members of your group can be trained to be citizen monitors. Call the Alabama Water Watch Office at 334-844-4785 or 888-844-4785 or send e-mail to <aww@acesag.auburn.edu>.
- If your group is interested in finding local support for correction of water quality problems or assistance (funds for test kits, kit refills etc.) contact appropriate local agencies with responsibility for or interest in protecting water quality. Examples include the Natural Resources Conservation Service and your local SWCD. Other organizations which have helped in some areas include county commissions, city councils, stormwater programs, environmental groups, watershed projects, universities and civic clubs.

HOW DO I REPORT PROBLEMS OBSERVED DURING A STREAMWALK ACTIVITY?

Normally problems should be reported to local agencies first. A broken sewer pipe should be reported to the local utility department. Agricultural problems should be reported to the local SWCD or NRCS county office. Erosion and sedimentation problems should be reported to the local stormwater office or the Alabama Department of Environmental Management's Field Operations staff. Problems from state highway projects should be reported to the nearest Alabama Department of Transportation District Office or a county road problem to the county engineer. Problems not corrected after a reasonable time should be reported to ADEM. To obtain the appropriate ADEM number, call the ADEM Ombudsman at 1-800-533-2336.

ANY EMERGENCY SITUATION SUCH AS A HAZARDOUS WASTE SPILL SHOULD BE REPORTED IMMEDIATELY TO A HAZARDOUS MATERIALS RESPONSE TEAM (CALL 911 OR YOUR LOCAL POLICE DEPARTMENT).

STREAMWALK DATA FORM

GROUP/SPONSOR INFORMATION

Group/Sponsor Name: _____

Contact Name: _____ Daytime Phone Number _____

Mailing Address: _____

Main Purpose For StreamWalk Event: _____

Date(s) StreamWalk Was Conducted: _____ Number Participating _____

STREAM INFORMATION - Use One Or More Forms For Each Stream (One For Each Significantly Different Segment That You Examine) - Make Copies From The Original As Needed

Stream Name: _____

Location of Observations For This Data Sheet: _____

(Attach a copy of a map with the section of the stream that you examined clearly marked along with any notation of observations or problems that you observed).

VISUAL ASSESSMENT

Weather conditions at time of StreamWalk: (check one) clear cloudy rainy other

What color is the water? (check all that apply) clear oily black
 foamy green other
 muddy brown

How does the water smell? no odor rotten egg gasoline or oil
 chemical chlorine sewage
 rotting fishy

What is the composition of the stream bottom? (check all the types of material that you see)
 sand gravel boulders limestone marl silt other

What materials form most of the stream bottom? (In the blanks write 1 for the most common bottom material, 2 for the second most common etc.)
 sand gravel boulders bedrock silt other

How fast is the water in the stream moving? very fast fast slow not at all

Are algae present? (Algae are a variety of aquatic photosynthetic organisms). Check all that you see.
 not present present in spots attached to rocks
 everywhere floating matted on the streambed

If present, what color are the algae? (Check all you see). light green dark green brown
 red orange

Do you see any fish in the stream? absent moderately abundant abundant
How many different types of fish do you see? one two to three more than three
Did you see any amphibians or reptiles? yes no

If the sun was directly above the stream how much of the stream would be shaded? (This question refers to an estimate of the average amount of tree cover over the stream).

- fully exposed (0-25% of the stream is shaded from the sun)
- partially exposed (25-50% of the stream is shaded)
- partially shaded (50-75% of the stream is shaded)
- fully shaded (75-100% of the stream is shaded)

Facing upstream, how much of the stream bank is covered by plants, rocks and logs?
Stream edge to 25 feet back from stream:

- | | |
|--|--|
| <u>Left Bank:</u> | <u>Right Bank:</u> |
| <input type="checkbox"/> 70-100% covered | <input type="checkbox"/> 70-100% covered |
| <input type="checkbox"/> 30-70% covered | <input type="checkbox"/> 30-70% covered |
| <input type="checkbox"/> less than 30% covered | <input type="checkbox"/> less than 30% covered |

25 to 100 feet back from stream:

- | | |
|--|--|
| <u>Left Bank:</u> | <u>Right Bank:</u> |
| <input type="checkbox"/> 70-100% covered | <input type="checkbox"/> 70-100% covered |
| <input type="checkbox"/> 30-70% covered | <input type="checkbox"/> 30-70% covered |
| <input type="checkbox"/> less than 30% covered | <input type="checkbox"/> less than 30% covered |

What are the land uses in the watershed in the areas adjacent to and immediately upstream from your sampling site? (check all uses observed).

- | | | |
|--|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> farming/crops | <input type="checkbox"/> forest | <input type="checkbox"/> residential |
| <input type="checkbox"/> pasture/grazing | <input type="checkbox"/> stores/malls | <input type="checkbox"/> mining |
| <input type="checkbox"/> construction | <input type="checkbox"/> factories | <input type="checkbox"/> logging |
| <input type="checkbox"/> poultry/swine | | |

What are the three most common land uses in the watershed (of the stream segment surveyed) in terms of acreage involved?

1. _____ 2. _____ 3. _____

What are the local uses of the stream?

- | | |
|--|-------------------------------------|
| <input type="checkbox"/> drinking water supply | <input type="checkbox"/> recreation |
| <input type="checkbox"/> industrial water supply | <input type="checkbox"/> swimming |
| <input type="checkbox"/> agriculture | <input type="checkbox"/> fishing |
| <input type="checkbox"/> irrigation | <input type="checkbox"/> other |
| <input type="checkbox"/> livestock watering | |

Are there any pipes emptying directly into or near the stream?

- Yes No If yes, is there a discharge? Yes No

Are there barriers in the stream? dams bridges woody debris waterfalls

Is there any trash in or immediately adjacent to the stream?

- absent moderately abundant abundant

Sketch the portion of the stream that was inspected on a separate sheet of paper and/or a copy of a map or section of a map. Clearly indicate the stream location on the sketch and/or map. Return a copy of the form, sketches and/or map as instructed previously in the StreamWalk activity instructions.

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