SURF YOUR WATERSHED

SUBJECT(S): Earth science; Environmental science

GRADE LEVEL: 6-12

SCIENCE CONCEPTS:
A watershed is the land area drained by a river and its tributaries. Many factors affect the quality of water within a watershed.

VOCABULARY:
Impaired waters; total maximum daily load (TDML)

LESSON SUMMARY:
Students will use the "Surf Your Watershed" and "Scorecard" web sites to
1. Discover in which watershed they live and 2. Describe water quality issues at local, county and state levels.

STUDENT LEARNING OBJECTIVES:
Students will be able to:
1. Indentify the watershed within which they live.
2. Describe water quality issues within their watershed and within their county and state.

MATERIALS:
Computers; Internet access

BACKGROUND INFORMATION:

Source: http://www.epa.gov/owow/tmdl/overviewfs.html

Section 303(d) of the 1972 Clean Water Act requires states to develop lists of **impaired waters**, those that do not meet water quality standards that states have set for them. The law requires that states establish priority rankings for waters on the lists and develop **total maximum daily loads (TMDLs)** for them. A TMDL specifies the maximum amount of a pollutant that a body of water can receive and still meet water quality standards. The EPA must approve or disapprove lists and TMDLs established by states.

Name _____

SURF YOUR WATERSHED

PROCEDURE

Part I. Find Your Watershed and Assess Its Health

1. Go to the United States Environmental Protection Agency's "Surf Your Watershed" web site at http://cfpub.epa.gov/surf/locate/index.cfm

2. Find your watershed using one of several methods provided.

   Click on the 8-digit HUC code for your watershed to see a map and to find some additional information.

   Name of your watershed: _____

3. Click "Impaired Water for this watershed"

   How many total waters are listed as **impaired** within your watershed? ____

   List the causes of impairment.

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Part II. Water Quality in Your County

Go to http://www.scorecard.org/

Enter your zip code

Scroll down to "Water"

Select #1: Find out how your county's water quality stacks up against others in the United States.

Scroll down the page to answer the questions under each heading below.

- **Clean Water Act Comparative Ranking**

  How does the percentage of Surface Waters with Impaired or Threatened Uses (state + EPA data): in your county compare to the National average?

- **1998 Clean Water Act Status**

  What watersheds are found in your county?

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- **Leading Pollutants/Stressors of Surface Waters**
  Rivers, Streams, and Creeks

  What are the **leading pollutants/stressors** for rivers, streams, and creeks in in your county?

- **Leading Sources of Water Quality Problems**
  Rivers, Streams, and Creeks

  What are the leading **sources of water quality problems** for rivers, streams, and creeks in your county?

Part III. Water Quality of Your State's Rivers and Streams

Go back "Surf Your Watershed" site: http://cfpub.epa.gov/surf/locate/index.cfm and select "Locate by state"

Click on "State Water Quality"

Use the links listed under "Rivers, Streams, and Creeks" to answer the questions below.

What percentage of your state's assessed rivers and streams are impaired?_____

What are the top 10 causes of impairment?

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