What to do

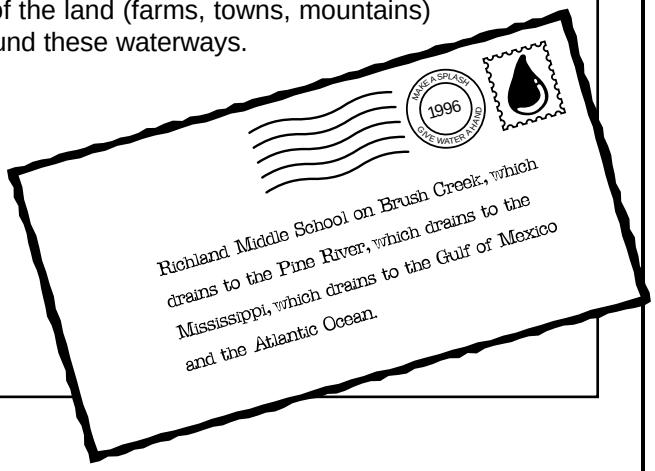
A Collect the following materials:

- Topographic map or maps which include your site and any other maps you have collected of the area,
- a clear sheet of plastic as big as your topographic map (this plastic is called mylar or acetate and is available at art supply stores or office supply stores for a few dollars),
- a piece of cardboard as big as your map,
- thumb tacks,
- dry erase markers & tissues.

B Look at the sample topographic map on page 42. This map includes the watershed pictured on page 40. Can you find this watershed on the map? See Using Maps, page 11 in the Leader Guidebook, if you need to learn more about how to read maps.

Find your ecological

A mailing address helps the Post Office deliver letters to the right place. An "ecological address" can help you find rivers and streams in your community and help you find ways to work on water issues. Local streams empty into larger streams, rivers or lakes, which may empty into a larger river, which may empty into an ocean, estuary, bay or a lake. Your ecological address includes all of the land (farms, towns, mountains) around these waterways.

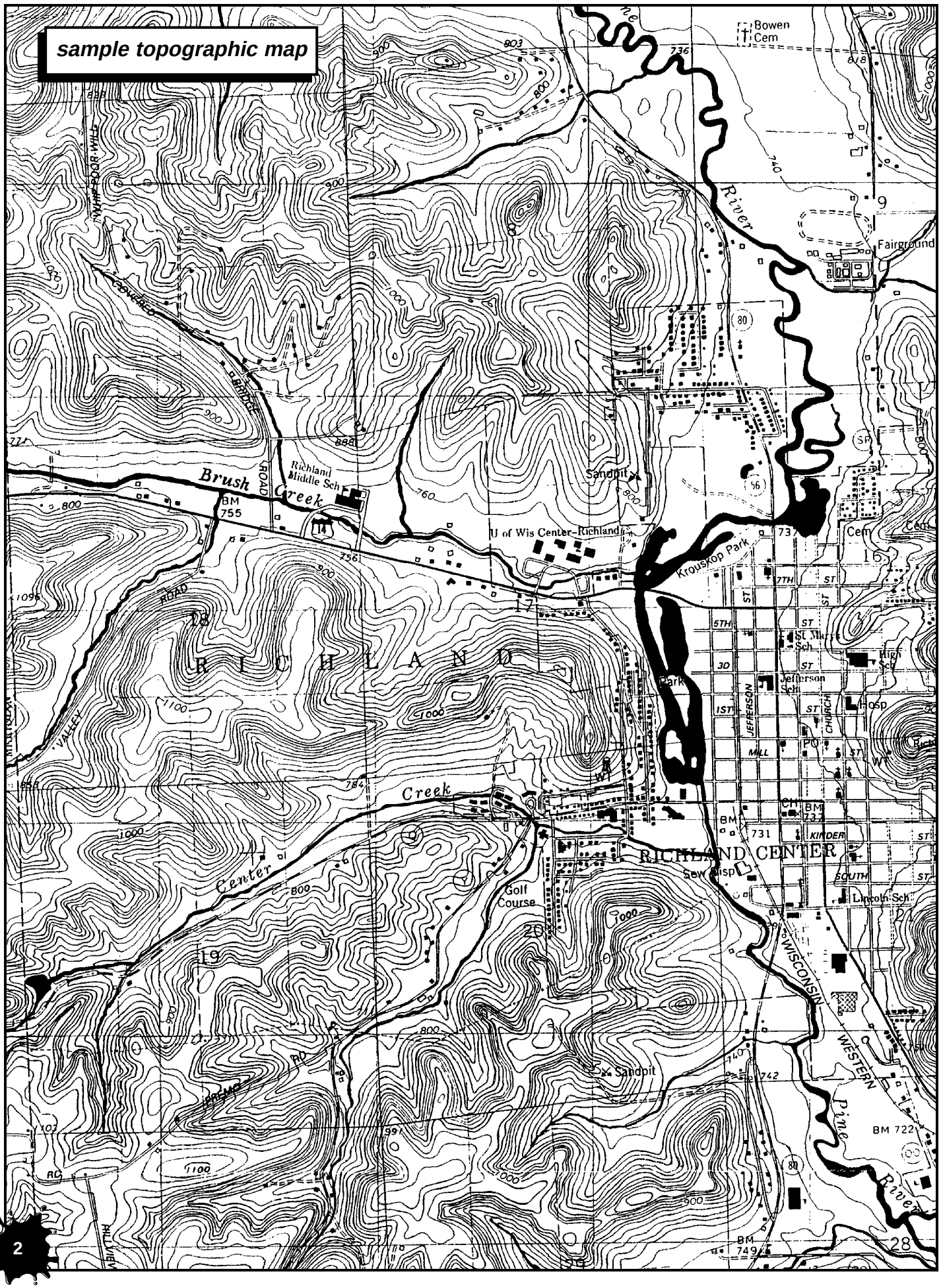


What's a watershed?

You are part of a watershed. This means that everything you do can affect nearby surface water and groundwater, for better or worse. Your watershed is a geographical community that includes all the humans, plants and animals who live in it and all non-living parts, such as rocks and soil. As China's Emperor Yu understood long ago, whatever happens upstream in a watershed affects everything downstream. To improve the water quality of a stream, look at the whole area it drains. Anything dumped on the ground in the watershed can end up in its waterbodies. And anything released to the air can come down again, nearby or thousands of miles away. What's more, we all live downstream, either in our own watershed, or downstream from someone else's.

Think about this: most of us drink water from our local watershed. Although some people get water from elsewhere (Los Angeles gets water from distant mountains, for example), most of us get it from a local well or a nearby lake or river. It may come directly from a private well, but more likely it comes through a government water department or utility. Typically, the utility draws water from a nearby source, treats or cleans it, then pipes it to homes, schools and businesses.

After water is used, it goes down the drain, to a private septic system or through the sewer to a wastewater treatment plant. There it is treated, or cleaned, before it is sent back into local lakes, oceans or rivers. You can help yourself and the public utilities by using less water and by keeping pollutants out of wastewater.


sample topographic map
Bowen Cem
Fairground
River
Brush Creek
Richland Middle Sch
BM 755
Sandpit
U of Wis Center-Richland
Krouskop Park
R I C H L A N D
Park
Jefferson Sch
St Mary's Sch
High Sch
Hosp
Cem
Creek
Center
RICHLAND CENTER
Sew Disp
Golf Course
Lincoln Sch
WISCONSIN
WESTERN
Pine
River
Sandpit
BM 722
BM 749
BM 731
BM 737
Covered Bridge
Valley Rd
Hill View
Wildwood
Jefferson
Church
Mill
Kinder
South
7th
5th
3d
1st
Ch
PO
WT
SP
80
14
56

C Map your watershed:

1 Place the clear sheet of plastic over the topographic map (topo map) of your site and tack both onto the cardboard. If you don't have plastic, make a photocopy of the map and draw on it in pencil.

2 On the topo map, find and mark your site. A road map can help you find things.

3 Find the streams, ditches, marshes, lakes, oceans or rivers closest to your site and mark them in blue on the map.

4 Use the contour lines and numbers on the topo map to find the highest and lowest points around your site. Can you find the high point you visited in the first activity? Mark all the hilltops with an "X."

5 From these "Xs", draw arrows on your map to show the flow of runoff. Which direction will rain or snow flow when it falls on your school? Where does runoff flow into waterbodies? Look at the Completed Watershed Map on page 45. It has the outlines of watersheds already drawn. Look at the arrows showing where water flows. The outline of each watershed is between waterbodies, mostly along the tops of ridges or hills.

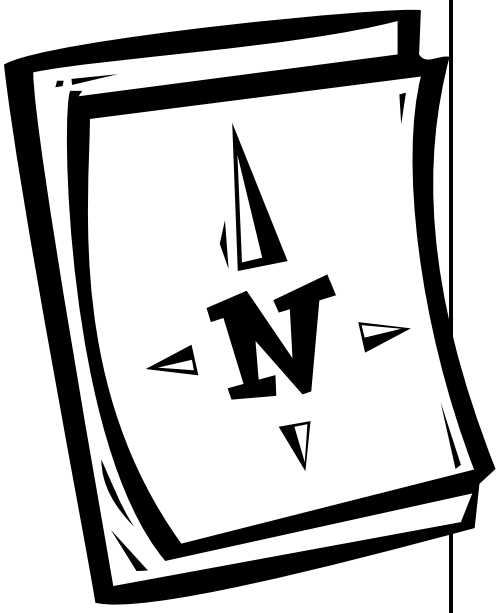
6 On your own map, find the highest ground (the hills and ridges) between two waterbodies. Draw a line along the highest points (connecting the "Xs" on hill tops) completely around your stream, including its mouth — the bottom end where it drains into another body of water.

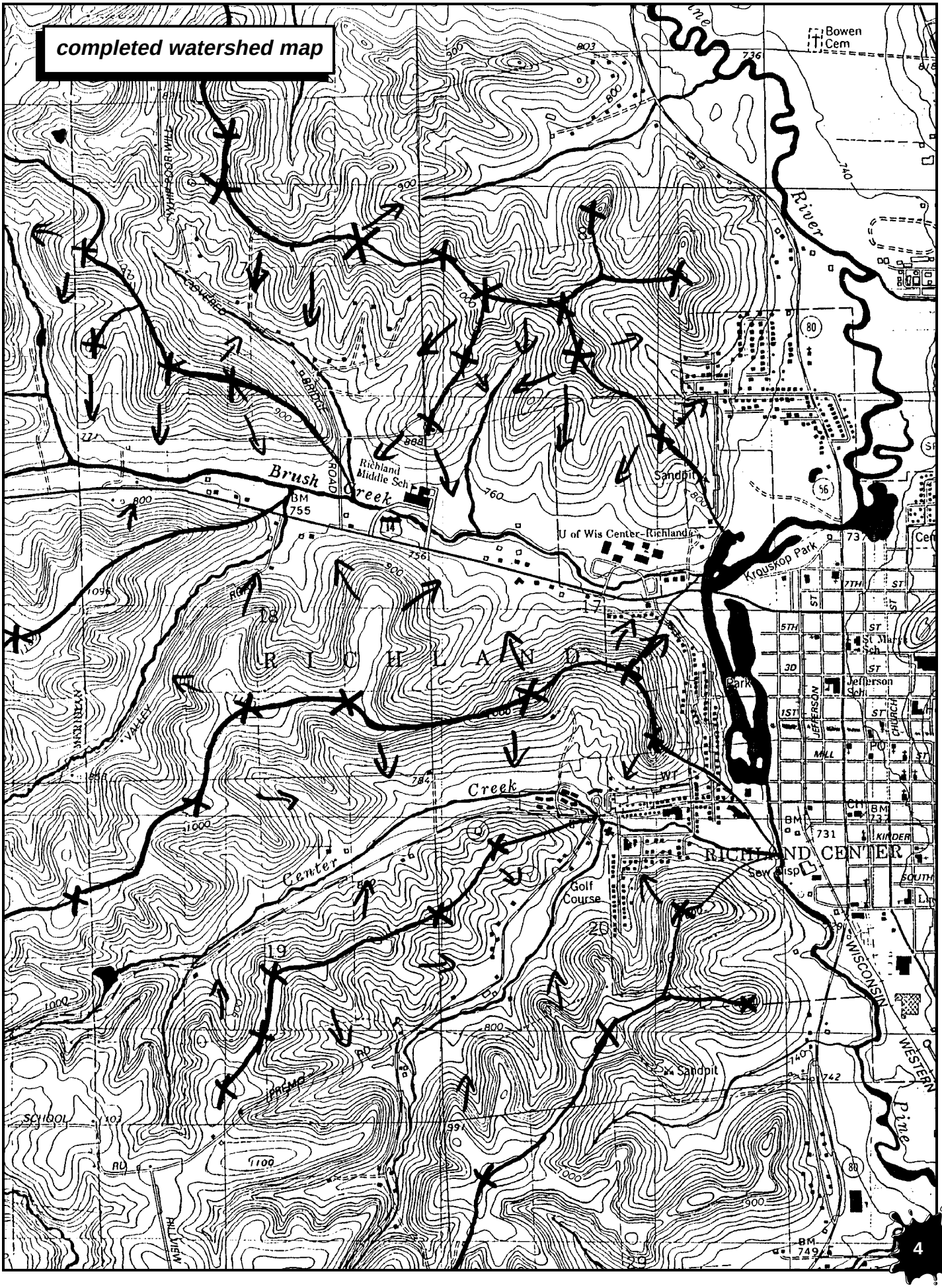
You have now outlined your watershed. In what watershed is your site? The name usually comes from the main stream or river in the watershed. Two small streams can be part of a larger watershed. Write the name on your map.

D Take map outside. What is the highest point of land you can see? Walk to that point. Is your site at the top or bottom of a hill? Where does water go when it rains or snows? Can you see the nearest waterbody? Can you see hills, mountains, buildings, airports, power lines, railroad tracks or other things that are on the map? Look at your map and find these features. Mark the features you noted in the first activity on your Watershed Map.

Where does your site get its drinking water? The person in charge can help you figure out the answer to this question and the next one. You may also need to call the water utility that pumps water to your site. Find and mark the source or sources if they are on your map. If the source is underground water, it is an aquifer.

Where does your site's wastewater go? Wastewater may be filtered through a septic tank or pumped through underground pipes to a wastewater treatment plant. Find out where your wastewater goes and and mark it if it's on your map.




completed watershed map
Bowen Cem
River
Brush Creek
Richland Middle Sch
BM 755
U of Wis Center-Richland
Sandpit
Krouskop Park
RICHLAND
Center Creek
Golf Course
RICHLAND CENTER
Sewage Disp
Jefferson Sch
St Marys Sch
WISCONSIN
WESTERN
Pine
Sandpit
SCHOOL
HILL VIEW
PRAIRIE
COVERED
BRIDGE
ROAD
VALLEY
JACKSON
JEFFERSON
CHURCH
MILL
KINDER
SOUTH
7TH
5TH
3D
1ST
ST
17
18
19
20