Give water a hand®

ACTION GUIDE

A youth program for environmental action

Welcome!

What is this book about? This book is about water. Do you want to keep animals, fish and birds healthy? Do you want to make sure that water is safe to drink? Do you want to make sure there is plenty of water? Do you like to have fun with water? Do you care about water in your neighborhood?

You can do something! This book is your guide to action. It will help you figure out what you can do to protect water. You can use this book with a group of friends or by yourself.

Go ahead—try it. Investigate the water in your community. Give Water a Hand.

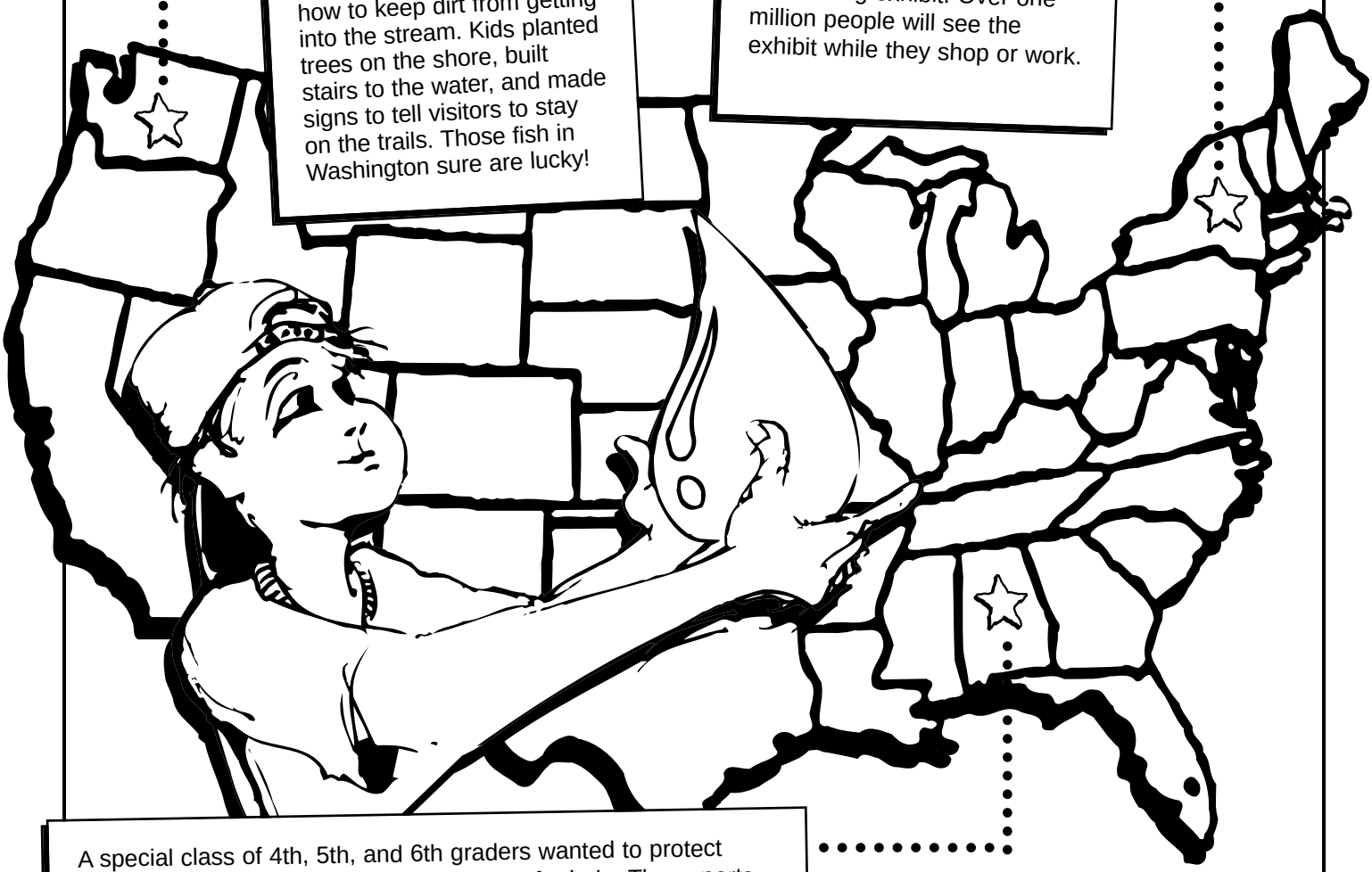
Here's what you will do:

Make a splash!

Thousands of young people have already helped take care of water.

You can adopt a stream like this school club did. Students wanted to protect living things in a stream. They cleaned up the stream and made places for salmon to lay eggs. They figured out how to keep dirt from getting into the stream. Kids planted trees on the shore, built stairs to the water, and made signs to tell visitors to stay on the trails. Those fish in Washington sure are lucky!

Hundreds of kids worked together to help teach about water. Each group studied one water issue. They explained what they learned in a display. Groups made their display fun for people to see. Then, groups put their displays together to make a big exhibit. Over one million people will see the exhibit while they shop or work.

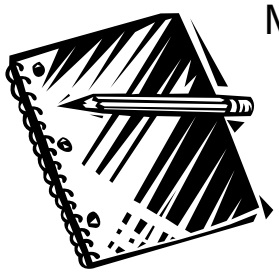


A special class of 4th, 5th, and 6th graders wanted to protect the ocean. They asked local water experts for help. The experts helped them do many different things. The students made a map of water in their community. They checked water near the coast and studied oil pollution. Then, the students wrote a pamphlet to ask boaters to “stop dumping trash overboard.” Stay tuned — those Alabama kids have lots more ideas of things to do!

You and your group can organize your own project. The young people in these stories used this Action Guide for help. Check it out! GET ORGANIZED!

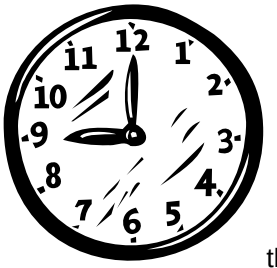
Get organized!

You can make a difference for your community and for planet Earth. Your ideas, energy, creativity and hard work can help. This *Action Guide* will help your group choose and organize a service project. Here are some tips to get you started. Let's get going!



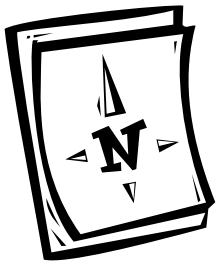
Make a project notebook

You can make your own notebook or buy one. There are model pages at the back of the Action Guide to photocopy if you want to make your own. Decorate your notebook any way you like. Use your notebook to keep notes, names, and phone numbers as you go.



Plan your time

This guide gives you eight project steps. A timeline will help you figure out how much time you'll need for each step. Look through the book with your leader. Fill in the estimated starting dates for each activity.



Collect maps

To really understand your watershed, you will need to study a topographic map. Your leader can help you find one for your area. You might also want a town map and photos taken from the air.

Get help from an expert

Experts from many groups are ready to help you do your best job. Ask your leader or teacher to help you find the right person for your project. See the back cover of the Action Guide to learn more about how experts can help.

Your Timeline

Estimated starting date	Step
	1
	2
	3
	4
	5
	6
	7
	8

Why is water so important?

Did you know that you are mostly water? Two-thirds of your body is made up of water. You probably drink  six to eight cups of water, milk, fruit juice, or soda each day. Animals and plants are almost all water too. So we don't just use water, we ***are*** water.

Three quarters of the earth is covered  with water, and although most of it can't be used by people, plants or animals, water makes life on earth possible. You depend on water for drinking, cleaning, growing and processing food, growing cotton for cloth, swimming, fishing,  boating, cooking, putting out fires and generating  electricity through hydropower dams. Try to think of one item or action that doesn't involve water in some way!

Water also connects us to the rest of the natural world – plant and  animal communities depend on water in many of the same ways: for food, water and shelter. Since every drop is used again and again, water is the ultimate in recycling. It's important to protect this precious resource because we share it with all other living things, past, present and future.

Unfortunately, people have not always used water wisely. We've over-used it to carry away our waste. We've put hazardous  materials in or on the ground where they seep into groundwater. We've often used more water than we need. Yet we can improve our water resource by conserving water at  home, cleaning waste from industries and cities before it returns to rivers or lakes, and preventing pollutants from homes and farms from washing into waterways with the rain. Some communities have already begun to help!

One of the ways we can have a big effect on improving our water quality now and protecting it from future pollution is changing the small ways that people affect water. What you do in your community, or in your  house, yard, road, park, business, school or farm or ranch can conserve water and improve its quality. You've started to make a difference by picking up this  book. Keep going to learn what you can do to Give Water a Hand!

1: Focus on water

To keep water clean or to make sure there is plenty to drink, we need to understand where water comes from, how it flows and how it's used at home, in schools, on farms or ranches, and in the community. In other words, it's time to get to know your watershed!

What to do

A Go outside and survey your surroundings. You can start anywhere — at your home, school, farm, or even downtown. Go to the highest point you can see within easy walking distance. If possible, go to the highest point in your community.

B Look over the land and the way the ground slopes down from this high point. If it rained, where would water flow? You're looking at a watershed or several watersheds. That is the area of land where all water drains, or "sheds" to the same body of water.

Walk around this area. Look for the following things in your watershed. Make a list of what you see in your notebook.

In my site, water flows to:

☐ low points	☐ gutters	☐ storm drains
☐ ditches	☐ lakes/streams/rivers/ponds	☐ culverts
☐ _____		

On its way, it passes:

☐ bare soil	☐ vegetation (grass/trees/shrubs)	☐ wells
☐ streets	☐ shopping centers	☐ parking lots
☐ industry	☐ school	☐ houses
☐ litter	☐ farms	☐ animals
☐ _____		

If anybody in your group likes to draw, sketch a picture of this view of your watershed. Or have a camera to document all you do from the start. In step 3, we'll coach you on how to draw a map of your watershed.

C **Does anything you see look like a possible water concern?**

- For example, is there bare soil; is there erosion with soil washing into waterways?

Can you find places where water has been carefully protected?

- For example, is grass planted on paths to keep soil from washing away?

Use your notebook to write down things you like and things that don't look right or you want to question later. If you aren't sure which things are helpful or problems, just record what you do see for now. In the next step, we'll be looking for ways to help water.

D Brainstorm a list of the ways you can affect water. Be sure to think of activities inside and outside. See how many ideas you can come up with. Two examples are: watering the grass and having a school car wash. Have someone write down the activities you come up with in your notebook.

- What activities use water?
- What activities create waste water?
- What kinds of fun do you have with water?
- What do you already do to conserve or protect water?

E Use the Power Words for any words that are new for you. Answer the Notebook Questions below.

Power Words

Conserve Using natural resources, such as water, in a way that doesn't harm them or use them up.

Groundwater Water found in the ground in cracks and spaces between rocks and soil particles.

Hazardous materials Materials that can cause harm to people or the environment.

Pollution An undesirable change in air, water or land that can cause harm to human health, animals or plants. Hazardous chemicals and animal waste, for example, can be pollutants.

Water quality "Quality" means how good or bad something is. Water must be good quality, with very few pollutants, before we can drink it safely.

Watershed An area of land where all water drains, or "sheds," to the same river, reservoir or other body of water.

List at least 10 ways you personally use water. For each, list how you might reduce or improve your use.

List how people affect water in good and bad ways.

Before next time...

To get ready for your next meeting, you need to choose a site to begin your investigations. There's a checklist for each site:

- ☐ School — in the school building, on school grounds, and in camps (page 9)
- ☐ Home — in and around houses and apartment buildings (page 17)
- ☐ Community — around the community, in parks and in partnership with businesses (page 25)
- ☐ Farm/Ranch — at the homestead and on the farm or ranch (page 32)

If you're not sure what site to focus on, look over the questions in the four Checklists (pages 9–39) to get an idea of the concerns you might find at each site.

Make enough copies of the Checklist for your site to share with the group.

2: Research needs

In the last activity, you looked at your watershed and noted some features. You began to think about ways you use water. Now it's time to investigate.

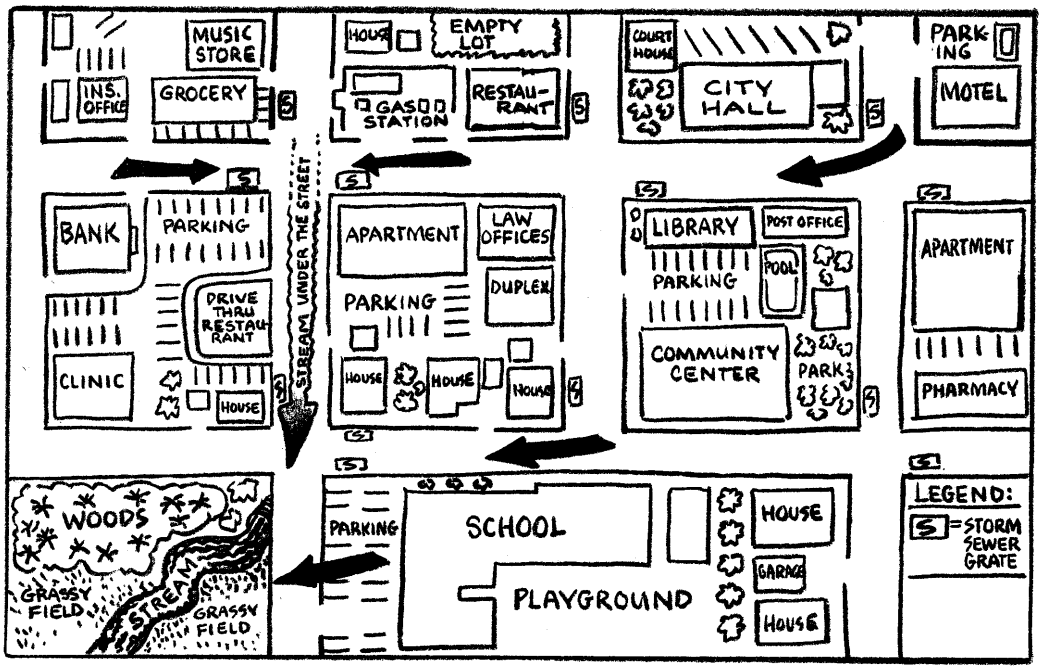
Find out where people are protecting water and where the real problems are. Your group will use a Site Map and a Checklist to help you identify specific water problems, and determine which ones need your action. You'll find out what is already being done and what still needs to be done to protect the watershed and conserve water. This will help focus your work on a ***real*** need so your time is well spent.

What to do

A To do this activity, you need to choose a site for your project and make copies of the Checklist you'll need (see Before next time…, page 5). You'll find the Checklists on pages 9-39.

B Make a Site Map, like the one below.

Site maps can make problems easier to understand. Ask the landlord, farmer or other person in charge for a drawing of the site, blueprints or a floor plan. If nothing like that is available, draw your own Site Map. If you're focusing on an inside project, **be sure to label all places water is used** and make note of where the water meter is. If you're working outside, include things like trees, fields, parking lots, buildings, downspouts, storm sewers, or anything else you observe on the site.



The arrows ⟵ indicate the direction the water flows when it rains.

C Go over the Checklist and the instructions at the top of the Checklist with your group leader. Decide who will answer which questions. You may want to work as a group or break into teams to find the answers.

You can use your Site Map to help you find places to get answers. Some questions on the Checklist will be simple to answer. Which items on the Checklist can you do something about? Which require you to work with someone else? You may need to ask for help or permission from the person in charge, such as the custodian, farmer or landlord.

D Complete the Checklist as follows. If you think it will be helpful, look in the Skills Bank (page 63) for tips on taking notes.

19 Does your community have a policy for buying materials with recycled content?

☐ Looking Good! ☒ We need more information. Priority 1 (2) 3

What we found out We have a policy for buying recycled paper for city use.

We need more info about Purchasing park benches made from recycled plastic.

Free Tips!

- ***Stuck on some items? Skip them and go on.***
- ***Make sure the information you write on the Checklist is accurate.***
- ***If you're unsure about questions, ask for help, perhaps from an expert partner.***

How to complete the checkl

☐ **Looking good!** Check here if you or the person in charge has already taken positive steps. Go to the next question.

☐ **What we found out.** If you were able to fix the problem right away, write down what you did and go to the next question. If there seems to be a problem, write down what is (or isn't) happening.

☐ **We need more info on** Write here if you can't answer the question or if you need more information. If possible, explain what information you need to find out.

☐ **Priority** If you've found a potential concern, decide how important the problem is and circle the appropriate number. The person in charge may want to help you with this.

1 = Very Important 2 = Kind of Important 3 = Not Very Important

Be sure to think over why you think it is or isn't very important. You may need to explain this to other group members.

E When you're done, meet again with the group to share what you found. Mark the water conservation and pollution prevention concerns you identified on the Site Map. Are there any concerns that affect water quality beyond the edge of the Site Map? If so, you'll look at them more closely when you create a Watershed Map in Activity 3.

F Use the **Power words** to help with new vocabulary. Answer the notebook questions.

Look for these checklist

These tiny icons indicate why each question is important to ask:


Water conservation


Water quality in our environment


Drinking water quality


Educating about water

Before next time...

Bring all your maps, a sheet of clear plastic as big as your biggest map (from art stores or office supply stores), a piece of cardboard as big as your map, thumb tacks, dry erase markers, tissues and pencils.

Your group can make a bigger difference if you team up with a local expert. Invite him or her to come next time to help and advise your group as you map your watershed. (See the back cover of this Guide if you don't yet have an expert to help you understand your site.)

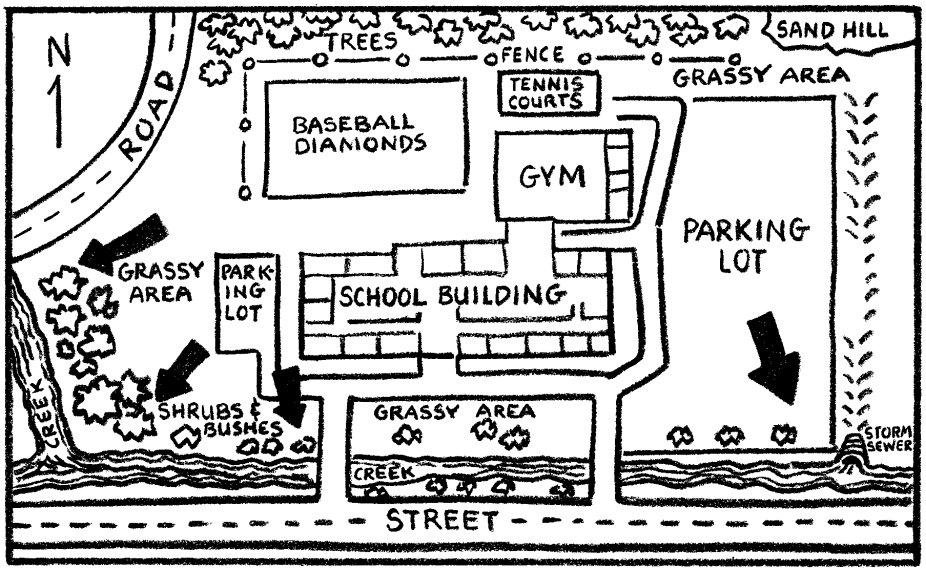
How do you or the person in charge of your site keep track of how much water is used? Is there a water meter?

What is the top priority need for water conservation or pollution prevention at your site? Why?

What is the most important thing you have learned about water so far?

The next 31 pages are Checklists. The 3rd activity begins on page 40.

School site checklist



When the questions below refer to “you,” we mean you, other students, teachers, custodians, and other school staff, or whoever is responsible for the action.

You may need to ask someone in charge, like the principal, to get something changed. Make sure you have permission from your school principal before you begin. He or she will give final approval for any projects. You may also want to talk to the school custodians. They keep the school clean, safe and in running order and have information you might need. If you want to change how something is done in your school, the custodians and principal can be a big help.

1 When you clean up after science, art or cooking class, do you turn off the faucet while you wash counters, dishes and equipment, and turn it back on to rinse?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

School ✓list

2 When you wash your hands, do you turn off the water while you soap up?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

3 Does the school dispose of hazardous wastes at a hazardous waste disposal facility?

Hazardous wastes include used engine oil, leftover pesticides, building repair and strong cleaning products, and some used art, shop and science materials.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

4 Do students and staff use water-based paints that don't need hazardous materials, such as turpentine and paint thinner, for clean-up?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

5 Do students and staff use non-hazardous cleaning products when possible, such as baking soda, vinegar, citrus cleaner, soap flakes and a little elbow grease?

☐ Looking Good! ☐ We need more information. Priority 1

What we found out .....

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We need more info about .....

Water quality in our environment

Round and round: we use the same water over and over again.

So what happens when we pollute water? We may contaminate our water supply — that same supply we share with other humans, animals and plants. Pollutants can enter the water supply through everyday activities — grass clippings washing down the storm sewer, hazardous materials from a painting project being poured into the sink, leftover car oil being dumped on the driveway. These won't disappear and they cost a lot to remove — if they can be removed! They can contaminate the water supply. The best solution to pollution is to keep it out of water in the first place. Give Water A Hand — keep it clean!

Water conservation

Fact Water is the most common substance found on Earth.

Fact The amount of water on Earth hasn't changed since the Earth was formed, almost 5 billion years ago.

So why conserve water? There is not always enough clean, fresh water for drinking, growing food, making things, and having fun. That means we need to use less or get it from somewhere else. Taking water from one place and moving it to another place changes the environment for plants and animals, and often causes arguments between people. Using lots of water increases the amount of wastewater going to treatment plants and septic tanks. And using water takes lots of energy — to clean, pump, distribute and heat it. You can save about 4 gallons of water a day (and save money) by just turning off the water while your brushing your teeth. Give Water A Hand — use it wisely!

6 Does your school recycle?

☐ Looking Good!

☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

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7 Are school grounds planted with trees, shrubs and grasses that are adapted to your climate so that they do not need any extra water? (This is sometimes called "Xeriscaping," pronounced zeer-is-cape-ing.)

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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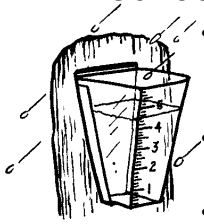
We need more info about .....

8 Does your school have a water-efficient watering plan for the school grounds (one that doesn't waste water)?



- Does that staff person in charge of the school grounds use a rain gauge to determine whether the grass needs to be watered? If there is one inch or more of rain per week, the grass is probably getting enough water.
- Do the maintenance staff water early in the morning or in the evening so that water doesn't evaporate quickly?
- Do they use efficient watering devices such as soaker hoses and sprinklers which spray drops near the ground?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

9 If you hold car washes at school, do you use water conserving practices?

- Do you use buckets of water rather than a hose?
- Do you wash cars in a grassy area so that the water does not run into storm sewers? (Use non-hazardous cleaners and use care not to over-saturate soil or tear up grass from car tires.)

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

10 Does rainwater flow from the school parking lot into a grassy area or does it flow into a storm drain or stream?

Water flow into a grassy area may reduce the amount of watering that needs to be done in that area and keeps parking lot contaminants from going directly into the water supply.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

11 Are grass clippings swept off the sidewalks and parking lots for composting so that they do not wash into storm sewers?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

Educating about water

You've been learning a lot about water and how to conserve and protect it. You have probably also learned about water by reading books and magazines, watching television, going on field trips or just sitting next to a stream and observing what happens.

Many people don't know what they can do to protect and conserve water, so it's important to educate them. Action is one way people learn about water issues. There are many ways to educate through action, such as planning community water festivals, making posters, and putting on plays. Education doesn't happen just in the classroom. Give Water a Hand — Spread the word!

12 Does runoff which might contain contaminants such as pesticides and fertilizers reach streams or ponds?

- Test a sample of runoff water immediately after a rainfall begins to see if you find nitrates. Compare these results to tap water. High levels of nitrates can cause health problems and may indicate that there are other contaminants. Contact your County Extension Agent or local department of public health for help.
- If there is a pond, check to see if it might actually be a stormwater detention basin designed to catch this type of runoff.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

13 Does the maintenance staff use only the amount of fertilizers needed on the school grounds?

- Do they test the soil before applying the fertilizers?
- Do they use organic fertilizers such as compost, biosolids or manure?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

14 Does the maintenance staff spread sand rather than salt on ice-covered sidewalks in the winter?

- Commercial salt can harm plants, grass, trees, and animals, and nearby waterbodies.
- If they are required to use salt, do they use the minimum amount necessary?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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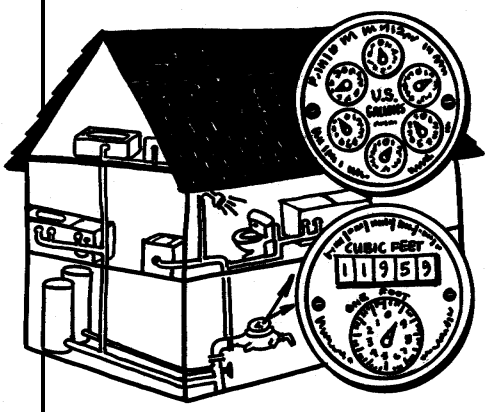
We need more info about.....

Drinking water

Do you know where your drinking water comes from and how it gets to you? Americans drink more than 1 billion glasses of water a day! Most of us take it for granted that we can turn on the faucet and get clean, clear, fresh water. And it's practically free. You can refill an 8 ounce glass of water about 15,000 times for the same cost as a six-pack of soda! For most people, water treatment facilities provide this safe drinking water. But your actions contribute to conserving this vital, precious resource and keeping it pollution free. Give Water a Hand — It's ours to drink!

15 Do the faucets in your bathrooms, showers or drinking fountains have leaks or dripping water?



Take a walk through your school and check all the faucets. Take a water meter reading at the end of the school day. (If your school gets water from a well, you may not have a water meter.) Check with the janitors to make sure that no one will be using the building that night and using water. First thing the next morning, before anyone else arrives at school, check the meter again. If the readings are different, you probably have leaks somewhere.

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out .....

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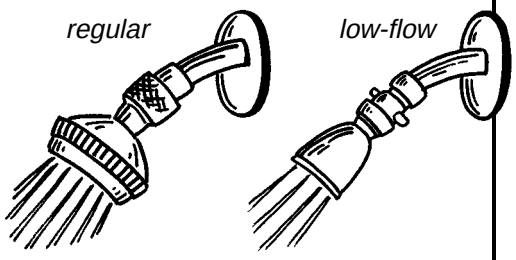
We need more info about.....

16 Does your school have low flow faucets and shower heads in the bathrooms and locker rooms?

Use a gallon bucket and a stopwatch to time the amount of water used per minute. Turn on the shower or faucet to a normal flow. Start the stopwatch when you begin to catch water in the bucket. When the bucket is full, stop the stopwatch. Empty the bucket and do it again until you reach 1 minute on the stopwatch. If the result is more than 2 gallons for the faucet or 2.5 gallons for the shower, your faucets and showers use too much water.



☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

17 Is the flush valve on the toilets adjusted so that you use the least amount of water possible? You may need to ask a custodian for help answering this one.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

18 Does your school cafeteria have an efficient dish washing system?

- Do the kitchen staff run the dishwashers only when they are full?
- When washing dishes by hand, do they turn the water off in between rinsing batches of dishes?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

19 Does your school celebrate Earth Day, National Wildlife Week, Arbor Day, National Drinking Water Week, Wetlands Month, National Beach Clean-up Day or other environmental holidays?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

20 Is environmental education taught at your school?

- Are environmental topics covered in your classes?
- Are specific units on water issues included?
- Are there environmental or fishing clubs, or activities such as Adopt-A-Stream?
- Do you have a school nature area where you do experiments and study nature?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

21 Does your school test the drinking water for lead, bacteria or other contaminants?

- Do they test at least once a year? Do they keep records of these tests?
- Are the levels of contaminants within safe ranges? Contact your local or state department of public health to find out the maximum safe levels.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

22 Do you have access to water on the school grounds for fishing or swimming?

Have you studied the quality of that water?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

23 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

24 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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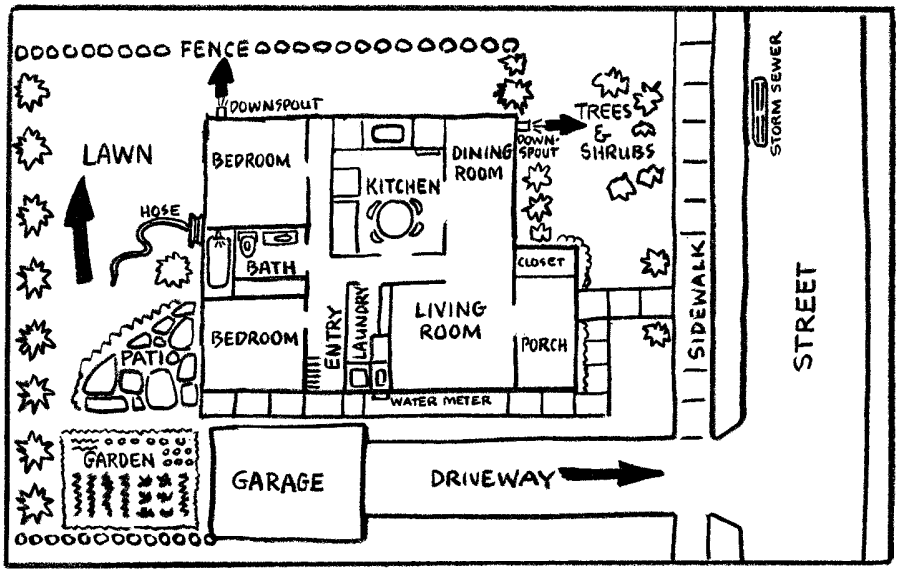
We need more info about.....

Home site checklist



Your group can do the whole Checklist together at one person's home, or you can break into teams and go to different homes.

When the questions below refer to "you," we mean you, your family members, any hired workers such as cleaning people or lawn service people, your landlord and possibly your neighbors — whoever is responsible for the action. "Home" refers to an apartment, trailer home, house, condominium, boat or whatever you call your home.

You may need to ask your parents or landlord for help to get something changed. Make sure you have permission from your parents or landlord before you begin, as they will give final approval for projects.

1 If you get your drinking water from a well, do you test for nitrates, bacteria or other contaminants?

If you live near a farm, factory, dry cleaning business or salvage yard, there may be specific contaminants you should test for. Contact your County Extension Office or public health office for information on testing.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

2 If you get your drinking water from a treated public water supply, have you ever contacted your water supplier or local health department to get results of tests for nitrates, bacteria and pesticides?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

3 Have you ever had the water in your home tested for lead?

- If your home was built before 1984, the water pipes may have lead solder in them. If it was built before 1939, it may have lead pipes. Lead from these sources may be contaminating your water.
- Contact your County Extension Office or public health office for information on testing.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

4 Do you have backflow prevention devices on outdoor water faucets (including the hose you use to fill a swimming pool) to prevent contaminants from getting mixed into the indoor water supply?

backflow prevention device

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

Water quality in our environment

Round and round: we use the same water over and over again.

So what happens when we pollute water? We may contaminate our water supply — that same supply we share with other humans, animals and plants. Pollutants can enter the water supply through everyday activities — grass clippings washing down the storm sewer, hazardous materials from a painting project being poured into the sink, leftover car oil being dumped on the driveway. These won't disappear and they cost a lot to remove — if they can be removed! They can contaminate the water supply.

The best solution to pollution is to keep it out of water in the first place. Give Water A Hand — keep it clean!

5 Do you use home products that don't contain hazardous ingredients? When possible, use baking soda, vinegar, citrus solvent, soap flakes and other products which won't pollute our water supply.

Signal words on the label such as CAUTION, WARNING, and DANGER indicate the item contains ingredients which may be hazardous if used improperly.

☐ Looking Good! ☐ We need more information. Priority 1

What we found out.....

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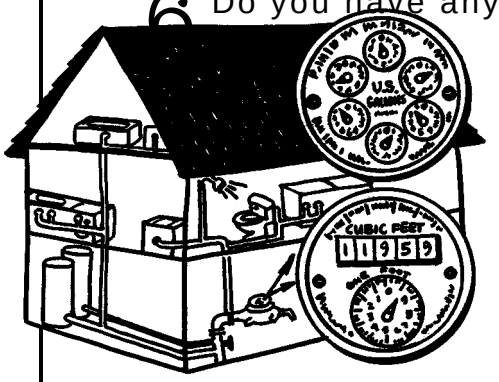
We need more info about.....

6 Do you have any leaks in the water system in your house?



Read your water meter before your family leaves the house for 2 hours or more. When you return, check the water meter again. (Make sure that there were no water using devices left on, such as a sprinkler, washing machine or dishwasher.) If the meter does not read exactly the same, there is a leak somewhere.

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

7 Do you use low-flow shower heads, and take quick showers (under 5 minutes)?

Check to see how much water your shower uses in 1 minute. Put a 1 gallon bucket under the shower head. Start at stopwatch at the same time you turn the water on to normal flow. Stop the watch when the bucket is full. Continue until you reach 1 minute. Count how many gallon buckets you have filled. A water saving shower should use only 2.5 gallons per minute.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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Drinking water

Do you know where your drinking water comes from and how it gets to you? Americans drink more than 1 billion glasses of water a day! Most of us take it for granted that we can turn on the faucet and get clean, clear, fresh water. And it's practically free. You can refill an 8 ounce glass of water about 15,000 times for the same cost as a six-pack of soda! For most people, water treatment facilities provide this safe drinking water. But your actions contribute to conserving this vital, precious resource and keeping it pollution free. Give Water a Hand — It's ours to drink!

We need more info about .....

8 Do you turn the water off when you brush your teeth, lather your hair or wash while showering, wash or rinse the dishes, etc.

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out .....

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We need more info about .....

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9 Does your toilet leak water?

- Add food coloring to the tank at the back of the toilet. Leave it alone for 30 minutes — don't flush it. If color appears in the toilet bowl within 30 minutes, there are leaks.
- Do you have a water saving toilet, or a weighted plastic water jug or toilet dam in the tank to reduce the amount of water needed for each flush?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

10 Do you run the dishwasher or washing machine only when full, using the water saver setting if you have one?

A water efficient dishwasher should use only 10 to 12 gallons of water per load, and a washing machine should use between 35 to 50 gallons per load. Check with the manufacturer to see how much yours uses.

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out .....

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We need more info about .....

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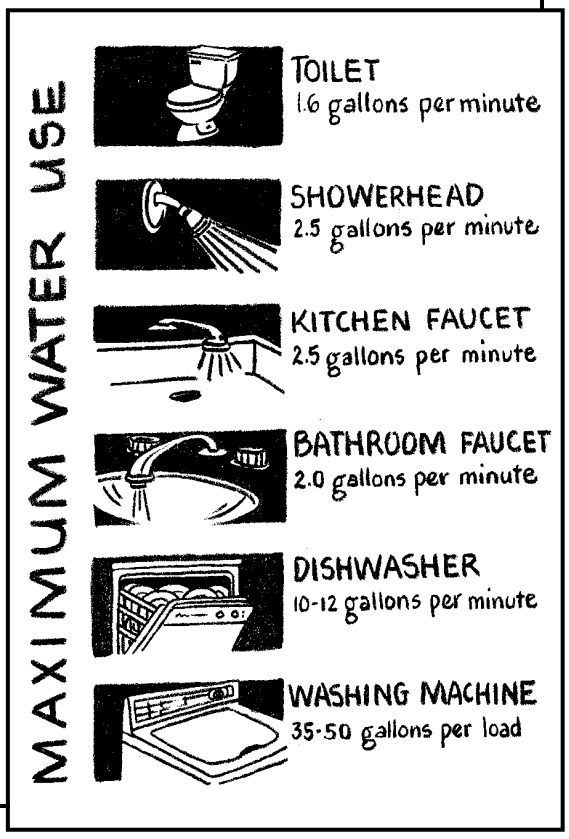

11 Do you take hazardous wastes such as used motor oil, leftover paint, varnish, etc. to an oil recycling center or hazardous waste disposal site? Is there an annual "clean sweep" day in your community designated for disposal of leftover hazardous products?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

12 Do you use sand or cat litter on icy sidewalks instead of salt?

Commercial salt can be harmful to grass, trees, flowers, animals, and can run off into nearby waterbodies.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

13 Do you always flush pet waste down the toilet or bury in the yard at least 5 inches deep? (But if you use a plastic bag for wastes, don't bury the bag!) This keeps it from washing into waterways.

Bury it away from vegetable gardens, children's play areas, and wells. Never compost it for a vegetable garden!

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

Educating about water

You've been learning a lot about water and how to conserve and protect it. You have probably also learned about water by reading books and magazines, watching television, going on field trips or just sitting next to a stream and observing what happens.

Many people don't know what they can do to protect and conserve water, so it's important to educate them. Action is one way people learn about water issues. There are many ways to educate through action, such as planning community water festivals, making posters, and putting on plays. Education doesn't happen just in the classroom. Give Water a Hand — Spread the word!

14 Do you use fertilizers and pesticides only when necessary?

- Do you test the soil to determine if there is a need for fertilizers, and how much? Contact your County Extension Office for information on how to do this.
- Do you dig or pull out weeds instead of applying herbicides to kill them?
- Do you use any organic fertilizers? These would be labeled organic and include compost, manure or blood/bone meal.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

15 Do you keep yard waste out of street gutters and ditches?

- Do you leave lawn clippings on the lawn to decompose?
- Do you compost leaves and other yard wastes, never sweeping them into the street or leaving them in the ditch? (Some cities collect leaves from the street for composting. Check with your public works department.)

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

16 Do you reduce the amount of water that flows into the street from your yard?

- Do you sweep your sidewalks, driveway, or other paved areas rather than washing them with a hose?
- Do you wash the car or your bicycle with a bucket of water rather than a hose, and do it on a grassy area so that the water doesn't run into the storm sewers?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

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Poor yard care practices *Good yard care practices*

17 Do you have a compost pile as an alternative method of disposing of food waste? (Garbage disposals require lots of water.)

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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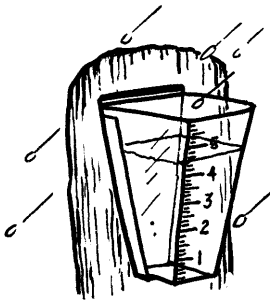
We need more info about.....

18 Do you conserve water in the lawn and garden?



- Do you water only when needed? You can use a rain gauge to determine how much rain your yard has received. Most lawns need only one inch of rain per week.
- Do you set the lawn mower blade at 3 inches?
- Do you water only in the morning and evening, when less evaporation occurs?
- Do you direct water from rain downspouts toward the yard rather than letting it run into the storm sewer or out to a paved area?
- Do you have a shut-off nozzle on outside hoses?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

Water conservation

Fact Water is the most common substance found on Earth.

Fact The amount of water on Earth hasn't changed since the Earth was formed, almost 5 billion years ago.

So why conserve water? There is not always enough clean, fresh water for drinking, growing food, making things, and having fun. That means we need to use less or get it from somewhere else. Taking water from one place and moving it to another place changes the environment for plants and animals, and often causes arguments between people. Using lots of water increases the amount of wastewater going to treatment plants and septic tanks. And using water takes lots of energy — to clean, pump, distribute and heat it. You can save about 4 gallons of water a day (and save money) by just turning off the water while your brushing your teeth.
Give Water A Hand — use it wisely!

19 Do you reduce the need for watering the yard?

- Do you mulch the garden to conserve water? Mulch is a covering such as straw, shredded paper or wood chips which help the soil to retain moisture.
- Do you replace portions of lawn with trees, shrubs and drought-tolerant ground cover such as prairie grasses and wildflowers?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

20 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

21 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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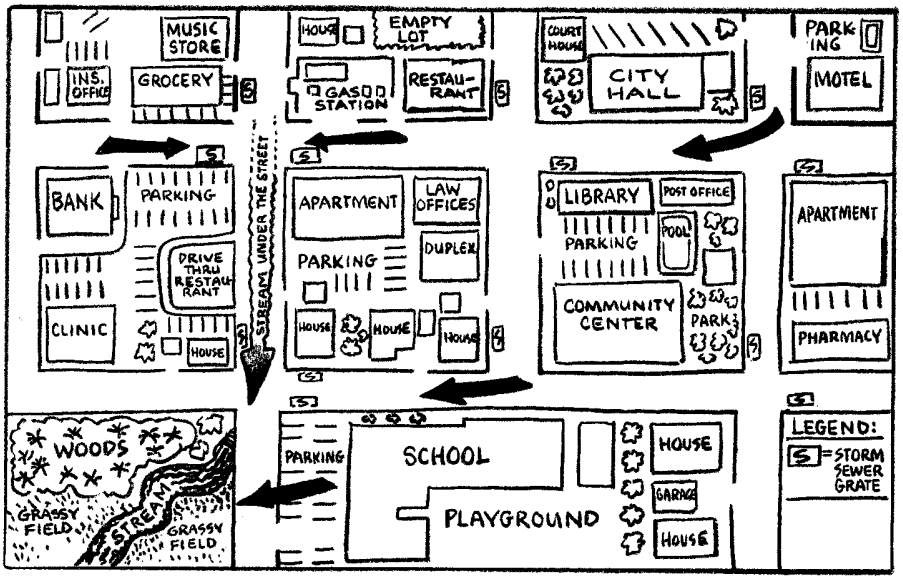
We need more info about.....

Community site checklist



When the questions below say "you," it means you, your family, community members, business leaders, government officials, whoever is responsible for the action. You may need to ask for help or permission from people in your community to get answers. These people may include park groundskeepers, city council members, public water utility staff, or local business owners.

1 Are there signs posted in automotive, hardware, grocery and discount stores telling people where they can recycle used oil?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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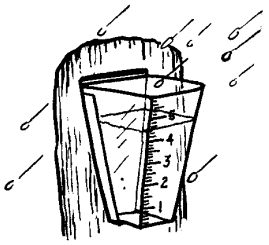
We need more info about .....

Educating about water

You've been learning a lot about water and how to conserve and protect it. You have probably also learned about water by reading books and magazines, watching television, going on field trips or just sitting next to a stream and observing what happens.

Many people don't know what they can do to protect and conserve water, so it's important to educate them. Action is one way people learn about water issues. There are many ways to educate through action, such as planning community water festivals, making posters, and putting on plays. Education doesn't happen just in the classroom. Give Water a Hand — Spread the word!

2 Do stores in your area sell:



- aerators and low-flow shower heads
- recycled paper products
- water testing kits • rain gauges

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

3 Do the playground surfaces in your parks allow water to soak in, or does the water run off into the street and storm sewers?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

4 Do parks groundskeepers use only the amount of pesticides and fertilizers needed?

- Do they apply pesticides only in areas where pests are found?
- Do they test to see if fertilizers are needed before applying them?
- Do they use organic fertilizers such as manure, compost or biosolids?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

Water conservation

Fact Water is the most common substance found on Earth.

Fact The amount of water on Earth hasn't changed since the Earth was formed, almost 5 billion years ago.

So why conserve water? There is not always enough clean, fresh water for drinking, growing food, making things, and having fun. That means we need to use less or get it from somewhere else. Taking water from one place and moving it to another place changes the environment for plants and animals, and often causes arguments between people. Using lots of water increases the amount of wastewater going to treatment plants and septic tanks. And using water takes lots of energy — to clean, pump, distribute and heat it. You can save about 4 gallons of water a day (and save money) by just turning off the water while your brushing your teeth. Give Water A Hand — use it wisely!

5 Do city-owned grounds have efficient watering systems (that don't waste water)?

- Use a rain gauge to determine if the grass needs to be watered. If there is one inch or more of rain per week, the grass may not need to be watered.
- Do they water only in the early morning or evening, so that the water doesn't evaporate quickly?
- Do they use efficient watering devices such as soaker hoses and sprinklers, which spray the drops near the ground?
- Does water trickle onto parking lots, sidewalks or streets when the grass is being watered? If so, water is being wasted.
- Do they plant trees, shrubs, wildflowers and grasses that are adapted to local rainfall?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

6 Do parks groundskeepers leave grass clippings on the lawn, or compost them? If they sweep the clippings off the sidewalk and roads and compost them, they don't end up washing into nearby lakes and streams.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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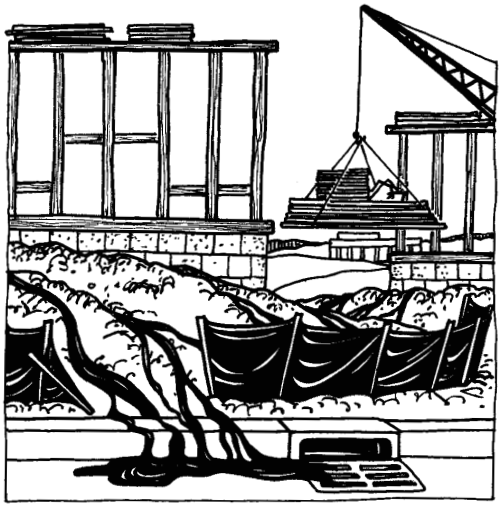
We need more info about .....

7 Is soil from construction sites kept from washing down storm sewers? Are erosion control measures required on construction sites in your area?

Call the local office that issues building permits, such as county zoning or city public works to find out. Ask about the requirements for erosion control at construction sites.



☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out .....

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We need more info about .....

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8 Does your community protect and preserve wildlife habitat such as wetlands or prairies from development?

Does the community have a land use plan which specifies which areas will be kept natural or as greenways? Do more areas need to be added? Get more information from the office of permits/inspections/building/planning or the conservation district office to ask these questions.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

9 Is there a local group that keeps waterbodies such as lakes, streams and rivers clean?

- Are citizens involved in water quality testing and clean-ups?
- Are there projects to stabilize stream banks and control erosion? Ask your local Natural Resources Conservation Service office or state natural resources agency.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

10 Is there a local conservation group or boat club that encourages environmentally sound boat maintenance and cleaning?

- Do they recommend use of non-hazardous cleaning products?
- Do they monitor oil and gas leaks on the boats?
- Do they promote filling gas tanks away from waterways?
- Do they encourage use of low or no-wake zones?
- Do they encourage use of pump out facilities?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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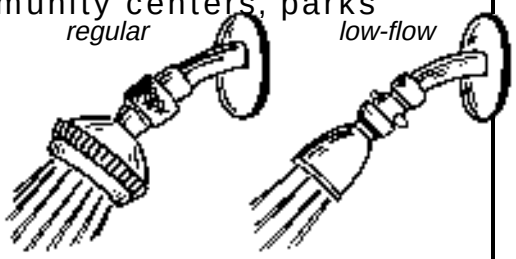
We need more info about.....

Drinking water

Do you know where your drinking water comes from and how it gets to you? Americans drink more than 1 billion glasses of water a day! Most of us take it for granted that we can turn on the faucet and get clean, clear, fresh water. And it's practically free. You can refill an 8 ounce glass of water about 15,000 times for the same cost as a six-pack of soda! For most people, water treatment facilities provide this safe drinking water. But your actions contribute to conserving this vital, precious resource and keeping it pollution free. Give Water a Hand — It's ours to drink!

11 Are there low-flow shower heads and aerators on the faucets in the bathrooms and shower rooms of community centers, parks and neighborhood swimming pools?



☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

12 Are there backflow prevention devices on all outside hoses at community centers, government offices, and park buildings, including community swimming pool fill hoses?

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

13 Do you have places to go fishing where the fish are safe to eat?

Are there ordinances or warnings telling you not to eat the fish?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

14 Are there lakes, rivers, reservoirs, oceans or other waterbodies which are safe for swimming?

- Has the beach ever been closed because of a health risk?
- Is there garbage or litter floating in the water or washed up on the beach?
- Do plants grow thick, making swimming uncomfortable or unpleasant?
- Check with your local health department for water quality information.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

15 Are hiking and biking trails maintained to prevent erosion and runoff?

- Are fallen trees removed from the trail so that people don't create new trails around them?
- Do bicyclists stay off the hiking trails, and bike only on the trails designated for bicycles? Bicycles can create erosion on hiking trails not designed for wheels.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

16 Does your community educate citizens about proper yard care?

- Are brochures available at community centers on water conservation, composting, and pesticide and fertilizer use?
- Does the city collect leaves and brush for composting when you leave it at your curbside?
- Is there a community compost site?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

17 Does your community educate citizens about the proper disposal of hazardous wastes?

- Do you have "clean sweep" days, when citizens can drop off hazardous wastes at a central location?
- Is there a hotline for citizens to call if they suspect illegal dumping of wastes? If so, is this number advertised adequately; are citizens aware of it?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

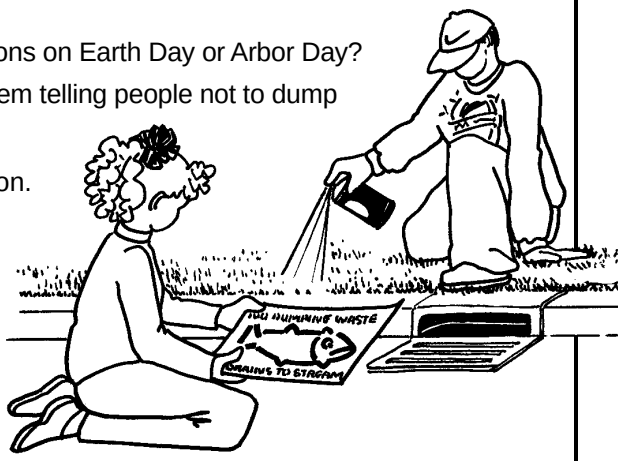
Water quality in our environment

Round and round: we use the same water over and over again.

So what happens when we pollute water? We may contaminate our water supply — that same supply we share with other humans, animals and plants. Pollutants can enter the water supply through everyday activities — grass clippings washing down the storm sewer, hazardous materials from a painting project being poured into the sink, leftover car oil being dumped on the driveway. These won't disappear and they cost a lot to remove — if they can be removed! They can contaminate the water supply. The best solution to pollution is to keep it out of water in the first place. Give Water A Hand — keep it clean!

18 Does your community educate citizens about nonpoint source pollution and dumping into storm drains? (nonpoint = does not come from one source)

- Does your community hold water festivals or celebrations on Earth Day or Arbor Day?
- Do your storm sewers have messages stenciled on them telling people not to dump contaminants down the sewer?



☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

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19 Does your city have a policy of buying materials with recycled content?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

20 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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We need more info about.....

21 Your question:.....

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☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

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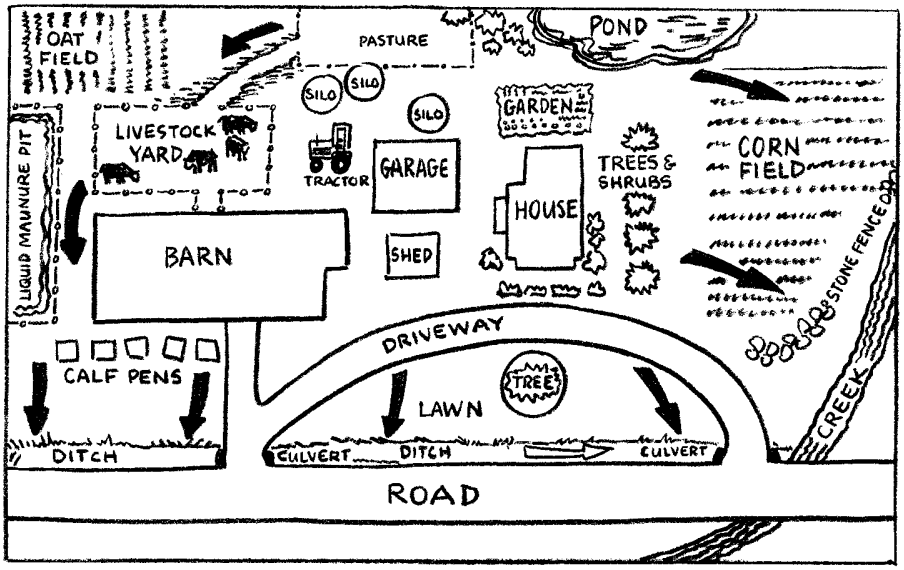
We need more info about.....

Farm site checklist



Your group may wish to do this whole Checklist at one farm or ranch, or you can break into teams to visit different ones.

For some items on this list, you may need to ask help or permission from your parents, the farmer or rancher, or whoever is responsible for the activity. This could also include hired help. You will probably need to ask for help from the farmer or rancher to get something changed. Be sure to get permission from the farmer or rancher before you begin the Checklist, and get their final approval before you begin any projects. You may also want to talk to your local County Extension Agent, Conservation District Officer, or Natural Resources Conservation Service conservationist for assistance in answering questions.

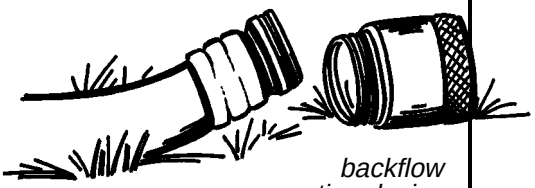
When visiting a farm or ranch, keep in mind that it may have been around for a long time, probably before people knew much about water quality protection. Ask the farmer how long the land has been farmed. There may be historical reasons for the way a farm is organized. For example, the well may have been placed right next to the house or feedlot because a century ago a farmer may not have had equipment to bring water from a distant well. There may be very real reasons for doing things a certain way on a farm. Remember, a farm or ranch is a business. It might be too expensive to relocate a feedlot away from a well, or to fence cattle out of a stream bank. Also, farming requires a lot of risks, and asking farmers and ranchers to change something that "works" for them may be more of a risk than they're willing to take. Any changes made to farming practices need to make good business sense, as well as good environmental sense.

If possible, ask an Extension Agent, Natural Resources Conservation Service conservationist, or the farmer or rancher to do this needs assessment with you. He or she can be helpful in answering questions and figuring out solutions that make good sense.

When the questions below refer to "you", it means you, your family, the farmer, rancher, any hired help, or whoever is responsibility for the activity.

1 What steps do you take to protect well water quality?

- Do you test the well water each year for bacteria and nitrates, and keep records of these tests to watch for changes?
- Do you have backflow prevention devices on water hoses connected to your well? These devices prevent pesticides and fertilizer solutions from backing up the hose to the well or to facets in the house. Contact your County Extension Agent or county health office for help.



backflow prevention device

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

2 Are livestock and poultry kept at least 100 feet from wells to prevent bacteria and nitrates from coming in direct contact with the well water?

Find the well and livestock areas and measure the distance between them.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

3 Do you mix, store and fill agricultural chemicals and fuels on a paved surface where spills cannot leak into the ground? Is this done a least 200 feet from wells or other water sources?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

Drinking water

Do you know where your drinking water comes from and how it gets to you? Americans drink more than 1 billion glasses of water a day! Most of us take it for granted that we can turn on the faucet and get clean, clear, fresh water. And it's practically free. You can refill an 8 ounce glass of water about 15,000 times for the same cost as a six-pack of soda! For most people, water treatment facilities provide this safe drinking water. But your actions contribute to conserving this vital, precious resource and keeping it pollution free. Give Water a Hand — It's ours to drink!

4 Is your septic system pumped at least every 2 to 3 years?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

5 Are livestock contained in a feedlot? If so...

- Is there a manure storage pit or pond to store animal wastes?
- Is there a ring of plants around the pit to filter runoff?
- Is it lined with concrete or uncracked clay so that no wastes can seep into the groundwater?

What we found out .....

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We need more info about .....

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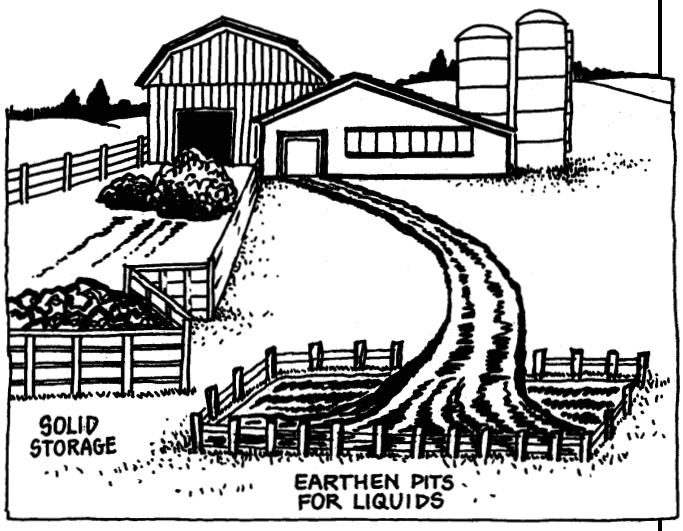

manure storage systems

6 Do livestock graze? If so...

cattle crossing

- Are there established cattle crossings at streams?
- Do you practice rotational grazing methods to avoid excess erosion?
- Is there a water source provided on the range to keep livestock out of streams?
- Do you move salt licks to encourage range animals to graze in different pastures?

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

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7 Do you cover silage with plastic so that the rain runs off before soaking into the silage?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

8 Are there trees and shrubs along the edge of property boundaries and between fields to act as windbreaks and provide wildlife habitat?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

9 Do you practice soil conservation to reduce runoff and erosion? Conserv-ation methods may include contour farming, chisel plowing, creating grass waterways, and leaving crop residue on the soil over winter.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out .....

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We need more info about .....

contour farming

10 Do you test soil nutrients before adding commercial fertilizers?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

11 Do you routinely apply chemical pesticides? If so...

- Do you have a method for determining how often to apply the pesticides?
- Do you use other non-chemical methods to control pests?
- Do you apply or experiment with organic farming?
- Do you rinse empty pesticide containers and dispose of the rinse water into the pesticide sprayer tank?
- Do you clean pest sprayers away from wells and waterways?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

12 Do you measure the amount of water you are letting into the fields?

- Do you have a method or procedure for knowing when to add water and when you have watered enough?
- Do you irrigate in the early morning or evening when water will not evaporate as fast?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

Water quality in our environment

Round and round: we use the same water over and over again.

So what happens when we pollute water? We may contaminate our water supply — that same supply we share with other humans, animals and plants. Pollutants can enter the water supply through everyday activities — grass clippings washing down the storm sewer, hazardous materials from a painting project being poured into the sink, leftover car oil being dumped on the driveway. These won't disappear and they cost a lot to remove — if they can be removed! They can contaminate the water supply. The best solution to pollution is to keep it out of water in the first place. Give Water A Hand — keep it clean!

13 Are nearby wetlands protected from barnyard runoff, pesticides and herbicides?

Do you have barnyard runoff controls such as diversion ditches, earthen berms, and roof gutters to keep excess runoff out of the barnyard? Contact your state water quality agency, local Natural Resources Conservation Service or County Extension Office for assistance.

☐ Looking Good! ☐ We need more information.

Priority 1 2 3

What we found out.....

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We need more info about.....

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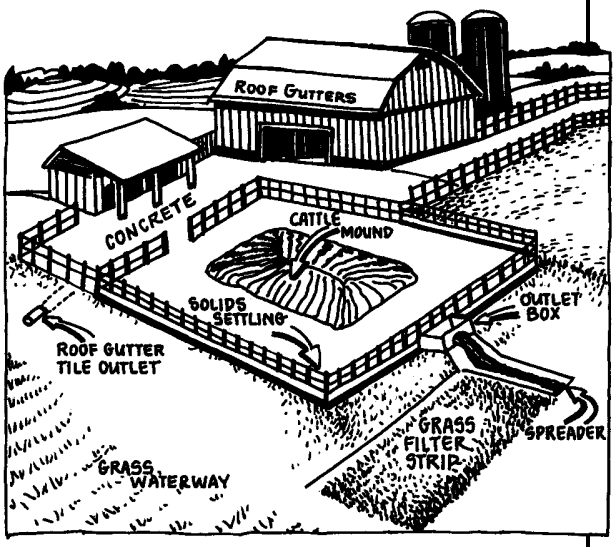


livestock yard runoff management system

14 Do you go swimming or fishing in a body of water on the farm or ranch?

If so, is the water of good quality? Ask the local health department for help in testing the water for bacteria. Your state water quality agency can help in identifying other ways to determine whether there is pollution, such as by studying which critters live in the waterway.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

Water conservation

Fact Water is the most common substance found on Earth.

Fact The amount of water on Earth hasn't changed since the Earth was formed, almost 5 billion years ago.

So why conserve water? There is not always enough clean, fresh water for drinking, growing food, making things, and having fun. That means we need to use less or get it from somewhere else. Taking water from one place and moving it to another place changes the environment for plants and animals, and often causes arguments between people. Using lots of water increases the amount of wastewater going to treatment plants and septic tanks. And using water takes lots of energy — to clean, pump, distribute and heat it. You can save about 4 gallons of water a day (and save money) by just turning off the water while your brushing your teeth. Give Water A Hand — use it wisely!

15 Do you store pesticides, fertilizers and fuels in a locked place, separate from other supplies, seeds or livestock food and separate from each other?

Ideally these are stored in a separate structure from the barn. If there is a barn fire, the chemicals could be carried into ground water or nearby streams by water used to fight the fire.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

16 Do you monitor underground fuel tanks for leakage?

Is there a gauge to show the fuel level?

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

17 Does your family participate in state and federal programs that pay farmers and ranchers not to use fields for a period of time?

Contact your local Natural Resources Conservation Service office or your County Extension Office for information about these programs.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

18 Do farm field days, farm expos or county fairs have exhibits or demonstrations on water conservation and water quality practices?

Find out how you could enter such an exhibit.

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....

.....

We need more info about.....

19 Your question:.....
.....
.....
.....

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....
.....

We need more info about.....

20 Your question:.....
.....
.....
.....

☐ Looking Good! ☐ We need more information. Priority 1 2 3

What we found out.....
.....

We need more info about.....

Educating about water

You've been learning a lot about water and how to conserve and protect it. You have probably also learned about water by reading books and magazines, watching television, going on field trips or just sitting next to a stream and observing what happens.

Many people don't know what they can do to protect and conserve water, so it's important to educate them. Action is one way people learn about water issues. There are many ways to educate through action, such as planning community water festivals, making posters, and putting on plays. Education doesn't happen just in the classroom. Give Water a Hand — Spread the word!

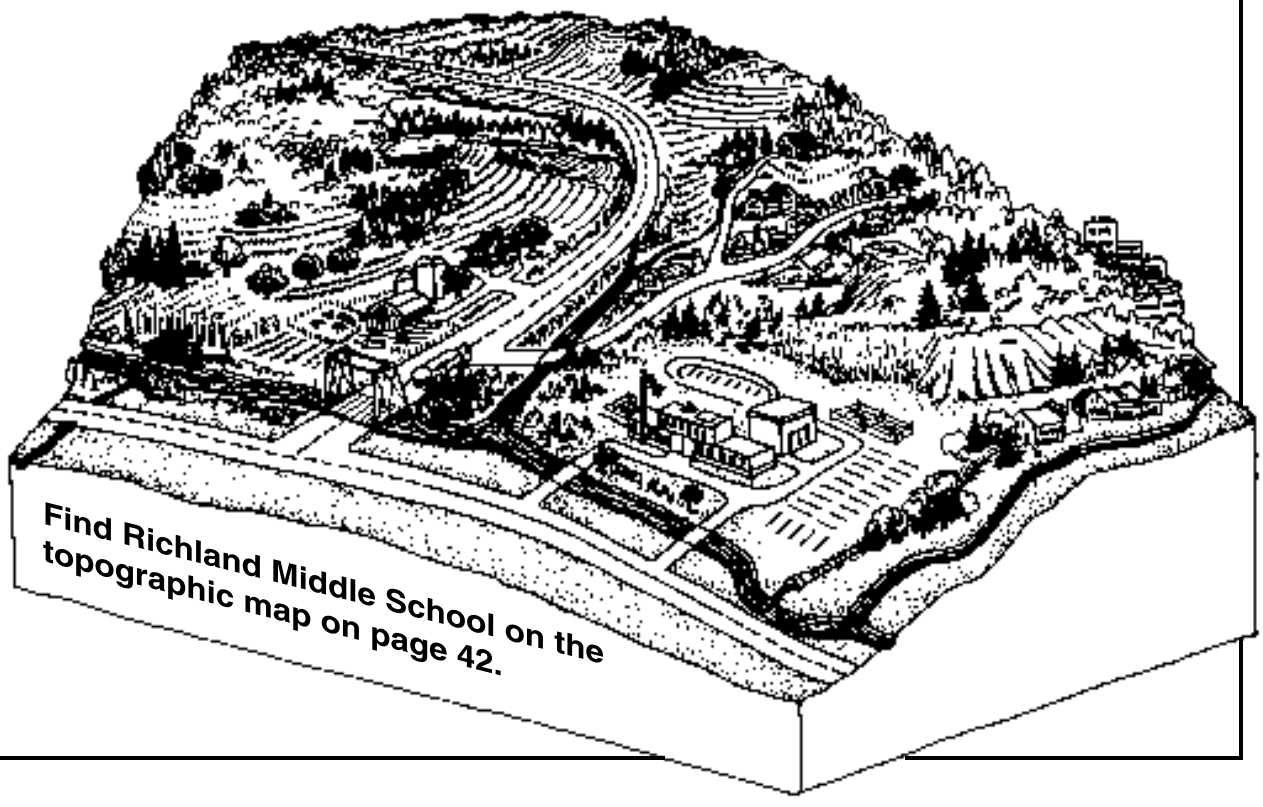
3: Map your watershed

"To protect your rivers, protect your mountains."

— Emperor Yu of China, 1,600 B.C.E.

In step 1, you visited your watershed and noted some of its features. In step 2, you took a closer look, investigating some of the possible water quality concerns at your site. Now it's time to look at the big picture again.

To work on water problems, you should know where your water comes from, where it goes after you use it, and what streams, rivers, lakes or coastal areas are in your watershed. A good tool to help collect and record all of this information is a Watershed Map. This will help you find out what needs to be done in and around your site. It will also help you share what you have learned with your water expert in the next step.



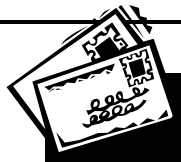
Find Richland Middle School on the topographic map on page 42.

What to do

A Collect the following materials:

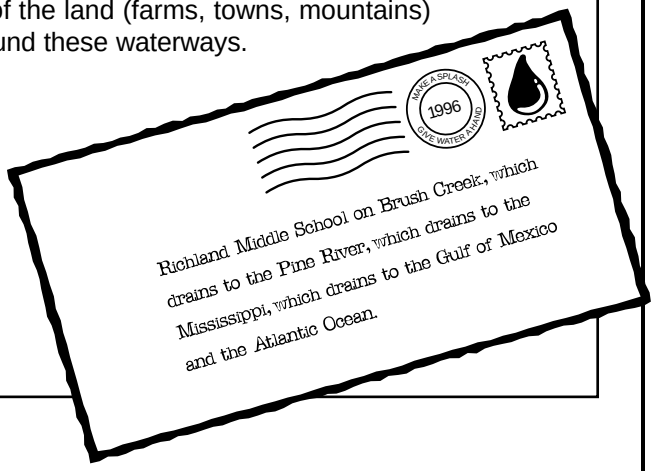
- Topographic map or maps which include your site and any other maps you have collected of the area,
- a clear sheet of plastic as big as your topographic map (this plastic is called mylar or acetate and is available at art supply stores or office supply stores for a few dollars),
- a piece of cardboard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



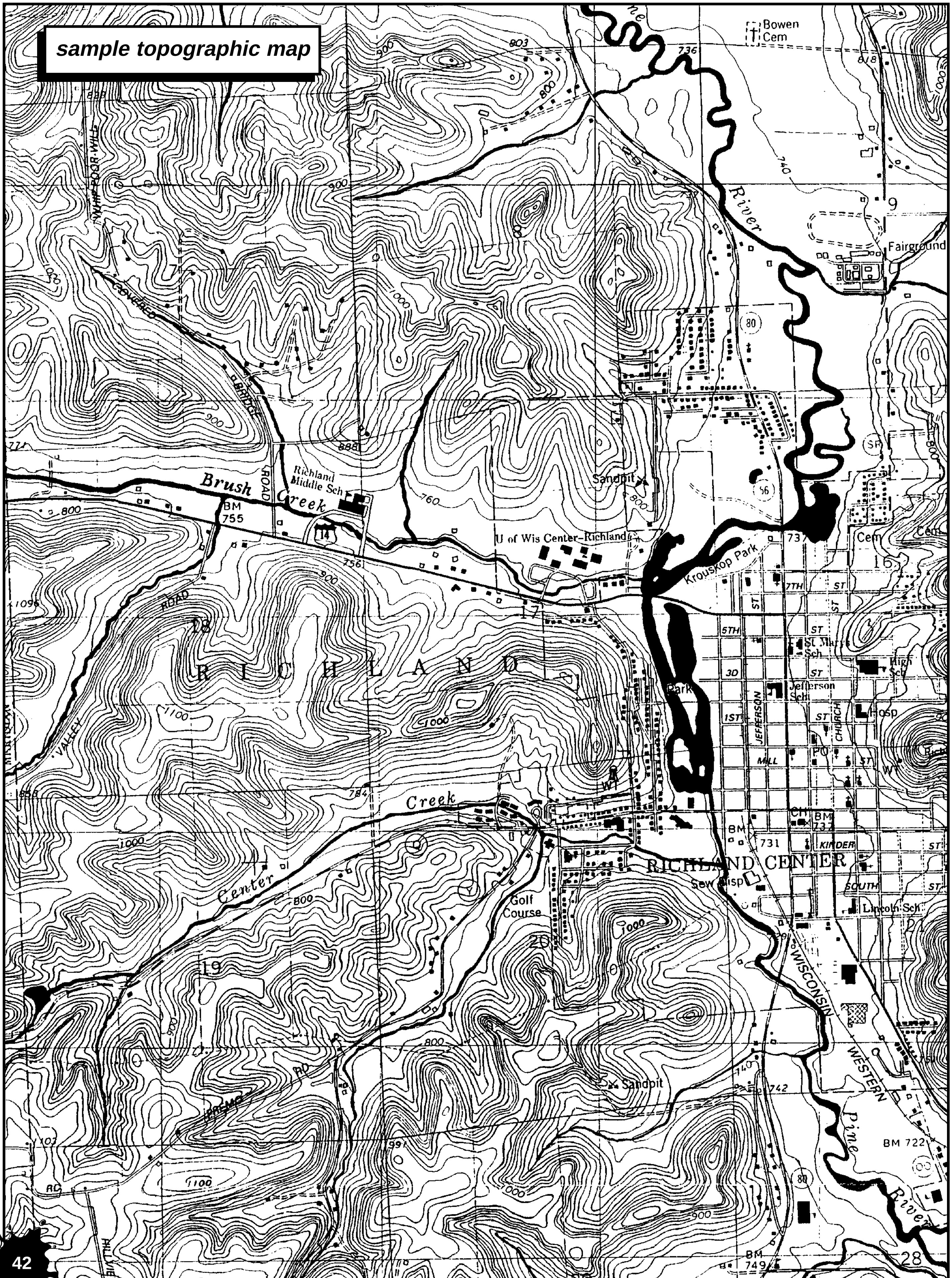
What's a watershed?

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



C Map your watershed:

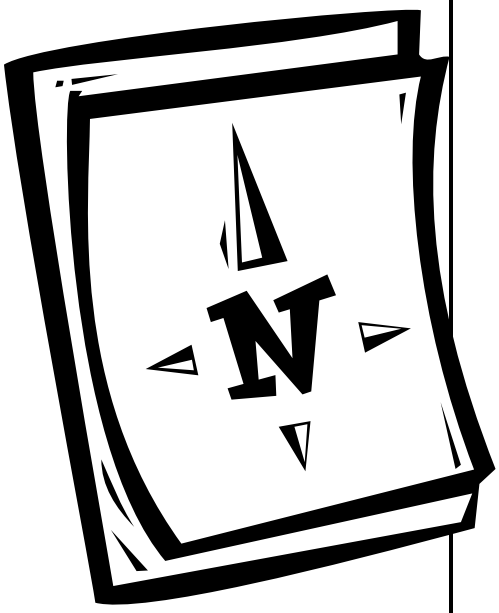
1. Place the clear sheet of plastic over the topographic map (topo map) of your site and tack both onto the cardboard. If you don't have plastic, make a photocopy of the map and draw on it in pencil.
2. On the topo map, find and mark your site. A road map can help you find things.
3. Find the streams, 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.



Psssst ...

Hints for mapping

Think like water. Water always flows downhill, and it always takes the easiest path. If you go outside and look or walk downhill from your school – never going up – you will come to a waterbody sooner or later. It may flow underground in pipes. Look for openings where water enters the storm drains.

In urban areas, streams sometimes flow through pipes underground. If you live in a city or large town, ask an expert if there used to be any streams or wet areas in town. Even water flowing underground through pipes must drain into a body of water at some point. You may want to ask a staff person from the city government to visit and demonstrate how the storm water system handles runoff from your site.

In dry climates, streams and rivers may only flow after snow melt or during the rainy season. Look for dried-up waterways.

Power Words

Altitude How many feet something is above sea level. (The sea is a good place to start because it is nearly the same height all around the world.)

Septic tank An underground storage tank for waste from homes with no sewer line to a treatment plant.

Topographic map A map with lines to show the height or altitude of hills, valleys, and mountains. Each line connects points at the same altitude.

Waterbody A specific area where water is found, such as a stream, river, wetland, pond, reservoir, groundwater, lake, or ocean.

Wastewater (sewage) treatment plant A place where used water (from toilets, washing machines, industries) is pumped to be cleaned and purified before it is returned to local waterbodies.

Watershed An area of land where all water drains, or "sheds," to the same river, reservoir or other body of water.

Describe your watershed. What kinds of plants and animals live in it? Is it in a city or the country? Tell a story about a rain drop that falls on your site.

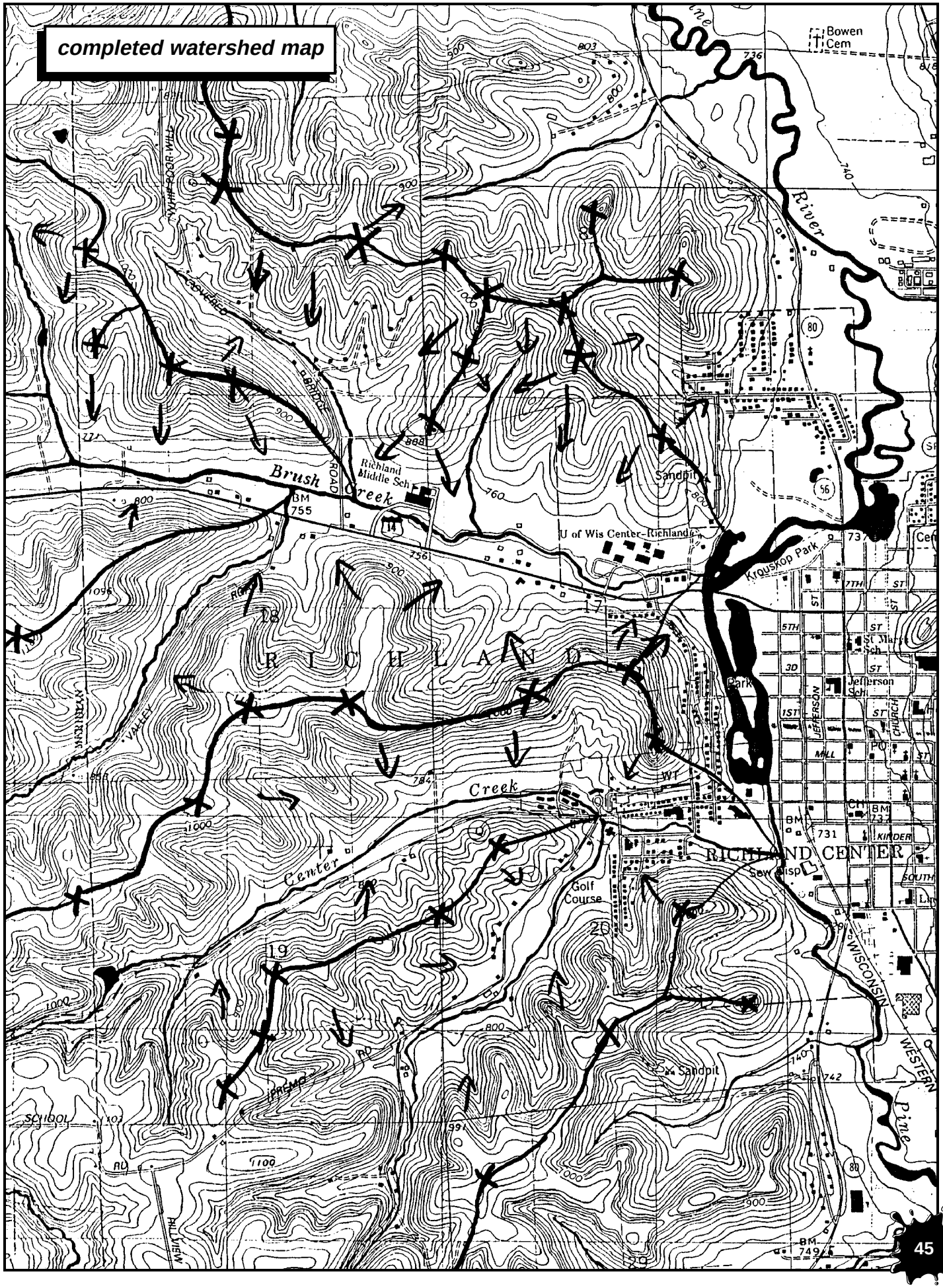
Where does your site's drinking water come from?

Where does your wastewater go?

Keep your Watershed Map. You'll need it later.

Before next time...

- Invite one or more experts — possibly your local partner to meet with your group. The person you invite and the information you provide ahead of time are very important. Provide an agenda for the meeting with the date, time and location, and a list of your questions, so your expert will be prepared. In writing up your questions, think about what you need to know. Your Checklist may give you ideas.
- If you need ideas about whom to invite, see "GET PARTNER SUPPORT" on the back cover. If you need more ideas about what questions to ask, the Skills Bank can help you get the most out of interviews (see page 63).


completed watershed map
Bowen Cem
River
Brush Creek
Richland Middle Sch
U of Wis Center-Richland
Sandpit
Krouskop Park
RICHLAND CENTER
Golf Course
Creek
Center
WISCONSIN
WESTERN
Pine
SCHOOL
BM 755
BM 749.5

1 2 3 4 5 6 7 8

you are here

4: Ask an expert

You can learn a lot and get more done by talking with experts who work with water issues every day. If you need ideas about whom to invite, see “GET PARTNER SUPPORT” on the back cover.

You should have prepared your guest before he or she arrives (see page 44).

Be sure to take notes while talking with experts. The Skills Bank can help you “Get the Most Out of Interviews,” (see page 63).

What to do

A Introduce yourselves to your guest. Explain that you are working on water issues and would like ideas, information and suggestions about what you can do in your community. Briefly go over the agenda for your meeting.

B Present what you have found. Show your Watershed Map or maps. Present what you found out in your Checklist. Tell them about the most interesting things you learned. If you have already thought of service projects you might like to do in your site, tell your guest. Ask if he or she knows of other projects you could do. The Skills Bank can help you. See “Tell Your Story,” page 63.

C Ask for information and feedback. After you have made your presentation, you might ask your guest questions like:

- What is your job? How do you work with water issues?
- What do you think are the most important water conservation and water quality issues and needs in our community? Why?
- How do we affect water conservation and/or quality in our site?
- What projects are already being done to work on these problems? Could we do such a project in our site? What else could we do to help?
- What resources or help could you give or lend our group?

D Thank your guest for sharing his or her time and expertise.

E Review the Power Words for new vocabulary. Answer the notebook questions as a group or individually.

Power Words

Agenda A schedule that states what will be done at a meeting and when.

Feedback Reaction to a plan or idea.

Notes on your meeting

Write the name and organization of your guest expert.

List questions you asked the expert.

What did you learn from your guest?

1
2
3
4
5
you are here
6
7
8

5: Choose a service project

It's time to decide! Now that you know more about water issues in your site, it's time to pick a water service project. This activity can help you to choose an existing project or start your own.

What to do

A Think about what you know and don't know. You may already know what project you want to do. Maybe you've heard about an exciting idea and want to join forces with a group already working on a project. Look over the questions in "Will It Work?" on page 50 to make sure your project is something you can really accomplish.

How to use the "Choose a Project" chart

1 Fill out the "What We Know How to Do" boxes on the left side of the chart. List all the things you are good at or talented in. If you can't think of anything, ask your friends or family to help. Everyone is good at something! Include fun things you can do like sing, draw, fish, ride a bike as well as serious things you can do like garden, give presentations, write letters, build stuff and make posters on the computer. It takes all kinds of skills to work on water issues.

2 Fill in the "Priority Water Needs" boxes along the top of the chart. List the top priority needs from your Checklist or from your talk with an expert.

3 Under the "Priority Water Needs" list, put an "X" on any line that matches up with something anyone in your group can do that would be useful in working on that issue. For example, if you put "gardening" at left, and "plant trees, shrubs and flowers" on top, mark the box where lines from these two things meet.

Circle any Needs with lots of "X's" in their column. You have the skills to do these projects. You can now use this information to choose a project that fits your skills and interests. Describe your idea at the bottom of the chart.

4 Answer the questions in "Will It Work?" on page 50 to make sure your the project you chose is manageable.

. . . the Choose a Project chart . . .

Priority water needs

fill in the skills you can use to Give Water a Hand

fill in the water needs you've identified

What we know how to do

see the previous page for instructions on filling out this chart

Our project idea is _____ .
WRITE IN THE WATER PROJECT YOU SELECT ABOVE

By using these skills _____
LIST THE SKILLS YOU'LL USE TO DO THIS PROJECT

_____ ,

we can _____ to protect or improve water.
WRITE IN WHAT ACTIONS YOU'LL TAKE

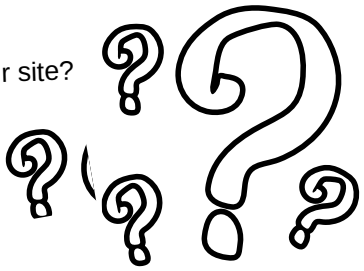
If you still don't have an idea for a project, try this. Look at your Watershed Map, Checklist and Site Map as starting points. What were the priorities? Look at the lists of project ideas starting on page 51.

Will your project work?

Involve local and national experts. They have ideas, information and resources. You may use the "GET PARTNER SUPPORT" section on the back cover, or the list of national partners for Give Water a Hand (page 29 in the Leader Guidebook) to decide who could be useful to your project. For example, for a water conservation project, call the Water Environment Federation for resource materials, or call your local water utility.

Discuss these questions about your project ideas:

- Would the project meet a real need? How do you know? (Did it appear in your Checklist? Did your guest expert discuss it? Has it been a topic in the newspaper?)
- Are others working on the problem? Who are they? Can you join them?
- Are you excited about working on the project? If not, how could you make it exciting?
- What difference will this project make? To you? To your site? To the people, plants and animals in the watershed?
- What resources do you need to do the project? (Tools, information, skills, money, and, especially, time.) Which resources do you have? Can you get



What service project did your group choose?

Why did you choose it?

What difference will it make to you? to your school? to other people, plants and animals in the watershed?

Before next time...

You'll be making a plan for action. You'll need to make enough copies of the Service Project Plan on page 58 so everyone can help with ideas.

Bring all your maps, charts, and notes for planning. Invite your local partner or a water issues expert to join your group again to help with planning.

School site project

There are many simple actions you can take to conserve and protect water. Look at the Project Ideas below for the kind of site you are working on to help you figure out what to do.

Landscape part of the school yard with native trees, shrubs, flowers, and grasses to reduce water runoff from pavement. Contact your County Extension office, Natural Resources Conservation Service office or Global ReLeaf, c/o American Forests, P.O. Box 2000, Dept. WM, Washington, DC 20031.

Use biosolids, enriched soils or compost to improve soil quality and reduce runoff. Contact the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 (703) 684-2487.

Research alternatives to current water management practices at your school. Look at how the school decides when to water the grounds and how it disposes of hazardous waste. Give presentations to the custodians, school board, administrators, and other school officials on the solutions you have developed. Ask for help from local Natural Resources Conservation Service staff and County Extension agents in researching water management practices.

Make posters about proper hazardous waste disposal and put them up in classrooms where these items are used. Contact your local solid waste office, or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 (703) 684-2487 for a brochure on hazardous wastes.

Develop presentations or skits on water conservation for younger children. Contact: American Clean Water Foundation, 750 First Street NE, #911, Washington, DC 20002 or call (202) 898-0908, for a script called “Muddy Water Caper.”

If you have a stream, pond or wetland on your school’s property, you could create a school nature area. Contact your local Natural Resources Conservation Service office, local forester, or your state Project Wild Coordinator.

Organize a school-wide water conservation campaign, and reduce the amount of water used in your school. Contact Earth Time, P.O. Box 1111, Ketchum, ID 83340.

Start and maintain a compost pile on the school grounds for grass clippings, sticks, leaves, and dead plants. Use the compost to enrich the soil for gardens and landscaping in the spring. Contact your County Extension Office, Natural Resources Conservation Service office, or Soil Conservation District Office for information.

Organize a “schoolyard water patrol.” Every week patrol the school grounds, looking at the grass, trees, flowers, and bushes to determine what needs to be watered and what can wait a few days. Use a rain gauge. Report this information weekly to the maintenance staff or whoever is responsible for watering.

Compare alternative cleaning products such as baking soda, vinegar, soap flakes, or salt to specially formulated cleaning products containing strong chemicals (Remember to look for words such as CAUTION, WARNING or DANGER on the labels.) Demonstrate the environmentally friendly cleaners to the school janitors, and convince them to use them at school, where appropriate. (Some cleaning problems may require the use of strong chemicals.)

Organize a Groundwater Festival for the entire student body. Contact: Groundwater Foundation, 5561 South 48th, #232B, Lincoln, NE 68516, (800) 858-4844 or the Water Environment Federation, 601 Wythe St. Alexandria, VA 22314 (703) 684-2487.

Home site project

There are many simple actions you can take at home to conserve and protect water, such as turning off the water while you brush your teeth. You can discuss these actions as a group, and then implement them individually in your own homes. Or you may decide to take on a larger project together, such as building compost bins. Many of these actions can be expanded to the community setting, such as educating your neighbors about water conservation practices. See the Community Site Project Ideas for more suggestions.

Have your drinking water tested for lead, nitrates, bacteria and other contaminants. Contact your County Extension agent, health department or public water utility for help.

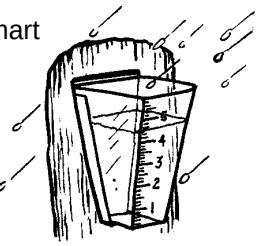
Hold a workshop for your families, demonstrating less hazardous cleaning products such as baking soda, vinegar, or citrus solvent. Begin using these products at home. For a brochure about household hazardous products, contact the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314.

Begin a compost pile in your backyard for yard waste and food scraps. If you live in an apartment building, talk to your landlord to get permission and check with other residents to see if they want to join in. Contact your County Extension agent or local Conservation District for assistance.

Plant drought-resistant native trees and shrubs in your yard. Use biosolids, enriched soils or compost products to improve soil quality and conserve water. Contact your County Extension agent, Natural Resources Conservation Service conservationist, wastewater treatment plant, or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for assistance.

Eliminate your family's need to dispose of leftover hazardous products from yard pesticides or home repair. Help your family buy the smallest amount needed when purchasing products with hazardous materials. Contact the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314.

Hold a family conference or design posters to educate your family members on smart water practices. Call 1-800-THE SOIL for a free clean water packet from the USDA Natural Resources Conservation Service.



Buy a rain gauge for your yard and monitor it weekly to see how much rain you've gotten and whether you need to water the lawn. Aim downspouts from gutters onto lawns or gardens. Contact your County Extension agent to find out how much water your lawn needs.

Test your soil to determine how much fertilizer your lawn needs. Contact your County Extension Agent or local Conservation District for assistance. If you live in an apartment building with a lawn, give the test results to the caretaker and explain them.

Your home site can include the entire apartment building. You may decide to begin an educational campaign for other residents of your building. It can be as simple as making posters about water conservation or hazardous chemical disposal to put in the laundry room, or holding a resident meeting to discuss measures that everyone can take. Be sure to talk to your landlord first!

Purchase and install aerators and low-flow shower heads in your home.

Chart how much water your family uses in a week (use your water meter). See if the amount goes down after implementing water conservation practices. For a booklet on using water meters, contact American Water Works Association, 6666 W. Quincy Ave., Denver, CO 80235.

Community site project

Form a Mud Patrol team and patrol construction sites in your neighborhood. Look for run-off, erosion and other problems affecting water. Report your findings to local water experts and government officials. Contact your state natural resources agency.

Demonstrate non-hazardous cleaning products such as baking soda, vinegar, and soap flakes in shopping malls, stores, or community centers. Help people understand how to read product labels, so they use popular brands containing hazardous chemicals safely. Contact your pollution control agency or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for a household hazardous waste chart.

Select a section of river, stream, pond or lake to do water quality testing and monitoring, or clean-ups. Contact: Save Our Streams, Izaak Walton League of America, 1401 Wilson Blvd, Level B, Arlington, VA 22209 (800) BUG-IWLA or Global Rivers Environmental Education Network, 721 E. Huron, Ann Arbor, MI 48104.

Paint signs next to storm drains telling people not to dump into the storm sewers because they flow to waterbodies. Contact your local conservation or natural resources agency, water utility, or municipal storm water department, Sea Grant Extension Office or Center for Marine Conservation.

Make posters telling people where they can recycle used engine oil. Put posters up in automotive, hardware, grocery and discount stores. You could also make posters on environmentally sound maintenance and cleaning of water craft, and post them in local marinas or boating supply stores. Contact the Water Environment Federation for posters, 601 Wythe St., Alexandria, VA 22314.

Develop a plan to purchase and plant native trees and shrubs along waterways to prevent erosion. Plant them in biosolids enriched soils and compost. Involve Partners. Contact your local Conservation District, forester, or American Forests, 1516 P St. NW, Washington, DC 20005 (202) 667-3300 for help with tree plantings. Contact your local wastewater treatment plant or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for information on biosolids.

Organize a community compost site. Contact your local waste management agency or horticulture society for additional information.

Organize a community groundwater festival, lake festival or other water related celebration. Contact the Groundwater Foundation at 1-800-858-4844 or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for a free organizer's guide.

Design and distribute flyers to people in your neighborhood telling them about efficient watering systems, nonpoint source pollution, and other water quality and conservation practices. Restaurant table cards are another way to educate people in your neighborhood. Be sure to get permission from the restaurant manager first. Contact your County Extension Office or the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for sample flyers and brochures.

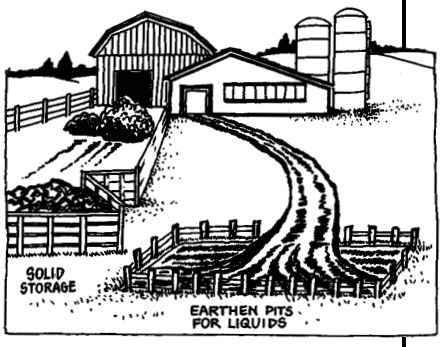
Go on a stream walk looking for potential problems which could affect the quality of water in the stream. Look for pipes leading into the stream, bare stream banks, industries, paved stream banks, garbage, etc. Write up a report of your findings, including suggested improvements, and give to your local pollution control agency or natural resources department.

Conduct an environmental audit of a government building or business in your community, such as city hall, the community center or a grocery store. Share your results and suggested improvements with the people who run or operate the building. Contact your Extension Office or State Environmental Protection Agency for help.

Farm site project

There are several simple actions you can take on the farm to conserve water and to improve and protect water quality. You may decide to discuss these actions as a group, and then implement them individually on your farm or ranch. Or you may decide to take on a larger project as a group at one farm or ranch. Be sure to look back at your "Checklist" for additional background information and ideas for activities. Issues relating to the farm house or ranch house can be found in the Home Site Checklist.

Start a notebook for keeping annual records of well water testing and septic system pumping. Include any records you can find from previous years. Take responsibility for making sure the testing occurs regularly. Contact your County Extension Agent for help.



Find out if there are any old, abandoned wells on the farm or ranch. See if these wells have been properly sealed. If not, work with a County Extension Agent to seal them.

Build a fence around the manure storage pit or pond and post a sign telling people what it is.

Plant native trees, grasses and forbs along streams to prevent erosion. Use biosolids enriched soils or compost for planting. Contact American Forests, 1516 P St. NW, Washington, DC 20005 or your local County Extension Office for help with tree planting. Contact the Water Environment Federation, 601 Wythe St., Alexandria, VA 22314 for information on biosolids.

Plant native trees, shrubs, and grasses along property boundaries and between fields to keep the wind from blowing soil away, and to create wildlife habitat. Find sources to pay for the plants or seeds.

Develop a plan to build a storage shed and mixing platform for agricultural chemicals and fuels. Your plan should include a site map, materials list, costs and sources of funding. Build the storage shed.

Conduct regular water quality testing of any streams, ponds or lakes on your farm or ranch to see how clean they are. Clean up any garbage in and around the waterbody. Check with your health department, County Extension Office, or local branch of the Izaak Walton League for help.

Research and publicize state and county assistance programs designed to support sound water and soil conservation and protection practices. Contact your local Soil and Water Conservation District office or your County Extension Office.

Develop and implement a plan to contain feedlot runoff so that it goes into holding tanks, pits or ponds rather that streams. Your plan should include a site map, materials list, costs and sources of funding. Share your plan with the farmer.

Stake bales of hay properly in or near streams to catch soil washing in or down stream during construction or at stream crossings. If the stream is navigable, you may not be able to put bales of hay in it.

Plant areas with bare soil around the barn and livestock feed areas with grass seed, shrubs or trees to prevent runoff.

Work with a County Extension Agent to learn to incorporate new, lower impact methods, such as low or no till and rotational grazing. Discuss with farmer whether any of these activities would be feasible at your site.

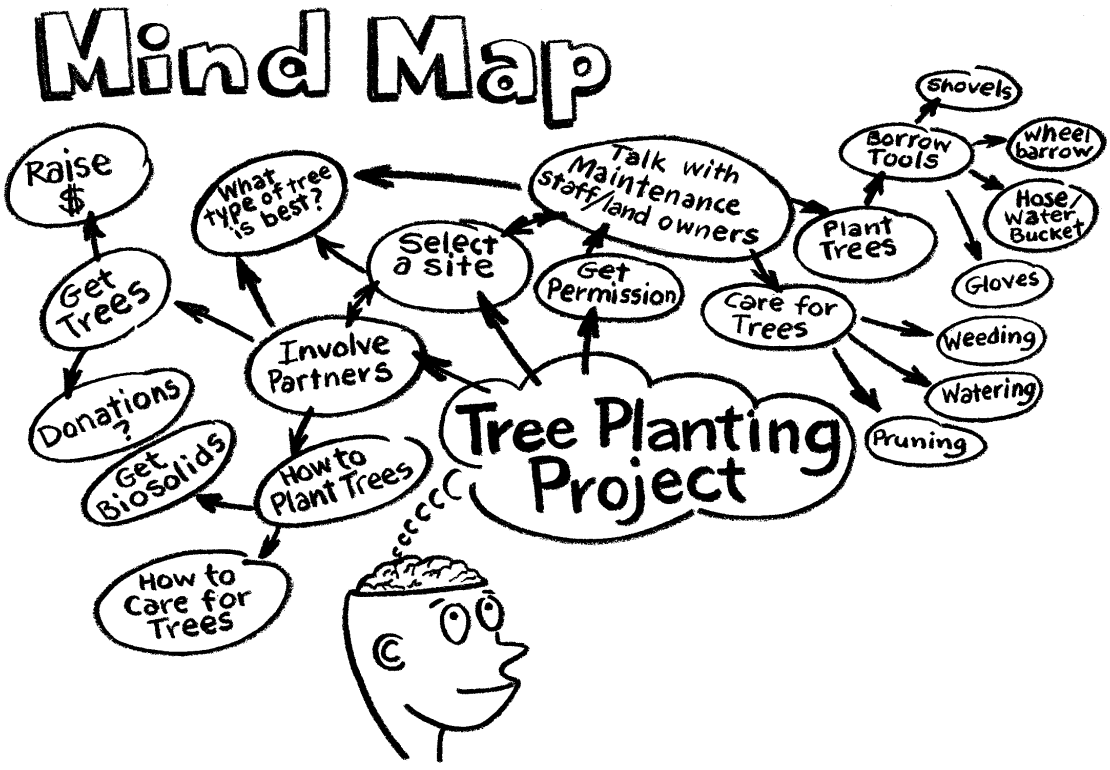
Survey farmers in your community to determine if they use biosolids. Distribute educational brochures or conduct town meetings to promote and talk about the benefits of biosolids recycling.

6: Plan for action!

Now that you know what project you're going to do, you need to figure out a plan of action. Using your Watershed Map, Checklist, Choose A Project chart, Site Map, notes and so on, you will fill out the Project Plan on page 58 as a group. The next step, Keep on Track (on page 59), can help you work through problems as you begin your project.

What to do

A Complete a Mind Map. You may find it helpful to use a "Mind Map" to think up all the tasks you'll need to do as part of your project. Write your project idea in a small circle in the middle of the page. As each new idea comes to you, write it in a circle next to the thing most like it, then connect the two circles with a line. Think of the small tasks that make up big jobs. Keep going until you can't think of any more tasks that need to be done. See the sample Mind Map below.



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B Fill out the Service Project Plan (page 58):

- Give your project a name. Make it one that people will remember. It could be simple like Jefferson County 4-H Stream Clean-Up or catchy like Mud Patrol: Erosion Prevention Program. Write in your group's name and project partners.
- What is the most important task on your Mind Map? Write it on your Service Project Plan under "What task?" Write the next most important thing, and the next, until all the tasks are on the Plan.
- Who will do each task? Write his or her name (or names) under "Who?" This person must make sure the job gets done. He or she can ask for help.
- Brainstorm the resources (tools, information, people) you need to get each task done. Write them down. Could your partners or other experts or organizations help?
- Get a calendar. Write today's date over "start" on the Time Line. When does the project have to be done? The end of the semester? A specific month? Write that date over "finish."

  How many months is it from start to finish? How often do you meet each month? Calculate how many meetings you will have (months times meetings per month). Mark a line for each meeting and write a date over it.

  Using your Timeline, figure out when you need to complete each task. It often helps to start at the end date and work backwards. For example, if you are planning a Water Fair, think how much time before the Fair people need to know about it so they can plan to come. If they need to know two weeks ahead, then you must make all posters, radio ads, buttons, stickers, etc. and get them distributed by then.
- Think of ways someone might get hurt on your project. What can you do to prevent it? What would you do if someone were hurt? Write your ideas in the "Safety Plan" box.

C You're ready to go! Review the tips for planning, getting help and success as needed. Review the Power Words and answer the notebook questions for this step.

Tips for planning

- ***Start small. Most people try to do too much. You can always do more once you show what you can accomplish***
- ***You don't need to have the perfect plan. Do what works for you!***
- ***It's okay to change your plan as you need to, but it's still important to have one.***

Keep on track...

Do you need help? See the following:

- Activity 7, page 59
- The Skills Bank, pages 63–65
- The Leader Guidebook

Keep track of everything you do, so you'll know if you are successful. See Activity 7 for ideas about how to do this.

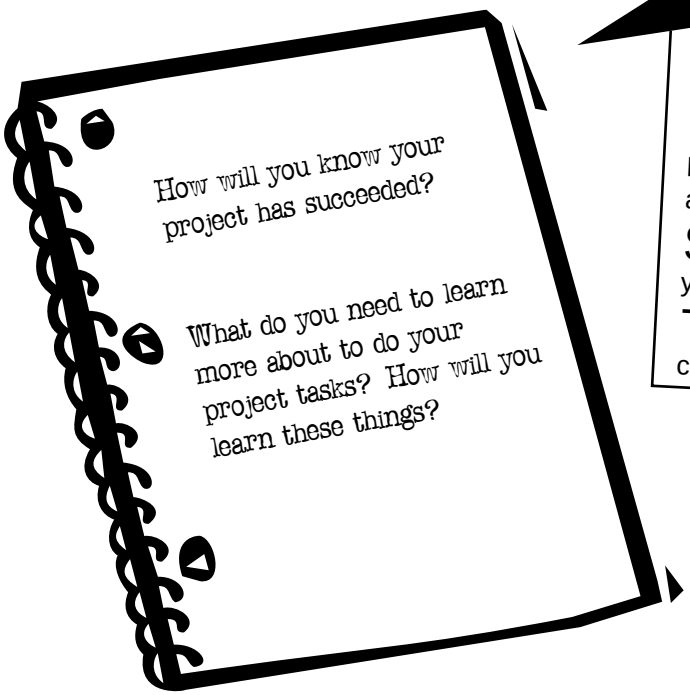
Get Help

You must get feedback from anyone whose help (or permission) you will need, such as the principal, your parents, the farmer. Also get feedback from someone with experience doing the kind of thing you want to do.

You can do more if you team up with other people. Your partner or other experts or organizations can give resources, help and advice. Other groups of young people may help share tasks. Who could you team up with?

How Will You Know You've Succeeded?

How will you know when your project is finished? How will you know you have done a good job? The better you can answer these questions at the start, the better your project is likely to turn out. It always helps to know exactly where you are trying to go. Check the Measures for Success section on page 61 for ideas about information you should collect while you are doing your project to help you explain why it was successful.



Power Words

Mind map A way to brainstorm that helps show how one task or idea goes with another.

Success Doing a good job. Doing what you set out to do.

Timeline A calendar listing the dates specific tasks need to be done.

Service project plan

Group name _____ Partner(s) _____

Project title _____

Who?	What task?	When?	How?

Your timeline

start date finish date

Safety plan

1 2 3 4 5 6 7 8

you are here

7: Keep on track

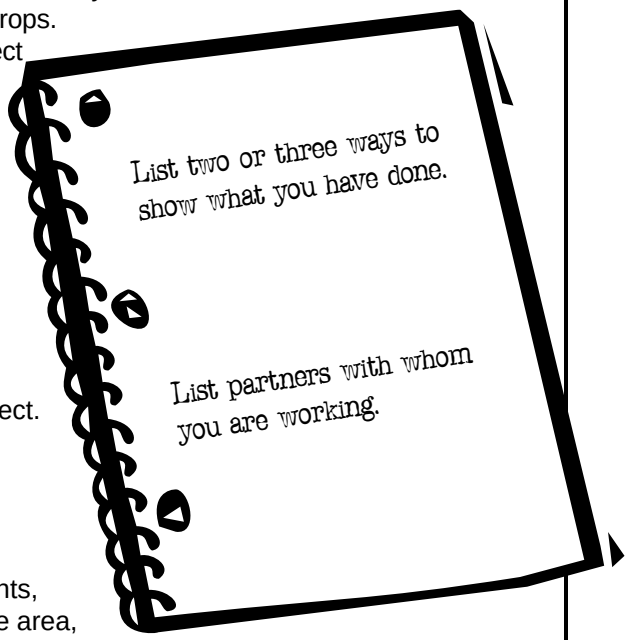
Now that you have chosen your project, you can get started! This step is a place to find help as you do your project. Be sure to check back here as you go along, and also use the Skills Bank on pages 63–65 for help solving problems. The Leader Guidebook has helpful information for your group, such as Working as a Team.

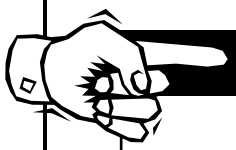
What to do

A Measure and record your success. There are many reasons to show what you have done on your project. People are more likely to give permission, help and resources when you have a history of success. Newspapers and radio/TV stations are more likely to report on your work. Other young people may get excited and want to join you. And for you — it just feels good to see what you have accomplished.

Ways to Show What You Have Done

- Count the number of trees planted, pounds of biosolids used, or other easily counted achievements.
- How many people helped out in your group? How many experts? How many hours did each person work on the project? How many total hours did your group work?
- Count how many people heard speakers, came to school assemblies, or in some way learned something from your group's efforts?
- Count the number of gallons of water saved. Check your home's water meter once a week and graph the numbers to see if use drops. (Remember: things like the weather can affect your numbers. Record weather, school closing, days off, etc. and take them into account.)
- Draw pictures or take photographs or videos of your work.
- Interview the principal, your local partner, helpful experts, or other students.
- Get letters from people you helped or worked with.
- Write stories, a rap or song about your project.
- Make a bulletin board display for your community center or school. Include your Site Map, Watershed Map and information from your Checklist.
- Give tours or demonstrations to show parents, school officials or reporters your new nature area, recycling center, or other visible outcome of your project.





Tips for success

- Your Service Project Plan is a guide, not a rule book. You make a plan so everyone in your group knows what everyone else is trying to do. Yet things rarely go exactly as planned. As a group, review your plan at each meeting and change what needs changing.
- Work for a "win-win." Find out how everyone can win from your success.
- Get to know lots of people. The more people you know, the more likely one of them will know how to help. And any experts who help your group probably know other people who can help.
- Don't give up. When things don't go right, there's always one more thing you can try.
- Communicate. Everyone in your group must know what's going on. Talk to each other often. Call each other. Hold regular meetings. Work together.

Getting past a roadblock

You ran out of money or time. Someone quit. Someone said no. Now what?

- Can you go around it? Is this the only way to do the task? Try another way.
- Can you go over it? Can you get help from the top — from your principal, the county commissioner, your mom or dad?
- Can you go through it? With more help, could you push right through the problem?

What you'll find in the leader guidebook

- Instructions for ordering maps
- Ways to call or write Give Water A Hand partners
- Special instructions, such as tips for reading maps
- Ideas for how to raise money for your project
- National awards you can apply for

What you'll find in the skills bank

- Instructions for brainstorming
- Ways to get resources over the phone
- Tips for taking notes
- How to get the most out of interviews
- Skills for working as a team
- Tips to help you tell your story and work with the media

1 2 3 4 5 6 7 8

you are here

8: Celebrate success!

What to do

A Your project gives you a chance to do something important for your community. It is also a chance to learn to do an even better job next time. Sit down as a group and talk about what you have seen, heard, felt or learned. Share your thoughts.

What happened?

- What was the most fun thing that happened? The least fun?
- What helped you the most? What were the biggest road blocks?
- What effect did it have on your site? On your watershed? So what?
- What have you learned about how humans affect the people, plants and animals in the watershed? How do your actions affect others?
- Did you do what you set out to do? How do you know?
- Has your work made a difference? How?
- Did your work change people's behavior?
- How would you do things differently next time?
- What advice would you give another group working on a similar project?
- What will you do to prevent the problem from happening in the future?
- What other issues or projects would you like to work on?

B Celebrate! After all your hard work to Give Water a Hand, it's nice to celebrate. Not only is celebration fun, but it's a good way to say thank you to people who helped out. Invite newspaper, TV or radio station reporters to your celebration — if they run a story on your success, lots of people will hear about the importance of water issues.

Here are some ideas for local celebration:

- Share your success with your local and national partners.
- Invite newspapers and TV stations to come to see what you have done. The Skills Bank has tips for Working with the Media, page 65.
- Hold a pizza party or picnic.
- Write a story for the community newspaper. Weekly or monthly papers, especially, look for local stories.
- Make T-shirts for group members with the name of your group.
- Use your imagination. It's your celebration!

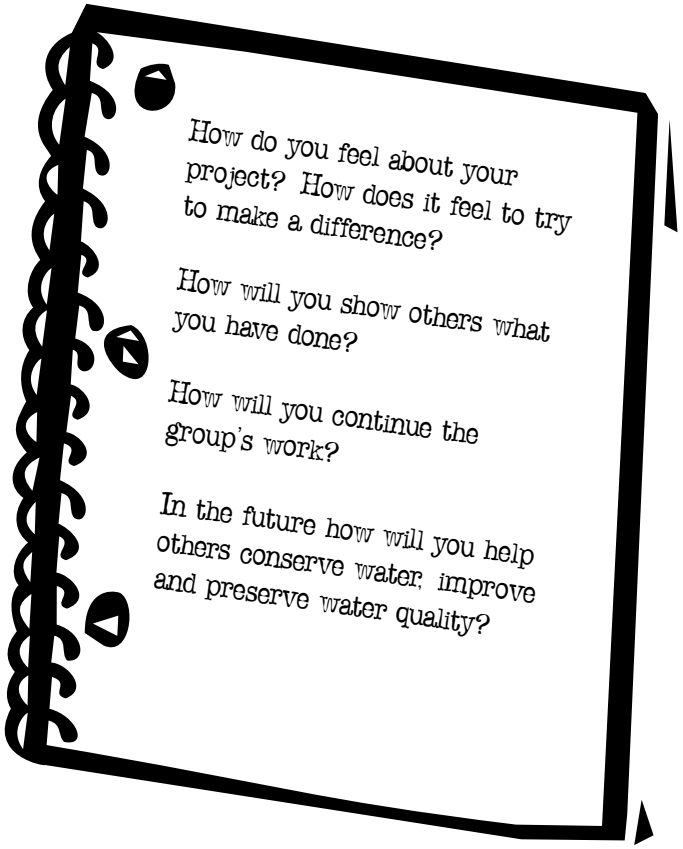
C Plan for future action! One of the best things about finishing a project like this is that now you have all sorts of new contacts, information and skills. You've proven that you can do something important as a team! Now — as a group or by yourselves — you might want to start new projects. There is always lots more to be done!

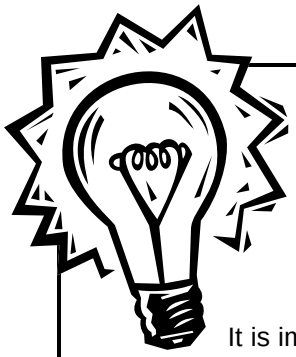
You don't have to start over from the beginning. Look at your Checklist, Watershed Map, Site Map and Project Notebook. Talk to your partners. What is another important need or project? Under What Happened on page 61, you talked about some other projects you might like to work on. You may know of more action you could take on the project you've just finished.

Talk again with your partners and other people you have worked with. Would they like to help again? What ideas do they have?

Make a new Mind Map and Service Project Plan and go for it!

D Reflect on your accomplishments and answer the notebook questions.





Skills bank

It is impossible to foresee all the needs that might come up during a service project. Here are some ideas for helping you learn or sharpen the skills you might need to complete projects. Use these pages as necessary.

An excellent source for additional tips and information on organizing skills is *The Kid's Guide to Social Action*. (Lewis, 1991.) Some of this section is adapted from it.

Brainstorming

There's more than one way to brainstorm. Here are a couple of ideas. Also see Mind Mapping on page 55. Brainstorming is usually followed by some sort of priority setting and/or categorizing.

Traditional

Quickly come up with ideas in a set amount of time. Have someone write them down. This method generates lots of ideas quickly.

Brain Hurricane

Post large sheets of paper (or divide a blackboard into sections) with a topic written on each one. Group members move from one to another and write their best ideas. Topics could come from a previous brainstorming session. This method allows everyone to contribute and to focus on the topics they know best.

Guidelines for Brainstorming

Don't criticize each other's ideas. There are no "bad" ideas at this point. Write all suggestions exactly as they are spoken. Build on ideas of others. Silence may mean everyone is thinking. Don't be afraid of it.

Getting Resources Over the Phone

The phone is a crucial tool for anyone who wants to get things done. Keep a list of all the people whose numbers you call or will need. The group leader should keep a master list and group members should write names and numbers in their notebooks.

Phone tips

- Learn to use the phone book. The Yellow Pages list businesses by category to help you when you know what you want to buy but not who sells it; hardware stores or garden supplies, for example. The blue pages list government agencies and the white pages list individuals and, in some cities businesses. If your phone book has gray or red-edged business pages, this section will also list nonprofit organizations.
- Get permission to use the phone, especially if you will be calling long distance.
- Write out an introduction such as: "Hello. My name is Karen Jones, and I'm from the Johnson County 4-H Water Action Club. We're working on a project to stencil storm drains so people know not to dump pollutants down them, and we hope you might be willing to help us." Repeat this information if your call is transferred to a new person.
- Write down all your questions, including what you need from the person or organization. Be specific.
- Have at hand your Action Guide and any other forms or materials you might need during the call.
- Ask for and write down the name of the person you get help from.
- Write down the information you get. Repeat information such as phone numbers or addresses to check that you heard them right.
- If they will be sending you anything, give them your name (again), and your group's address and phone number.
- Before you hang up, thank the person for helping your group. Send a thank-you note if

they are especially helpful.

- If the person you're calling is not available, leave a short message with your name, phone number and reason for calling. If you leave a message with a live person instead of an answering machine, also ask when you may call again.
- If your contact hasn't returned your call in a day or two, call again. As long as you're polite, it's OK to call again until you get someone.

Taking Notes

You need to write down a lot of information and a lot of details to complete your projects. It would be very frustrating if you lost the name and phone number of the person who promised to donate ten soaker hoses after you spent two hours tracking her down. You can't remember everything, so you need to keep and organize notes.

- Write in your notebook, not on little pieces of paper. If you already have lots of little pieces of paper, copy the information or tape the notes into your notebook.
- Write a date by each entry so you know which information is most recent.
- If several people are writing notes in the same book or form, write your initials by each entry.
- Don't write every word someone says. Think like a reporter. Answer the most important questions: "Who?" "What?" "When?" "Where?" and "Why?" Sometimes you'll need to ask "How?"
- Look back over your notes as soon as you're finished writing to make sure you haven't left out anything important and that you can read your own writing.

Get the Most Out of Interviews

- Call or write to set up an interview in advance. Tell the person what you're doing and why you want to talk. If you have specific questions, give them to the person in advance so he or she can look up or prepare answers.
- Write your questions and number them. Number answers to match the questions. Staple your notes to your notebook or copy the most important points.
- If a person is coming to meet with you, give accurate directions and, if possible, a simple map showing the route and where to park.
- Be on time. Dress nicely to show respect. Be polite.
- Listen. Smile to show that you are interested. Make eye contact.
- Don't interrupt the person.
- Thank your expert at the end of the interview and then send a brief thank-you note. It's a good way to be remembered positively.
- Never interview someone by yourself. Always have an adult go with you.

Working as a Team

One key to completing your project is working together as a team. Each of you will need to be a leader, and at the same time, each of you will have to be a supportive follower. Take turns at each of the roles below.

Roles in Successful Groups

- Recorder: Take notes of important ideas. Write group decisions. Read back what you write so everyone can say whether you got it right.
- Time Keeper: Help set realistic blocks of time to discuss each item on the agenda. 20 minutes for progress reports, 10 minutes to pick the date for the final party, etc. Watch the clock and remind the group when your block of time is up.
- Participation Checker: Watch to see that everyone gets a chance to talk and that group members don't interrupt each other. Offer feedback at the end of the meeting about how the group did.
- Leader: Set the agenda, with input from the group. Make sure everyone understands the goals for the meeting. Keep everyone working on the task. The leader is not the boss, but is an organizer in charge of the meeting.

Tell Your Story

You will need to tell people what your group is doing. You may have to explain it to water experts so they know how to help. You may want to speak to a school assembly. You may have to tell government officials or business people about a problem or solution so they can do something about it.

- Prepare. Think about who you will be talking to (your audience) and what you want them to know. Make a list of words to remind you of key points and number them. What do you want your listeners to do after you speak?
- How much time will you have? Practice once or twice with a clock.
- Speak slowly and clearly. Speak to the person in the back of the room.
- Show and tell. Pictures, videos and other evidence of your work will get attention. Think about what you can do to make your presentation interesting and memorable.
- KISS — Keep It Short and Simple.
- If you will be speaking to a school board or other official group meeting, find out whether they have procedures or rules you need to follow.

Working with the Media

Even if you don't want to be famous, it's worthwhile to get the story of your project in newspapers, and on radio and TV to alert the community to the issues you care about. News organizations generally like to cover projects by young people, especially if they can get interviews or interesting pictures such as kids building compost bins or planting trees. Partners can be very helpful and may even know reporters personally.

- Write a brief description with your main points. What message — your main idea — do you want to get across? Why is this event important? How will it affect people and the environment in this community? Tell who's doing it, what your project is about and why it's happening.
- Put the description in a news release, or a one page memo, and send it to local news organizations. (See sample text below.) Write "news release" and a contact and phone number at the top. It must be double-spaced, and be typed or a very legible computer print-out — It cannot be hand-written. Get media phone numbers from the Yellow Pages of the phone book, then call to

FOR IMMEDIATE RELEASE

Contact Jamal Harris, Leader January 6, 1996
Pine Valley 4-H Club
(000) 000-0000

4-H Club Shows Environmentally Friendly Products

The Pine Valley 4-H Club will demonstrate environmentally friendly cleaning products on Saturday, January 21 at the Pine Valley Shopping Mall, 2301 South Garden Street from 10: 00 a. m. to 3: 00 p. m.

[Provide a few details about why this is an important issue and what you will do at the demonstration.]

Together with the Valley Public Water Utility and the Pine County Office of Waste Management, the Pine Valley 4-H Club began in October of last year to research water quality management issues. They identified a need to help consumers choose the most environmentally friendly cleaning products for home use.

Pine Valley 4-H Club's project is part of Give Water a Hand, a national campaign by youth to identify and address water issues in their communities. More than 20 national environmental and water management organizations have collaborated to support Give Water a Hand.

Made Possible With Support from

Church & Dwight Co., Inc. Makers of Arm & Hammer© Baking Soda

National Fish and Wildlife Foundation

United States Department of Agriculture Cooperative State Research Education and Extension Service

University of Wisconsin–Environmental Resources Center

In partnership with

American Forests
American Water Works Association
Boy Scouts of America
Earth Force
Global Rivers Environmental Education Network
The Groundwater Foundation
Izaak Walton League
National 4-H Council
National Aquarium in Baltimore
National Association of Conservation Districts
National Drinking Water Clearinghouse
National Marine Educators Association
National Oceanic and Atmospheric Administration
National Science Teachers Association
Project WET (Water Education for Teachers)
Tennessee Valley Authority
Trout Unlimited
United Earth
USDA Cooperative State Research Education and Extension Service
USDA Forest Service
USDA Natural Resources Conservation Service
US Environmental Protection Agency
US Fish and Wildlife Service
US Geological Survey
Water Environment Federation
Western Regional Environmental Education Council

Project Director

Elaine Andrews, Environmental Education Specialist, University of Wisconsin–Cooperative Extension, College of Agriculture and Life Sciences, School of Natural Resources, Environmental Resources Center

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Suzanne Wade
Tom Levermann

The Blue Thumb Program, a joint effort for National Drinking Water Week, in cooperation with the American Water Works Association

Get partner support

Your Give Water a Hand project will go more smoothly if you get assistance from an expert. We call these people or organizations who will help "partners." If you have already signed up with a partner from the list on the previous page of this guide, great! If not, do it now. This page can help you get assistance from these and other people.

How Partners Can Help

All the organizations which created Give Water a Hand want to help you. Many others can help also. There are many useful things they might assist with. For example:

- Show you how to read maps or a water meter. Test water. Plant and care for trees. Raise money. Install equipment. Use tools.
- Answer questions about how plumbing works, where drinking water comes from, where wastewater goes, what animals and plants live in water, and what hazardous materials might affect people, plants and animals.
- Give, sell or lend tools, maps, brochures, posters, buttons, displays, videos, seeds, trees, equipment — even buses or cars.
- Give or get permission for you to do what you want to do. Or help you get in to talk to the county commissioner, school board, town council or mayor.
- Tell you about projects you can work on or even work with you one-on-one!

How to Get Help from Partners

The first trick is knowing whom to talk to. Here are some ideas:

The list of national partners on pages 29-33 of the Leader Guidebook explains what the various partners have to offer, and whether they have local contacts or offices. The project lists (on pages 50–54) give specific suggestions about what support national partners can give.

People or organizations in the community include County Extension agents, Soil and Water Conservation District staff, public water utilities, nonprofit environmental organizations, county or city waste management agencies, nature centers, and others. People at your school who could help might include your school principal, teachers, and the PTA or PTO.

Tips for Working with Partners

- Prepare before you call, write or meet. Be as specific as possible about how you think they can help.
- Be polite and respectful, even when you disagree or don't get what you want.
- Always give your name and the name of your group.
- Write all names, phone numbers and addresses in your project notebook.
- Say thank you. Send thank you notes. Invite partners to a project celebration.
- Only one person from your group should call. Don't confuse your partners.
- Call back after a couple of days if someone hasn't returned your call.
- Make sure you have a complete list of all your questions before you call your partner, so that you don't have to keep calling back each time something comes up.