Colorado Foundation for Agriculture | GrowingYourFuture.com | WatershedDefender.com | Colorado Nonpoint Source Program | NPSColorado.com
Colorado Department of Public Health and Environment | Water Quality Control Division

Meet Our Heroes

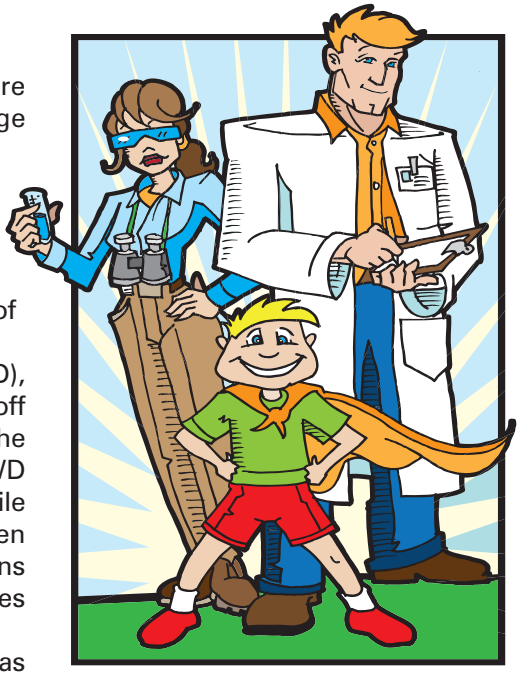
Every day, countless people are working to protect and manage our water supplies. We all have a responsibility to help.

From the time of Colorado's earliest inhabitants to the present day, the history of our state has been about the history of water, a history of both surplus and shortage.

Meet Watershed Defender (WD), super hero and protector of runoff water. While growing up on the eastern plains of Colorado, WD learned the value of water. While snow in the mountains is often measured in feet, much of the plains region averages less than 13 inches of annual moisture.

WD's grandad told him what it was like when the first non-native settlers arrived, following the Rio Grande, Arkansas and Platte rivers. He told him how irresponsible water use had fouled mountain streams and lakes.

He also told him about the 1930s and 1950s, when crops withered in the drought and livestock died from lack of feed.



WD spent his summers working on a ranch in the mountains. He saw firsthand how grazing, mining, logging and other industries were good, but could be mismanaged.

While studying at the university to become a hydrologist, WD learned how a river was much more than what was contained between the banks. He learned how all living things are connected by water.

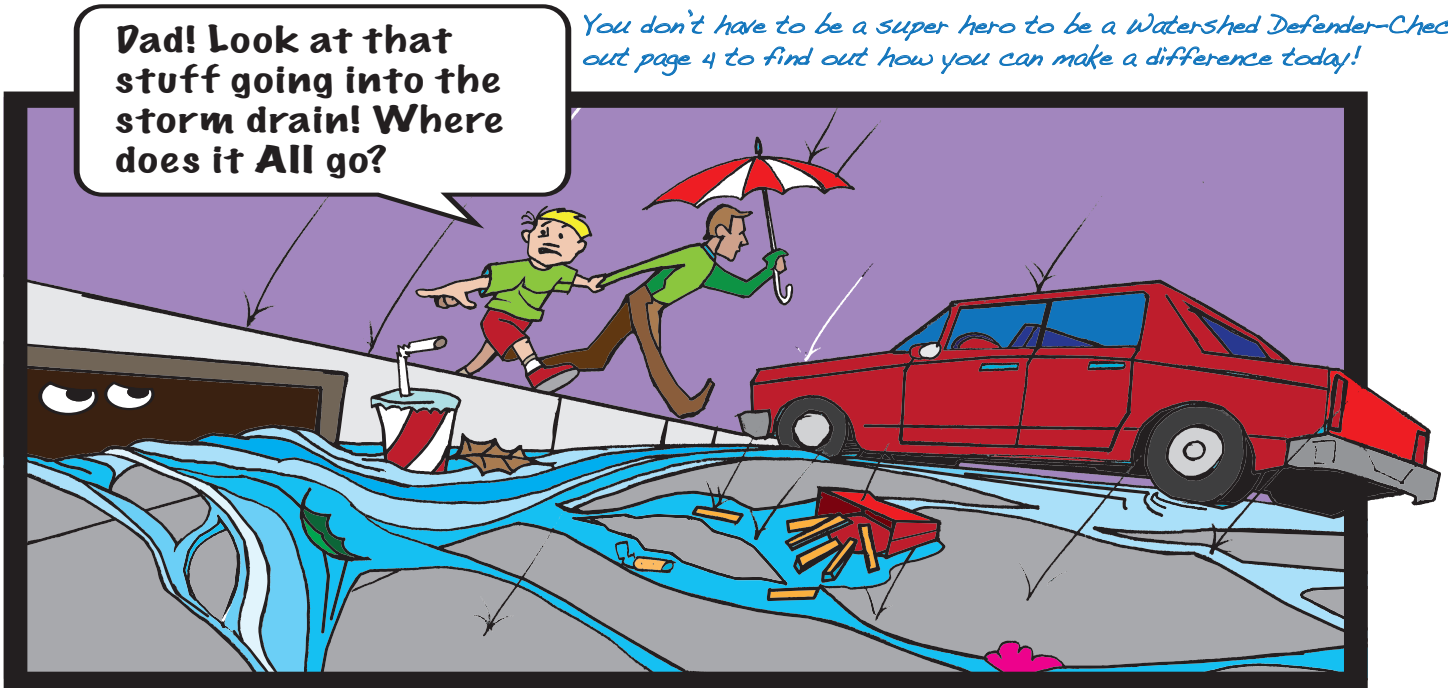
WD, his sister Kilee and their team of Watershed Defenders have committed themselves to helping to keep Colorado a great place now and for future generations.

The Watershed Defenders help protect our water all along its path, encouraging everyone to do their part, large or small.

Their No. 1 enemy? The Contaminator. He's the monster that thrives on polluted runoff water. His favorite hiding spot is the storm drain. He waits for rain and melting snow to carry pollutants that will damage our local rivers and lakes, harming animals, plants and possibly humans.

The good news? You can help. We can all be Watershed Defenders every day. It's easy. Read on…

You don't have to be a super hero to be a Watershed Defender–Check out page 4 to find out how you can make a difference today!



The Contaminator—Don't Feed the Monster

The Threats Are Real

The Contaminator may be fictional, but every day there are forces at work placing your drinking water and the environment at risk.

The number one threat to safe drinking water in the United States? Polluted runoff.

What's polluted runoff? Observe this.

When you go to a store or a mall, look around in the parking lot. Most likely you will see some oil spots, skid marks and maybe somebody's spilled French fries or their burger bags.

Now, let's imagine it's raining. The water starts to puddle and form little rivers as it runs towards the gutters. What is carried off with the water? Yup, the French fries, oil, and tiny bits of rubber we saw earlier, along with bird poop and all the other junk on the ground. That's runoff pollution. Some of it is natural and some of it is human made.

Where does the runoff pollution go? It goes into storm drains or ditches that lead to the nearest river, stream, wetland or lake: the same rivers and lakes you depend on for water. Do you want motor oil in your bathtub? The birds don't either.

The dirtier water gets, the more expensive it is to make it safe for you to use. One quart of motor oil can pollute 250,000 gallons of water.

The Multiplication Problem

Let's say one car leaks a quart of oil every month. Not too big a deal, right? What if 100 cars leak oil? One thousand? One million? You do the math...

Runoff pollution doesn't come from just one place, it comes from all over.

The threats can be natural or human made, on the ground or underground. Pollution can come from homes, open spaces, farms or businesses in town—anywhere water is moving.

When we pollute water, it hurts all of us—including all of the people and animals who live downstream from our town.

Hard surfaces, such as roads and sidewalks, contribute to the problem since water runs off, instead of soaking in. Areas with large amounts of pavement and concrete usually have higher population densities (the number of people per square mile). The more density, the more potential pollution.

The Contaminator is a monster that thrives on pollution. We can't eliminate pollution altogether, but by working together we can reduce it.

the Watershed Defenders

Colorado is often referred to as "The Mother of Rivers" because so many rivers get their start in our mountains, and very little water flows into the state.

Can you name the 18 U.S. states that depend on water from Colorado's mountains?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____

Why do we need Watershed Defenders?

You may not know it, but you live in a watershed. We all do, and we depend on it for our survival. The same goes for animals and plants.

When the snow in Colorado's high country melts, where does it go? Some soaks into the ground and some goes into a river. When it rains in the city, the water goes into the river. Rain on the farm? Same thing. Some soaks into the ground and some goes into the river.

So all of the land that drains to the river is connected by water. People, plants and animals depend on that land and water as well. That entire area is called a watershed.

Watershed defenders are people—scientists, technicians, engineers and many others—who help make sure that there is safe water for homes, schools, businesses, growing food and the environment.

What's the big deal? Did you eat or drink anything today? Did you brush, wash or flush? The truth is, without water you're a "goner." This is no joke.

Your body is 60-70% water. Your brain is 75% water. Without water in some form, you will die in seven days or less.

For the majority of us, the rain and snow provides water for our homes, schools, farms and businesses. But here's the problem. If we don't protect that water from pollution, dirty water can hurt plants, animals and people.

The good news? You and your friends can help reduce pollution and be real-life Watershed Defenders.

Explore Your Watershed

Before we get carried away trying to protect our watershed, we'd better do some exploring to find out where contamination might come from.

Gravity pulls our watershed together. Water flows from high spots to low spots. Sometimes this is dramatic—think waterfall—and other times it's subtle.

Commonly, we think of major rivers as watersheds. The Colorado, South Platte, Rio Grande and Arkansas are examples of major rivers that originate in our state.

This is true, but there are also smaller rivers and creeks. Each is a smaller watershed that is part of the big picture. Some may only have water in them for short periods during the year.

If you have Internet access, entering your zip code or town name at http://cfpub1.epa.gov/surf/locate/index.cfm can help you learn about your watershed.

In your classroom or at home (work with your parents), use maps or the Internet, to find answers to the following:

What is your nearest creek?

_____

What is your nearest major river?

_____

What is the name of your nearest lake?

_____

What cities are upstream from your area?

_____

_____

What cities and states are downstream from your area?

_____

_____

How much rainfall does your community receive during an average year?

_____

Where is the nearest water treatment facility?

_____

List 10 things water is used for in your watershed:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

List 10 species of wild animals in your area:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

List five food plants a farmer in your area might grow:

1. _____
2. _____
3. _____
4. _____
5. _____

Name five possible sources of runoff pollution:

1. _____
2. _____
3. _____
4. _____
5. _____

Internet tip: If you're having trouble finding resources, you might try http://www.coloradowater.org/watersheddirectory.php or http://co.water.usgs.gov

Let's Examine The Water Cycle

We need the water cycle, but it's not what you might think.

There's pretty much the same amount of water in the world now as there was when the dinosaurs were running around doing their thing. It keeps getting recycled. Water doesn't get used up or destroyed, but it can get polluted.

The sun warms up the oceans, lakes and rivers, causing the water to evaporate. That evaporation condenses and makes clouds. Those clouds drop rain or snow on the earth. Some of that rain and melted snow soaks into the ground, but some runs off, making rivers, which eventually flow back into the sea. Even the water that soaks into the ground moves through the spaces in the sand, gravel and rocks.

Only 3 percent of the Earth's water is freshwater, and about two-thirds of this water is frozen in polar icecaps and glaciers. Most of the remaining freshwater is underground and only 0.3 percent is surface water.

How cool is that? The water went from liquid, to vapor (remember that evaporation part), to solid (ice and snow), and back to liquid with the power of the sun.

Something else interesting happened. When it evaporated, it left the salt and other stuff behind so those snowflakes and rain drops are pretty clean. Air pollution sometimes messes up a good thing, but that's another story.

Colorado plays a very important part in the water cycle.

In Colorado, most of the water we use comes to the state as snow in the mountains. In the spring, it melts and some is stored in lakes and reservoirs so that we can use it throughout the year.

Known as the "headwaters state," Colorado is the beginning of eight major rivers that flow to other states. In an average year, the outflow of the Colorado River alone is equal to the amount of the water used annually by more than 9 million households.

In other words, the snowballs you threw during the winter could melt and end up as drinking water in Los Angeles, California or El Paso, Texas.

Eighteen states and Mexico get water that starts its journey in Colorado. Virtually no water flows into Colorado.

That also means there are tens of millions of people downstream from us who are counting on us to help protect that water as it moves through our state—one more reason to be a Watershed Defender.

But what happens if it only snows half as much as usual? Or what happens if the reservoirs get polluted?

That's scary. Prolonged times of reduced rain and snow are called a drought. Reservoirs help us make it through dry times, but in a drought there isn't enough water to meet all the needs. Farmers are often the first to experience problems.

With less rain, farmers need to use more irrigation water from rivers to help plants grow. If there's not enough irrigation water, farmers are forced to plant fewer crops, plant less "thirsty" crops or even skip planting altogether. Fewer crops mean less food.

Even when there's plenty of rain and snow, we have to be careful with our water. In Colorado, there is a demand for more water than there is supply. One reason is that population is growing. In 1850, Colorado was a frontier in the western expansion of the United States. The world population was 1.2 billion people. Fast forward to the year 2000 and Colorado had a population of 4.3 million people, while the world population had jumped to more than 6.1 billion people.

More people means a greater demand for food and water.

We've been stuffing a bunch of big ideas and big numbers in our gear bag, but we need one more. The earth is a big place, and it's sometimes called the "blue" planet. Why? The earth is mostly covered in water.

Here we go with the bad news again.

The oceans are salty, too salty for humans to drink and a big bunch of

1.9 Billion — Number of people worldwide who do not have access to clean water.

freshwater is locked up in the polar ice caps. Some water is too polluted for us to drink. When you do all the math, it turns out that only about 1 percent of the earth's water is fit to drink.

You can do this experiment for a comparison: Fill a one-gallon milk jug with water. The jug represents all the water on the planet. Now measure out how much is safe to drink: one tablespoon.

Remember how we said this might get scary? In the year 2000, the United Nations said 1.9 billion people lacked access to a reliable source of safe drinking water. That's almost one third of the world population. Dirty water can cause disease, and across the globe, on average, one child dies every 15 seconds from waterborne disease.

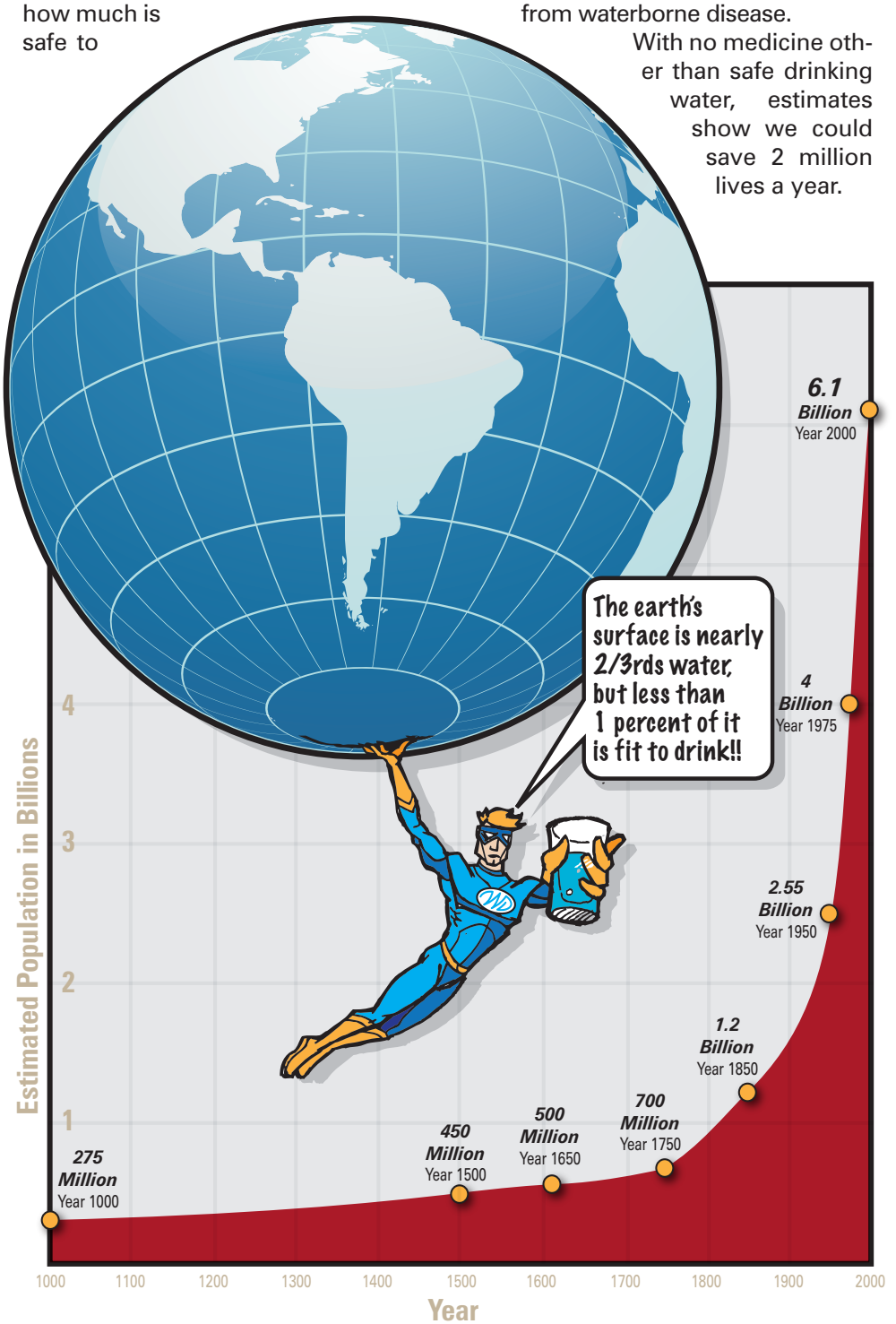
With no medicine other than safe drinking water, estimates show we could save 2 million lives a year.

Besides disease, the lack of clean water causes other problems. In parts of Africa and India, it's common for people to have to walk more than three miles to simply collect water. Then they have to carry that water back home. Five gallons of water weighs almost 42 pounds.

By one estimate, 40 billion hours are spent each year in Africa hauling water. That's time taken away from other pursuits that could help fight poverty.

According to Colorado State University Extension, many Colorado residents use more than 200 gallons per day, most of it outside the home.

For survival, the average person requires approximately two quarts per day.



The Number One Threat

The number one threat to clean water in the United States is runoff pollution—the Contaminator.

Turn the page to see how everyday activities and events need to be managed to protect our source water.

The Great Lakes—Huron, Michigan, Erie, Ontario, and Superior—hold nearly 20% of earth's total supply of freshwater.


Water is life. All of us have to help protect our rivers and lakes.
Can you see the threats to clean water?

Identify the Possible Sources of Polluted Runoff

How many potential threats to clean water can you identify between the snow-capped mountains and the city down below? Write a number next to the threat and, using a separate piece of paper, explain each threat.

Cars & Trucks

Automobiles and trucks create numerous threats. Tires wear out. Ever wonder where all the rubber goes? Then there's oil and exhaust. And what about brake pads? They wear as well, leaving metals on the ground.

Winter Roadway Management

When it snows, crews use sand, salt or other chemicals to make travel safer, but those materials can pollute runoff. Even though it is natural, sand can cloud water and create sediment, harming fish and plants.

Farms & Ranches

We need to grow food. Farm and ranch land can also work as a natural filter, slowing runoff and re-charging ground water supplies. However, animal waste, mismanagement or misuse of chemicals, poor soil management or over grazing can cause polluted runoff.

Construction & Soil Erosion

Naturally occurring or human-caused erosion sends dirt into rivers and lakes. Construction crews use special techniques to try to keep soil on site.

Recreation

Most everybody enjoys a day on the lake or near a river, but litter and oil from motor boats are sources of pollution.

Mining & Logging

Mining and logging are important industries. In Colorado, we have a legacy of old sites from the early gold and silver mines. As water moves through these sites, heavy metals can be carried into waterways.

Similar to farms and ranches, mismanaged mines or logging operations can contribute to erosion and runoff pollution.

H_2O—The Amazing Molecule

We can't live without water. We know that, but have you ever thought about how unique the stuff is?

How many other substances can you think of that you can find in the natural environment in a solid, liquid and vapor form?

It's a trick question. There aren't any.

Water never goes away. Earlier we saw the water cycle in action, but it goes beyond that. Water is difficult to destroy no matter how hard you try. You can boil it, freeze it or try to smash it, but it's still water.

Water is a simple molecule—two hydrogen atoms connected to an oxygen atom. You've undoubtedly seen the formula written as H_2O. The magnetic attraction of these particles is so strong that the bonds are tough to break.

You might think that those two hydrogen atoms would be on opposite sides of the oxygen, but they're not. They always sit precisely at a 104.5 degree angle, as in the picture. The molecule sort of looks like the ears on that famous mouse character.

The angle of the atoms is important. It gives water special properties. One side of the molecule has a positive electric charge, while the other is negative. This polar charge attracts the molecules to each other.

In addition, the polar charge dictates which substances will readily dissolve in water. When you make lemonade, you put sugar and lemon juice in water. The sugar and juice mix easily, dissolving in the water.

The fact that water dissolves things like sugar and salt, is one key to how your body works. Water transports nutrients and wastes around the inside of your body. When you sweat, the evaporation of the water cools your skin.

However, If we try to mix oil and water, the oil won't dissolve in the water. It will rise to the top. Oil molecules are non-polar.

Here's another example: If you get oil on your hands, what happens if you wash with just water? Not much happens because the water won't dissolve the oil. If you get mud on your hands, it washes off with just water.

Polarity not only helps water dissolve lots of substances, but creates a most unusual phenomena when we freeze it.

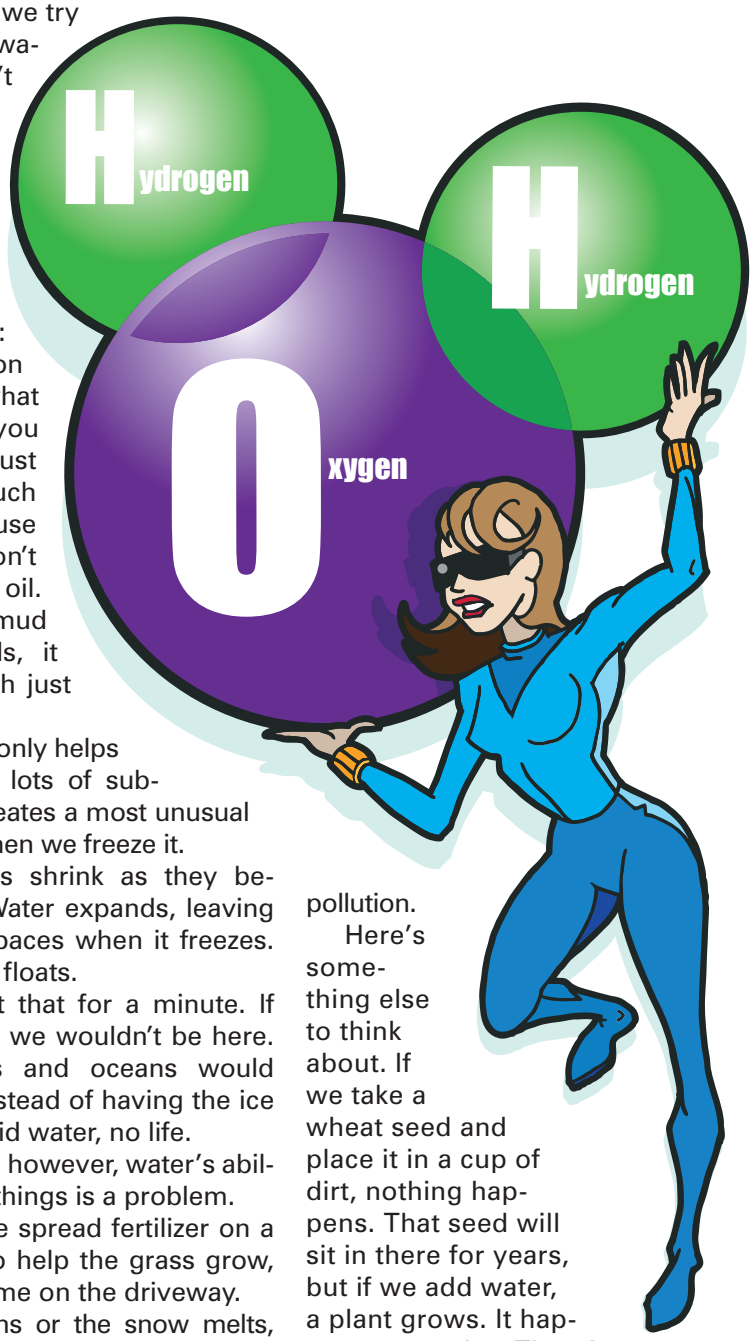
Most liquids shrink as they become solids. Water expands, leaving room for air spaces when it freezes. This is why ice floats.

Think about that for a minute. If ice didn't float, we wouldn't be here. Lakes, springs and oceans would freeze solid, instead of having the ice on top. No liquid water, no life.

Sometimes, however, water's ability to dissolve things is a problem.

Let's say we spread fertilizer on a football field to help the grass grow, but we spill some on the driveway.

When it rains or the snow melts, the water dissolves the fertilizer and carries it to the storm drain—you guessed it-we're contributing to runoff pollution.



Here's something else to think about. If we take a wheat seed and place it in a cup of dirt, nothing happens. That seed will sit in there for years, but if we add water, a plant grows. It happens every day. There's nothing else like it. Now that's an amazing molecule.

During a 100-year period, a water molecule spends approximately 98 years in the ocean, 20 months as ice, two weeks in lakes and less than one week in the atmosphere.

There are more than 1 million miles of water pipelines and aqueducts in the United States and Canada. That's enough to circle the globe 40 times.

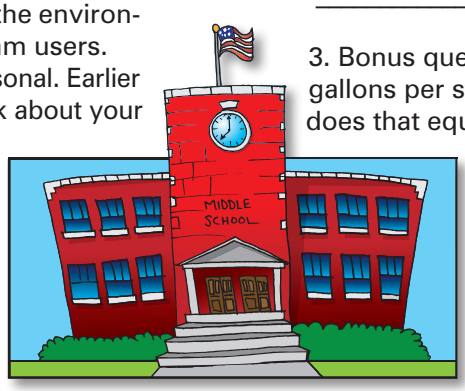
Your School, Your Water—Your Effluent?

Effluent? This word even sounds yucky. It's the term for everything you send down the drain or toilet. It's a fact of life. With nearly five million people in Colorado, it's a big fact of life!

Most effluent is treated before it re-enters rivers. In rural areas, it enters a septic system before being released to the ground.

In our watershed, it's important to understand our total impact. How much water we use, what we use it for and how we recycle it can make an impact on the environment and downstream users.

Now, let's get personal. Earlier we asked you to think about your watershed. This time, look around your school or home and note your observations.



Step One

Start by drawing a map of the grounds and buildings. It doesn't have to be exact. Include and label locations where water is used. Also show where runoff water goes (If it enters a storm drain, label where that system takes the water).

Step Two

Now, identify and label any possible sources of runoff pollution.

Step Three

Write down your suggestions for reducing the amount of runoff pollution.

For the next set of questions, you'll need to do some research. In addition to using maps and the Internet, you may need to ask a school administrator or maintenance person the questions.

1. Where does the water for your school come from?

_____

_____

2. How much water does it take to keep your school operating for a month?

_____

3. Bonus question: How many gallons per student per day does that equal?

_____

_____

4. What part of the school uses the most water? (Landscaping? Kitchen? Other?)

_____

_____

5. What do you, other students, and the staff use water for?

_____

_____

6. Where does waste water end up when it goes down the drain?

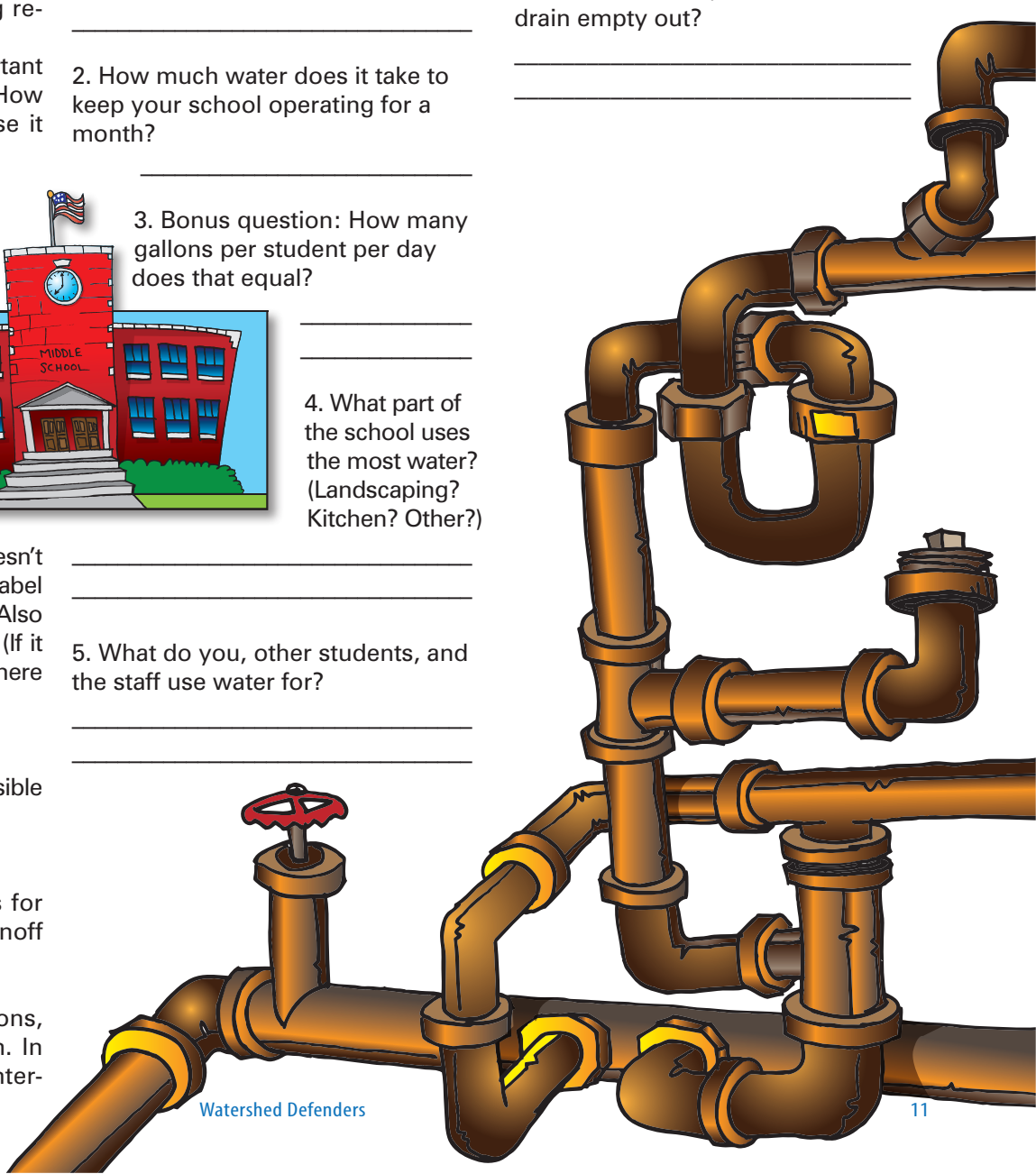
_____

_____

7. Where does runoff go? If it goes into a storm drain, where does that drain empty out?

_____

_____



You can Make a Difference

The world faces many problems, but runoff pollution is something you can help fight today and every day.

Common sense is your best tool.

Don't litter. Carelessly throwing your garbage on the ground doesn't help anybody. If you're in the car, put the trash in a bag and dispose of it properly when you reach your destination.

Be careful with paint, oil, medicines and other household chemicals. Don't pour anything down storm drains. Don't pour harmful chemicals down your household drains or toilets. Call you city to find out how to dispose of them properly.

Pick up after your pets. Pet poop and all animal or wildlife waste can be a serious problem.

Recycle. In many cases, it takes less water to produce consumer products from recycled materials.

All of these things should be a "no-brainer," but there is one more thing you can do. Maybe you guessed it. T**he number one thing you can do is use less water.** Every drop counts!

Clean, freshwater is in short supply. Using less of it will help make the most of existing supplies. We use less than 1% of the water coming from water treatment facilities for drinking.

Using national averages, indoor water use looks something like this:

- 26% of water used inside the home gets flushed down toilets
- 20% is used in showers and baths
- 15% is used in the kitchen
- 3% more is used to clean and wash dishes
- 23% is used to do the laundry
- 13% drips right down the drain when a faucet, toilet or spigot leaks

Studies show that indoor water use can be reduced by nearly 30% with water-efficient fixtures, dishwashers, and clothes washers.

If you see leaky faucets, let somebody know who can fix them.

More suggestions:

- Take a short shower instead of a bath
- Turn off the water while you brush your teeth
- Keep a pitcher of water in the fridge instead of running the tap until the water is cool

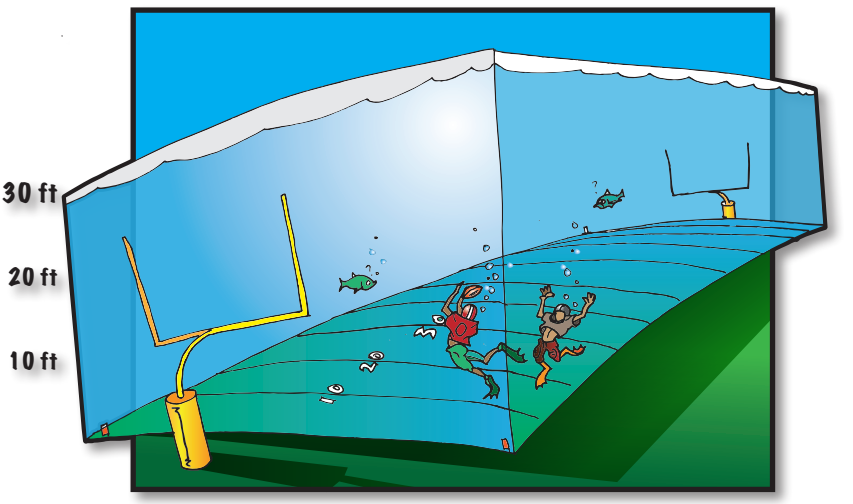
In Colorado, we use more water outside the home than inside. Encourage your parents to water the lawn at appropriate times and not-to over-water plants.

If you are at the store helping choose plants for the yard, see how much water they require. Are less thirsty plants an option?

Saving a few gallons a day may not seem like a big deal, but remember how the oil from a million cars made a big impact?

If everyone in Colorado saved two gallons of water on just one day, we could turn a football field into a swimming pool 29 feet deep.

For additional water saving tips, contact your local water provider, visit www.wateruseitwisely.com/100ways/sw.shtml or search the Web.



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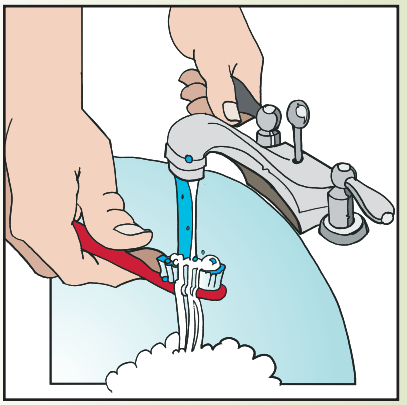
Brushing Your Teeth



How much water can be saved by turning off the faucet when you're brushing your teeth?

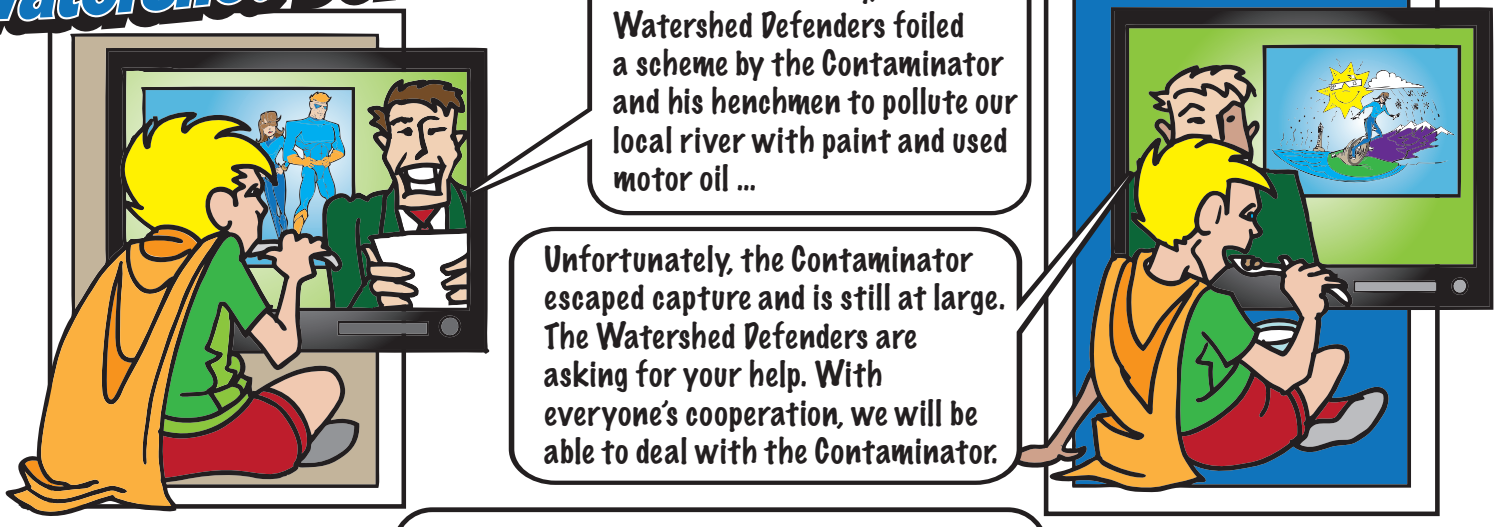
Place a large container in your sink under the faucet. Turn on the faucet while you brush your teeth and keep it running until you are finished. Measure the amount of water in the container.

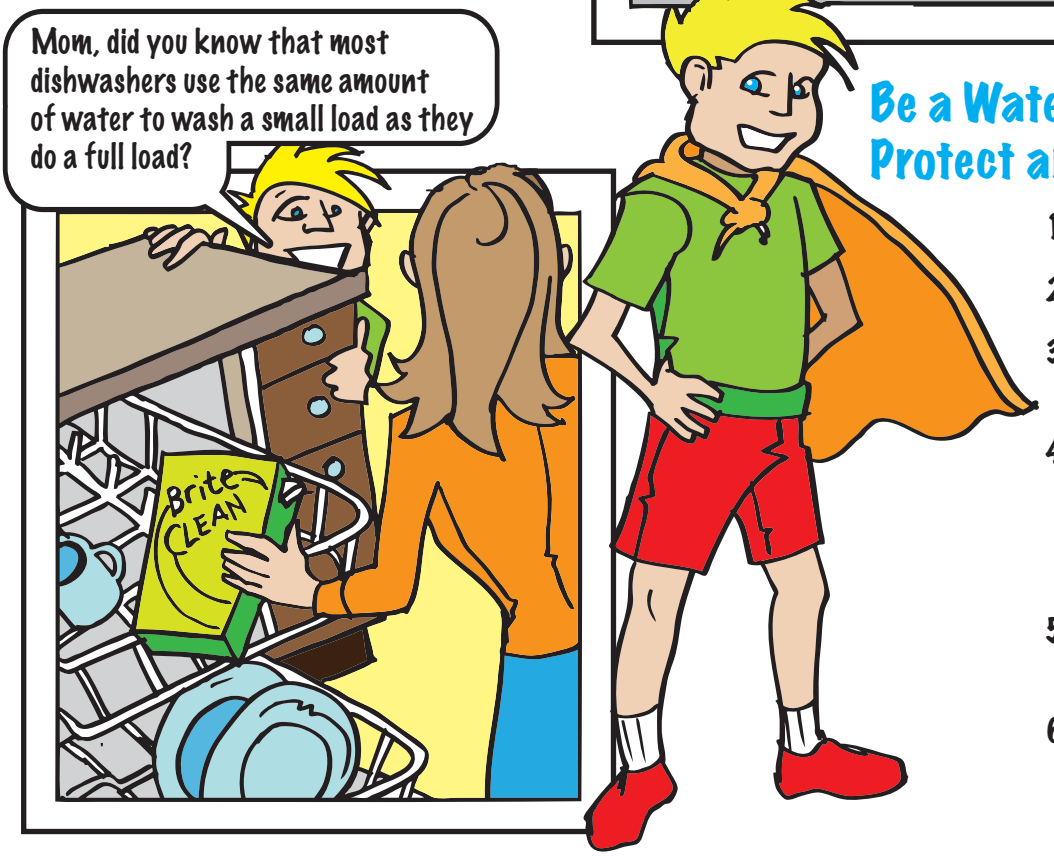
How many quarts of water can be saved every time you brush your teeth?

Multiply that number by two since you brush your teeth twice a day. How many gallons is that?

With 365 days in a year, how many gallons of water could you save in a year?

the Watershed Defenders





Be a Watershed Defender—Protect and Conserve Water!

1. Shower instead of taking a bath.
2. Don't litter.
3. Stop those leaks! If you see a leaky faucet, tell somebody.
4. When doing laundry, adjust the water level appropriately. The clothes washer is the second largest water user in your home.
5. Water the lawn in the morning or evening, and don't over-water.
6. Scoop the poop. Put pet waste in the trash.

Fight Bac! Put a Stop to Harmful Bacteria

Pollution comes in many forms. Metals, dirt, litter and chemicals are a few of the items that make their way into our waterways. But there is another kind of living pollution: bacteria.

It turns out "The Contaminator" thrives on it. Bacteria are single cell organisms that exist everywhere. As many as a million bacteria may live in a milliliter of freshwater.

The good news is that not all bacteria are bad for you. Beneficial bacteria are used to make cheese and yogurt among other things. Water treatment plants use bacterial processes to help clean water.

The bad news is that some forms of bacteria can be deadly, while others can make you sick.

The U.S. Environmental Protection agency looked at a typical suburban area. The area streams and lakes were deemed unfit to drink or swim in due to bacterial contamination.

About 40% of the watershed was covered with surfaces—roads, homes, walks, parking lots—that don't absorb water.

The area didn't have any manufacturing facilities or farming operations to blame for the pollution, but there were high levels of Escherichia coli, also known as E. coli, in the water.

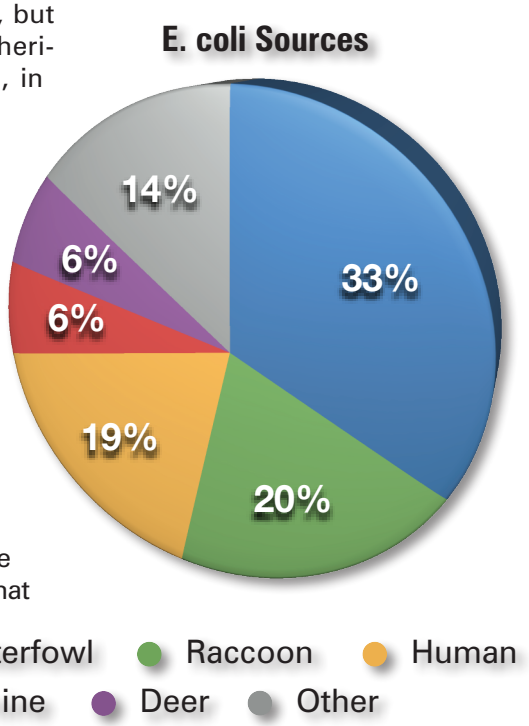
This strain of bacteria lives in the intestines of humans and other warm-blooded animals, and many birds. Because each warmblooded species has a unique DNA fingerprint, scientists can examine DNA from the E. coli and link it to the animal that produced it. Then they will know which animals are responsible for the bacteria in the waterways.

The first suspects were dogs. In a suburban setting of 20 square miles, the scientists estimated that dogs contributed about 5,000 pounds of droppings every day.

The pie chart shows the levels at which each species was contributing to the contamination. Using your knowledge of runoff pollution, develop a plan that would help reduce pollution by these animals.

Be creative! You can make this suburban area similar to where you live or make up an entirely new city.

For each part of your anti-bacteria plan, list the possible objections and problems your plan might encounter during a city council meeting.



Ground Water on the Move

You can't see it, but hundreds of thousands of people in Colorado depend on water below the ground for drinking water and growing food.

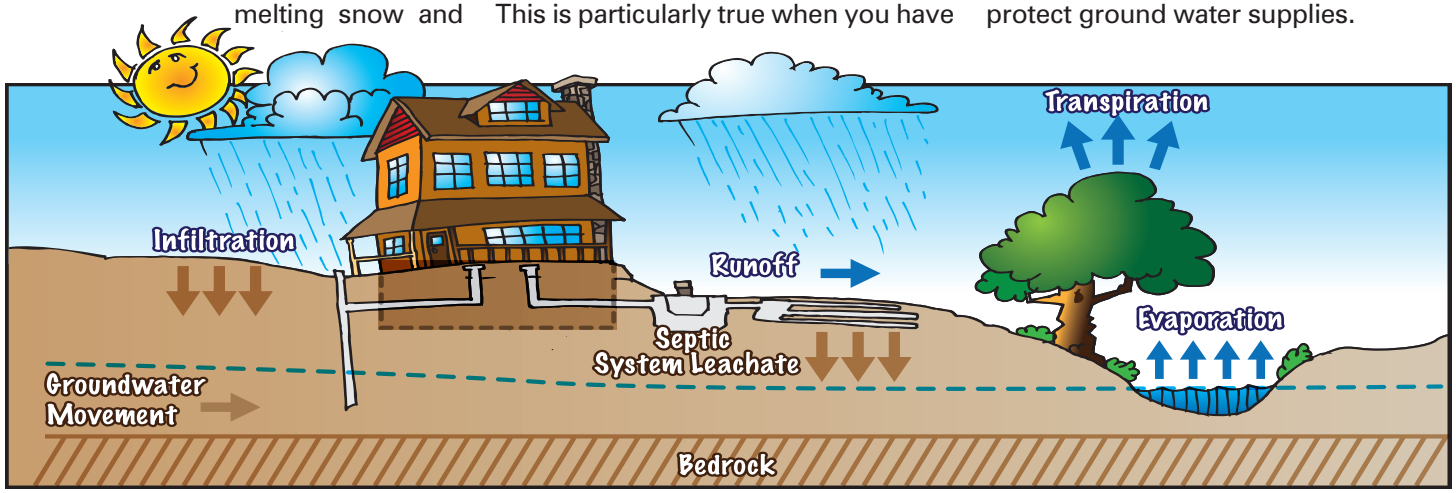
The water is contained in aquifers, which are underground layers of water-bearing rock, gravel, sand, silt, or clay from which ground water can be usefully extracted using a water well.

This water is part of the water cycle. Some aquifers are recharged by melting snow and runoff. The water moves through the layers of the soil. Sometimes the soil provides a filtering effect, absorbing chemicals and excess nutrients that could harm clean water supplies.

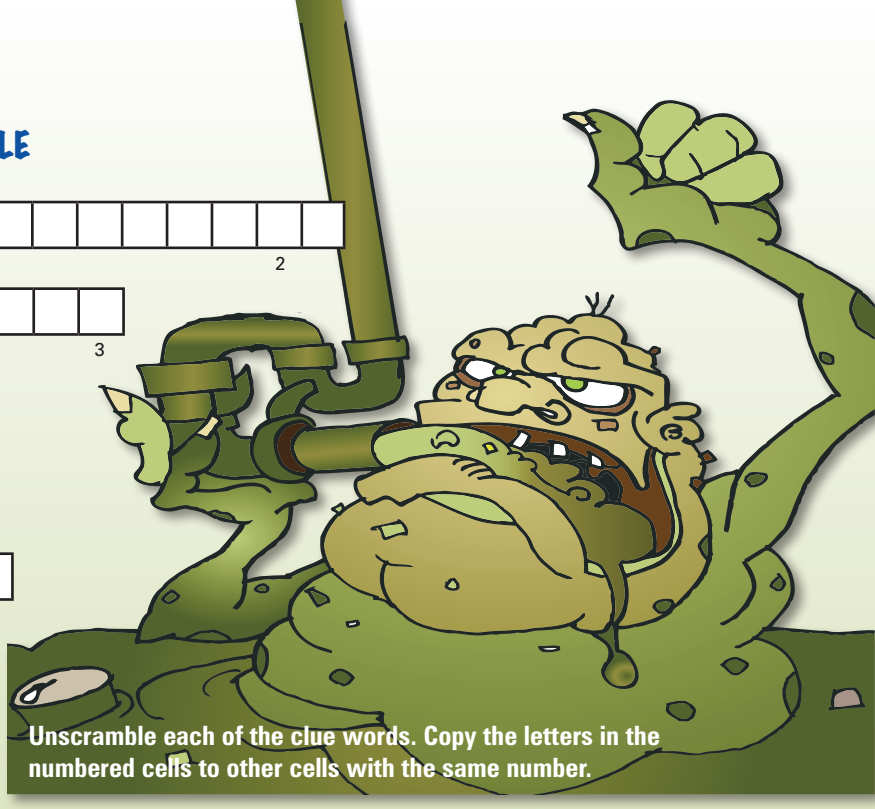
Ground water can also become contaminated. Using our E. coli example, mismanaged septic systems can put excessive amounts of bacteria in the ground water, which in turn can make its way to local waterways. This is particularly true when you have a concentration of homes in an area with high ground water. For example, summer cabins around a lake.

Old mine shafts can also cause problems. Water moving through the ground can encounter minerals and metals that otherwise would be held in the rock.

Mining for oil and natural gas has the potential to harm ground water, but modern mining is regulated to protect ground water supplies.



Stop the Contaminator Word Scramble



Unscramble each of the clue words. Copy the letters in the numbered cells to other cells with the same number.

NOFURF LOIPNOTLU

18 2

SMROT NARDI

16 13 12 8 3

REHDYGNO

10 6 14

TARICBAE

4

DIEPECTIS

15 1

FEFTENLU

17 5 11

TNWADLE

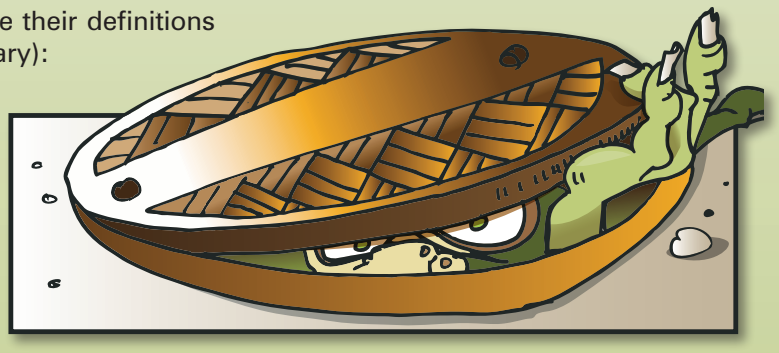
7 9

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

The Magic Ingredient Word Search

Find & circle the following words (For extra credit, write their definitions on a separate piece of paper—it's okay to use a dictionary):

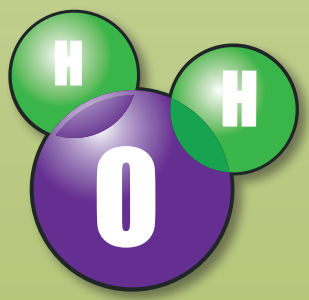
- ❑ Bacteria
- ❑ Conservation
- ☑ Effluent
- ❑ Headwaters
- ❑ Hydrogen
- ❑ Oil
- ❑ Oxygen
- ❑ Pollution
- ❑ Population
- ❑ Runoff
- ❑ Soap
- ❑ Watershed



N	N	H	E	A	D	W	A	T	E	R	S	W	F	N
N	O	O	A	T	E	R	L	I	P	S	L	F	E	I
F	O	I	I	E	T	I	B	A	H	W	O	G	F	T
H	W	I	T	T	O	X	O	N	A	N	Y	U	Z	Z
C	Y	P	T	A	A	S	F	T	U	X	T	X	I	U
W	Y	D	Z	U	V	L	E	R	O	N	U	L	C	T
Q	E	H	R	I	L	R	U	W	D	P	W	X	M	U
D	Z	O	R	O	S	L	E	P	F	P	K	I	Y	A
S	J	V	T	H	G	Q	O	S	O	W	U	R	I	V
T	V	N	E	G	N	E	N	P	N	P	Q	R	T	B
I	I	D	R	L	Y	E	N	Z	E	O	E	C	D	J
E	F	F	L	U	E	N	T	N	Z	T	C	C	R	B
T	R	U	W	N	D	F	H	E	C	T	T	O	B	K
O	K	A	B	A	X	Y	B	A	T	R	E	I	R	D
G	S	O	I	H	B	S	B	S	Y	X	W	H	H	Z

After finding all the words, start in the upper left corner and use the unused letters to spell the hidden phrase:

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _



Both puzzles created with Puzzlemaker on DiscoveryEducation.com

the Watershed Defenders

Keep it clean, we all live downstream.

HOLY CARP! What's happening to these fish? I need to get a water sample to HQ FAST!

Moments later at HQ...

I confirm petroleum contamination in the sample...

...and traced its source. Follow the homing signal on your wrist.

I can't believe my eyes! Those fools are pouring motor oil and paint right into that storm drain!!

FACT: 1 quart of motor oil can pollute 250, 000 gallons of water.

HQ responds...
Storm drains discharge into the river without being treated. You must stop them immediately!

FREEZE!!! I'm putting you two on ice!

Don't you know that we ALL live downstream?

If you like computer games and have Internet access, we've got a great suggestion, try playing the Watershed Defender game—www.WatershedDefender.com.

 Watershed Defenders is published by the Colorado Foundation for Agriculture (GrowingYourFuture.com) with support from the Colorado Nonpoint Source Program and Colorado Department of Public Health and Environment, Water Quality Control Division. Comments should be sent to Watershed_Defender@growingyourfuture.com. Written by Emmett Jordan. Illustrated by Dennis Anderson.