

Unit 1: WATERSHEDS- MY WATER

ACTIVITY 1- DAY 2



WHAT IS OUR IMPACT ON WATERSHEDS?

Below are lists of activities and ways they impact water quantity and quality.

ACTIVITY: WATER USE IMPACT

ACTIVITY	WATER USE IMPACT	REDUCTION ACTION
Showering	Depending on your showerhead, you could be using three to five gallons of water per minute for your shower. That means you could be using up to 50 gallons if you take a 10 minute shower.	Trade out your showerhead for a low-flow version that only uses two gallons per minute. Take a shorter shower – five minutes or less! Place a bucket in the shower to catch the cold water as you wait for it to warm up. Use the cold water for plants.
Laundry	Clothes washers can use up to 50 gallons of water per load!	Wear your jeans one more day, be sure to wait until you have a full load, or adjust the water level for smaller loads.
Landscaping	On average most households in Aurora use the majority of their water on their yards and landscaping.	Landscape with plant materials that require little water to maintain (xeriscape). Don't water your lawn between 10 a.m. and 6 p.m., when the water is more likely to evaporate. Make sure your sprinklers are not watering sidewalks and driveways and use a broom to clean your driveway – not the hose.
Washing your Car	When you wash your car at home soap and dirt will most likely run into the storm drain. Since storm drains lead directly to a creek or river this can affect the health of the watershed.	Take your car to a carwash. In a car wash soap and dirt go down a drain into the sewer system, which gets cleaned at a wastewater treatment plant.
Walking Pets	In 1996, 38 percent of all Colorado households owned one or more dogs, for a statewide total of 934,000 dogs. Dog waste can contain bacteria. The U.S. EPA ranks bacteria from dog poop as one of the most widespread contaminants in the nation's assessed rivers and streams.	Whether in your backyard or in a park, scoop the poop. Collect all animal waste and deposit it in the garbage.
Maintaining Your Car	Oil and antifreeze from leaky cars can end up in the storm drain.	Properly dispose of automobile waste, such as oil and antifreeze by taking them to a gas station where it is picked up by a waste management company to be recycled.
Gardening	Home gardens use, on average, more pesticides per square foot in their gardens than farmers do in their fields. The runoff from home gardens goes down storm drains into local water sources affecting water quality and habitat.	Minimize use of fertilizers and pesticides in your yard. Keep them off of the driveway and sidewalks.



Unit 1: WATERSHEDS- MY WATER



Water, its quality and availability, will be one of the most important environmental issues in your lifetime. Now, more than ever, it is critical to understand water and your interaction with it. Discover how the activities you do every day affects water in a significant way. What actions can you take to reduce this impact? Let's find out!

BACKGROUND INFORMATION

Fresh, clean water sustains life on this planet. The water our community depends on for everyday activities, businesses and life comes from the watershed in which we live. Everyone lives in a watershed. We live in the South Platte watershed.

As water falls in the mountains as rain, hail or snow, it falls upon an area of land called a watershed. All water that falls in this area drains downslope to the lowest point through a network of drainage pathways. The water travels across the ground and underground into streams, rivers or collects in lakes, reservoirs or underground water aquifers. Water moves downstream. As a result, any activity that affects the water quality, quantity, or rate of movement in one place can affect areas downstream. For this reason, everyone living or working within a watershed needs to cooperate to ensure good watershed conditions.

WHERE DOES COLORADO GET ITS WATER?

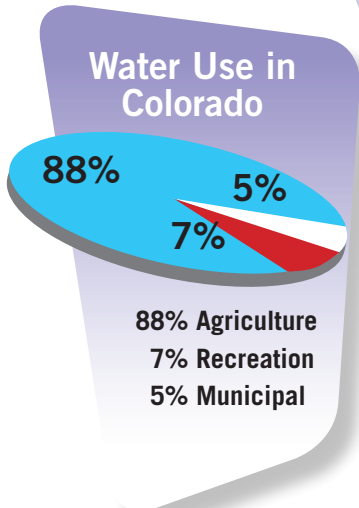
Guess what? Very little water flows into Colorado – most flows OUT. Several major river basins — including the North and South Platte, Arkansas, Rio Grande and Colorado rivers — originate in the Colorado Rocky Mountains, giving Colorado the name “Mother of Rivers.” Colorado provides water to much of the southwestern U.S. and California.

Most of our water comes from one source — PRECIPITATION, which falls in the mountains as rain, hail and snow. Aurora and the surrounding areas receive only around 16 to 20 inches of precipitation a year. This means we live in a semi-arid environment. Compare this to Florida, which gets an average of 60 inches a year. About 80 percent of Colorado's annual water supply comes from snow.



Precipitation is stored in one of the five following forms of useable water.

Snowpack provides recreation & water supply	Streamflow provides recreation, habitat, irrigation & water supply	Reservoir Water provides recreation, habitat, irrigation & water supply	Soil Moisture allows for natural vegetation & agriculture	Ground Water provides irrigation & water supply
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The amount of water provided by a watershed varies from year-to-year and depends on the moisture received from precipitation. Though precipitation adds to soil moisture and snowpack immediately, it can take several days, weeks, or months before it increases water levels in streams, reservoirs or ground water aquifers. During this time, roughly 85 percent of the total precipitation is lost to evaporation and transpiration. Most of Colorado's precipitation arrives in a few big snow storms. The difference between a very wet and a very dry year may come down to a few major snow storms.

Unit 1: WATERSHEDS- MY WATER ACTIVITY 1



MY WATERSHED- MY LIFE

DIRECTIONS:

- Think of places and activities in your life that intersect with water (skiing, snowboarding, swimming, picnics, etc.). Choose a photo of yourself, family members or friends, or a magazine photo that reflects that activity. Paste that photo on the next page.
- Choose a song with water in the title or lyrics that represents what water means to you (a getaway, relaxation, excitement, etc.). Write down the title and artist in the "My Song" box provided on the next page.
- Read through "My Water Facts" below. Choose the water fact that most surprises you, interests you, or relates to your photo or song in some way. Be prepared to discuss this with your class tomorrow. Write the water fact in the "My Water Fact" box provided on the next page.
- You will fill in "My Impact" and "My Action" later, after brainstorming with your class. Leave those boxes blank for now.



MY WATER FACTS

- 1: Less than one percent of the Earth's water is fresh, useable water.
- 2: Producing one typical lunch—hamburger, french fries, and a soft drink—uses 1,500 gallons of water. This includes the water needed to grow the potatoes, the grain for the bun, the grain needed to feed the cattle and the production of the soda.
- 3: Water does not flow *into* Colorado—there are no major rivers that flow *into* the state. But, Colorado provides water to much of the southwestern U.S. via the rivers that flow *out* of the state: North and South Platte, Arkansas, Rio Grande and Colorado Rivers.
- 4: Eighty-nine percent of Colorado's naturally occurring lakes are found at altitudes above 9,000 feet.
- 5: There are more than 9,000 miles of streams and 2,000 lakes and reservoirs open to fishing in Colorado.
- 6: Over 1,300 miles of streams in Colorado are affected by metals as a result of acid mine drainage.
- 7: Roughly 80 percent of Colorado's annual water supply comes from snow.
- 8: Colorado is a semi-arid climate—a region characterized by relatively low annual rainfall (10 to 20 inches per year). Roughly 85 percent of the total precipitation in Colorado is lost to evaporation and transpiration.
- 9: Colorado's water is used predominately for agriculture (88 percent). The remaining amount is used for municipal use (five percent) and recreational use (seven percent).
- 10: Most of Aurora's water comes from three of seven major river basins in Colorado: the Colorado, Arkansas and South Platte.



Unit 1: WATERSHEDS- MY WATER ACTIVITY 1 (CONTINUED)



WATER PROFILE

MY PHOTO

Paste photo here

MY SONG

MY WATER FACT

MY IMPACT

MY ACTION