



Lake*A*Syst

HOMEOWNER'S GUIDE TO PROTECTING BIG PAYETTE LAKE

FACTSHEET 1: PREVENTING CONTAMINATION OF DRINKING WATER

If you have the joy of living or recreating in the Big Payette Lake watershed you also have a special opportunity and responsibility to prevent pollutants from entering streams, groundwater and the lake. Payette Lake is the sole drinking water source for the city of McCall as well as for many homes around the lake. Currently the water quality is acceptable, but in recent years increasing human activities around the lake have contributed to deteriorating water quality. Recent conditions have alerted us to the urgent need for protecting our lake and preserving its many uses. It's time to take action.

Guidelines for taking action on your own property or as you are enjoying the lake have been created by the Lake Assessment System program (Lake*A*Syst) so that you too can be a steward of our lake. The program asks you to consider potential risks to water quality that could result from your activities. The following factsheet ("Preventing Contamination of Drinking Water") is the first in a five-part set of materials designed to assist property owners and the public in understanding what strategies we can use to protect and preserve water quality in the watershed. The sets cover these topics:

**Factsheet 1: Preventing Contamination
of Drinking Water**

Factsheet 2: Lawn and Garden

Factsheet 3: Roads and Driveways

Factsheet 4: Landscape and Construction

Factsheet 5: Stormwater Runoff

After you read the factsheet, you can digitally access a Homeowner Risk Assessment Sheet as well as an Action Checklist. These resources will help you identify any potential environmental risks related to Payette Lake and your drinking water, and guide you in taking appropriate action. You will find these resources and more at the Big Payette Lake Water Quality Council website: www.bigpayettelake.org

Sponsored by: Big Payette Lake Water Quality Council, the Idaho Department of Environmental Quality, and the Idaho Association of Soil Conservation Districts

PREVENTING CONTAMINATION OF DRINKING WATER

The City of McCall draws 100% of its public drinking water supply for thousands of residents and visitors from Big Payette Lake. The City of McCall disinfects and treats the lake water, as do other small public water systems in the area.

Groundwater as well as surface water in the Payette Lake watershed provide drinking water to the greater community. (Groundwater is located underground, in aquifers or underground flows that supply wells; surface water, i.e. lakes and streams, occurs above ground.) Because of the dynamic interaction between these two drinking water sources, guarding against pollutants entering either ground or surface water is crucial to human health and the health of the lake. If *either* source becomes contaminated, *both* can become contaminated. At that point, clean-up of the contaminant becomes extremely difficult.

Both groundwater and surface water play important roles in supplying drinking water to the many households around Big Payette Lake. If your home is not supplied by a public water system (generally if you don't pay a water bill), it is your responsibility to ensure the water in your home is safe to drink. Drawing from the lake is considered hazardous by the Department of Environmental Quality (DEQ) unless state-of-the-art disinfection treatment systems are in place. Groundwater from deep wells is considered the safest source of drinking water in the Payette Lake watershed. Surface water presents a higher risk of bacterial contamination, as well harmful algae, gasoline, and other chemicals coming from recreational activities on the lake.

The most obvious concern about a potentially unsafe water supply is the health risk to your family and guests. Animal waste carried to Big Payette Lake via stormwater runoff is a potential source of bacteria, viruses, and parasites that can cause gastrointestinal problems or transmit contagious diseases. High nitrates from fertilizer can present a serious health risk to infants. Pesticides or rodenticides that are improperly used or disposed of can cause chronic health problems for humans and animals. All of these pollutants can get into the groundwater by leaching into the soil, and can pollute streams and the lake via uncontrolled runoff

STRATEGIES FOR PROTECTING DRINKING WATER

Well Location *TAKE ACTION*

Location of your well is a crucial safety factor. The well should be located up-slope and as far as possible from potential sources of contamination. A well that is down-slope from a leaking fuel tank or a failing septic system runs a greater risk of contamination. Idaho Regulations require a well to be a minimum distance of 50 feet from surface waters.

Well Maintenance *TAKE ACTION*

- Test the water annually; make sure you test at least for nitrate and coliform bacteria.
- Maintain septic systems properly and pump septic tanks at least every 3 years.
- Avoid diverting stormwater and snowmelt to your well head.
- Minimize the use of fertilizer and pesticides, particularly in sandy soils or near shallow wells.

- Properly dispose of hazardous household products, and store chemicals as far from your well as possible.

Water Testing TAKE ACTION

Households around Big Payette Lake should have their private water supply from wells or surface water tested annually to confirm that it is safe for human consumption. Drinking water should be tested at a commercial laboratory, such as the [Idaho Bureau of Laboratories](#) or Analytical Laboratories in Boise.

Signs of possible contamination:

Family or guests experience recurring or unexplained stomach illness.

Your neighbors find a particular contaminant in their water.

You note a change in water taste, odor, color, or clarity.

You have a spill or back siphon of chemicals or petroleum products near your well or on your property.

Water Source TAKE ACTION

- Read the [Annual Drinking Water Quality Report published by the City of McCall](#). It provides a discussion and lab analysis of the water quality situation that municipal customers should understand. If any pollutants may exceed standards, ask what the risk might be and what can be done to improve the outlook. Be an active, informed consumer of domestic water.
- Idaho DEQ does not recommend using surface water as a drinking water supply without state-of-the-art disinfection treatment in place. Still, a significant number of homes and cabins take water from either Payette Lake or nearby streams for household use. Besides containing bacteria, surface waters can also contain *Giardia* and *Cryptosporidium*, single cell protozoa which are waterborne diseases that can cause severe intestinal disorders.
- If you are using surface water as a drinking source you should go through at least a two-step treatment process prior to consumption. The water should be fine-filtered to remove most of the *Giardia* and *Cryptosporidium* cysts.
- Water should then be disinfected to kill bacteria and viruses.
- Water can be disinfected by boiling, using chlorine, or with ultraviolet light.

Most of us take safe drinking water for granted. We assume the water coming out of the faucet is safe to drink. Unfortunately, this assumption is not always correct. You need to be vigilant about possible contamination of ground or surface water that could impact not only your family's health but that of your neighbors and of the lake itself.