

What is the Okanagan Basin?

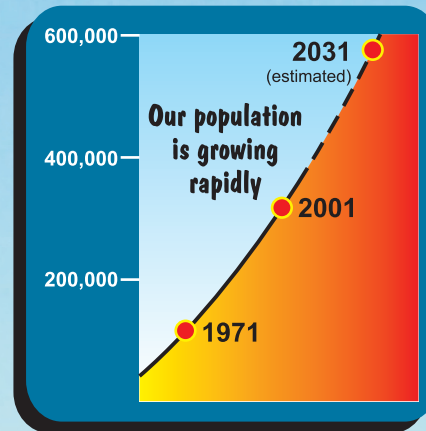


Where does water from the Okanagan Basin go? Okanagan Basin water flows into the Columbia River, past the city of Portland, to the Pacific Ocean.

Okanagan Basin Waterscape

Water — the myth of abundance

The Okanagan Basin is our home, a very special place. It has been home to First Nations peoples for thousands of years, and to many others over the last century and a half. Water has always been the basin's most valuable resource for both humans and nature. Today, our economy, agriculture, home use, and recreation continue to share these waters with nature.



We live in a dry landscape. The large lakes make water look abundant, but nature's yearly resupply is small. As our population is growing rapidly, so is our demand for water. Climate is changing and future water supplies are uncertain. Will there be enough water for our children and grandchildren? To meet the needs of humans and nature, we will have to rethink our water use, and value it more highly.

Sharing our waters

There are many ways we depend on water and all are dependent on this limited supply. So, we must protect and share the water.



Not all water use is the same!

Some water use occurs in streams and lakes, such as by wildlife, fisheries, and recreation. Some water is withdrawn from the lake, used, and returned. Municipalities return most of the water they use as treated wastewater. Much of what is not returned is water used outside the home for lawns and gardens. Most water used for agricultural irrigation leaves the basin through plant transpiration or evaporation to the atmosphere.

From highlands to valley floor

The highlands

The Okanagan Valley is a great trough that cuts across the highlands of southern British Columbia. These forested highlands are the largest part of the basin and are the source of most of our water. In addition to outdoor recreation, forestry and cattle grazing are important in the highlands.

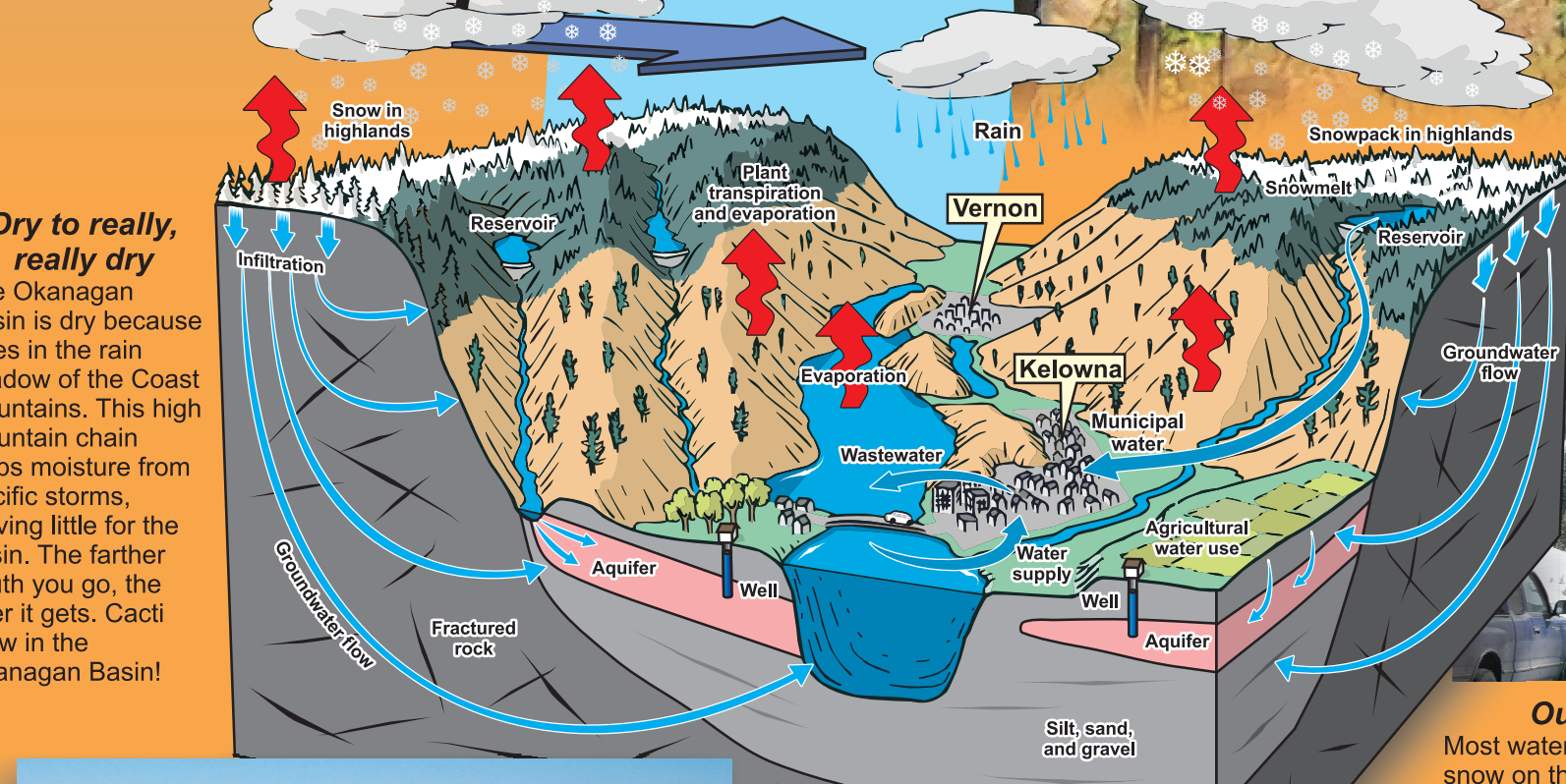
Valley slope

The Okanagan Valley consists of the main lakes, valley bottom, benchlands, and surrounding slopes. Most of us live down on the valley bottom or on the surrounding benchlands in Kelowna, Vernon, Penticton, and other major centres. The valley contains our lakes, agriculture and wineries, tourist facilities and golf courses, and industry, as well as wetland ecosystems, species at risk, and endangered habitat. With all these competing uses, we need to plan our growth carefully.

The valley is a busy place!

The Okanagan Valley consists of the main lakes, valley bottom, benchlands, and surrounding slopes. Most of us live down on the valley bottom or on the surrounding benchlands in Kelowna, Vernon, Penticton, and other major centres. The valley contains our lakes, agriculture and wineries, tourist facilities and golf courses, and industry, as well as wetland ecosystems, species at risk, and endangered habitat. With all these competing uses, we need to plan our growth carefully.

Our water cycle

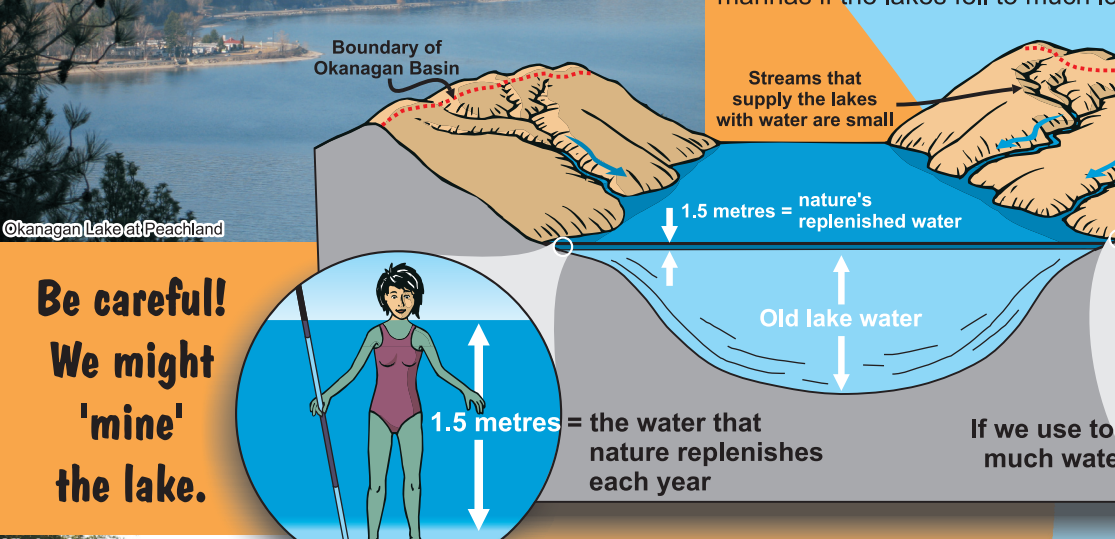


Dry to really, really dry

The Okanagan Basin is dry because it lies in the rain shadow of the Coast Mountains. This high mountain chain strips moisture from Pacific storms, leaving little for the basin. The farther south you go, the drier it gets. Cacti grow in the Okanagan Basin!

Our lakes — looks can be deceiving

Water shortage? Look at all that water! With so many large lakes, how could we be short of water? Well, looks can be deceptive. Only the upper metre or two of lake water is replenished each year by stream flow, and much of that evaporates to the atmosphere. This thin layer is all that people and nature can use. If we withdraw more than that, the lake levels will start to fall. Imagine the impact on docks and marinas if the lakes fell to much lower levels.

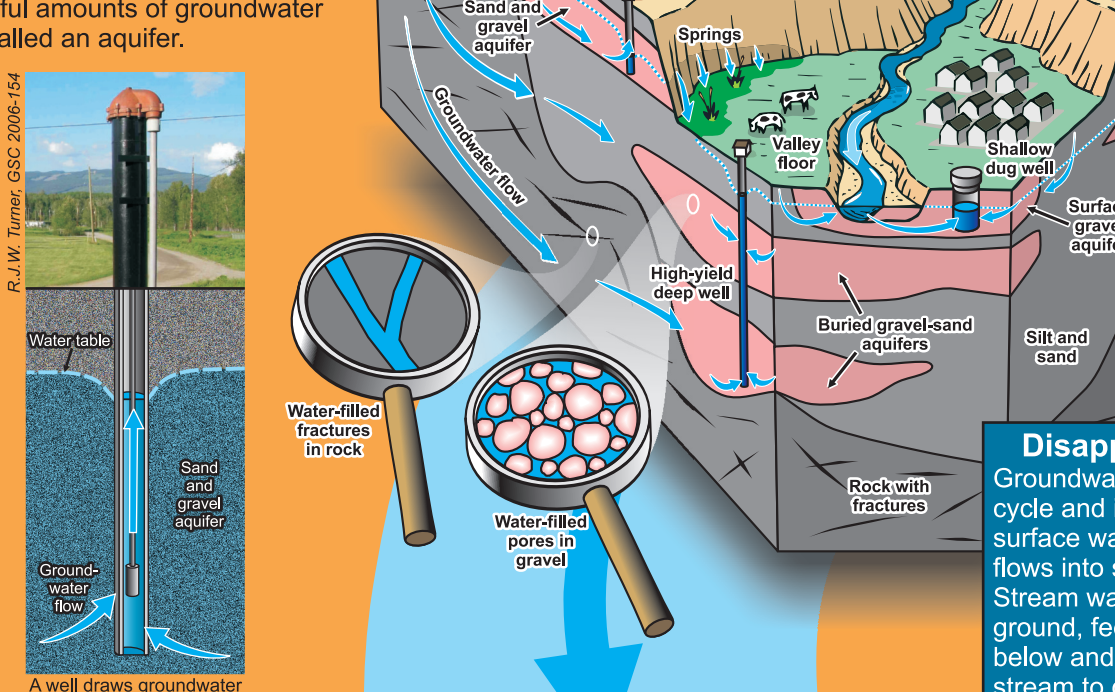


Poorly flushed lakes

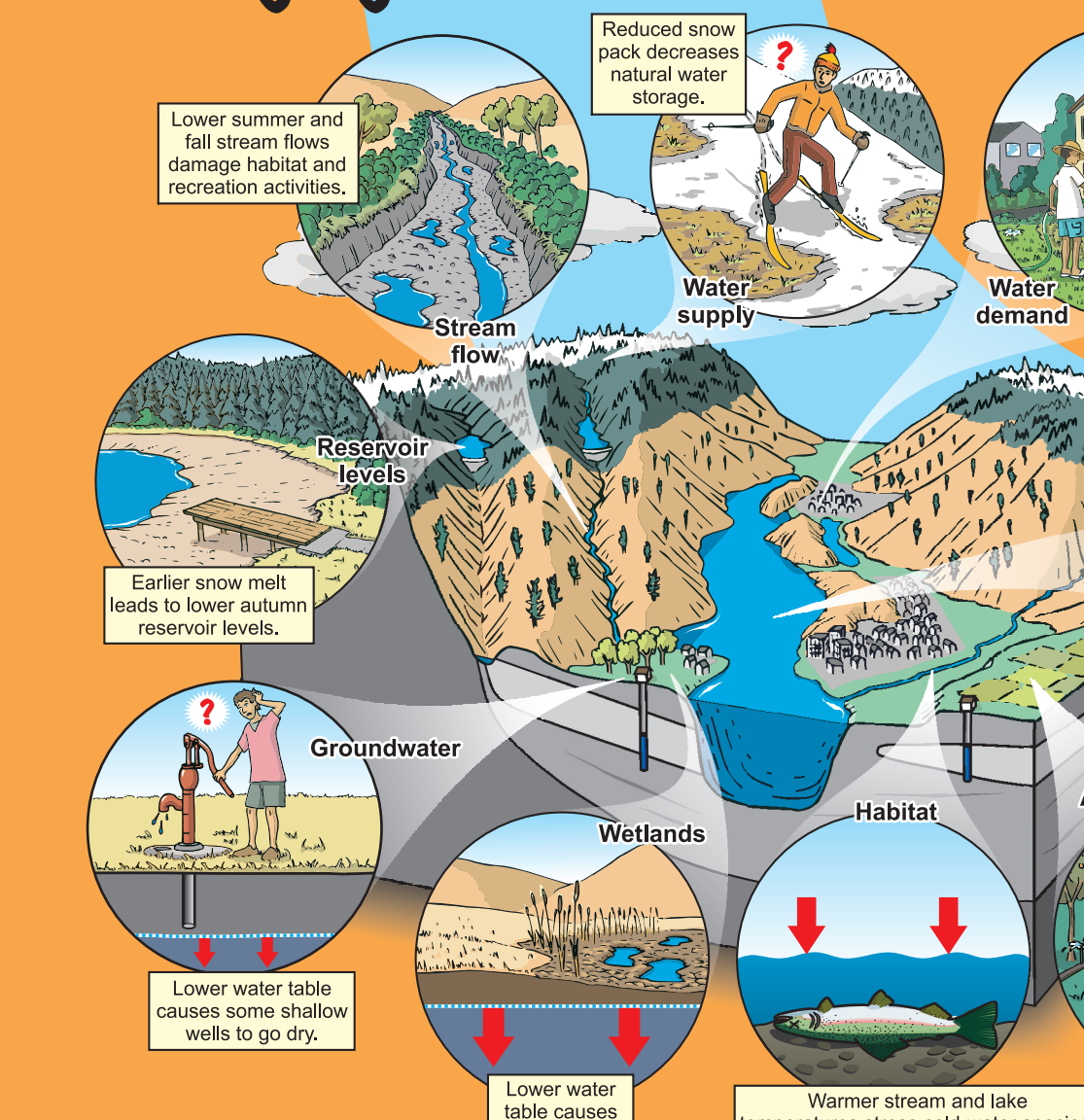
Most of our big lakes are composed of 'old' water. Scientists describe the lakes as 'poorly flushed' and estimate that water resides in Okanagan Lake about as long as an average human lifetime. This is because outflow from the lake is small relative to the volume of lake water. So we literally live with whatever pollutants we put into the lakes.

Groundwater — connected to surface water!

What is groundwater? Water from rain, melting snow, streams, and lakes infiltrates into the earth. The Okanagan Basin's soil and rock are giant sponges full of tiny pores and cracks. Below the water table, these open spaces are filled with groundwater. A well can extract this groundwater. Any rock or sediment that yields useful amounts of groundwater is called an aquifer.



Our changing climate — less water but rising demands

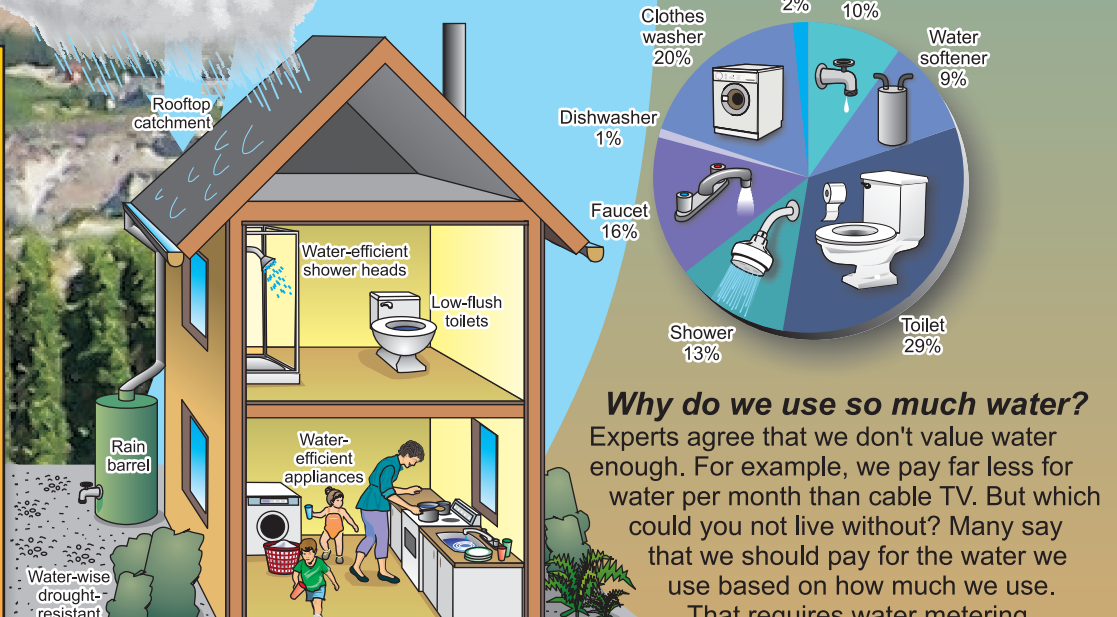


Protecting nature's water needs

Nature was here first Okanagan Basin ecosystems range from highland forests to semiarid grasslands. What treasures! These plants and animals are the oldest water-users in the valley, and remain important and legitimate water-users today. A major reason for us to conserve water is to ensure that nature has enough for its own needs.

Wise water use indoors

WOW! We use a lot of water. An average Okanagan Basin resident uses over 300 litres of water per day. That's more than 125 litres just for a 40-minute shower.



Why do we use so much water? Experts agree that we don't value water enough. For example, we pay far less for water per month than cable TV. But which could you not live without? Many say that we should pay for the water we use based on how much we use. That requires water metering. Water meters measure the amount of water that a household, business, or farmer uses. With water meters, those who conserve are rewarded with lower costs. This way all have an incentive to use less.

Wise water use outdoors



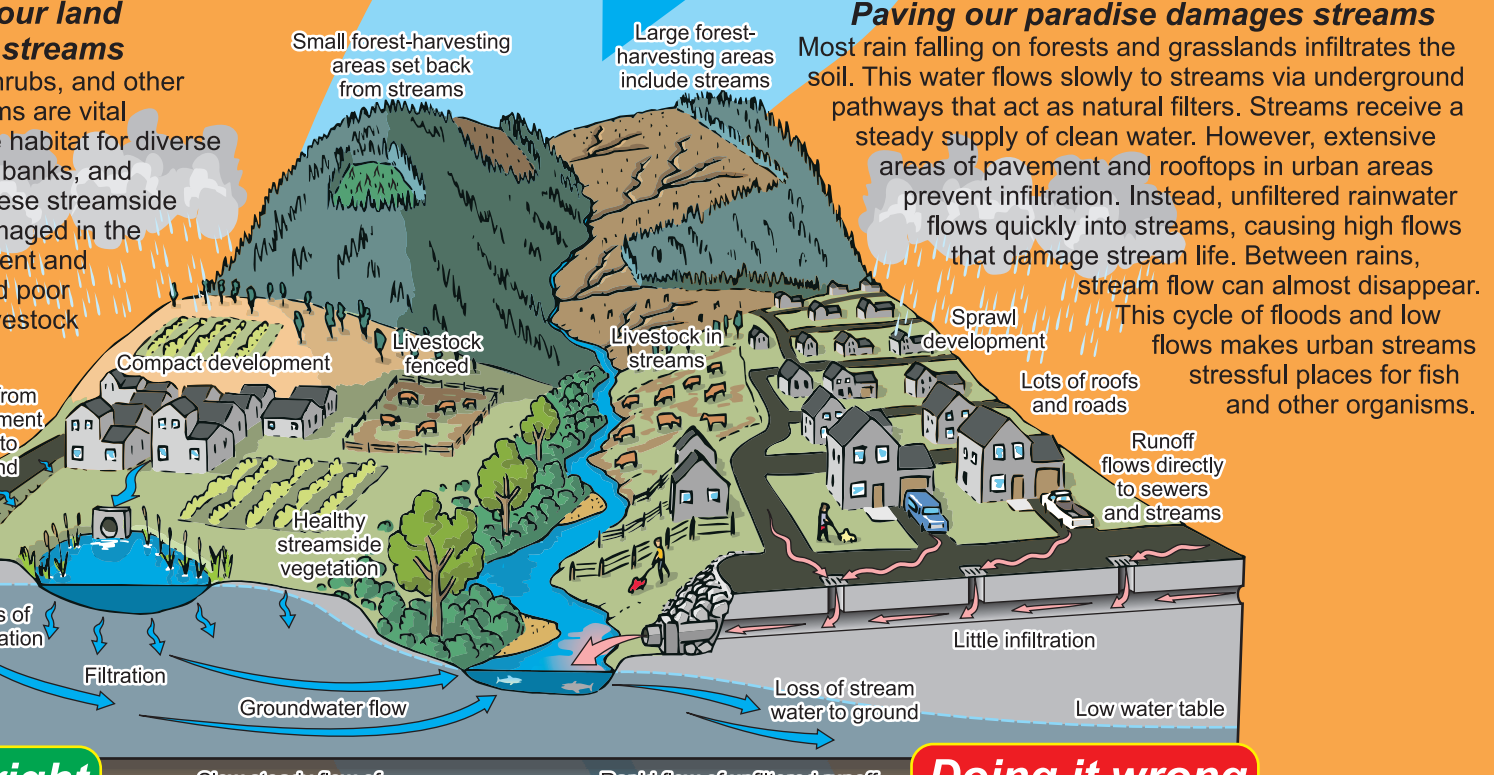
Urban myth!

Many believe that storm drains flow to wastewater treatment plants. This is not true. Most street drains flow through pipes directly into streams or lakes. These waters can carry urban pollution from streets, driveways, parking lots, and backyards. So be careful!

The solution — capturing rainfall where it falls

Experts agree that capturing rain where it falls is an important solution to urban runoff. No runoff, no problem. Yards need to act like sponges, absorbing and storing rainwater. Lawns with a thick underlying soil of at least 12 inches work well. So do gravel yards. Later, the roots of the plants and grasses absorb this stored water and return it to the atmosphere.

We need healthy streams



Irrigation — watering our land for food



Want to know more?

Information on the Okanagan Basin Waterscape project, including logos for Canada, British Columbia, UBC, Okanagan Nation Alliance, BCWWA, Interior Health, and CWRA/ACRI. Includes contact information and a list of project partners.