



Flesch-Kincaid level 4.6

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Where Does Your Waste Water Go?



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Key Points

- Whenever we use water, we create waste water.
- There are different types of waste in our waste water.
- Untreated waste water can make us sick.
- Untreated waste water can harm the environment.
- There are 3 waste water treatment plants in Juneau.
- Waste water treatment facilities clean our waste water and return it to the environment.
- Our waste water is recycled.

Monitoring our Waste Water

The United States Government keeps an eye on our waste water. They want to be sure the water that leaves the treatment plant is clean. In fact, it is against the law to release dirty water. In Juneau, waste water is tested every day. The tests show how clean the water is. These test results are reported to the government.

The people who work in our waste water treatment plants have a big responsibility. The health of our community is in their hands. They must clean our waste water so it can be used again. They also need to make sure the equipment is working right. Sometimes they even have to repair the equipment. This is a big job!



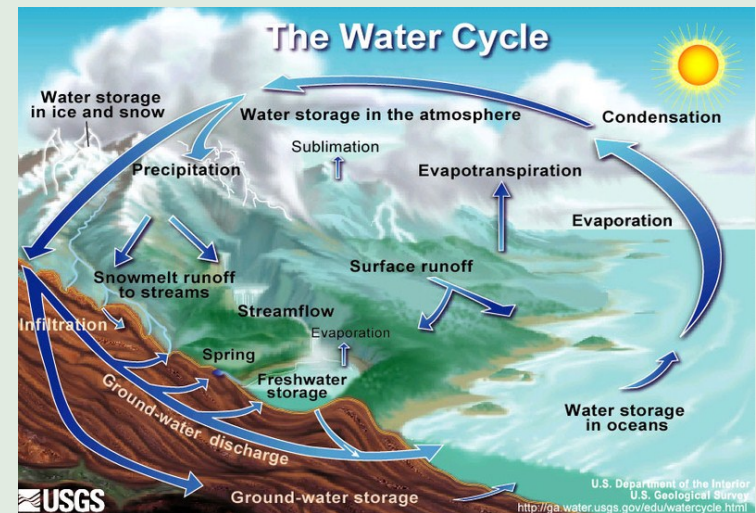
Where Does Your Waste Water Go?

Vocabulary

- waste water
- treatment facility
- treatment plant
- microorganisms
- infectious waste
- discharged
- waterways
- water cycle

How is Our Waste Water Recycled?

When the waste water is clean it leaves the treatment plant. Treated water is released, or **discharged**, into local rivers and into the ocean. Then the water becomes a part of the **water cycle**.

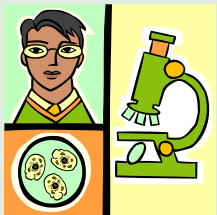


In Juneau, all of our treated waste water ends up in the ocean. Treated waste water is discharged into Gastineau Channel, Auke Bay, and the Mendenhall River. The Mendenhall River flows into Fritz Cove. Our oceans are part of the water cycle. In this way, our water is recycled.

ried to a treatment facility near the airport. The third facility is in Auke Bay. All three waste water treatment plants work hard to collect and clean our waste water.

Why Do We Clean Waste Water?

Untreated waste water is bad for our health. It is also bad for the environment. We cannot drink waste water. We cannot use it for cooking. This is because it may contain chemicals and **microorganisms** which can make us sick. These chemicals are harmful to plants and animals. For this reason, waste water should not be dumped into rivers, creeks or streams. In order to protect ourselves and the environment, our waste water must be cleaned and recycled.

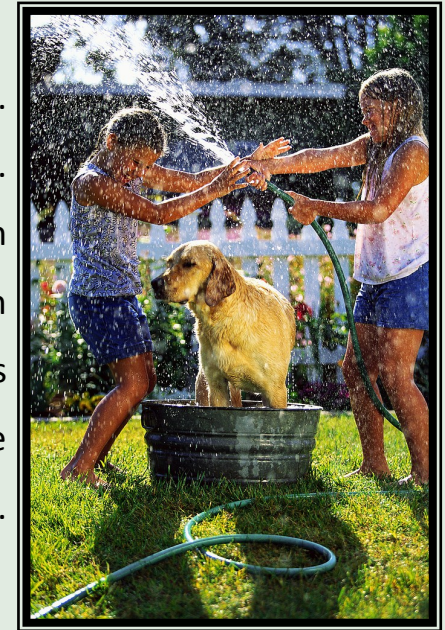


Microorganisms are tiny living creatures. They are too small to see with your eyes. You would need a microscope to see them.

Waste water treatment plants collect and clean our waste water. They remove the **infectious waste** that can make us sick. Once the infectious waste has been removed the water is recycled. Waste water treatment plants protect our health and the environment.

Water is Useful

We use water every day. We drink it. We flush it. We clean our bodies with it. We brush our teeth and wash our clothes with it. Every day we use water for many purposes. Water is very useful.

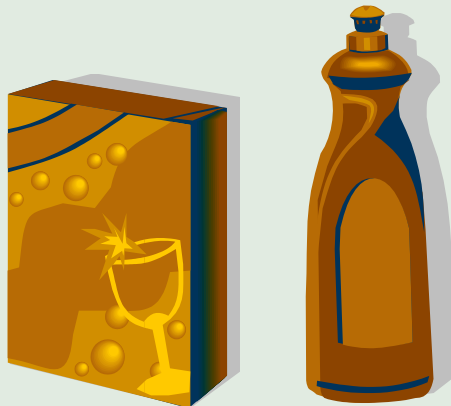


We Create Waste Water

When we use water we create **waste water**. Waste water is dirty water. Waste water contains a mixture of waste and water and is no longer useful. In our homes, the water we flush down the toilet is waste water. Likewise, the water we use to wash our bodies, dishes and clothes becomes waste water. What types of waste are in your waste water?

The Waste in Your Waste Water

Our waste water has many different types of waste. When we flush the toilet the waste is **poo**, **urine** and **paper**. When we wash our clothes and our bodies the waste is **soaps** and **detergents**. Washing dishes adds **food**, **fats**, **oils** and **grease** to water. Sometimes **paints**, **medicines**, and **chemicals** are in our waste water. In Juneau, every house, restaurant, and business makes waste water every day. That is a lot of waste water! Where does all of this dirty water go?



Where Does Your Dirty Water Go?

When you flush your toilet it may seem like your waste water disappears forever. It doesn't. It just goes somewhere else. So where exactly does your waste water go?

Waste water travels from your house to a place where it can be cleaned. It leaves your house through pipes. These pipes are under the ground. When waste water is flushed from your toilet it enters these pipes. When water is drained from your household sinks it enters these pipes. The pipes carry your waste water to a **waste water treatment facility**. A waste water treatment facility is also called a **waste water treatment plant**. These plants collect and clean your waste water so it can be used again.

A waste water **facility** or **plant** is a place that has space and equipment for removing the waste from our waste water. When the waste is removed, we say the water has been **treated**.

In Juneau there are three waste water treatment facilities. If you live downtown or in Douglas, your waste water flows to a treatment plant on Thane Road. If you live in the valley your waste water is car-