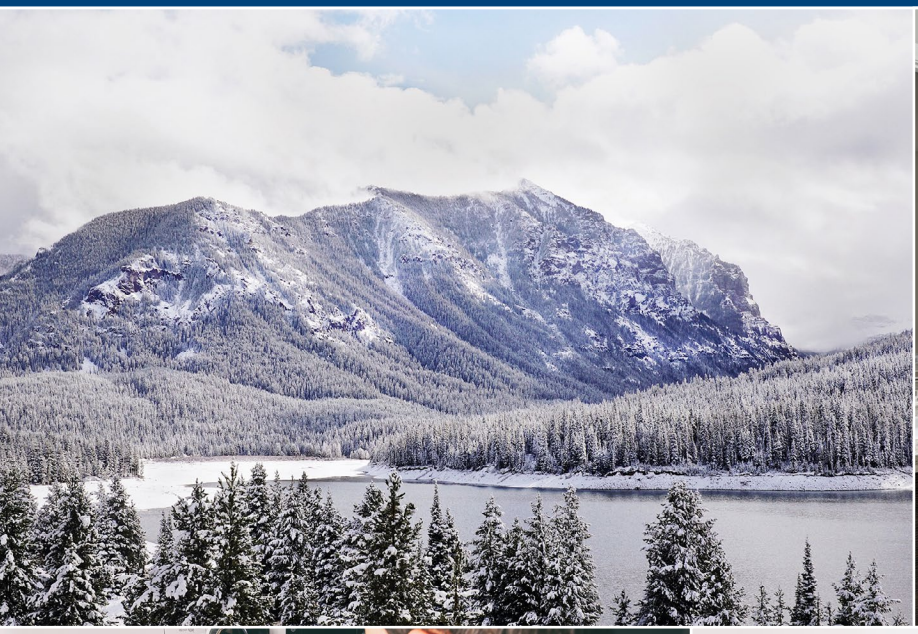
Water Smart Indoor Guide
for the Bozeman Area
with Water and Energy Saving Tips



www.bozemanwater.com

CITY OF BOZEMAN WATER CONSERVATION

Welcome to Your Water Savings Handbook!

At the City of Bozeman, we're here to help you make smart, water-saving choices. Water is used for everything from watering plants to washing dishes, and it adds up quickly. We all play a part in protecting Bozeman's water supply, and saving water at home is a great place to start. Every drop counts, and so does your effort!

This guide will show you simple ways to use less water without sacrificing comfort, help you learn about your water system and meter, offer DIY repair tips, and even provide energy-saving ideas along the way.

To get started, let's understand what being Water Smart is all about. It's simple. Being Water Smart is:

- **Understanding where our water comes from.**
- **Recognizing it's a limited resource.**
- **Taking action to conserve it.**

Where our Water Comes From

Bozeman relies on snowpack for its water supply, with about 80% coming from the Gallatin Range, feeding Bozeman and Hyalite Creeks. The other 20% comes from a spring at the headwaters of Lyman Creek in the Bridger Range.

A Limited Resource

While Bozeman is fortunate to have high quality water, supplies are limited. With an average of 16 inches of precipitation each year, Bozeman is considered semi-arid and drought prone. Shifting climate patterns make these challenges more acute: more of our precipitation falls as rain instead of snow and warmer temperatures cause snow to melt earlier, meaning we're left with less snow to slowly feed our rivers during the late spring and summer–when we need it most.

Planning for Our Water Future

The City of Bozeman is committed to securing our water future through engaged, long-term planning. By evaluating opportunities to develop new water supply options and expanding conservation efforts, we're taking proactive steps to ensure a resilient water supply for our community. Learn more by checking out the Integrated Water Resources Plan at **www.bozemanwater.com**.

Reality of Drought

Even with proactive planning, drought isn't just a possibility, it's something we face in Bozeman. The good news? We're prepared. In 2022, the City of Bozeman updated its Drought Management Plan, a framework for monitoring drought conditions and stepping up conservation efforts when needed.

When a drought is declared, the community knows exactly what to do to save water.

The City regularly tracks local water supply data–like Hyalite Reservoir levels, streamflow, and snowpack–along with national climate information to assess drought conditions throughout the year. If water supplies are stretched thin, the City may declare a drought stage and roll out specific actions for the community, ensuring we conserve water for essential needs. For more details, including how drought conditions are measured and updated, visit **www.bozemanwater.com.**

Taking Action

The City of Bozeman has prioritized water conservation to meet 50% of future water needs. You can help by making water-smart choices at home. Even small changes make a difference! This guide and our team are here to help you understand water use in your home and how to use water more efficiently, so we can all protect our supply for the future.

Water Smart Bozeman

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Hyalite Reservoir, Gallatin Range south of Bozeman. One of Bozeman's water sources.

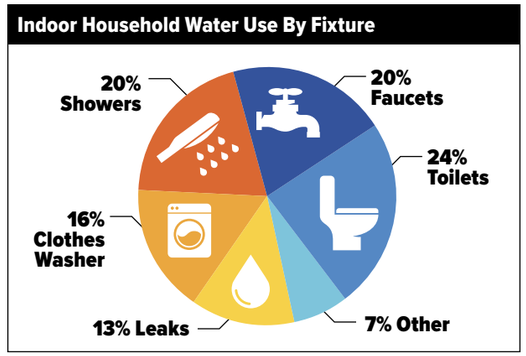
Water Use and Water Waste in Your Home

Indoor Efficiency and the Cost of Water

Water costs money—and it's not just what comes out of your faucet. You're also paying for what goes down the drain (sewer and wastewater) and for the energy used to heat water. Being water-efficient saves you money across the board on your utility bills.

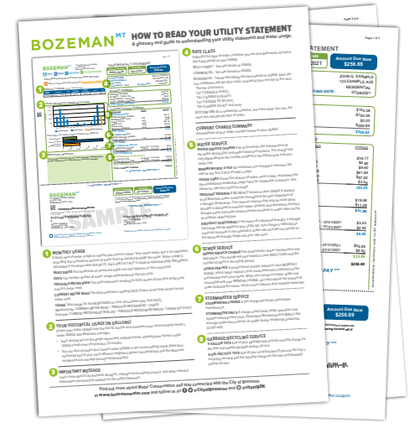
There are plenty of simple steps you can take to start saving water inside your home. On the following pages, we've outlined ways to fix leaks, replace inefficient fixtures and appliances, and take advantage of tips and incentives that help you get on the path to water savings.

Want to track your water usage and find even more ways to save? Register for Dropcountr on your computer or download the app. Visit **www.bozemanwater.com** for links and more info.



Reading and Understanding Your Utility Bill and Water Usage

Your utility bill gives you a snapshot of your monthly charges for water, sewer, stormwater, and waste collection (garbage, recycling, and organics). Monitoring your water use is key to saving both water and money—helping your wallet and our community's water supply.



Here's how it works: The City of Bozeman charges for water based on monthly usage, with different rates for different customer types. For single-family households, the more water you use, the higher the cost per gallon.

How Does Drought Affect My Utility Bill?

During drought conditions, the City may put restrictions on water use and introduce drought surcharges. These charges are based on water availability and usage, and will take effect when a drought stage is declared.

To better understand your utility statement, monthly and historical water usage, charges by usage tier, drought surcharges, and more, check out the *How to Read Your Utility Statement* guide at **www.bozemanwater.com.**

City of Bozeman Programs and Incentives to Help You Save

- **City of Bozeman Rebate Program***
  Rebates are available for indoor and outdoor items. See the back cover and references throughout this guide for more information.
- **FREE Kits***
  - **Fix-A-Leak Kit:** Comes with tools and instructions to help you find and fix leaks inside your home.
  - **Kids Activity Kits:** Pick up a Shower Better or Brush Better Kit, plus an activity sheet that makes conservation fun for the whole family. The activity sheets are also available at **www.bozemanwater.com.**
- **Shower Better Showerhead Swap Program***
  Bring in your old showerhead and get a FREE high-efficiency model!
- **Fix A Leak Week**
  In March, we partner with the EPA's WaterSense® program to educate the community about leak repair.
- **Commercial Site Visits***
  If you run a business that uses City water, we're here to help you save both water and money. Learn more on page 15 of this guide or at **www.bozemanwater.com.**
- **Water Smart Planting Guide for the Bozeman Area**
  Every spring, we release a guide full of outdoor water-saving tips, rebates, plant lists, and a DIY Water Smart Landscape Makeover Guide.
- **Dropcountr App***
  Track your water use and discover more ways to save by registering for Dropcountr online or downloading the app. Visit **www.bozemanwater.com** for links and info.

Visit www.bozemanwater.com for more tips, rebates, and incentives. And for energy-saving tips, check out www.bozeman.net/sustainability.

**Available for City of Bozeman water customers.*

Resident Uses Dropcountr to Detect and Fix Leak, Saving Water and Money

Did you know that Dropcountr, a free water-use portal, can help you track your home's water usage? Here's how it helped one resident, Wanda Watersmart:

Wanda received a leak alert on her Dropcountr app, showing she was wasting over 300 gallons of water per day. She checked her portal and saw 13 gallons per hour were being used continuously — even overnight. After using free toilet dye tabs from the Water Conservation Office, Wanda quickly found the culprit: a leaky toilet.

She replaced the toilet with a high-efficiency WaterSense® model through the City's Toilet Rebate Program. After fixing the leak, Wanda checked her usage again through Dropcountr and confirmed no more leaks. Not only did she save over 9,000 gallons of water that month, but she also saved nearly $100 on her utility bill. Plus, with the new high-efficiency toilet, Wanda will reduce her toilet water use by another 20% this year!

Let Dropcountr help you detect leaks and save both water and money. Download the Dropcountr app to your smartphone or visit www.dropcountr.com/bozeman to register for your free account.

DOING OUR PART

The City uses Dropcountr to monitor water use across City facilities year-round. This helps us spot leaks early, making repairs before they waste water.

Leaks: Small Problems, Big Waste

Water leaks in your home may seem small, but they can lead to big problems—wasting water, raising your utility bills, and even causing costly damage over time. Understanding how to find and fix leaks helps you conserve water, protect your home, and save money. Whether it's a dripping faucet, a running toilet, or a hidden pipe leak, taking action early can prevent bigger issues down the road.

10% of U.S. homes have leaks that waste about 90 gallons a day.

In Bozeman, with 23,000 households, that adds up to 207,000 gallons lost per day.

A running toilet can waste over 200 gallons/day— that's over 6,000 gallons/month!

Replacing toilets with WaterSense® models saves 13,000 gallons of water annually for the average household.

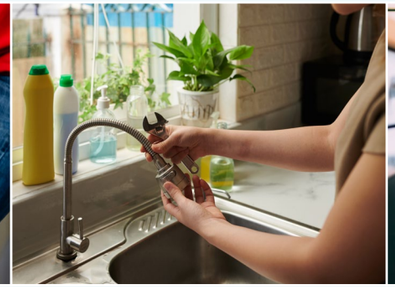
Leaks make up 13% of annual indoor water use. Finding and fixing them saves water and money.

Fixing household leaks can save the average family about 10% on their annual water bill.

A shower leaking 10 drips per minute wastes over 500 gallons of water annually.

Replacing old showerheads with WaterSense® models can cut water use by over 20%.

In the next few pages, you'll learn how to find and fix leaks in your home, starting with reading your water meter to detect hidden leaks. You'll also discover how to locate and use your master water shut-off valve for emergencies. Finally, we'll cover simple DIY fixes for leaky faucets, when to replace faulty parts, and when it's best to call a professional for repairs.



DOING OUR PART

The underground pipes that distribute City water to your home aren't meant to last forever. That's why the City proactively identifies and repairs leaky pipes each year, working to minimize water lost throughout our water distribution system. While some leakage is inevitable in any system, we're committed to making water distribution as efficient as possible.

Finding Leaks

Think you might have a leak but don't know where to start? Leaks can hide in many places around your home, and some may be tricky to find and fix. The first step is identifying where the water's going.

Look for pooling water, dripping pipes, or water damage on floors and ceilings. Listen for sounds like dripping, hissing, or trickling. While it's normal to hear water moving through some fixtures, constant flow is usually a sign of a leak.

Here's where to check:

- ❑ **Toilets:** Listen for running water and try the Toilet Dye Tab Leak Test (see page 10).
- ❑ **Faucets:** Look and listen for drips when the faucet is off.
- ❑ **Showerheads/Bathtubs:** Look for drips or stray sprays when off, or leaks when it's on, or check for water trickling through the tub spout while the shower's running.
- ❑ **Under sinks:** Look for pooling or dripping water around pipes.
- ❑ **Sink sprayers:** Check for drips and clogged spray openings.
- ❑ **Dishwashers:** Check for pooling water or water damage at the base.
- ❑ **Refrigerators and Ice Makers:** Look underneath for pooling water or leaks.
- ❑ **Clothes Washers:** Check for water pooling at the base or on supply lines.
- ❑ **Crawlspaces:** Look for damp spots or puddles near pipes.
- ❑ **Water Heaters:** Check beneath for water pooling or rust.
- ❑ **Exposed Water Pipes:** Listen for running water when not in use.
- ❑ **Water Softeners:** Listen for constant running—this isn't normal.
- ❑ **Humidifiers:** Occasional hissing is normal, but constant is not.
- ❑ **Walls, ceilings, or floors:** Water damage or mold could indicate hidden leaks.

Some leaks are hidden, but they leave clues. If you notice any of these signs, it's time to investigate. For more serious leaks, you should contact a licensed plumber.

The Elusive Leak

If there are no visible signs of a leak in your home, your water meter is your first tool in solving the mystery. Every drop of water that enters your home is recorded on your meter, helping you pinpoint the leak and even estimate how much water it's wasting.

1. **Find Your Water Meter** To start tracking down that leak, you first need to locate your water meter. In Bozeman, you'll find it inside your home — usually in the basement or crawlspace. It won't be outside, where it could freeze in winter.
2. **Ruling Out Leaks** Once you've found your meter, take a few minutes to make sure no water is being used in your home. Turn off taps and make sure appliances like dishwashers, ice makers, and clothes washers aren't running. If it's summer, also check that your irrigation system isn't active.

Now, record your water meter's reading. Wait two hours without using any water, then check it again. If the reading has increased or shows a flow rate above 0.00 GPM or CF, you've likely got a leak.

Types of Water Meters and How to Read Them

Bozeman has a few different water meter types, but they all measure water usage in cubic feet (CF). To convert CF to gallons, multiply your CF meter reading by 7.48 (1 CF = 7.48 gallons).

	The meter display cycles through total metered usage, serial number, and flow rate. It then alternates between total metered usage and flow rate. If the flow rate is above 0.00, water is actively flowing. **DFR, LA, MC**
	The red hand moves when water flows. Each full dial rotation equals 0.001 CF, and 13 rotations equal about one gallon. Read total usage by locating the decimal on the analog meter reading (see red arrow). **MC**
	The meter display flashes total usage, serial number, and flow rate. If the flow rate is above 0.00, water is actively flowing. **DFR, LA, MC**
	The display cycles through serial number, total usage, and flow rate (CF). A flow rate above 0.00 indicates active water flow. **LA**

Features Key:

DFR (Displays Flow Rate): Shows water flow rate, usually in gallons per minute (GPM).

LA (Light Activated): Requires a bright flashlight to activate the screen (a phone flashlight may not be strong enough).

MC (Meter Cover): A hinged plastic cover protects the meter screen.

Water Flow and Valves

Once you've found your leak, you need to know how and where to control the water flow in your home. Valves are your key — by turning them off, you can stop water from flowing to specific pipes. Knowing where your valves are and how they work will help you track down the source of your leak.

Important Valve Information.
READ BEFORE OPERATING VALVES.

Turn valves VERY slowly to prevent damaging pipes. You might hear a hissing sound as pressure equalizes—wait for it to stop before turning the valve further.

BE GENTLE. Forcing old or corroded valves can cause serious damage. If you're having trouble, call a plumber for help.

Common Valves in Your Home

	**Ball Valve** • To close, turn the handle perpendicular to the pipe. • To open, turn the handle parallel to the pipe. • Found on water softeners and heaters, main shut off to your home.
	**Gate Valve** • To close, turn clockwise. • To open, turn counter-clockwise. • Found on hose spigots in older homes.
	**Supply Stop Valve** • To close, turn clockwise. • To open, turn counter-clockwise. • Found on supply lines of toilets, sinks, and refrigerators.

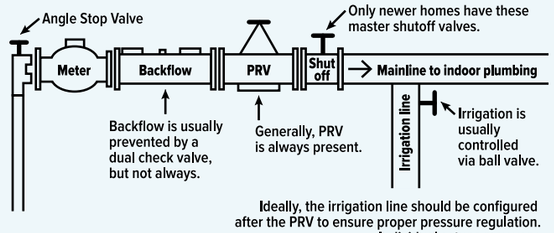
Note: Some fixtures, like your shower supply, may not have valves. In this case, use the master shutoff or meter angle stop valve to stop water flow during repairs or replacement.

Isolating Leaks

- ❑ **Confirm the Leak:** If you've found a potential leak, close the appliance's supply stop valve (go slowly!), then check the meter. If the flow has stopped, you've isolated the leak. Now's the time to repair or replace. See page 8.
- ❑ **Consider the Season:** In summer, check for leaks in your underground irrigation system by slowly closing the valve and monitoring the meter. If the meter stabilizes, the leak is likely in the system.
- ❑ **Check for Leaks in ADUs:** If your property has an Accessory Dwelling Unit (ADU), try closing the water valve that supplies it. If your meter reading stabilizes, the leak is likely in the ADU. Leaks could be from fixtures inside the ADU or in the underground pipe supplying water to it. To check for underground leaks, look for pooling water or wet spots in your yard along the water supply line.

Master Water Shut Off and Valves Near Your Meter

Before you start any leak repairs, make sure you know where your master shutoff valve and/or meter angle stop valve are located. These valves control the water flowing into your home and irrigation system (if you have one). Take a look at the diagram below to see where these valves are commonly located near your meter. Then, check your home to locate your master shutoff and/or meter angle stop valve.



Ideally, the irrigation line should be configured after the PRV to ensure proper pressure regulation. Individual setups may vary.

Note: This diagram shows a typical mainline valve setup. Your home's setup may differ in design or order.

Angle Stop Valve - Located upstream of your water meter, this valve shuts off all water to your home, including the pipe between the meter and shutoff. You'll need a crescent wrench to open and close it **GENTLY**. The valve is open when the handle is parallel to the pipe and closed when perpendicular to the pipe.

Backflow - Most homes have a backflow prevention device to keep harmful contaminants out of our public water supply. If your home doesn't have one, consider installing it for health and safety.

Pressure Reducing Valve (PRV) - The water pressure from the City's system can be too high for your home appliances and irrigation. A PRV lowers this pressure to keep everything working smoothly. Most homes in Bozeman have a PRV.

Mainline Shutoff Valve - If you have a newer home in Bozeman, you likely have a ball valve to shut off water to the entire house. Close it slowly to stop the water flow. If you don't have a mainline shutoff valve, use the meter angle stop valve instead.

Irrigation Supply Valve - If your home has an underground irrigation system, look for the ball valve that controls your irrigation water. Be sure to close this valve when testing for leaks with your meter.

To Repair, Replace, or Call a Professional

You've found the leak so now it's time to repair or replace the faulty fixture. But remember, not all plumbing jobs are created equal. It's important to know when to call in a licensed plumber.

Doing Your Own Repairs– Easy Fixes, Big Savings

DIY plumbing projects can save you time and money. From fixing leaky pipes to replacing faucets, with the right tools and a little patience, you can tackle most basic plumbing repairs.

Essential Tools for Your DIY Plumbing Kit:

- ❑ Screwdrivers (flathead and Phillips)
- ❑ Channel lock pliers
- ❑ Adjustable wrench
- ❑ Hex-key wrenches (often included with ball-type faucet repair kits)
- ❑ Teflon tape
- ❑ Bowl or bucket to catch draining water
- ❑ Safety goggles
- ❑ City's FREE Fix-A-Leak Kit
- ❑ Drain auger (snake) for clogged pipes
- ❑ Flashlight

Tips for a Smooth Plumbing Fix

- **Always open or close valves *SLOWLY* to avoid breaking old, corroded valves. Don't force them!**
- Need visual help? Search online for DIY repair videos but be sure to check reviews and the video source for reliability.
- Before starting, know where your home's master shut-off valve is located. See page 7.
- Turn off the supply shut-off valve for the fixture you're working on—or the master valve if there's no individual shut-off.
- For stubborn bolts, use penetrating oil or WD-40 to loosen them up.
- Try to do repairs during hardware store hours, so you can grab parts and tools if you need them.
- Take a photo before disassembling faucets or fixtures to remember how things go back together.
- Plug drains when working on faucets or showerheads to avoid losing small parts down the drain.
- Bring your old parts to the hardware store when buying replacements to ensure a perfect match.
- When tightening or loosening plumbing parts, use two wrenches: one to hold the fitting steady and the other to turn it.
- Place a bucket or bowl under the area you're fixing to catch any water that might spill out.
- **Pro Tip:** Never use petroleum-based grease (like Vaseline®) on plumbing parts. It breaks down rubber seals. Food-safe silicone grease works great and comes with your FREE Fix-A-Leak Kit.
- **Stop by the City's Water Conservation Office to claim your FREE Fix-A-Leak Kit, which includes the tools you need to find and fix basic leaks around your home.**

DOING OUR PART

City lavatory faucets are now fitted with 0.5 GPM aerators, reducing hand-washing water usage by nearly 80%.

Leaks & Leak Repair

Leaky Faucet: Repairing

Did you know a leaky faucet can waste up to 3,000 gallons of water per year? Don't let that drip drain your wallet! Fixing a leaky faucet can be easier than you think – and saving on utility bills makes it worth the effort. Most leaks in standard compression faucets are caused by a worn-out washer, which can be easily replaced with a few tools and a FREE Fix-A-Leak Kit from the City.

Step-by-Step Guide

Before you get started, it's important to identify your faucet type. Different faucets have different repair needs, and some are easier to fix than others. See our guide here to figure out your faucet type and repair recommendation. For detailed instructions, check online DIY videos for your specific faucet model, or call a licensed plumber if you need additional assistance.

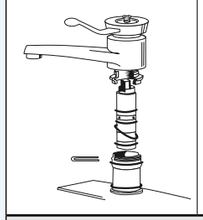
Faucet Types and Repair Recommendations

The easiest way to know the difference between these faucets is internally, but let's start with narrowing it down for you before you get into the nuts and bolts (literally).

Compression or Washer-Type Faucet

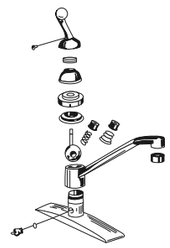
- Two handles
- Common in older homes or utility sinks
- Repair: Usually an easy fix with replacement of a washer – See our instructions to the right.

Cartridge or Washerless Faucet



- One or two handles
- Common in bathrooms and kitchens
- Repair: May be as simple as replacing the plastic, brass, or ceramic cartridge – See our instructions to the right.

Ball or Disk Faucet



- One handle
- Common in bathrooms and kitchens
- Repair: Often complicated, replacing the entire fixture is usually more cost effective. Call a licensed plumber if you need help.

Faucet illustrations courtesy of California Water Efficiency Partnership.

Repair Instructions

Compression or Washer-Type Faucets

Basic tools you'll need:
• Fix-A-Leak Kit • Crescent wrench • Screwdriver • Rag to plug sink drain

Instructions

1. **Determine which handle is leaking.** Start by shutting off the hot water supply valve. If the dripping stops, you need to repair the hot water handle. If it continues, it is the cold-water handle that needs attention.
2. **Turn off both hot and cold supply valves.**
3. **Turn the faucet handle(s)** to the open position to let any remaining water drain out.
4. **Plug the sink drain** to keep any small parts from falling down the drain.
5. **Remove the faucet cover** by unscrewing the handle with a screwdriver. If the handle is stuck, use a handle puller tool to loosen it (available at your local hardware store).
6. **Use a crescent wrench** to gently unscrew the small nut below the handle, then remove the valve stem.
7. **Make the necessary repairs:**
   - If your faucet has an O-ring, check it for damage. If it's worn or corroded, replace it.
   - Replace the old washer with a new one of the same size.
8. **Reassemble your faucet** back together in reverse order and tighten all parts securely.

Cartridge or Washerless Faucets

Follow the steps above with the following exceptions:

Additional tools you will need: • Replacement cartridge

Step 6 – Unscrewing the small nut below the handle will expose the cartridge.

Step 7 – Make the necessary repairs:

- Remove the old cartridge and apply a small amount of plumber's grease to the new cartridge and insert it into the faucet. You may also need to replace the O-rings–make sure to grease those as well.

Toilets: Finding Leaks

Did you know that toilets are often the biggest water users in your home—even when they aren't leaking? On average, they account for about 24% of indoor water consumption. Older models can use 5–7 gallons per flush, quickly adding up to significant water waste.

A running toilet is a leaking toilet. If the flapper seal is worn out or other components aren't functioning properly, you may have a silent leak wasting water without realizing it. The flapper, a rubber valve that controls water flow from the tank to the bowl during flushing, can deteriorate over time. A faulty flapper can waste over 200 gallons of water per day. To prevent this, it should be replaced every five years or as soon as a leak appears.

Replacing a worn-out flapper is simple. Follow the instructions below to perform the toilet dye tab leak test and replace your flapper.

Toilet Dye Tab Leak Test

Pick up FREE blue dye tabs from the Water Conservation Division office and follow the instructions below. This test is for gravity-fed, tank-style toilets only—it does not work for pressure-assist toilets, urinals, or flushometers.

Instructions

Follow these steps to check for a toilet leak. If a leak is detected, it may be time to replace the flapper.

1. **Remove** the toilet tank lid.
2. **Drop** a non-toxic dye tab into the tank.
3. **Replace the lid and wait** 15 minutes without flushing.
4. **Check the bowl.** If the water is colored, you have a leak. Flush immediately to prevent staining.

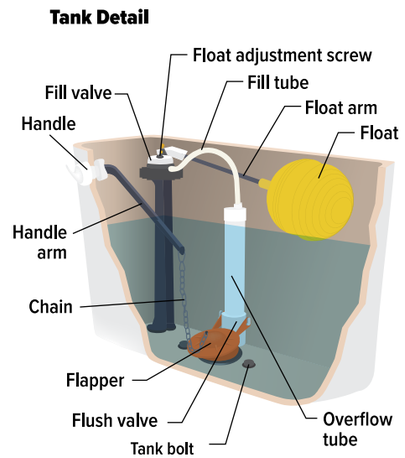
Replacing a Toilet Flapper

To replace a leaking flapper, find your toilet manufacturer's website and determine the correct flapper part number and retail source or take the existing flapper to the hardware store to find a matching replacement.

1. **Turn off the water to your toilet** by shutting off the supply stop valve behind the toilet tank, where the pipe connects to the wall.
2. **Flush your toilet to empty the water from the tank.** You can also lift the flapper from its seated position to empty any remaining water at the bottom.
3. **Disconnect the chain** from the handle arm.
4. **Remove the flapper** by slipping the ears off the flush valve.
5. **Inspect the flush valve:** Run your finger along the seating surface of the flush valve. If it's rough, use fine-grit wet/dry sandpaper to smooth it out.
6. **Install the new flapper:** Slip the ears on the new flapper onto the flush valve. For toilets with a flat, washer-like seal, just slip it off and replace it with the new one. These seals are commonly found in dual-flush toilets.
7. **Test for leaks:** After installing the new flapper, perform the Toilet Dye Tab Leak Test again to make sure the leak is fixed.

By taking these steps, you'll save water, reduce your utility costs, and help keep our water supply healthy!

Toilet Anatomy



Toilets: Replacing

Swapping out your old toilet for a high-efficiency model can save you up to 25 gallons of water per day. Plus, you can save even more by taking advantage of the City of Bozeman's Toilet Rebate Program (visit **www.bozemanwater.com** for details and the application).

While installing a new toilet is a straightforward DIY project, it's crucial to follow the manufacturer's instructions to ensure it's done right. If you're not comfortable with installation, call in a professional. Here's what you need to know before getting started:

Choose the Right Toilet for You

- ❏ **Look for WaterSense® Labeled Toilets:** To qualify for the Bozeman Toilet Rebate Program, choose a toilet that's WaterSense® certified and get up to $125 back per toilet. These toilets are third-party tested to ensure water savings of 20% or more without sacrificing performance.
- ❏ **Performance Matters:** Wondering how well your new toilet will flush? Check the MaP score (Maximum Performance score). A higher MaP score means better flushing power. Toilets with a MaP score of 600 or higher provide top-tier performance. For more details on MaP scoring, visit www.map-testing.com.
- ❏ **Want to Save Even More Water?** Consider ultra-efficient toilets that use as little as 0.8 gallons per flush. These high-performing toilets save even more water and cash. Be sure to check the MaP score to confirm the performance!

Measure Your Rough-In

To avoid buying the wrong size toilet, measure the distance from the flange bolts (the bolts that anchor your toilet to the floor) to the wall behind your existing toilet. This measurement is called the rough-in and it typically comes in 10, 12, or 14 inches.

Basic Tools You'll Need:

- ❏ Adjustable wrench
- ❏ Pliers
- ❏ Bucket
- ❏ Old rag/towel/sponge (or fabric you're okay with tossing)
- ❏ Level
- ❏ Wax ring (usually included with your new toilet)
- ❏ Caulk gun & silicone sealant
- ❏ Putty knife

Instructions

1. **Turn Off the Water:** Start by turning off the supply line to your toilet. Flush to empty the tank and make sure no water refills.
2. **Drain the Tank:** Disconnect the water supply line from the tank and fill valve, then use a bucket to catch any excess water.
3. **Remove the Tank:** Loosen the bolts under the tank to remove it.
4. **Remove the Toilet Bowl:** Soak up any remaining water in the bowl with a rag or sponge. Unscrew the hardware that attaches the bowl to the flange ring and carefully remove the toilet. Use a putty knife to scrape off any wax stuck to the flange.
5. **Seal Off the Sewer Pipe:** Stuff an old rag or fabric into the flange to prevent sewer gases from escaping while you work.
6. **Inspect the Flange:** Check the mounting flange to make sure it's not rusted or corroded. If it is, sand it down, or better yet, replace it. An uneven or damaged flange may cause leaks down the road.
7. **Check the Subfloor:** Make sure the subfloor is level. An uneven surface can prevent the wax ring from sealing correctly, leading to leaks.
8. **Install Your New Toilet:** Once the flange is prepped, remove the rag from the flange and follow the manufacturer's instructions to install the new toilet. Be sure to install the wax ring properly for a tight seal.

Pro Tip: Before you finish up, check for leaks, and make sure everything is sealed tight. A good seal means no more wasted water or money.

DOING OUR PART

Since retrofitting with high-efficiency toilets and faucets in 2016, the Bozeman Senior Center has reduced water use by 54%, saving an average of 180,000 gallons annually.

Save More Water in Your Home

Saving water at home is easy with a few smart changes. Indoor water use makes up nearly 60% of total household water consumption, but small adjustments—like upgrading fixtures and adopting water-smart habits—can lead to big savings for both your wallet and our local water supply.

Tips for the Bathroom

- **Install High-Efficiency Faucets or Aerators:** Swap out your current faucet or aerator for a water-efficient model to minimize water use. Faucets using 1.5 GPM or less are considered water efficient.
- **Switch to a WaterSense® Showerhead:** This is a quick, simple upgrade that can help a typical family save 52 gallons per week. That adds up to 2,700 gallons per year!
- **Turn Off the Tap:** Turn off the water while brushing your teeth or shaving to avoid wasting water.
- **Cut Your Shower Time:** Save 10+ gallons per day by trimming 5 minutes off your shower time. Grab a free 5-minute shower timer from the City's Water Conservation Division office to stay on track.
- **Save Water While Waiting:** Place a bucket under the showerhead or faucet while waiting for the water to warm up. Use the collected water for your pet or to water plants.

Showerheads: Easy Upgrade, Big Savings

Replacing your showerhead is a five-minute project that can save you 2,700 gallons per year. Here's how:

FREE Showerheads: The City of Bozeman will swap out your old showerhead for a FREE WaterSense®-labeled, high-efficiency model. Just bring in your old one to get the new one. (Note: You must be a City of Bozeman water customer).

Showerhead Rebate: Want to pick your own? You can get up to $20 back per showerhead through the City's Showerhead Rebate Program. The new showerhead must be WaterSense®-labeled and connected to City of Bozeman water.

How to Install Your New Showerhead:

1. Unscrew the old showerhead.
2. Remove any old Teflon tape from the pipe thread.
3. Apply new Teflon tape to the pipe for a tight seal.
4. Screw on your new WaterSense® showerhead.

Tips for the Kitchen

- **Install High-Efficiency Faucets or Aerators:** Upgrade your kitchen faucet to save more water while you cook and clean.
- **Wash Dishes Wisely:** If handwashing, plug the sink or use a wash basin instead of leaving the water running.
- **Use Your Dishwasher:** It's more water-efficient than handwashing. Just make sure it's full before running it.
- **Stop Rinsing Plates:** Scrape off food instead of rinsing plates before loading them into the dishwasher.
- **Keep a Pitcher of Water in the Fridge:** Instead of running the faucet until the water is cold, keep a pitcher of drinking water in the fridge.
- **Thaw Frozen Food in the Fridge:** Avoid using running tap water to thaw frozen food—let it thaw overnight in the fridge instead.
- **Compost Food Waste:** Skip the garbage disposal and add food scraps to your compost pile. No compost? The City's Solid Waste Division offers year-round organics service, including food scraps, soiled paper, and yard waste. Learn more at **www.bozemansolidwaste.com.**

Faucet Aerators: Simple Solution, Big Impact

Installing faucet aerators can save your family over 700 gallons per year! Aerators mix air into the water stream, cutting down on water flow without reducing pressure. This means you get a splash-free, efficient stream that helps save water and money.

How to Install an Aerator: It's super easy. Simply screw the aerator onto the tip of your faucet and start saving.

Not All Faucets Are the Same: For fancy faucets like waterfall models that don't have threads for aerators, you can still reduce water use by adjusting the water supply valves. Just slowly close the valves while the water is running until you reach the desired flow rate. You can also install flow-restricting valves to further limit water usage.

Free Faucet Aerators

The City of Bozeman offers free faucet aerators (0.5 GPM and 1.0 GPM) for residences connected to City water. These dual-thread, pressure compensating aerators fit most male and female threaded faucets.

Pick one up today at the City's Water Conservation Division office, 7 E. Beall St., Suite 100. Call 406-582-3220 for walk-in hours.

Clothes Washers

The average family washes 400 loads of laundry each year, using about 30 gallons per load. That adds up to 12,000 gallons of water annually! High-efficiency washers, on the other hand, use as little as 7 gallons per load, saving you 6,400 to 9,200 gallons per year.

Take Action:

- ❑ Upgrade your washer and save water (and cash). Get up to $150 in rebates from the City of Bozeman when you replace your old, inefficient washer with a CEE℠ Tier-rated model.
- ❑ Check out the qualifying models at **www.cee1.org/program-resources** and see which washers make the cut.

Water Saving Tips:

- If you have an older washer, adjust the water level to match the load size. If you are unable to adjust the load size, just be sure to always wash a full load.
- When it's time to replace your washer, look for a high-efficiency model with a low water factor (below 4.0 is ideal).

BZN MT DOING OUR PART

Opened in 2022, the Bozeman Public Safety Center features WaterSense® toilets and urinals, along with 0.5 GPM aerators on faucets. The facility also boasts a high-performance exterior that helps maintain clean air and a consistent interior temperature, enhancing energy efficiency.

Water Heaters

Water heaters account for about 20% of your home's energy costs. The more water you use, the more energy it takes to heat it. But small changes can reduce both your water and energy bills.

Take Action:

- ❑ Consider an efficient water heater when replacing yours. Make sure it's the right size for your home and that it maximizes efficiency.

Water Saving Tips:

- Flush your water heater annually to remove buildup that can damage the tank.
- Check your water heater regularly for leaks.
- Install a recirculating hot water system to get instant hot water and avoid wasting it while waiting for the shower to heat up. Homes with recirculating systems use 12% less water than homes without them.
- Insulate your pipes to keep hot water warm as it travels, getting more hot water to the faucet faster and wasting less.

ENERGY SPOTLIGHT

Upgrade Your Water Heater for Maximum Savings

If your water heater is on its last legs, now's the time to upgrade before it fails. Consider replacing it with an ENERGY STAR® rated model, which uses significantly less energy.

Heat Pump Water Heaters are among the most efficient options available, using 2 to 3 times less energy than standard electric heaters.

The City of Bozeman offers a $500 rebate on qualifying heat pump water heaters. Find out more at **www.bozeman.net/sustainability.**

Prevent Frozen Pipes

Water might be flowing one minute, and then freezing the next! When water freezes, it expands, which can put major pressure on your pipes and lead to bursts. Frozen pipes can waste water and cause serious damage, especially if you're away when it happens. Taking a few simple steps now can save you a lot of headaches—and money—later.

Common Areas for Frozen Pipes:

- Exposed pipes, like hose bibs, that face extreme cold.
- Pipes running along poorly insulated exterior walls.
- Pipes in unheated spaces like basements, attics, crawl spaces, or garages.

How to Protect Your Pipes:

- ❑ Keep your home's temperature well above 32°F, even if you're away. A good rule of thumb is to keep your thermostat set to at least 55°F.
- ❑ Close the inside valves that supply outdoor hose bibs.
- ❑ Insulate attics, basements, and crawl spaces.
- ❑ Check for water lines running through unheated areas like garages, or under kitchen and bathroom sinks.
- ❑ Install pipe sleeves or heat tape on exposed pipes.
- ❑ Keep garage doors closed, especially during cold snaps.
- ❑ Open kitchen and bathroom sink cabinets to let warm air circulate when extremely cold weather hits.
- ❑ Download the Dropcountr app to monitor your water use and catch any leaks early.
- ❑ Close crawl space vents to block out cold drafts in winter.

ENERGY SPOTLIGHT

Keep Your Home Warm & Efficient

A tight home keeps your pipes—and your energy bills—under control. Here's how to keep heat inside and avoid any unwanted cold air:

- **Seal gaps:** Weatherstrip doors and windows, and use caulk around areas where cold air leaks in.
- **Insulate:** Add insulation in attics, basements, and crawl spaces to hold in warmth.
- **Upgrade windows:** Look into energy-efficient window options.
- **Maintain your HVAC:** Regularly clean ducts, change filters, and use a programmable thermostat to adjust the temperature while you're out.

Heat pumps are a great option if you're considering a heating and cooling upgrade, offering energy efficiency and year-round comfort.

For more energy-saving tips, check out **www.bozeman.net/sustainability.**





Save Water, Save Money: Water Conservation for Your Business

Commercial customers use 24% of Bozeman's total water, and your business can play a key role in reducing that. By adopting efficient water practices and fixtures, you'll save both water and money. The City of Bozeman is here to help with FREE resources and expert advice. Depending on your business type, you could reduce water use by:

- **Up to 50% in hotels and multi-household buildings per guest room or living unit.**
- **Up to 40% in restaurants for indoor water use.**

Here's How We Can Help:

- **Free Water Use Assessment:** We'll send trained staff to assess your water use, identify savings, and provide customized recommendations.
- **Rebates and Free Products:** Get free products like faucet aerators, showerhead replacements, and pre-rinse spray nozzles for your commercial kitchen. We also offer rebates on toilets, washers, and more.
- **Gallatin Watershed Business Stewards Program:** Join the program to reduce your water use, get recognized for your efforts, and connect with the Gallatin Watershed Council.

How It Works:

1. **Schedule Your Assessment:** Contact the Water Conservation Division to book a free assessment.
2. **We'll Come to You:** Our staff will visit your business to gather info and consult with your team.
3. **Get Your Report:** You'll receive a follow-up report with actionable recommendations, including equipment adjustments and repairs and estimated utility bill savings.
4. **Ongoing Support:** Receive technical assistance as needed, plus free products to help with installation.

Rebates & Free Products:

We offer free and discounted products, including:

- **Free:** Showerheads, faucet aerators, and pre-rinse spray valves.
- **Rebates:** Up to $200 on toilets, $300 on urinals, $150 on clothes washers, and more.
- **Custom Solutions:** For unique needs, we'll develop a customized rebate program to help your business maximize savings.

By making water-efficient upgrades, your business can lower water use and cut utility bills.

Contact the Water Conservation Division at waterconservation@bozeman.net or 406-582-3220 to get started today!
Visit www.bozemanwater.com for more information.

DOING OUR PART

Since 2020, Water Conservation Staff have conducted free water use assessments at 17 Bozeman businesses, including hotels, restaurants, and offices. By implementing water-efficient practices and fixtures, these businesses save about 2.1 million gallons of water annually.

Rebate Program

Indoor • Outdoor • Residential • Commercial

Does your home or business receive water from the City of Bozeman? Consider upgrading your plumbing fixtures, appliances, and irrigation systems for improved water efficiency. In return for your water conservation efforts, not only will you benefit from lower water bills, but you'll also receive a cash rebate.

Available rebates include:

Indoor

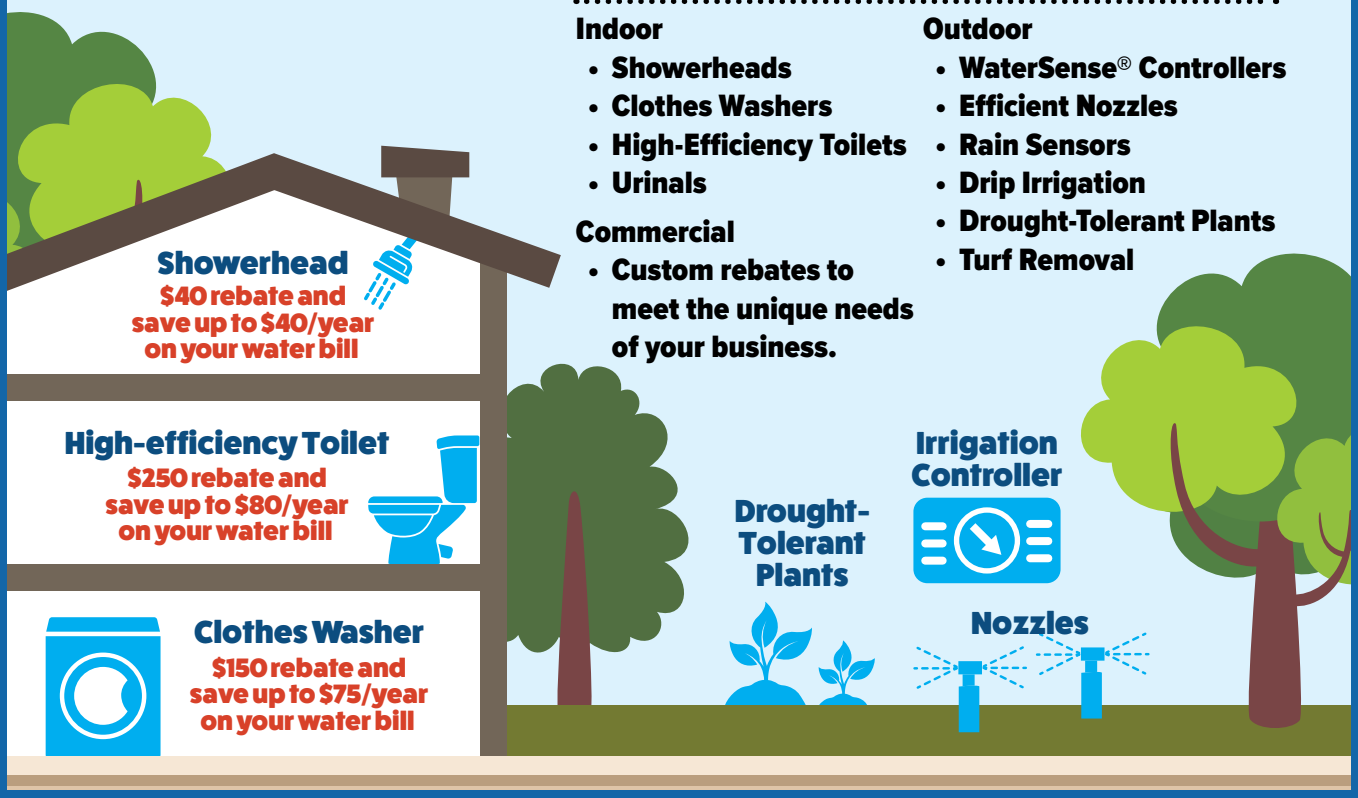
- Showerheads
- Clothes Washers
- High-Efficiency Toilets
- Urinals

Commercial

- Custom rebates to meet the unique needs of your business.

Outdoor

- WaterSense® Controllers
- Efficient Nozzles
- Rain Sensors
- Drip Irrigation
- Drought-Tolerant Plants
- Turf Removal



In addition to the City's rebate initiatives, the Water Conservation Division provides complimentary water-efficient products and valuable resources to all Bozeman residents connected to City water services.

Free items include:

- Faucet Aerators
- Fix-A-Leak Kits
- Leak Detection Dye Tabs
- Shower Timers
- Summer Savings Kits
- Kids Brush Better Kit
- Kids Shower Better Kit
- City of Bozeman Water Smart Guides

For more information, visit www.bozemanwater.com, stop by the Water Conservation Division at 7 E. Beall St., Suite 100 (call for current walk-in hours), or call 406-582-3220.

CITY OF BOZEMAN WATER CONSERVATION