Your Annual Drinking Water Quality Report For

The City of Sault Sainte Marie

January 1, 2023 - December 31, 2023

Dear Customer:

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Since its inception over 130 years ago, the City of Sault Ste. Marie Water Department's goal has been to produce the safest, highest quality, "Superior Water" for all its customers. We are proud of our history and quality of service. To maintain our commitment to you, our analysts routinely collect and test water samples every step of the way, from source water to various points throughout the distribution system checking quality and resolving potential problems. Our treatment facility is constantly maintained, evaluated, and updated to stay abreast of advancements in technology, health, science, and governmental regulations. Our water quality laboratory is the heart of our quality assurance program. Staffed by State of Michigan certified personnel, our lab analyzes thousands of water samples annually to assure the highest quality water for our families, friends, and neighbors in Sault Ste. Marie.

The Bottom Line

It's our pleasure to report that in 2023 as in all year's past, the water delivered from the Water Treatment Facility met or surpassed all federal and state standards for quality.

Where does our water come from?

Our water source is surface water from the St Mary's River; it is our sole source of water. The St. Mary's River joins Lake Superior with Lake Huron. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The intent of these assessments will ultimately be to prioritize protection activities for all sources of public drinking water. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, source intake, water chemistry, and contamination sources. Our susceptibility rating was determined to be "high", due to land uses and potential contaminant within the source water.

Your source water is pumped to the Water Treatment Facility at Sherman Park where the water is disinfected, filtered, pH adjusted for corrosion control, fluoridated, and pumped to your home or business. As you will see in the following information, the City of Sault Ste. Marie monitors our source water and drinking water supplied to you very closely to ensure its quality.

The City of Sault Ste. Marie wants their customers to be informed about their water quality and will be glad to answer any questions pertaining to your water supply. If you as a customer are confused or feel misinformed, please give your utility the opportunity to clarify things.

We routinely monitor your drinking water for contaminants according to federal and state laws. The following tables included with this report show the results from the City of Sault Ste. Marie's Water Treatment Facility and Distribution System. This monitoring is for the period of January 1, 2023, to December 31, 2023. Sample results that are more than five years old need not be included in the report, even if it is the last available data for the supply (e.g., some metals are collected on a nine-year frequency).

If you wish to obtain a print copy of this report contact, please contact the Utility Billing Coordinator (906) 632-5722. If you have questions concerning the contents of this report or the water utility, contact:

Sault Ste. Marie – Water Treatment Facility
Kirk Tews – Water Director
225 E. Portage Ave.
Sault Ste. Marie, MI 49783
906-632-8981

Opportunities for Public Participation:

We believe that informed citizens can be strong allies of water systems as they take action on pressing problems. The following is a listing of meeting dates and locations where your elected officials may discuss water system issues.

Board of Commissioners	Regular Meeting Schedule	Location/Contact
The City of Sault Ste. Marie	1st and 3rd Monday Monthly	Commission Chambers 225 E. Portage Ave. Sault Ste. Marie, MI

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2023 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1, 2023, through December 31, 2023.

EGLE allows us to monitor certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

Sample results for Lead, Copper, and Pre – polyfluoroalkyl substances (PFAS) can be found in their respective section of this Consumer Confidence Report.

City of Sault Ste. Marie - Water Treatment Facility

PRIMARY STANDARDS – Required sampling for substances which have federally enforced regulations, these substances are directly related to the safety of drinking water.

Inorganic/Organic Chemicals	**Sample Date**	**MCLG**	**MCL**	**Result Average**	**Range of all Results**	**Violation**	**Likely source**
Fluoride (ppm)	Daily	4	4	0.57	0.00 – 0.86	No	Water additive to protect teeth
Turbidity	**Sample Date**	**MCLG**	**MCL/TT**	**Highest Result**	**Range of all Results**	**Violation**	**What is Turbidity?**
NTU Filtered Water	Daily	N/A	TT = 1	0.21	0.02 – 0.21	No	Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% of samples Filtered Water	Daily	N/A	95% <0.3NTU	100.0 %	N/A	No	
Microbial Contaminants	**MCL, TT, or MRDL**	**MCLG or MRDLG**	**Level Detected**	**Range**	**Year Sampled**	**Violation**	**Likely source**
Total Coliform (total number or % of positive samples/month)	TT	N/A	N/A	N/A	2023	No	Naturally present in environment
E.Coli in the distribution system (positive samples)	See E. Coli note[1]	0	0	N/A	2023	No	Human and animal fecal waste
Fecal Indicator – E. coli at the source (positive samples)	TT	N/A	173 Positive Samples	< 1.0 – 17.3 MPN	2023	No	Human and animal fecal waste

[1] *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.

City of Sault Ste. Marie - Water Treatment Plant

UNREGULATED CONTAMINANTS – Required sampling for substances which the EPA requires monitoring but has yet to establish standards. Monitoring helps the EPA determine where these contaminants occur and whether regulation is warranted in the future.

Unregulated Contaminant	Sample Date	Result	Likely source
Sodium	6/5/2023	1.6	Erosion of natural deposits

Additional information about unregulated contaminants can be found here: www.epa.gov/dwucmr and https://www.chippewahd.com

City of Sault Ste. Marie – Distribution System

Disinfectant By-Products – Total Trihalomethanes (TTHMs), Haloacetic Acids (HAA5s) – The level detected was calculated using a running annual average

Contaminant	Sample Date	MCLG	MCL	Level Detected	Range of all Results	Violation	Likely source
TTHMs (ppb)	Quarterly	N/A	80	40.4	26.0 - 52.0	No	Disinfection By-product
HAA5 (ppb)	Quarterly	N/A	60	24.0	17.0 - 38.4	No	Disinfection by-product

Disinfectant Residual – The chlorine level detected was calculated using a running annual average.

Disinfectant	Sample Date	MRDLG	MRDL	Level Detected	Range of all Results	Violation	Likely source
Free Chlorine (ppm)	2023	4.0	4.0	0.77	0.44 – 1.32	No	Water additive to control microbes.

In the table you may find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Action Level **(AL) -** The concentration of a contaminant that if exceeded triggers treatment or other requirements that a water system must follow.

Environmental Protection Agency **(EPA)**

Food and Drug Administration **(FDA)**

Maximum Contaminant Level **(MCL)** - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal **(MCLG)** - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum residual disinfectant level (**MRDL) -** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal **(MRDLG)-** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Most Probable Number (MPN) – MPN is a statistical method used to estimate the viable numbers of bacteria in a water sample.

Michigan Department of Environment, Great Lakes and Energy **(EGLE)**

Nephelometric Turbidity Unit **(NTU)** - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not regulated **(NR) -** The substance is not currently regulated by the USEPA and or EGLE. Monitoring helps EPA to determine where these contaminants occur and whether there is a need to regulate them.

Not applicable **(NA)**

Not Detected **(ND)**

Parts per million **(ppm)**

Parts per billion **(ppb)**

Parts per trillion **(ppt)**

Treatment Technique **(TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Important information about Lead

If present elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with services lines and home plumbing. The City of Sault Ste. Marie is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using your water for drinking or cooking. If you have a service line that is lead, galvanized previously connected to lead, or unknown but likely to be lead, it is recommended that you run your water for a least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water, you may wish to have your water tested. Water tests are available by calling the Water Treatment Facility at (906) 632-8981.

How Lead gets into Drinking Water

Lead can enter drinking water when plumbing materials that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. The most common sources of lead in drinking water are lead pipes, faucets, and fixtures. In homes with lead pipes that connect the home to the water main, also known as lead services lines, these pipes are typically the most significant source of lead in the water. Lead pipes are more likely to be found in older cities and homes built before 1986. Among homes without lead service lines, the most common problem is with brass or chrome-plated brass faucets and plumbing with lead solder.

Why should I be concerned about lead exposure?

When lead is swallowed, it can cause health problems. Swallowing lead can be a serious issue for children because their bodies and nervous systems are still developing. Too much lead can cause problems with:

- Learning, behavior, speech, hearing, growth rates, and development of the nervous system

An adult body can remove lead more efficiently than a child's body. However, adults who have been exposed to lead over time may experience some health problems, such as:

- Increased blood pressure, decreased kidney function, decreased cognitive function, slower reaction times, and altered mood and behavior.

Testing for Lead and Copper

In 1991, EPA published a regulation to control lead and copper in drinking water. This regulation is known as the Lead and Copper Rule (also referred to as the LCR). Since 1991 the LCR has undergone various revisions. The treatment technique for the rule requires systems to monitor drinking water at customer taps. If lead concentrations exceed an action level of 15 ppb, (Michigan is lowering the current level to 12 ppb on January 1, 2025), or copper concentrations exceed an action level of 1.3 ppm in more than 10% of customer taps sampled, the system must undertake a number of additional actions to control corrosion.

If the action level for lead is exceeded, the system must also inform the public about steps they should take to protect their health and may have to replace lead service lines under their control. As you can see in the results below, the City of Sault Ste. Marie is not above either of these action limits.

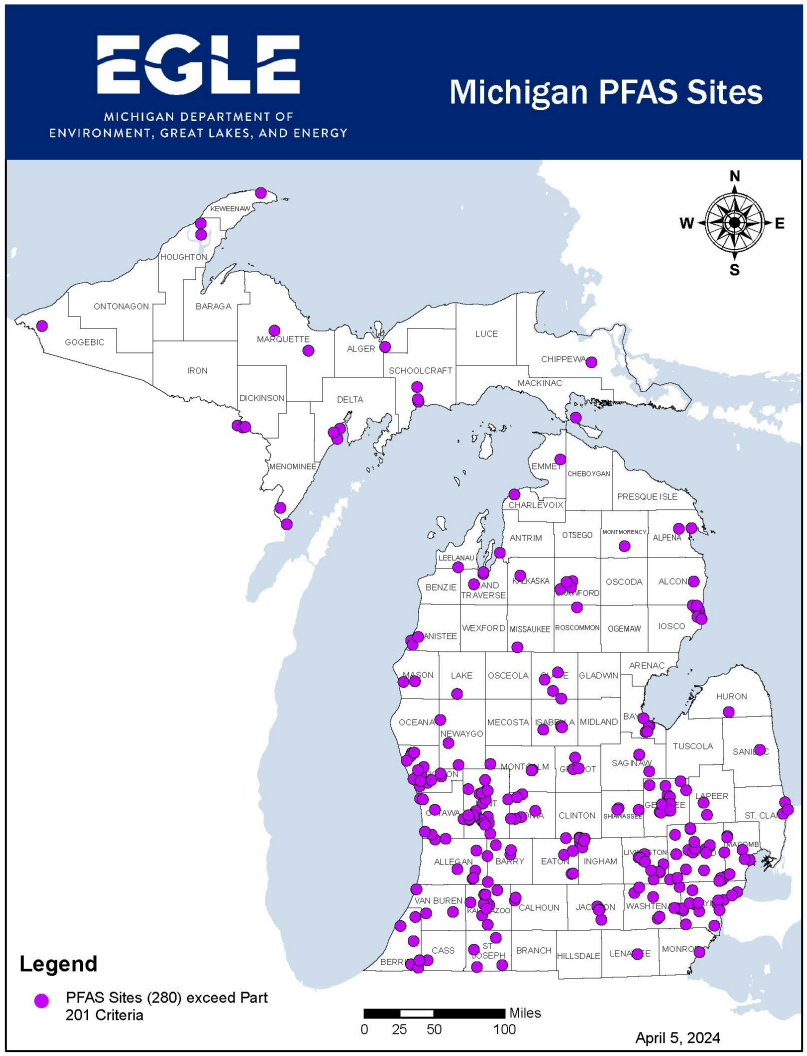
City of Sault Ste. Marie – Distribution System - Samples Collection June 1, 2022 – September 30, 2022							
Contaminant	**Sample Date**	**MCLG**	**AL**	**90th Percentile**	**Range of all Results**	**Violation**	**Likely source**
Copper (ppm)	2022	1.3	1.3	0.1	0.0 – 0.1 ppm	No	Corrosion of household plumbing
Lead (ppb)	2022	0	15	1.0	0.0 – 4.0 ppb	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits

The City of Sault Ste. Marie has 5,234 active service lines. Of these 5,234 service lines 1,055 are of unknown composition and 4,039 service lines are of known composition.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at http://www.epa.gov/safewater/lead.

Per- and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that include perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFAS have been used globally during the past century in manufacturing, firefighting and thousands of common household and other consumer products such as but not limited to:

- Water and stain repellent products,
- Non-stick pots and pans
- Personal care products (e.g. cosmetics, lotions)
- Insect repellants and sunscreens
- Food packaging wrappers



PFAS chemicals are persistent in the environment and in the human body - meaning they don't break down and they can accumulate over time. In recent years, experts have become increasingly concerned by the potential effects of high concentrations of PFAS on human health. PFAS move easily through the ground and may get into groundwater that is used for some water supplies or for private drinking water wells. When spilled into lakes or rivers used as sources of drinking water, they can get into drinking water supplies.

National Drinking Water Regulation

On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS.
**These new regulations will be included in the 2024 version of the Consumer Confidence Report.*

The final rule requires:

- Public water systems must monitor for these PFAS and have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have five years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.

Testing

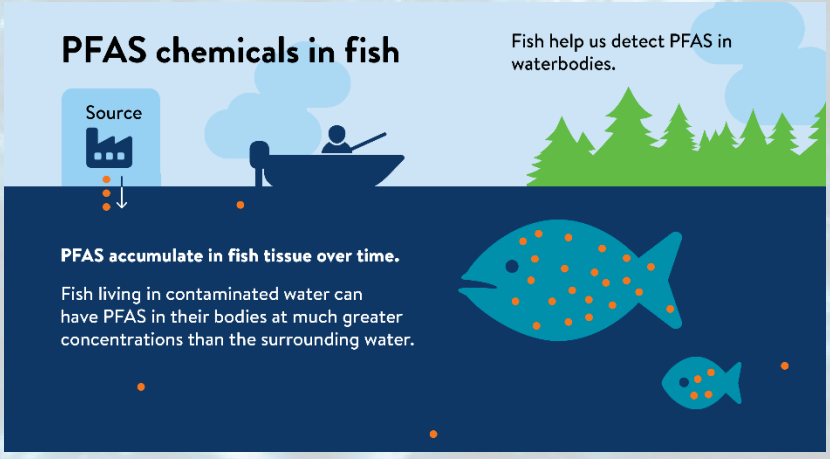
The City of Sault Ste. Marie tests for PFAS and PFOA compounds on an annual basis. As you can see in the table below our results do not show significant levels of Per – and polyfluoroalkyl substances (PFAS).

REGULATED CONTAMINANTS – Per- and polyfluoroalkyl substances (PFAS) - Sampled at Water Treatment Facility - Raw Water Plant Tap							
Regulated Contaminant	**MCL, TT, or MRDL**	**MCLG or MRDLG**	**Level Detected**	**Range**	**Year Sampled**	**Violation**	**Likely source**
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	< 2.0 **	ND	2023	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	< 2.0 **	ND	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	< 2.0 **	ND	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	< 2.0 **	ND	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	< 2.0 **	ND	2023	No	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	< 2.0 **	ND	2023	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	< 2.0 **	ND	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments

** Tests with concentration results below that lab test's lowest reportable value are indicated by a "<" (less than symbol) followed by that test's lowest level that can be reported. When a result is reported as "less than", it essentially means that no significant concentration of that contaminant was detected in the sample. The result cannot be reported as not detected.

How can I stay updated on the situation?

The state has created a website where you can find information about PFAS contamination and efforts to address it in Michigan. The site is updated as more information becomes available. The website address is http://michigan.gov/pfasresponse. Information can also be obtained from the EPA at epa.gov/safewater.



pca.state.mn.us/air-water-land-climate/pfas-in-fish

The City of Sault Ste. Marie is proud that your drinking water meets all federal and state requirements. We have learned from our monitoring and testing that some contaminants have been detected but are well within the standards. The EPA has determined that your water is safe at these levels.

Information for people with special health concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hot Line (800-426-4791).

The sources of all drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic Chemical contaminants, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production in mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

For more information about safe drinking water, visit the U.S. EPA at http://www.epa.gov/safewater.

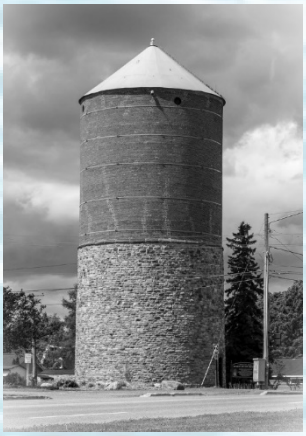
Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at City Hall, Chippewa County Health Department and the Bayliss Public Library. This report will not be sent to you.

The City's Water Treatment Facility and the Sewer and Water Department Staff continue to work around the clock to provide top quality "Superior Water" to every tap.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

History of the City of Sault Ste. Marie's drinking water



The City of Sault Ste. Marie Water Department started in the late 1880's with construction of a pumping station on the City's West Pier Property at the Soo Locks. This pump station provided water and continuous pressure until the "Historic" Standpipe, located at the corner of Ryan and Easterday, was constructed and put into service in 1894. This first pump station pumped water directly from the St. Mary's River, no treatment or chemicals were added.

Outgrowing the capacity of the original pumping station a new pump house was constructed at the end of 4th Avenue on Big Point, now Sherman Park. The new pump house was placed into service in 1902. The new pump house first drew water from the shallow intake located at the end of the Coast Guard Station Dock, near the present-day rock pile. In 1905, a deep-water intake, 45 feet below the surface of the water was placed into the St. Mary's River. This intake is still used today supplying the City of Sault Ste. Marie's water needs. The new pumphouse started pumping water with no treatment or chemicals added. After World War I chlorination was introduced for disinfection and in 1956, fluoride was introduced as a dental additive. The new pumphouse serviced the City 24 hours a day until 1993 when the current Water Treatment Facility was placed online.

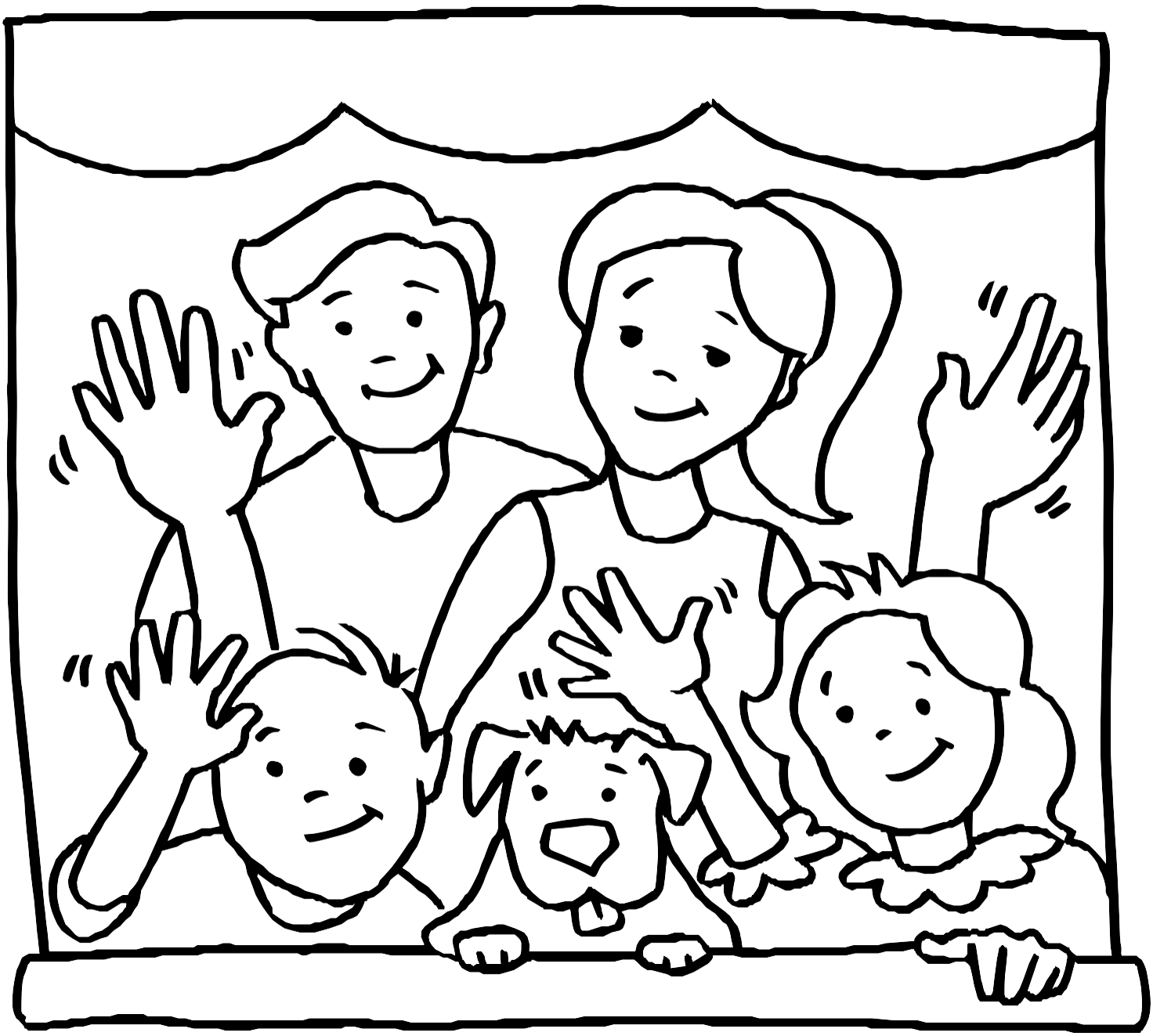
Changing regulations caused the City to construct a new direct filtration water treatment facility south of the new pump house. The new water treatment facility began treatment of water on August 18, 1993, and is capable of treating 6 million gallons per day. The new facility is a direct filtration plant that uses chemicals and filters to treat water.

Direct filtration is a method of treating water that Involves very little chemical addition. The direct filtration process consists of adding coagulant chemicals, allowing coagulation to occur inside flocculation basins. The water is then filtered, adjusted for optimum corrosion control levels, and stored for future use. The water is pumped to your home or business and to one of three elevated storage tanks around the City.

The clean source water of the St. Mary's River provides the City the opportunity to operate a direct filtration plant.

Save Water While You're HOME

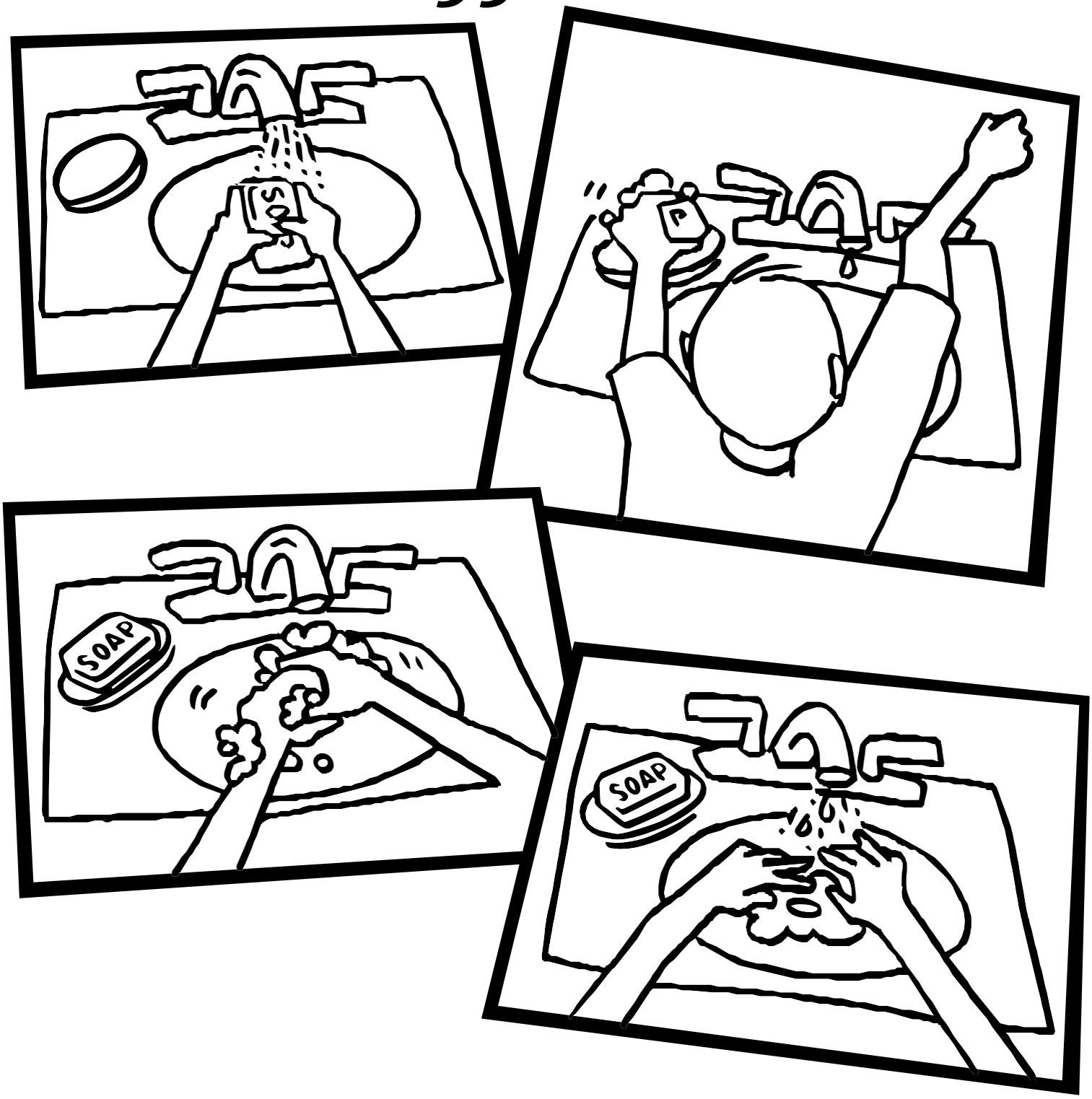
EPA WaterSense PARTNER



A Water Conservation Coloring Book

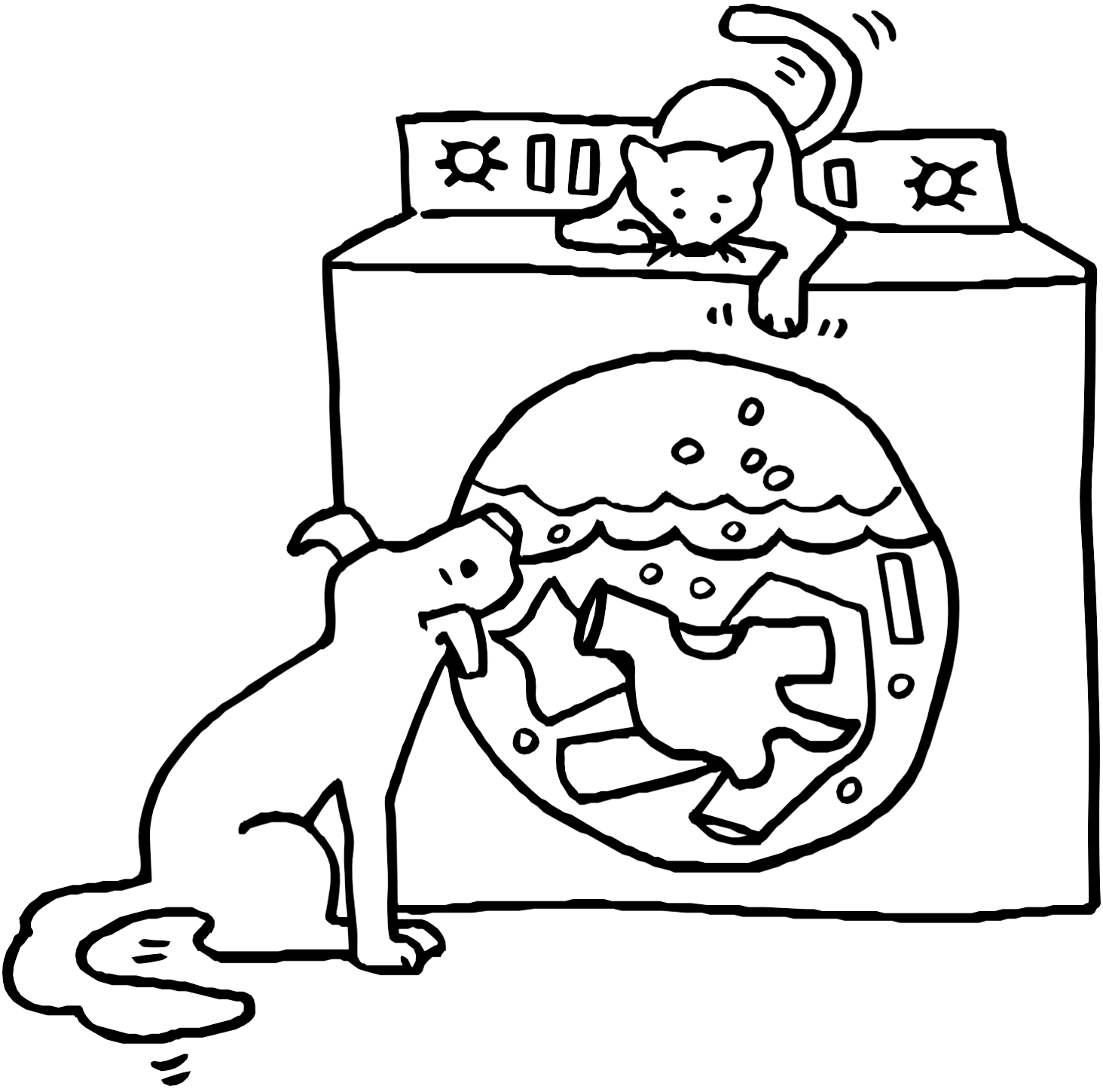
Visit www.epa.gov/watersense for more kids activities and tips.

Turn Off the TAP



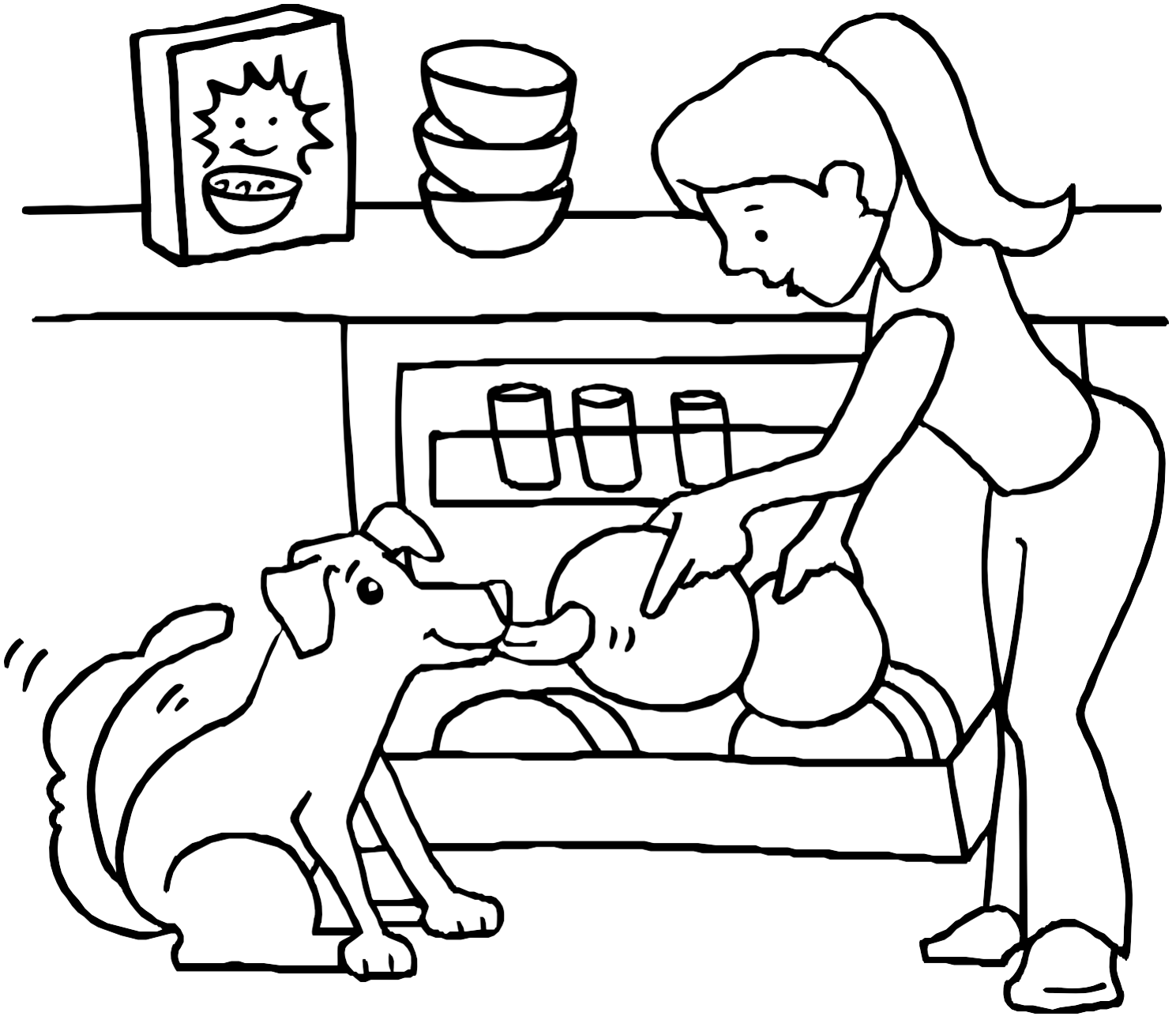
Whether washing your hands for 20 seconds or brushing your teeth for two minutes, you don't have to keep the faucet running. Save 200 gallons of water in a month by turning off the tap while you scrub.

Load Up on Laundry



More kids at home means more laundry. Save energy by washing clothes in cold water, and conserve water by only running the washer with full loads.

Let Your Dishwasher Do the Work

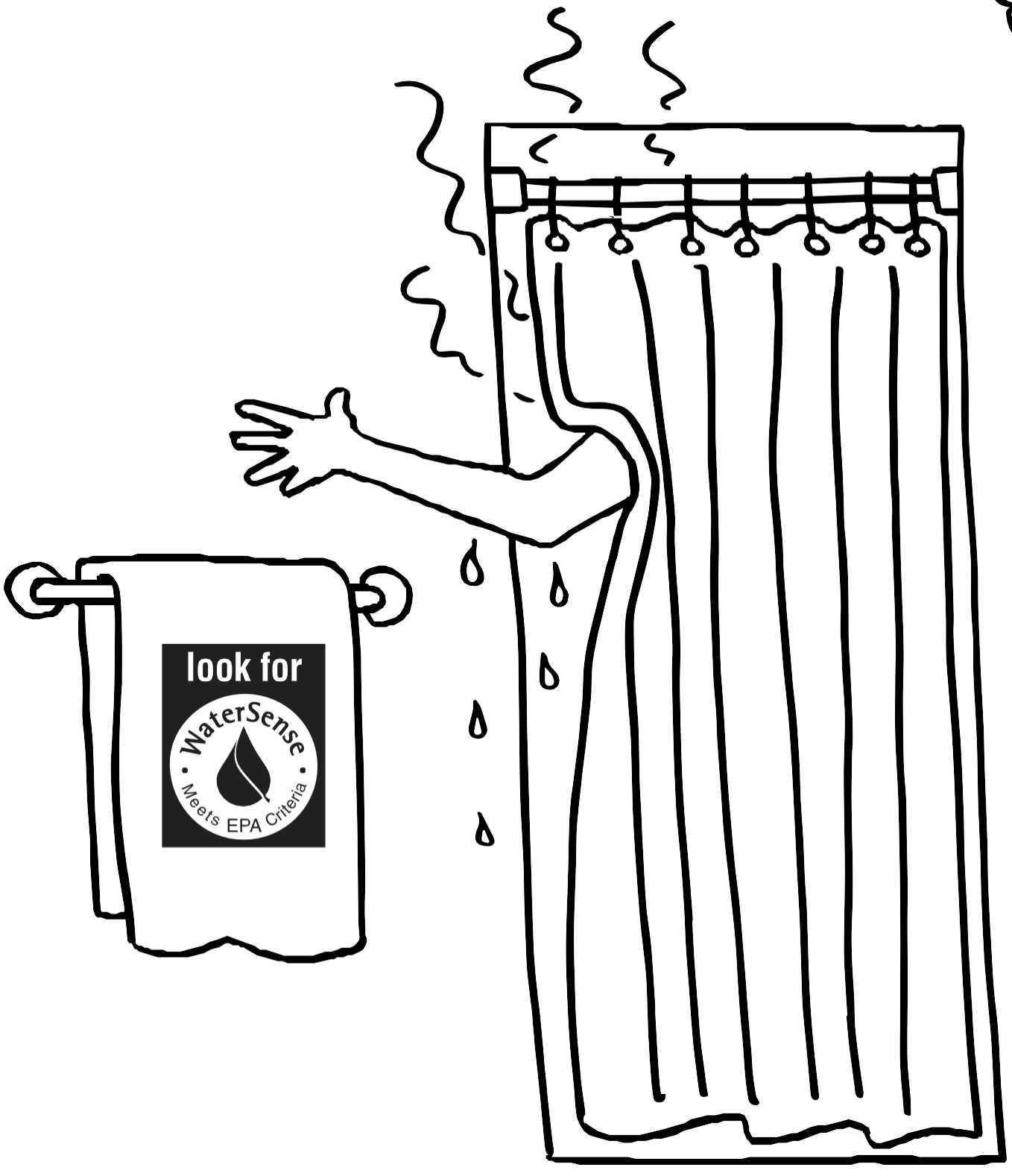


Did you know it takes less water to run a full dishwasher than to wash dishes by hand in the sink? Save more water by scraping plates into the trash rather than rinsing them before loading the dishwasher.

Be a Leak Detective

Have a parent help you take the top off the tank at the back of the toilet. Place a few drops of food coloring in the tank. If the color shows up in the bowl, you might need a new flapper. Don't forget to flush after!

SAVE While Showering



Showers use less water than baths. Order a WaterSense labeled showerhead to replace your current model, and you'll save water and energy without noticing a difference in flow!

WATCH What You Flush

Only three Ps should go in your toilet—pee, poo, and (toilet) paper. Toilet paper is designed to dissolve, but disposable wipes and paper towels don't break down and can clog toilets and drains. Safely dispose of them in the trash.

Curb Outdoor Water Waste

Watering the yard is a great way to get outside in the fresh air. Just don't water in the middle of the day when temperatures are highest, or the sun will evaporate water before it reaches your plants.