



# 2022

**TOWN OF EAGLE**

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**WATER QUALITY REPORT**

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# 2022 TOWN OF EAGLE WATER QUALITY REPORT

## Consumer Confidence Report

The Town of Eagle is committed to providing its customers with safe and dependable drinking water. The Town is pleased to present this Consumer Confidence Report, your annual summary of drinking water quality along with updated information about Eagle's water treatment plants. For more information about your drinking water and other utilities please visit [townofeagle.org](http://townofeagle.org).



Eagle's drinking water source is predominately snowmelt from mountains above Yeoman Park and Sylvan Lake State Park that flows into Brush Creek and its tributaries. Eagle treats surface water from Brush Creek at the Upper Basin Water Treatment Plant (UBWTP) and Lower Basin Water Treatment Plant (LBWTP) year-round. These treatment plants are currently capable of producing 4.3 and 2.5 million gallons per day of potable water respectively.

Water from the UBWTP is transported 7.5 miles down the Brush Creek drainage into Eagle via a potable water transmission main. The

LBWTP is located in town at the confluence of Brush Creek with the Eagle River. Through this arrangement, the Town is able to selectively leave more water in the lower section of Brush Creek by balancing production between the facilities. Doing this helps us to minimize our impacts on the aquatic health of Brush Creek.

It is important that our valued customers be informed about their water utility. Please contact the Town at (970) 328-6354 with questions about any of the information presented in this report, to learn more about our water supply system or to schedule a tour of our facilities.



## What's in your water before we treat it?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water flows over the ground on its way to Brush Creek it dissolves naturally occurring minerals from soil, rock surfaces, and the riverbed, 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 microorganisms, viruses and bacteria that are present in the natural environment and may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Our facilities are designed to treat for known contaminants in our watershed and to meet or surpass federal and state

Public Water System ID: CO0119233

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca  
200 Broadway, PO Box 609, Eagle Co 81631



# Source Water Assessment & Protection

A source water assessment has been completed by the State of Colorado. Consumers can obtain a copy of this assessment by going to the state's Source Water Assessment and Protection website at: <https://www.colorado.gov/pacific/cdphe/swap-assessment-phase> Search the table using 119233EAGLETOWNOF or by contacting the Town.

Eagle routinely monitors its water sources at both treatment facilities and is committed to delivering finished drinking water of the highest quality.

Potential sources of contamination in our source water area include: above ground, underground, and leaking storage tank sites; existing/abandoned mine sites; pasture/agricultural lands; high and low intensity residential; commercial/industrial/transportation; septic systems; road miles; other facilities; and, deciduous, evergreen, and mixed forests.

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.



## Important Health Information

**Some people may be more vulnerable to contaminants in drinking water than the general population.**

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting [epa.gov/ground-water-and-drinking-water](http://epa.gov/ground-water-and-drinking-water).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 of infections. Individuals with these conditions should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. 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 water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at [epa.gov/safewater/lead](http://epa.gov/safewater/lead).





2022

Water Quality Testing Results

Eagle routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of **January 1** to **December 31, 2022** unless otherwise noted. The State of Colorado requires Eagle to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of the following data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note:

Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

*In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment (CDPHE) prescribes regulations that limit the amount of certain contaminants in the treated water provided by public water systems such as Eagle's. The Food and Drug Administration (FDA) sets similar limits for contaminants in bottled water that must provide the same protection for consumers. However, the regulations and testing requirements are much less stringent than for tap water.*

Treatment Disinfection	TT-Violation	Sample Frequency	TT Requirement	MDRL	Samples Below TT Level	CCR Units	Sample Size	Likely Source of Contamination	
Chlorine in the distribution system	No	Monthly	No more than 1 sample below 0.2 ppm	4.0	0	ppm	10/month	Water additive used to control microbes	
Copper & Lead Contaminants	90 <sup>th</sup> Percentile AL Exceedance	Sample Date 2022	90 <sup>th</sup> Percentile Action Level	90 <sup>th</sup> Percentile	CCR Units	Sample Size	Sample Sites Above AL	Likely Source of Contamination	
Copper	No	Apr. - May Oct.	1.3	0.12 0.06	ppm	80	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead	No	Apr. - May Oct.	15	1.1 1.5	ppb	80	0	Corrosion of household plumbing systems; erosion of natural deposits	
Summary of Turbidity Sampled	TT Violation	Sample Date	Level Found			TT Requirement		Typical Sources	
Turbidity	No	Month: May	Highest single measurement: 0.196 NTU			Maximum 1 NTU for any single measurement		Soil Runoff	
Turbidity	No	Month: Dec	Lowest monthly percentage of samples meeting TT requirement for our technology: 100 %			In any month, at least 95% of samples must be less than 0.1 NTU		Soil Runoff	
Radionuclides Sampled	Violation	Year	MCL	MCLG	CCR Units	Level Detected (Average)	Range	Likely Source of Contamination	
Gross Alpha	No	2022	15	0	pCi/L	0.76	0-3.06	Erosion of natural deposits	
Combined Uranium	No	2022	30	0	ppb	2.52	0.73 – 3.7	Erosion of natural deposits	
Organic & Inorganic Contaminants	Violation	Sample Date	MCL	MCLG	CCR Units	Level Detected (Average)	Ranger	Sample Size	Likely Source of Contamination
Barium	No	2022	2	2	ppm	0.04	0.04 to 0.05	5	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	No	2022	4	4	ppm	0.58	0 to 0.8	9	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	No	2022	10	10	ppm	0.07	0.03 - 0.14	5	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate - Nitrite	No	2022	10	10	ppm	0.14	0.14 -0.14	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfection Byproduct Contaminants	Violatin	Year	MCL	MCLG	CCR Units	Level Detected (Average)	Range	Sample Size	Likely Source of Contamination
Total Trihalomethanes (TTHM)	No	2022	80	N/A	ppb	45.21	13.1 to 75.9	8	Byproduct of drinking water chlorination
Total Haloacetic Acids (HAA5)	No	2022	60	N/A	ppb	31.02	6.8 to 46.5	8	Byproduct of drinking water disinfection
Secondary Contaminants	Year		Secondary Standard		Units	Level Detected (Average)	Range	Sample Size	
Sodium	2022		N/A		ppm	24.43	3.2 to 39.7	3	
Total Dissolved Solids	2018		500		ppm	416	416	1	
Source Water (Brush Creek)	Year	Sample Size	Number of Positives	Note					
Cryptosporidium	2022	24	5	Cryptosporidium is a microbial pathogen found in surface water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Filtration removes cryptosporidium, however the most commonly used filtration					

## TERMS & ABBREVIATIONS

The following definitions explain the many terms and abbreviations, which may be unfamiliar, that are used in this report.

- Maximum Contaminant Level (MCL):**  
The highest level of a contaminant allowed in drinking water.

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

**Health-Based:** A violation of either a MCL or TT.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Contaminant Level Goal (MCLG):** 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 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.

**Violation (No Abbreviation):** Failure to meet a Colorado Primary Drinking Water Regulation.

**Gross Alpha:** Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- PicoCuries per Liter (pCi/L):** A measure of radioactivity in water.

**Nephelometric Turbidity Unit (NTU):** Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.

**Compliance Value:** Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).

**Average:** Typical value.

**Range (R):** Lowest value to the highest value.

**Sample Size (n):** Number or count of values (i.e. number of water samples collected).

**Non-Detects (ND) or Below Detection Level (BDL):** Laboratory analysis indicates that the constituent is not present (“<” Symbol for less than, the same as ND or BDL).

**Parts per million (ppm) or Milligrams per liter (mg/l):** One part per million corresponds to one minute in two years or one penny in \$10,000.

**Parts per billion (ppb) or Micrograms per liter (µg/l):** One part per billion corresponds to one minute in 2,000 years, or one penny in \$10,000,000.

**Variances and Exemptions:** State permission not to meet an MCL or a treatment technique under certain conditions.

**Waiver:** State permission not to test for a specific contaminant.

## VIOLATIONS

Eagle received no violations in 2021. Eagle received seven violations in 2022, six related to elapsed reporting dates for the LBWTP and one for failure to demonstrate that 90% of customer backflow prevention assemblies were tested as of 12/31/2021. All of these violations have since been resolved (see below).

## OPERATIONS

In 2021, the Town completed construction of the LBWTP, a 2.5 millions of gallons per day (MGD) Ultra Filtration water treatment plant with expandability to 5 MGD. The new facility allows the Town of Eagle to split production between the Upper Brush Creek and Lower Brush Creek Watershed maintaining higher stream flows through Brush Creek in the 8 mile stretch above the confluence with the Eagle River.

With both the Upper Basin Water Treatment Plant (UBWTP) and Lower Basin Water Treatment Plant (LBWTP) running, the Town has the capacity to produce 6.8 MGD of potable water and meet peak demands in the growing community. The Town of Eagle provides water to its residence as well as the communities of Frost Creek, Kiabab, and Eby Creek. In 2021, summer production peaked at just over 3.0 MGD in late June. This trend was consistent with peak summer production from the five previous years.

## June 3 and July 26, 2022: Timely Reporting - Tier 3 Public Notices

In June and July 2022, the Town's water system received reporting violations for 1) Failure to monitor or timely reporting of LT2 monitoring results in Lower Brush Creek, 2) Failure to monitor or timely report Quarterly Combined Radium, and 3) Failure to monitor or timely report Quarterly VOC samples. There is not a public health risk, impacted water treatment, or water quality however, as our customer you have a right to know what happened and what we are doing to correct this situation.

### Background:

For the March 2022 monitoring period the required Cryptosporidium testing was performed by the Town, but one of the samples taken fell outside of the required 5-day sampling window. The Town returned to compliance when Cryptosporidium samples were taken in April. For the 2<sup>nd</sup> Quarter monitoring period the VOC and Combined Radium samples were taken but either lost in shipping or the results were omitted from the spreadsheet submitted to the State. For VOC the Town returned to compliance when 3<sup>rd</sup> Quarter samples were taken on July 6<sup>th</sup> and for Combined Radium when the correct results were submitted on August 19<sup>th</sup>, 2022. We realize the importance of reporting information to the state to demonstrate whether drinking water meets health standards and continuously monitor water quality in addition to the monthly reporting to the state.

All 2022 - Violation			
Name	Description	Time Period & Health Effect	Status
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - M614	04/01/2022 - 06/30/2022 We have an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections can lead to inadvertent contamination of the drinking water.	Resolved - Compliance Ratio Met. 12/31/2022
VOLATILE ORGANICS	FAILURE TO MONITOR AND/OR REPORT	04/01/2022 - 06/30/2022 NA	Resolved – Quarter 3 Results Submitted 07/19/2022
TURBIDITY	FAILURE TO MONITOR AND/OR REPORT	01/01/2022 - 01/31/2022 NA	Resolved – Correct MOR Submitted 02/16/2022
CRYPTO-SPORIDIUM	FAILURE TO MONITOR AND/OR REPORT	03/01/2022 - 03/31/2022 NA	Resolved - Subsequent Sample Submitted: 04/10/2022
CRYPTO-SPORIDIUM	FAILURE TO MONITOR AND/OR REPORT	01/01/2022 - 01/31/2022 NA	Resolved – Subsequent Sample Submitted: 03/30/2022
COMBINED RADIUM	FAILURE TO MONITOR AND/OR REPORT	04/01/2022 - 06/30/2022 NA	Resolved – Correct Results Submitted 08/29/2022
CHLORINE	FAILURE TO MONITOR AND/OR REPORT	01/01/2022 - 01/31/2022 NA	Resolved – Correct MOR Submitted 02/16/2022

### What does this mean? What should I do?

There is nothing you need to do. There is not a public health risk, impacted water treatment, or water quality associated with the reporting violations.

### What is being done?

The Town submitted the required reports to the State as soon as staff were notified of the omission. New procedures have been implemented by the Town to ensure that required information is submitted to the State on time each month, and to verify that the State has received the information prior to the submission deadline.

For more information, please contact:

**Utility Manager: Stephan Wilson** at:

**Stephan.Wilson@townofeagle.org** or **970-328-6546**

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by: Town of Eagle – Public Water System ID #CO0119233 Date Distributed: **06/01/2023**

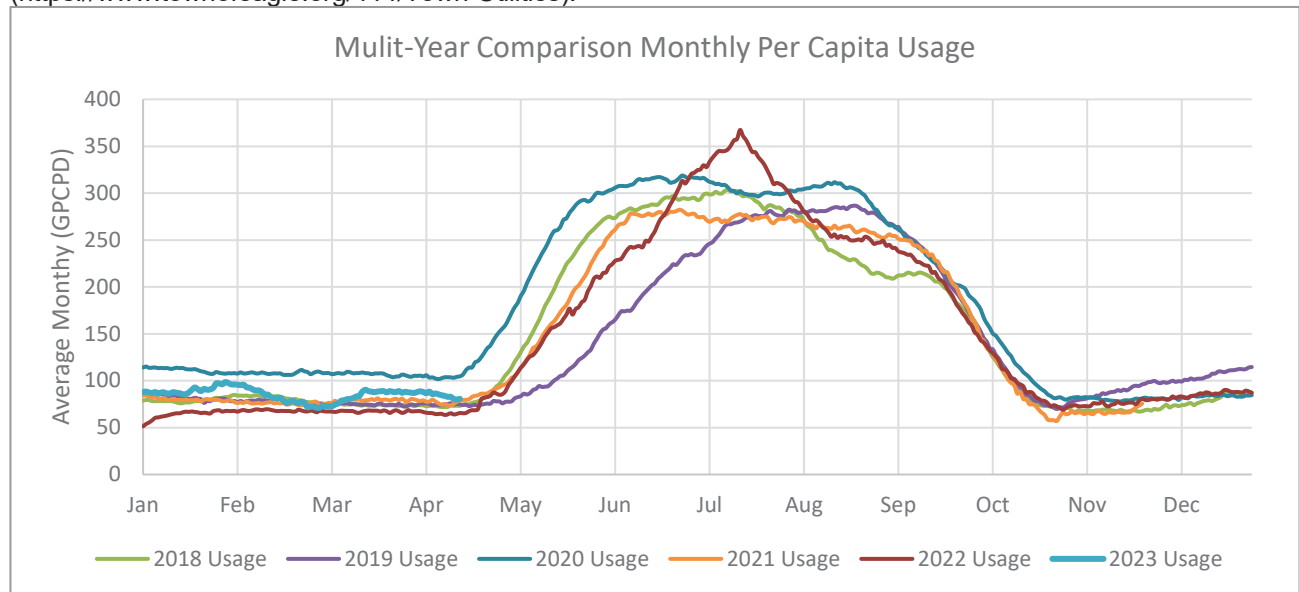
*Este informe contiene información muy importante sobre su agua potable.*

*Tradúzcalo o hable con alguien que lo entienda bien*

# Water Demand and 2023 Water Supply Outlook

## Looking Back

Multi-year drought conditions have created momentum for collaboration in and among western states to preserve our precious water resources. Eagle currently diverts all of its water from one water source (Brush Creek), so it is important that the Eagle Community does its part to manage its water use. Eagle's overall water consumption has steadily increased over the last 20 years trending with a population that has steadily increased. Our total diversions from Brush Creek have increased by approximately 35% while the Eagle population has grown by over 30%. During 2022, seasonal water usage increases from 80 gallons per capita per day (GPCPD) in the winter to a peak of 360 GPCPD during the summer irrigation months. We use a lot of water for lawn irrigation! In 2020, Eagle finalized its Water Efficiency & Conservation Plan with the goals to reduce total per capita outdoor water use by at least 10% and to improve systemwide water efficiency by 10%. For more information about the Water Efficiency & Conservation Plan please visit: (<https://www.townofeagle.org/414/Town-Utilities>).



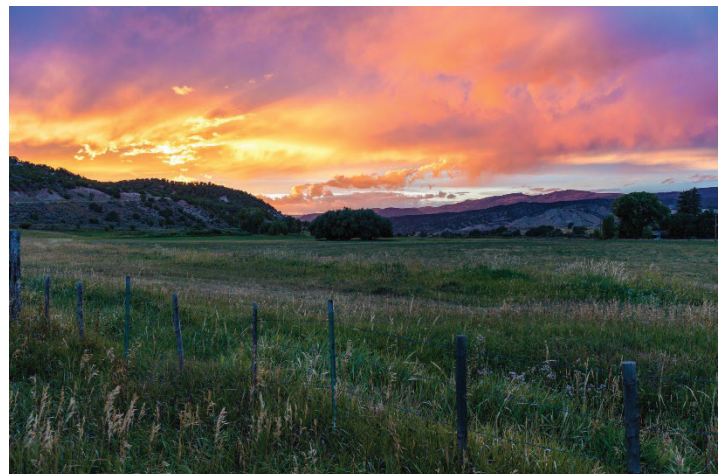
## Water Supply Outlook 2023

Eagle's water supply begins with snow deposits in the high country. On April 1, 2023, the snowpack in Eagle's watershed 114% of normal at the Vail Mountain SNOTEL tell site and 90% of normal at the Fremont Pass site. Since both sites are showing above 80% of normal snowpack, Eagle is able to enter the summer without water restrictions. However, that is subject to change as winter transitions into summer. All in all, Eagle's water supply looks very sustainable as long as we continue to use it wisely.

## How Can you Save Water?

### Do Not Waste and Be Wise with Brush Creek

This can be achieved by watering no more than three days per week (watering between 6 p.m. and 10 a.m.) and taking prompt action to fix your leaks. Think your kids use too much water? They've got nothing on a leaky toilet. Even small toilet leaks can waste more than 100 gallons of water per day. To check for leaks, add a few drops of food coloring to the toilet tank, wait 15 minutes, then check if the toilet bowl changes color. If it does, you've got a leak.







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### Online Payments

Please consider setting up paperless billing and updating your contact information. This service allows you to use your credit or debit card to pay your bills. This service is offered free of charge to customers and the Town pays the service fees.

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your device.**



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PAPERLESS



### Water Quality - Make A Difference, From Your Own Backyard

The storm drainage system is designed to collect stormwater — rain and snowmelt — and release it directly to Brush Creek, untreated. Pollutants are transported in stormwater as rain and snowmelt travel across surfaces such as lawns, roads and parking lots, picking up substances such as fertilizers, pesticides, oil, and sediments before entering Brush Creek. Contaminants that enter the creek degrade the quality of our drinking water source and the quality of fish and wildlife habitats

#### Lawn and Garden Care

- Leave grass clippings on the lawn – it can reduce the amount of nitrogen needed by 1/4 to 1/3.
- Sweep grass clippings from paved areas after mowing so they don't wash down the gutter.
- Control erosion from bare areas using mulch, native grass, terraces, or hardscaping.
- Cut, pull, or spot treat for noxious weeds to minimize herbicide use.
- If you live along a waterway, maintain a natural buffer, and avoid mowing or chemical applications immediately adjacent to the water's edge.
- Have your soil tested to learn what nutrients, if any, are needed for your yard.