CITY OF PRESCOTT
ARIZONA

PRESCOTT
WATER QUALITY REPORT

REPORTING YEAR 2024
PWS ID# AZ0413045

Water Treatment

All water produced for distribution undergoes a level of treatment. The City of Prescott is fortunate to draw from high quality aquifers, therefore, the water requires minimal treatment. Water Operations selects a combination of three appropriate treatment processes to reduce the contaminants found in our groundwater and ensure the delivery of potable water that not only meets safe levels but surpasses state and federal regulations.

1. The first of the three processes utilizes chlorine for disinfection to prevent the development of bacterial contamination that could occur in the water storage and distribution system.

2. The second is an ADEQ approved Blending Plan to manage arsenic levels naturally occurring in some wells. A Blending Plan is a process that combines water from various wells with various arsenic levels to achieve a uniform potable water with the lowest detected levels of arsenic possible. This process allows the City to meet daily demands while keeping the levels of arsenic below the regulatory requirement.

3. The third of the three processes utilizes adsorptive media for the removal of arsenic where water exceeds state quality requirements and blending is not feasible. Currently, the City has one production well with this type of treatment system which maintains arsenic levels below the federal action level standards.

Water Sampling

The City of Prescott monitors and samples for over 100 substances and physical characteristics on a regular basis. Among them, the City pulls 53 Total Coliform tests per month at designated sites throughout the City. The Total Coliform bacteria test is a primary indicator of the suitability for consumption of drinking water which measures the concentration of Total Coliform bacteria associated with the possible presence of disease-causing organisms.

The City of Prescott pulls 10 Arsenic samples monthly to ensure Arsenic levels stay below Federal and State regulatory limits. Arsenic can enter the water supply from natural deposits in the Earth; here in the southwest the source is the volcanic and granitic rocks that groundwater moves through.

Possible Health Effects of Contaminants in Drinking Water

Arsenic
If Arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. For more information about Arsenic: http://legacy.azdeq.gov/environ/water/dw/download/epa_arsenic.pdf

Chlorine
Some people who use water containing Chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing Chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

Nitrates
Nitrates are inorganic substances that are monitored due to run off from fertilizer use. Nitrates in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. "High nitrate levels in drinking water can cause blue baby syndrome." The City of Prescott nitrate levels are well below the maximum contaminant level. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

Fluoride
Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Antimony
Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Disinfection By-Products
Some people who drink water containing Total trihalomethanes and Haloacetic acids in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of cancer.

Barium
Some people who drink water containing Barium in excess of the MCL over many years may experience an increase in blood pressure.

Copper & Lead
Copper is an essential nutrient however if present in drinking water, short term exposure to elevated levels of copper could cause gastrointestinal distress and prolonged use above the action level could cause liver or kidney damage in some people. If present, elevated levels of lead could cause health issues especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development, slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead primarily comes from erosion of components associated with service lines and home plumbing. If your water has been sitting for several hours, flushing your tap for 30 seconds or more prior to drinking or cooking can minimize the potential for exposure. Information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at https://www.epa.gov/safewater/lead

Trichloroethylene
Some people who drink water containing Trichloroethylene in excess of the MCL over many years may experience headaches, dizziness, sleepiness, nervous system effects, and may have an increased risk of cancer if consumed in large quantities.

Chromium
Some people who drink water containing Chromium in excess of the MCL over many years may experience problems with their liver, kidney, skin, asthma, reproductive harm, and may have an increased risk of cancer.

Radionuclides
They are a group of contaminates consisting of Alpha and Beta/Photon emitters, combined Radium 226 & 228 and Uranium. Certain minerals are radioactive and may emit a form of radiation known as Alpha, Beta or Photon radiation. Some people who drink water in excess of the MCL for this group of contaminates over many years may have an increased risk of getting cancer or in some cases kidney problems. Radon gas is a colorless, odorless and tasteless gas that comes from the natural breakdown of Uranium. Although there is no federal standard for Radon in drinking water The City of Prescott does monitor the Radionuclide group and surpasses mandatory health levels established by the EPA and ADEQ. For more information on Radon: https://www.epa.gov/radon

Contaminants & How They May Be Introduced

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 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 (800-426-4791).

Inorganic contaminants such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.

Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff and septic systems.

Pesticides and herbicides which may come from a variety of sources such as agriculture, urban storm water runoff or residential uses.

Radioactive contaminants, such as Radon, Alpha Emitters, Beta/Photon Emitters, combined Radium and Uranium that can be naturally occurring or the result of oil and gas production or mining activities, decay or erosion of natural and man-made deposits.

Total Trihalomethanes and Haloacetic acids are the by-product of drinking water disinfection.

Water Quality Data Report

The Water Quality Data Report Table contains the most recent results for regulated testing. The frequency of sample collection is determined by state and federal regulations and based on many different parameters such as type of water source, number of people served, as well as past and current analyses of the contaminant to be tested. Sample frequency can range between 1 month and 3 years. The City of Prescott is also required to test for unregulated contaminants. The data generated by these tests is used by the EPA to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List. Regulated and unregulated contaminants will appear in this report if they are found during testing.

Primary Drinking Water Standards - Mandatory Health-Related Levels Established by EPA and ADEQ

Water Samples Collected from Qualifying Homes Based on ADEQ Site Selection Criteria in Prescott, AZ

Parameter	Violation Y or N	AL	Number of Samples Over the AL	90th Percentile	Unit	Date	Likely Source of Contamination
Lead & Copper (Water Samples Collected from Qualifying Homes Based on ADEQ Site Selection Criteria in Prescott, AZ)							
Lead Results - Homes	N	15	0 of 30	<5.0	ppb	22-Jun	Corrosion of household plumbing systems; erosion of natural deposits
Copper Results - Homes	N	1.3	0 of 30	0.072	ppm	22-Jun	
Regulated Substances - Measured from Water Leaving the Treatment Facilities							
Parameter	**MCL**	**MCLG**	**Highest Level**	**Range**	**Unit**	**Date**	**Likely Source of Contamination**
RadioChemical Monitoring							
Gross Alpha	15	0	2.6	2.9	pCi/L	23-Jan	Erosion of natural deposits
Combined Radium 226 & 228	5	0	<0.6	<0.6	pCi/L	23-Jan	Erosion of natural deposits
Inorganic Compounds							
Antimony	6	6	0.8	ND - 0.8	ppb	22-Jan	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic	10	0	8.0	1.8 - 8.0	ppb	2024	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium	2	2	0.036	ND-0.036	ppm	22-Jan	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Chromium	100	100	14	2 - 14	ppm	2020	Discharge from steeland pulp mills: Erosion of natural deposits
Fluoride	4	4	0.29	ND - 0.29	ppm	22-Jan	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N)	10	10	2.03	1.08 - 2.03	ppm	24-Jan	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No MCL	N/A	14	14	ppm	22-Jan	Erosion of natural deposits
Volatile Organic Chemicals							
Trichloroethylene	5	0	0.0006	ND - 0.0006	ppb	24-Jan	Discharge from metal degreasing sites and other factories
Disinfection Byproduct Monitoring							
Total Trihalomethane (TTHM)	80	N/A	0.006	ND - 0.006	ppb	24-July	Byproduct of drinking water disinfection
Bromodichloromethane	80	N/A	0.0027	ND - 0.0027	ppb	24-July	
Bromoform	80	N/A	0.0061	ND - 0.0067	ppb	24-July	
Chloroform	80	N/A	0.0037	ND - 0.0037	ppb	24-July	
Dibromochloromethane	80	N/A	0.006	ND - 0.006	ppb	24-July	
Haloacetic Acids (HAA5)	60	N/A	ND	ND	ppb	24-July	
Dibromoacetic Acid	60	N/A	0.0014	ND - 0.0014	ppb	24-July	
Maximum Residual Disinfection Level (MRDL)	**MRDL**	**MRDLG**	**Highest Detected Level**	**Range**	**Unit**	**Date**	**Likely Source of Contamination**
Chlorine	4.0	<4.0	1.78	0.26 - 1.78	ppm	2024	Water additive used to control microbes
Biological Monitoring	**MCLG**	**Entire Distribution System**	**Likely Source in Drinking Water**	**Unit**	**Date**	**Major Sources of Water**	
Total Coliform - Tested monthly	0	Highest monthly number of positive Coliform samples: **0 in 50**	Naturally present in the environment	Absent or Present	2024	Naturally present in the environment	

Monitoring Requirement Not Met For City Of Prescott

During the 2024 reporting year, the City of Prescott was required to pull Arsenic samples quarterly at EPDS 011 and 012. The samples were taken and analyzed in the proper timeframes however, the 2nd quarter Arsenic results were not submitted to ADEQ within the required timeframe. These results have been submitted to ADEQ and met regulatory requirements. This confirms that the city's water quality continues to meet state guidelines for this contaminant. No emergency exists; this notice is for informational purposes only.

Notice Required by ADEQ: Monitoring Requirement Not Met for City of Prescott

The Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ) provide regulatory oversight to all aspects of the City of Prescott's water quality. On or about September 4, 2024, an Inspector of the ADEQ determined that pursuant to Arizona Administrative Codes R18-5-505(B) and R18-5-507(A), the City of Prescott failed to get the proper permits for modification or expansion of an existing facility (The Prescott Canyon storage tank). The city has corrected this error and is currently in full compliance with the permitting requirement. Throughout the entire time, water quality was tested and monitored appropriately and no water quality issue was detected.

Please share this information with other people who drink this water, especially those who may not have seen this notification.

Abbreviations & Definitions

ADEQ (Arizona Department of Environmental Quality) - State Regulatory Agency

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

EPA (US Environmental Protection Agency) - Federal Regulatory Agency

HAA5 (Haloacetic acids 5) - Five commonly found disinfection byproducts in drinking water.

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

MCLG (Maximum Contaminant Level Goal) - 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.

MRDL (Maximum Residual Disinfectant Level) - The highest level of a disinfectant (chlorine) allowed in drinking water. There is convincing scientific evidence that the addition of a disinfectant is required for the control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal) - The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

ND (Not Detected) - Concentration too low to be detected

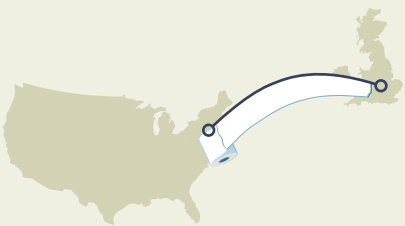
pCi/L (Picocuries per liter) - A measure of the radioactivity in water

ppb (Parts Per Billion) - Or micrograms per liter (µg/L), 1000 ppb = 1 ppm

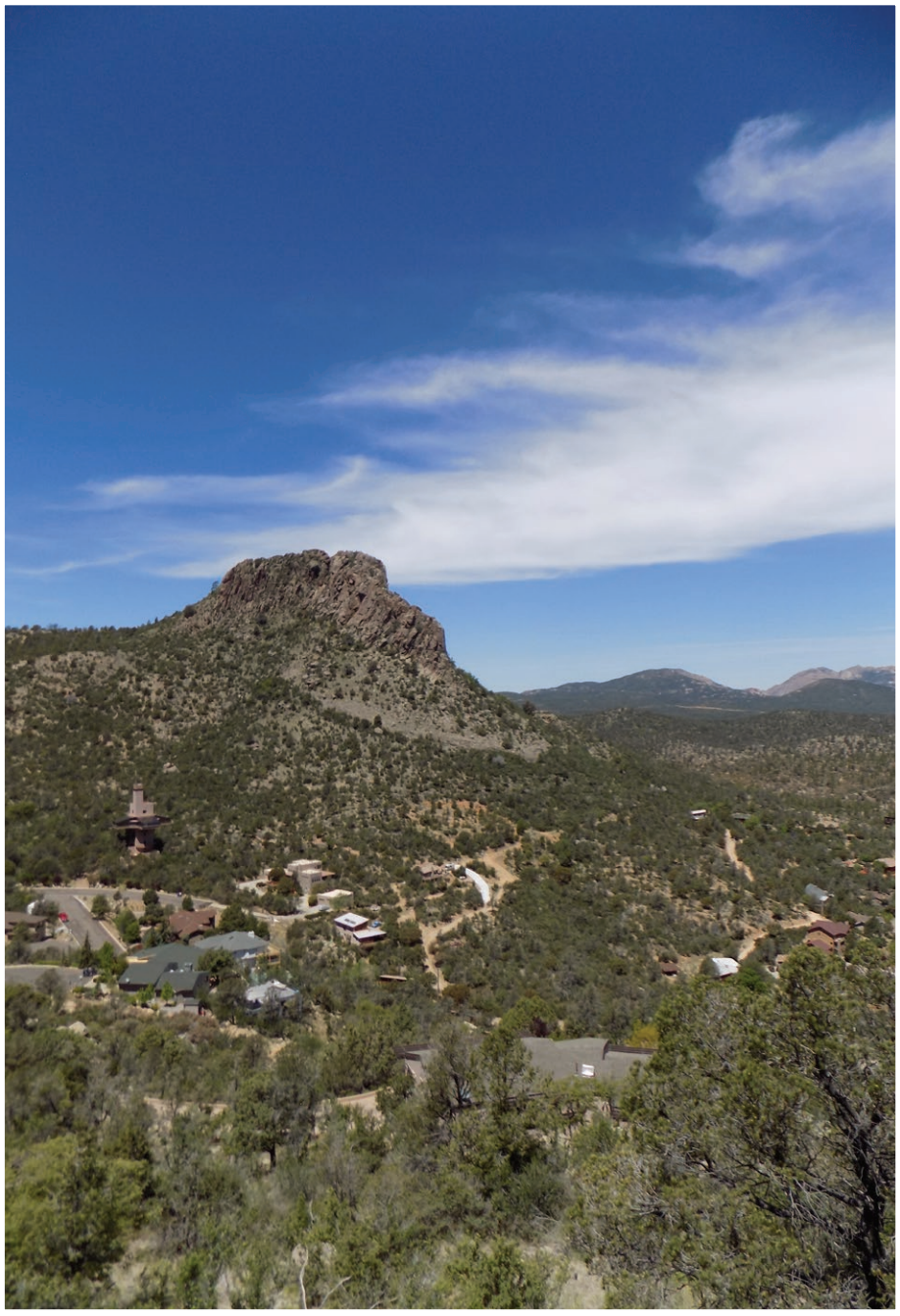
ppm (Parts Per Million) - Or milligrams per liter (mg/L), 1mg/L = 1 ppm

PQL (Practical Quantitation Limit) - The minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration

Parts per
MILLION:
One car in bumper-to-bumper traffic from Cleveland to San Francisco



Parts per
BILLION:
One sheet in a roll of toilet paper stretching from New York to London



Frequently Asked Water Questions & Topics

General Water Consumption:

Statistics show that U.S. consumers average between 100 to 160 gallons, per person, per day for all uses. City of Prescott averages 102 gallons per person, per day. Usage can vary greatly based on an individual's particular habits. Between 2 quarts and 1 gallon are consumed for cooking, drinking water and prepared beverages such as coffee and tea. The remainder includes household cleaning, bathing, laundry, outdoor watering and more. Most new low use toilets use about 1.5 gallons per flush, compared to older ones using about 4 gallons per flush. Showers can use anywhere from 2 to 5 gallons per minute and a bath can consume 35+ gallons per use depending on tub size. Outdoor usage generally accounts for the largest volume of water consumed especially during Spring and Summer months.

Water Hardness:

Water Hardness Scale

Grains/Gal	ppm	Classification
Less than 1	Less than 17.1	Soft
1 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7	60 - 120	Moderately Hard
7 - 10	120 - 180	Hard
over 10	over 180	Very Hard

Hardness in drinking water is caused by calcium and magnesium which are two non-toxic, naturally occurring minerals in water. They enter water mainly through erosion and weathering of rocks. The more these two minerals are in water, the harder the water. Water hardness is usually expressed in parts per million (ppm) or grains per gallon of dissolved calcium and magnesium carbonate. The City's water is considered moderately hard, averaging 75 to 130 ppm, which equals 4.3 to 7.6 grains per gallon. In hard water, lathering of soap for washing is more difficult to do and cleaning becomes less efficient. As a result, more soap or detergent is needed to get things clean, be it your hands, hair, or your laundry. Dull hair, spots on dishes, glasses, faucets and film on shower doors can be related to water that is considered hard in nature.

Water Pressure:

Have you experienced a sudden change or fluctuation in your water pressure? Changes in pressure can be caused by many things. Mineral deposit build-up can reduce the flow in domestic pipes and faucet aerators may become plugged if not regularly cleaned and maintained. A significant water leak can cause a draw on the water line, reducing the volume of water supplied. Another cause, and the most common of water pressure concerns can be related to a pressure regulator valve (PRV). Most PRVs are a dome or bell-shaped fitting with an adjustable screw on top allowing the pressure to be adjusted as necessary. A PRV will typically come with a factory setting of 50 pounds per square inch (PSI). Where do you find a PRV? Depending on the age of your home, if one is installed, may be in the ground by the water meter in a separate box near a customer shut-off valve, in the garage near a water heater, or a crawl space under the house where the pipes enter the home. Pressure regulator valves are mechanical devices that fail over time. A failing PRV can cause high or low water pressure, even banging or hammering of water pipes, known as "water hammer". These PRVs are the responsibility of the homeowner. Replacing it is a common job performed by plumbers or the experienced handyman. PRVs can be found at most hardware stores.

Cloudy Water

Sometimes water fresh from the tap appears cloudy. Within a minute or two, the cloudiness rises toward the top of a glass and before long the whole glass is crystal clear. This is caused by excess oxygen escaping from the water. Changes in water temperature and pressure can cause the dissolved oxygen to reach a supersaturated state where more exygen is in the water than it can hold. When water passes through a faucet, the disturbance is enough to release the excess oxygen out of the water, forming microscopic bubbles. The bubbles are so tiny that it takes them a long time to rise through the water. No harm will come from using oxygenated water, and you do not need to take any corrective action if you experience it.





A Note from Water Operations

As your water provider, we serve more than water. We provide customer service, reliability, peace of mind, and protect public health. Our job is to ensure that your safe supply of water keeps flowing not only today, but well into the future. It's all part of our service commitment to you and everyone in our community. The Water Quality Report is a comprehensive report issued by the City of Prescott Water Operations. This annual report identifies the sources of Prescott's drinking water, provides water quality information, and summarizes analytical tests of the City's drinking water supply for Calendar Year 2024. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. During 2024, water from the City system met all applicable federal and state drinking water health standards.

Source of Water

Groundwater is the sole source of potable water in the City of Prescott. The City produces its water from seven production wells within the Prescott Active Management Area (AMA). These wells are drilled into the confined deep Lower Volcanic Unit of the aquifer underlying the Little Chino Sub-Basin. The water is pumped from the ground through one of the City's seven active wells and treated prior to entering the drinking water distribution system. The water is of excellent quality and the City's production capabilities are sustainable. The wells are pumped in different combinations to meet daily demand. The City's annual average daily demand is 6.46 Million Gallons per Day (MGD). In 2024, Prescott produced (pumped) 7,291 acre-feet of water from the wells and delivered this water to approximately 26,842 service connections through 569 miles of pipeline, 37 remote booster pump stations and 26 water storage tanks throughout the service area.

Applicable Federal and State Requirements

The United States Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ) require providers of drinking water to annually report the quality of water they deliver. The City of Prescott safeguards its water supplies and once again is pleased to report compliance with prescribed maximum contaminant levels and other water quality standards. The City regularly conducts testing beyond the minimum regulatory requirements to further assure the safety of our drinking water.

Naturally Occurring Contaminants

A contaminant is any physical, chemical, biological, or radiological substance or matter in the water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these contaminants are not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and others may even have nutritional value at low levels.

Source Water Assessment

Based on the information currently available on the hydrogeological settings and the adjacent land uses that are in proximity of the water sources for the City's public water system, the Arizona Department of Environmental Quality has given the City a low-risk designation for the degree to which the drinking water sources are protected. A low-risk designation indicates that most source water protection measures are either already implemented or the hydrogeology is such that additional measures will have little impact on protection.

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Where to Learn More about Your Drinking Water

Specific information about this report can be obtained by contacting:

City of Prescott Water Operations
Office Location: 1481 Sundog Ranch Road, Prescott, AZ 86301
Phone: (928) 777-1118
Email: water.operations@prescott-az.gov
Hours of Operation: 7:00 a.m. to 3:30 p.m. Monday—Friday
City of Prescott Website: http://www.prescott-az.gov/water-ops/how-tos-faqs/

Environmental Protection Agency
Safe Drinking Water Hotline: (800) 426-4791
Website: https://www.epa.gov/ground-water-and-drinking-water

Arizona Department of Environmental Quality (602) 771-2300
Website: www.azdeq.gov/WQD

Water related topics are discussed at City Council meetings and in other forums including the Subcommittee on Water Issues, in which the public can participate. Council meetings are posted at City Hall, 201 N. Montezuma Street, Prescott, Arizona and on the City website.

Follow this link for City Council information:
https://www.prescott-az.gov/prescott-city-clerk/council-meetings/