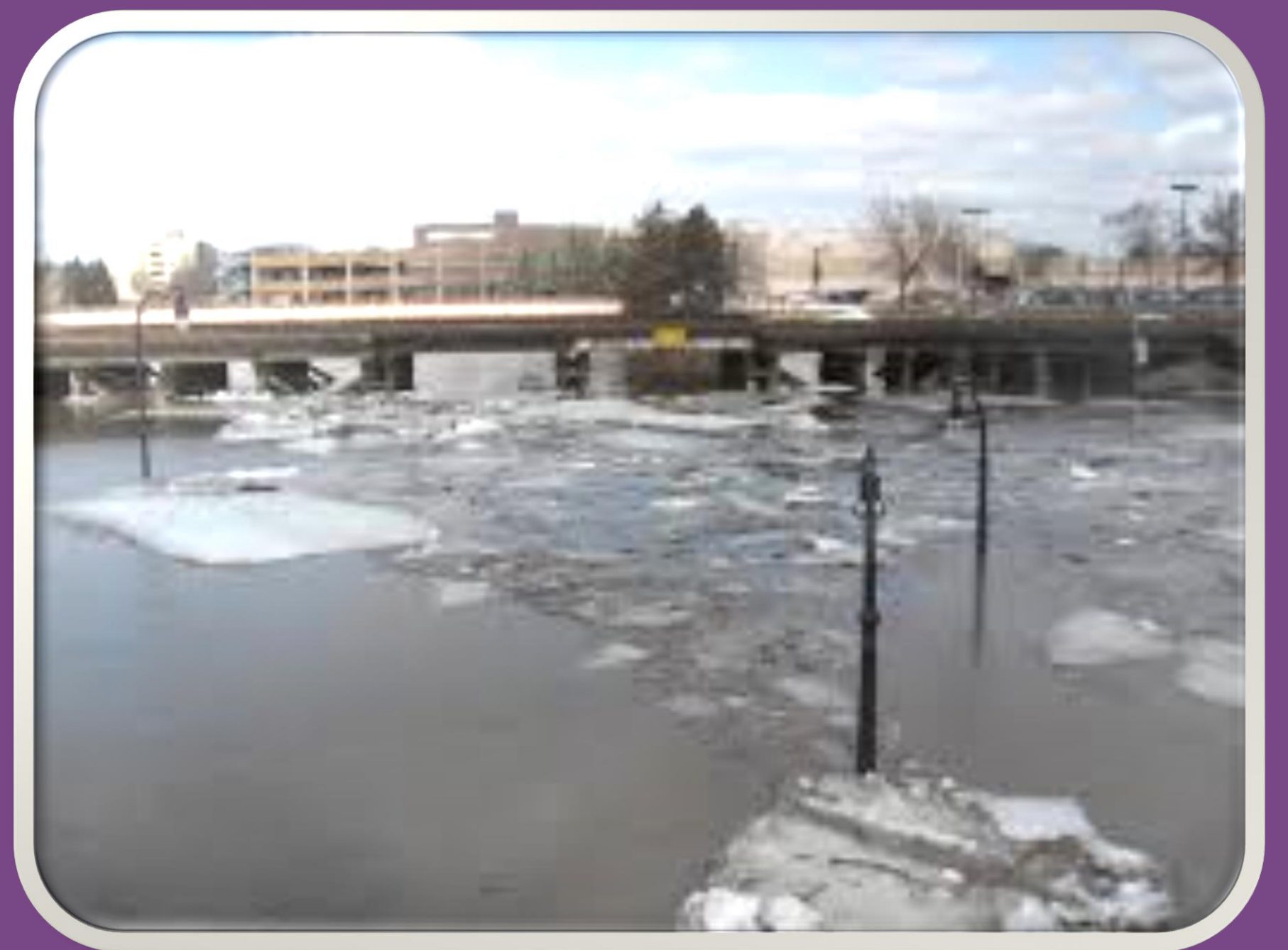


# Drinking Water From A River

## Fargo's Water Supply

- ❖ The Fargo water treatment plant can produce 30 million gallons per day.
- ❖ On average, 11 million gallons is treated per day, with peak summer of around 23 million gallons.
- ❖ There are 9 water towers in the system, two 1-million gallon tanks and seven 1/2 million gallon tanks.
- ❖ The water treatment plant operates 24 hours a day, 7 days a week and only shutdowns for planned maintenance work.
- ❖ Over its 20 years of operation, the water treatment plant has produced over 80 billion gallons of water.
- ❖ The largest pipe in the water treatment plant is 60 inches in diameter and is designed to carry 45 million gallons of water per day.

**The Red River**—The City of Fargo uses the Red River as its primary water source for drinking water. The City has senior water rights to the Red River and can use 100 million gallons of water/day, although the average water demand is only 12 million gallons/day.



**The Sheyenne River**—The City of Fargo can also access up to 16 million gallons per day from the Sheyenne River. The City relies on both rivers to ensure water quality goals are met and to reduce treatment costs.

**Lake Ashtabula**—The City of Fargo also owns 52 percent of the stored water rights to Lake Ashtabula, acquired by funding construction of Baldhill Dam at Valley City. During a drought, water from the lake can be released into the Sheyenne River to provide water for Fargo's needs.





# Drinking Water from Wells

## Can you drill your own well?

The first step in drilling a well is groundwater exploration. Finding the right place for your water well is very important. Scientific methods are used to locate your well in a place where it will provide the most water. Wells should be located a specific distance from sewage systems and other structures. A misplaced or improperly installed well can cost a considerable amount of money.

## How much water will I use?

When calculating your water usage needs, be sure to consider your daily usage for cooking, bathing, and appliances. Also seasonally you may need water for your lawn or garden or even a swimming pool. A conservative estimate is that most 4 person homes will need approximately 300 gallons per days well as the ability to produce 7 gallons of water per minute.



## Who should I hire to drill my well?

Be sure that the company is licensed and insured and that they follow safe drinking water standards.



## Well Water Testing

The Minnesota Department of Health (MDH) recommends well users test their water annually for coliform bacteria, every other year for nitrates, and at least once for arsenic, lead and manganese.

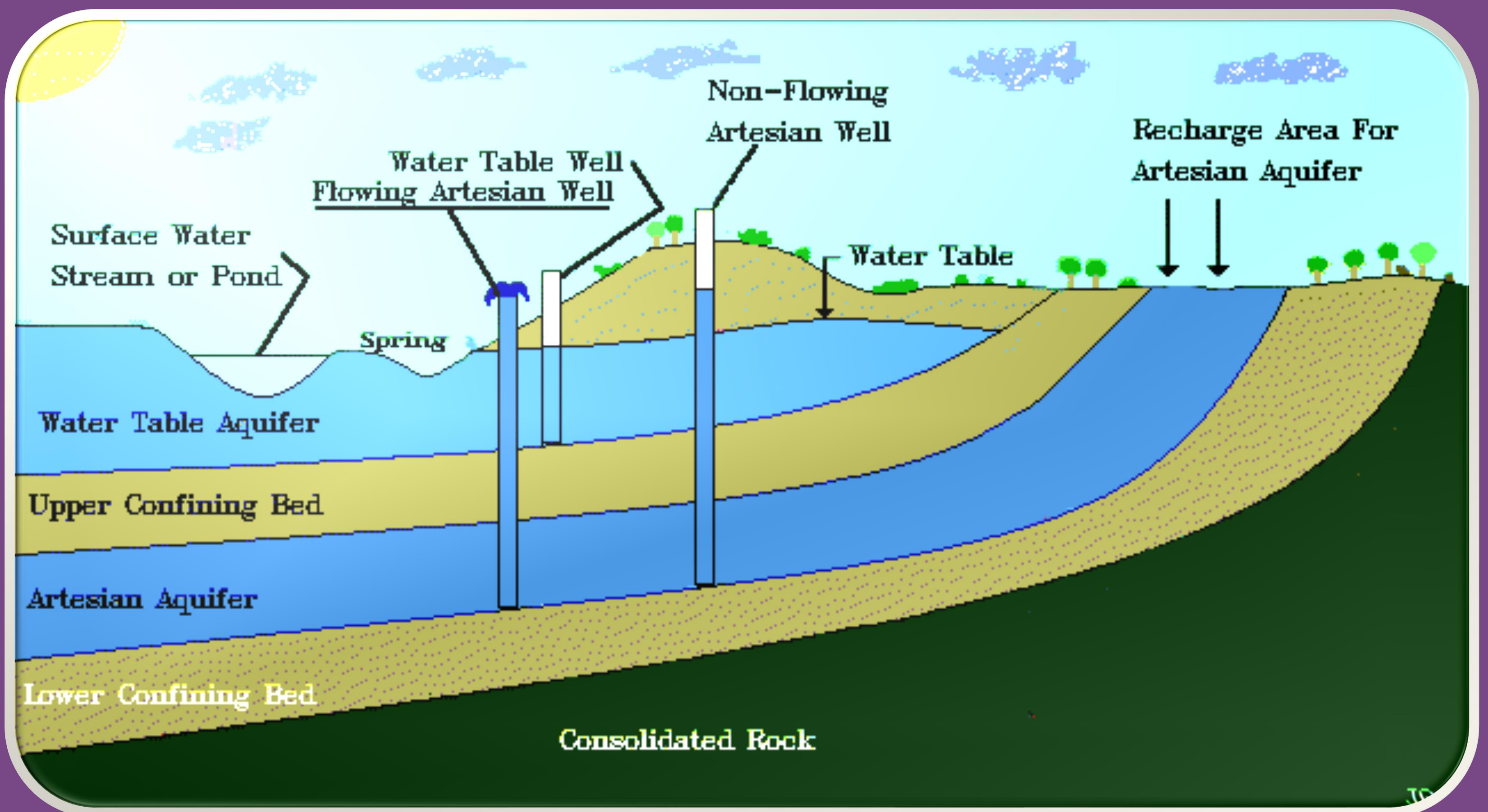
## Health Benefits of Drinking Well Water

Over 15 millions households in the United States depend on drinking water from a well. Well water may vary in quality and water volume but unlike local water systems, it is direct ground water, and does not go through chemical filtering. The benefits of natural state well water include: great taste, environmental friendliness and purity. The following are some health benefits that you get from drinking well water.

- 1. Helps in Water Loss** – When you drink enough water each day, it can help you to shed pounds. When you drink well water, you avoid the harmful chemicals present in regular water.
- 2. Aids in maintaining a healthy heart** – According to research, people who drink adequate water daily are less likely to suffer from heart attacks. Water helps with metabolism, hydration and flushing toxins from our bodies.
- 3. Enhances brain function** – The body is made up of 70% water. The body and your brain need water in order to function at optimum levels. When you are properly hydrated, you are more focused.
- 4. Promotes healthy looking skin** – Properly hydrating gives your skin a healthy glow.
- 5. Reduces muscle and joint inflammation** – Drinking water can help you find relief from muscle and joint inflammation. Water helps to reduce pain by producing lubrication. It also helps the body absorb essential nutrients from food consumed.



# Drinking Water from An Aquifer



## What is an Artesian Aquifer?

An Artesian Aquifer is an underground layer which holds groundwater under pressure. This causes the water level in the well to rise to a point where the pressure is equal to the weight of water putting it under pressure. This pressure eliminates the need for a pump.

Artesian water contains naturally-occurring calcium, which makes it desirable for companies bottling water.



## Detroit Lakes Drinking Water

- The City has 4 wells ranging from 230-232 feet deep that draw water from the Artesian Aquifer.
- Iron is removed through sand filtration when it enters the Water Treatment Plant.
- Three chemicals are added: Chlorine is added to disinfect, Fluoride is added to prevent decay of teeth, and Ortho-polyphosphate is added for corrosion control
- The Water Treatment Plant on average treats 1.5 to 2.5 million gallons epr day, but can treat up to 3 million gallons per day.
- Up to 1.46 million gallons of water can be stored in 2 clear wells on site, 1 large water tower, and 1 small water tower