

"Sustainable Water Supplies in East- Central Illinois"

Video Guide

Welcome to the World of Water:

Slide 2:

Water is a precious **resource** and we take it for **granted** that water will flow when we turn on a faucet.

Slide 3:

One of the biggest threats to the water supply is the **drying** up of lakes and reservoirs during severe **droughts**, as we can see in Lake Springfield in 1988.

Slide 5:

Four good reasons why each of you should care about water supplies are:

- a. Every day you need to drink clean water and you use a lot of water at home. You need a water supply that you can count on every day.
- b. Neither you nor your neighbors own water. Water is a common resource that we share.
- c. We extract water from various parts of the environment for our use and you can help protect the environment.
- d. About 1 million people live in East-Central IL and how much water is used depends entirely on the actions of each person, including you.

Slide 6:

This presentation is broken into 3 parts:

- e. Understand the region and the factors that affect water availability and water use.

- f. We will quantify how much water we use today and how much we will need in the future.
- g. We will get a better handle on what we mean by sustainable water supplies.

Slide 7

What of the fifteen counties is your community located in? **Answers will vary**

Slide 8

There are two sources of water: water on the earth's **surface** and water **below** the earth's surface.

Bloomington, Danville, Decatur, and Springfield obtain their water from **reservoirs**.

The largest source of groundwater is the **Mahomet Aquifer**.

Slide 9

Many communities obtain groundwater supplies from the Mahomet Aquifer. Is your community one of these? **Answers will vary**

Slide 10

About **22%** of the water comes from surface waters.

Some **10%** of the water, mainly for use in private homes, comes from small shallow aquifers less than 100 feet below the surface.

About **68%** of the water comes from the larger and thicker Mahomet Aquifer.

Slide 11

Illinois water law **governs** how we can extract water from the environment and use water, but the law is not always clearly defined.

Slide 12

Rainfall, surface waters and groundwater are linked together through the **water cycle**.

Slide 13

How much rainfall do we receive on average? **38 inches of rain**

Slide 14

Water levels differ based on the amount of rainfall received in the summer. In 1988 lakes and rivers dried up. In 1993, widespread heavy rains caused water levels to rise and rivers to **flood**.

Slide 16

Over the past few thousands and millions of years **glaciers** have deposited layers of sand on top of the bedrock, and the sand forms the **Mahomet Aquifer**.

Part 2: Water Use

Slide 18

For municipalities, water is **pumped** from a reservoir or an **aquifer** to a water **treatment** plant. Water is cleared of impurities to meet drinking water **standards** and to taste good. The water is then **pipd** to your home, where it is metered so that you know how much water you use.

After water has been used in homes and businesses, it goes through **sewer** drains to a waste water treatment plant. Waste water is cleaned to **environmental** standards before being discharged to **ditches** or streams.

Slide 19

This unit of measurement is used to quantify how much water is used: **millions of gallons of water per day - mgd**

Slide 20

Most water in homes is used to:

- a. Flush toilets
- b. Wash clothes
- c. Washing dishes

Slide 21

Some outdoor water uses are:

- a. Keeping lawns green
- b. Irrigate golf course
- c. Wash cars
- d. Provide water for farm animals and fish farms

Slide 23

Clinton draws large amounts of water from Lake Clinton for use in their **nuclear power plant**.

Slide 25

These two counties use the most water mainly for irrigating crops.

- a. Mason
- b. Tazewell

Part 3: Sustainable Water Supplies

Slide 27

What exactly does sustainability mean?

- a. Water is a valuable and precious **resource**. Most of the time, water is plentiful, but there are limits to how much water is available and can be withdrawn safely.

- b. We must plan on meeting the needs of today's population and the needs of **future** generations.
- c. During periods of drought, less water is available. Climate change can **affect** how much water is available and how much is **used**.
- d. We must maintain and improve infrastructure; we need to construct wells, reservoirs, water treatment plans and pipelines.
- e. We need to **protect** the environment.

Slide 31

Once we know what we **don't** want to happen, it becomes **our responsibility** to make sure that this **Never** happens.

Slide 35

A goal is to **minimize** costs and **maximize** benefits.

Slide 36

Be informed- search out information and ask questions. Get involved with sustainable water planning. **Don't** leave it to others. Only use the water you need. Conserving water reduces costs and helps protect the **environment**.

Slide 37

Five things you and your families can do to help ensure that we always have sustainable water supplies—and you can save money.

- a. You can install low flush toilets that use less water.
- b. You can install low pressure shower heads and take shorter showers.
- c. When you wash clothes, make sure you set the appropriate water level for the amount of clothes you are washing.
- d. Only run the dish washer when it is full.
- e. Don't leave the faucet running at home, in school, or at work.

