

Water Systems, Conservation, and Careers in Water

PARTICIPANT GUIDE

Overview:

Water is in limited supply, but it is critical for all survival. Without it, life would not exist! This course focuses on three important areas.

1. Module One, Water Systems – How You Get Your Water
2. Module Two, Water Conservation – Saving Our Scarce Resources
3. Module Three, Water Careers – Your Future in Water

Learning Objectives - when you are finished with these three modules, you will be able to:

1. Summarize what a water and/or wastewater utility does
2. Discuss water pollution, conservation, and the value of water
3. List a variety of water utility careers
4. Explain why you might choose a water industry career

Agenda:

0:00 - 0:02 – Introduction

0:03 - 0:18 – Module 1: Water Systems – How You Get Your Water

0:19 - 0:34 – Module 2: Water Conservation – Saving Our Scarce Resources

0:35 - 0:50 – Module 3: Water Careers – Your Future in Water

0:51 - 0:58 - Summary and Q & A

0:59 - 0:60 – Thank you, additional resources, scholarship and career information

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Activities for Module 1, Water Systems – How You Get Your Water

Water Utilities & Source Water

Water utilities' **1st** job is to oversee water in nature ("source water"). Source water is either:

- *surface water* (lakes, rivers, reservoirs), found above the Earth's surface
- *Groundwater* (found below the Earth's surface; sometimes also called an "aquifer")

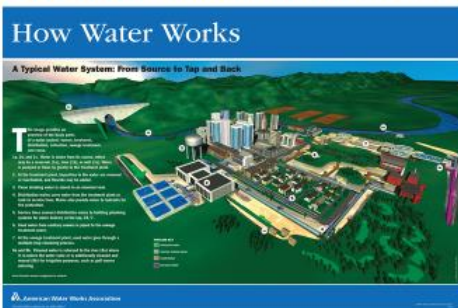
Source water is unsafe to drink.
Do you know why?



Can you think of some reasons why source water might be unsafe to drink?

1. _____
2. _____
3. _____
4. _____

How Water Works: from source to you



What does it mean when we say water utilities "treat" water?

Notes:

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Activities for Module 2, Water Conservation – Saving Our Scarce Resources

Do You Know...????

- How much water should humans drink each day?

- How much of the Earth's surface is made of water?

- How much of the water on Earth is suitable for drinking?




Can you answer these questions?

1. How much water do humans need daily?

2. How much of the Earth's surface is water?

3. How much of Earth's water is OK to drink?

Conservation: for Life

- One person makes a difference
- You are not alone – others will join/follow
- Everyone has a stake
- We must conserve for future generations



Name as many ways as you can think of to prevent water pollution & conserve our water supplies

- _____
- _____
- _____
- _____
- _____

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Activities for Module 3, Water Careers – Your Future in Water

Water Industry Career Overview

Water/Wastewater Utility Careers:

- Water Plant Operator
- Water Plant Manager
- Water Quality Engineer
- Water Lab Technologist
- Operations Supervisor
- Distribution Operator
- Engineering Manager
- Science Technician




Developed by AWWA in partnership with RCAP and funded by USEPA. Published 2015.

There are many careers in the water industry. But no matter what career you choose, water industry employees all share one important job. It is the one thing that all of these workers have in common. What is that job?

Should YOU Work in Water?

Name the top 5 reasons you might want a water career.....



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Should you work in water? List some reasons that a water industry job might be a good career move.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Notes:



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Additional Resources:

- AWWA Career Center: <http://www.awwa.org/resources-tools/career-center.aspx>
- AWWA How to Become a Certified Operator: <http://www.awwa.org/resources-tools/operator-certification-advancement/become-a-certified-operator.aspx>
- AWWA Scholarship page: <http://www.awwa.org/membership/get-involved/student-center/awwa-scholarships.aspx>
- Bureau of Labor Statistics Occupational Outlook Handbook for Water and Wastewater Treatment Plant and System Operators: <http://www.bls.gov/ooh/production/water-and-wastewater-treatment-plant-and-system-operators.htm>
- DrinkTap.org: <http://www.drinktap.org>
- EPA Selection of Training Programs for Water and Wastewater Operators: <https://www.epa.gov/sustainable-water-infrastructure/selection-training-programs-water-and-wastewater-operators>
- How Water Works: <http://www.awwa.org/resources-tools/water-knowledge/how-water-works.aspx>
- Only Tap Water Delivers: <http://www.awwa.org/resources-tools/public-affairs/communications-tools/only-tap-water-delivers/only-tap-water-delivers-materials.aspx>
- Rocky Mountain Section of the American Water Works Association: <http://rmsawwa.org/getintowaterco/index.html>
- United States Environmental Protection Agency (EPA): <https://www.epa.gov/students>
- United States Geological Survey (USGS): <https://www.usgs.gov>
- Water Environment Federation: <http://www.wef.org/>
- Work for Water: <http://www.workforwater.org/>