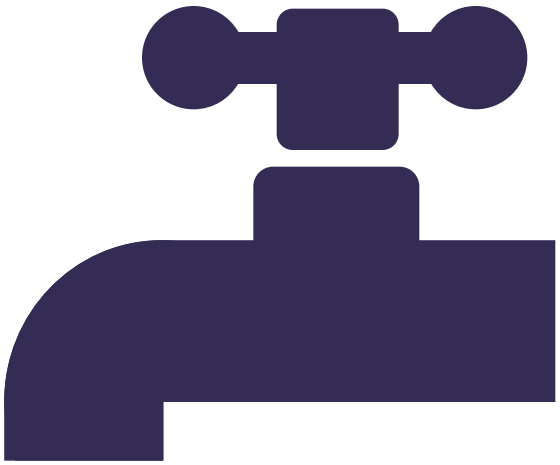
Wichita State University
Hugo Wall School of Public Affairs
Environmental Finance Center

WORK in WATER
promoting water careers to young people in Kansas



JOB PROFILE:

Drinking Water Operator

AND

Water Reclamation Operator

WHAT DOES A WATER OPERATOR DO?

Water operators provide one of the most important services in a community: delivering safe water to every person.

Water operators are the backbone of any community. Without water operators, there would be no safe water to drink, shower, wash, cook, flush or swim in. Life as you know it would stop. Do you have the time and strength to walk to the nearest stream to get all 88 gallons (734 pounds) of water you use everyday? Luckily, you don't have to because there is a water operator at work in your community!

There are two types of water operators:

DRINKING WATER OPERATOR

Uses chemistry to make sure water from the environment is purified and safe to drink. Works to make sure the equipment that receives and delivers water for the community to use is healthy, affordable and reliable.

WATER RECLAMATION OPERATOR

Uses biology to clean and sanitize wastewater from our homes and businesses so that it can be recycled back into the environment where it comes into contact with plants, wildlife and other communities.

WHERE DO WATER OPERATORS WORK?

Water operators work for a water utility. It is the business of a drinking water utility to provide clean drinking water to all the homes, businesses, hospitals and schools in a community.

Then, once the water is used (in sinks, showers, toilets or drinking fountains) it flows down the drain and is taken to a water reclamation utility to be cleaned.

Once the wastewater is cleaned and sanitized, the water reclamation utility sends the water back into local rivers so that it can be used again downstream. Water utilities can be found in every community across the country.

Water utilities are diverse in size and complexity. Some utilities serve small communities of a few hundred people, while others serve large cities with millions.

Small utilities may only have a few miles of buried pipe and have a simple treatment processes. The largest utilities have pumps capable of filling an Olympic-sized swimming pool in a few minutes, and can have complex, highly automated treatment plants.

There may be only one water operator in a small water utility, who takes on varied job responsibilities across the community. In large utilities, it takes multiple water operators in order to manage the utility's immense demand for clean water.

Small or large, all water utilities must know and meet the water quality standards set by the Environmental Protection Agency (EPA).

WHO'S A GOOD FIT TO BE A WATER OPERATOR?

STUDENTS WHO LIKE TO...

work for the good of the community

do something different everyday

build or fix mechanical things

use tools and heavy machinery

work outside and inside

use different types of technology

find answers to problems

provide customer service

respond to emergency situations when necessary

work in a team and work alone

get a little dirty at work, but also spiff-up for meetings

set own work priorities to get everything done

WATER INDUSTRY VOCAB

water utility (n.)

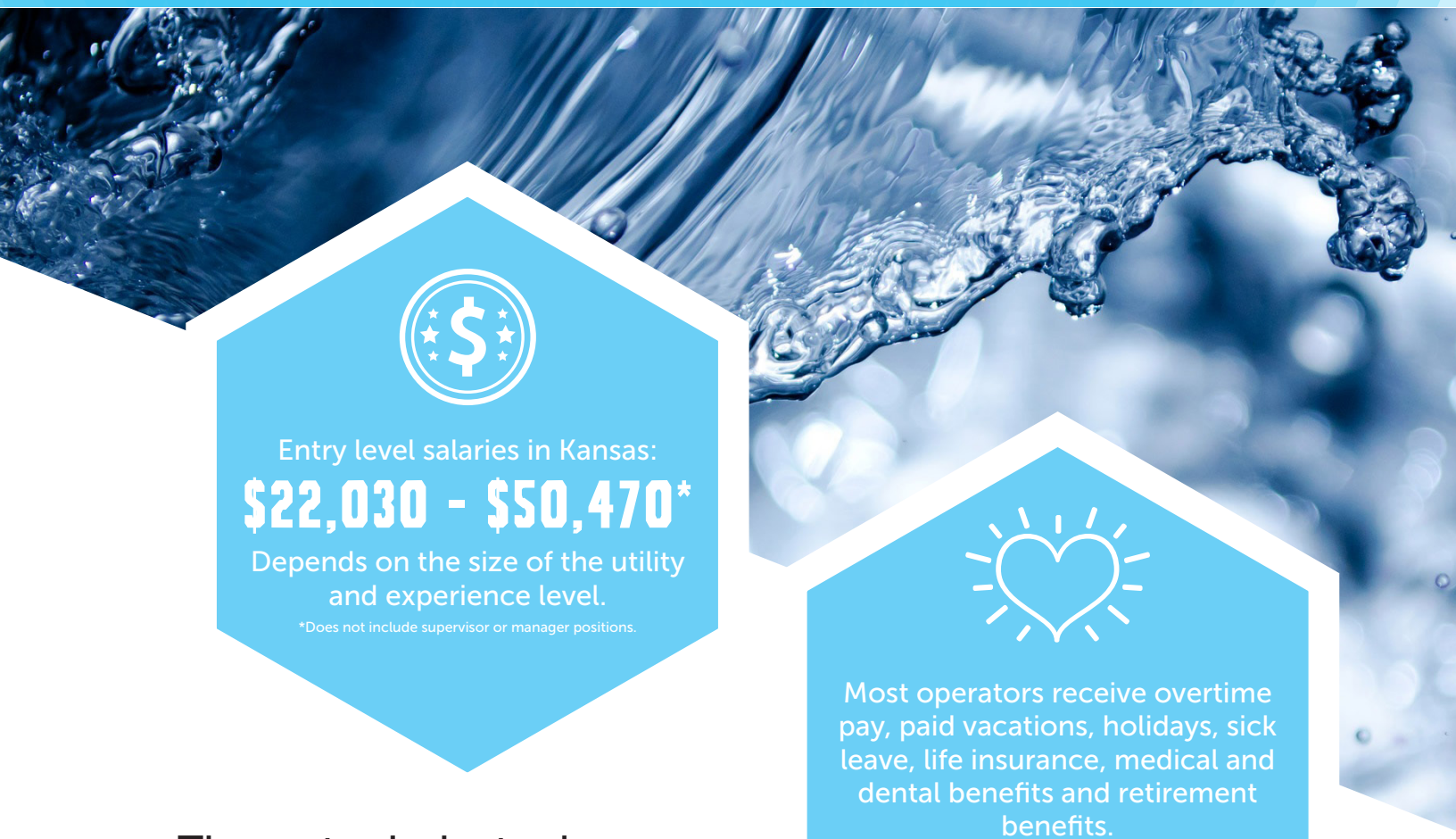
A water utility is a company that provides water and/or wastewater services. Most utilities are run by city/county governments, but some are owned by private businesses. The word "utility" refers to something that is considered very useful or satisfying to people. (Like water!)

reclamation (n.)

Reclamation is the process of creating something valuable out of something once considered "waste." In water reclamation, operators reclaim, or recycle, dirty water back into clean water. (Wastewater that leaves the reclamation facility cleaned and sanitized is cleaner than the natural water in rivers and lakes!)

Environmental Protection Agency (n.)

The Environmental Protection Agency (also known as "EPA") is a federal government organization that protects human health and the environment by enforcing rules for businesses, governments, organizations and households. The water industry is highly regulated by EPA, due to it's major impact on human health and the environment. Water operators must always know, and comply with, EPA regulations.



Entry level salaries in Kansas:

$22,030 - $50,470*

Depends on the size of the utility and experience level.

*Does not include supervisor or manager positions.

Most operators receive overtime pay, paid vacations, holidays, sick leave, life insurance, medical and dental benefits and retirement benefits.

The water industry is a **CAREER**, not just a job. Most management positions are filled by operators who "work their way up."

THERE IS GREAT OPPORTUNITY FOR ADVANCEMENT AND VARIED EXPERIENCES.

Job Roles & Responsibilities

- Learn the water treatment system and process.
- Protect public health by ensuring that all water regulations are met.
- Operate equipment remotely and analyze system performance using computer software
- Diagnose and fix problems in the treatment system – mechanical aptitudes.
- Take, test and record water samples.
- Adjust the treatment system in response to water sampling – chemical or biology aptitudes.
- Organize work priorities, exercise independent judgment, wisdom, common sense and initiative.
- Clear, verbal and written communication with customers, coworkers and oversight boards.
- Respond to emergencies – leaks, flooding, power outages, etc.

HOW TO GET CERTIFIED TO BE A WATER OPERATOR

1. Get a high school diploma or GED.
2. Get a job at a water or wastewater utility.
3. Work for a year at the utility.
4. Study for the certification exam.
5. Take the Class 1 certification exam.
6. CELEBRATE your well-earned certification!
7. Keep working at the utility, go to trainings, and with more experience and exams you can work your way up to a Level 4 certification.

KDHE's Operator Certification: Education, Training & Experience Requirements brochure

KDHE's Water and Wastewater Operator Certification webpage

CAREER OUTLOOK

There are many water operators that will retire in the next 10 years. In the US, the water industry will need 29,700 new water operators to replace these retirees. Then, due to growth and development, 7,020 new water operator jobs will be needed to serve new and larger communities (6% job growth rate). This job is recession proof! No matter what the economy does, everyone still needs reliable and clean water.