



Water and Wastewater Career Focuses

This document provides a basic overview of four essential career areas within the water and wastewater industry: Water Treatment, Water Distribution, Wastewater Collection, and Wastewater Treatment. These sectors are critical for maintaining public health, environmental protection, and providing safe, clean water to communities.

1. Water Treatment

Water treatment is the process of removing contaminants from water to make it safe for human consumption. Professionals in this field use various technologies, including filtration, sedimentation, and chemical treatments, to purify water and ensure it meets health standards. Key skills include knowledge of water chemistry, filtration methods, and regulations set by agencies like the EPA.

2. Water Distribution

Water distribution involves delivering treated water to homes, businesses, and industries through a network of pipes, pumps, and reservoirs. Technicians in this field maintain, repair, and monitor the water distribution system to ensure efficient delivery without contamination. Key tasks include pipe installation, leak detection, and pressure management.

3. Wastewater Collection

Wastewater collection involves the removal of used water from homes and businesses through a network of underground pipes to treatment facilities. This process ensures that wastewater is properly managed, reducing environmental and public health risks. Professionals in this field focus on sewer system maintenance, pipeline cleaning, and infrastructure repair.

4. Wastewater Treatment

Wastewater treatment is the process of removing contaminants from sewage and industrial wastewater to make it safe for discharge into the environment or for reuse. This process typically includes primary, secondary, and sometimes tertiary treatment stages. Operators in this field must have a solid understanding of biological processes, chemical treatment methods, and environmental regulations.