

**MICHIGAN CIVIL SERVICE COMMISSION
JOB SPECIFICATION**

WATER QUALITY TECHNICIAN

JOB DESCRIPTION

Employees in this job perform a variety of water quality monitoring and control activities for the purpose of protecting the state's water resources for both environmental and recreational purposes by sampling and performing chemical tests of lakes, streams, and waste water treatment systems and their surrounding environments.

There are five classifications in this job.

Position Code Title – Water Quality Technician-E

Water Quality Technician 8

This is the entry level. The employee works in a learning capacity performing a range of water quality technician assignments under close supervision.

Water Quality Technician 9

This is the intermediate level. The employee works in a developing capacity with increased responsibility for performing a range of water quality technician assignments.

Water Quality Technician E10

This is the experienced level. The employee performs a full range of water quality technician assignments and uses considerable independent judgment in making decisions requiring the interpretation and application of guidelines with considerable latitude to specific work situations.

Position Code Title – Water Quality Technician-A

Water Quality Technician 11

This is the advanced level. At this level, the employee serves either as a lead worker responsible for overseeing the work activities of lower-level Water Quality Technicians or as a senior worker performing the most complex water quality technician assignments. Senior-level employees perform complex assignments beyond those expected at the experienced level which have been approved by Civil Service.

Position Code Title – Water Quality Technician-SS

Water Quality Technician 12

This is the staff specialist level. The employee uses specialized technical knowledge in performing highly complex technician assignments involving authority for an assigned program. Staff specialist positions have sole and full time responsibility for their assigned program area and are recognized through approval by Civil Service.

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NOTE: Employees generally progress through this series to the experienced level based on satisfactory performance and possession of the required experience.

JOB DUTIES

NOTE: The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Investigates complaints of possible water pollution by interviewing involved persons and inspecting the waters involved.

Inspects potentially hazardous waste sites.

Monitors the safe and efficient operation of industrial and commercial wastewater treatment systems.

Takes site samples of air, water, or other materials to use in the search for pollution and for potentially hazardous waste.

Reviews applications and accompanying plans for projects on state waterways to determine their impact on the environment and their effect on riparian rights.

Participates in emergency response activities at disposal sites, hazardous material spills, and waste sites.

Transports samples to a laboratory for analysis.

Inspects project sites to determine the suitability of applications for project permits.

Identifies programmatic problems and concerns and discusses available options with project applicants, waste site operators, waste treatment facility operators, municipal authorities, and other involved parties.

Provides information to the public about program services, requirements, and procedures.

Assists in the planning of the scope and characteristics of environmental sanitary surveys.

Determines the on site water sources to be tested as part of sanitary surveys.

Monitors the safe clean up of hazardous waste sites.

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Maintains vehicles and equipment.

Procures supplies and equipment.

Obtains, records and/or interprets monitored or tested data.

Writes reports based upon the data obtained during environmental sampling surveys.

Analyzes the meaning of chemical and bacteriological test data relative to the quality of water.

Installs, maintains, and monitors instruments that measure and record the flow of water.

Coordinates the installation of flow measurement devices with facility personnel.

Constructs devices to assist in the measurement of the flow of water.

Interviews industrial and municipal officials to obtain information relative to waste handling problems.

Files, keeps, and distributes reports, correspondence, data, inventories, and other work records.

Corresponds with the public, with other staff, and with other public jurisdictions.

Speaks to groups about water quality.

Performs related work as assigned.

Additional Job Duties

Water Quality Technician 11 (Lead Worker)

Coordinates work by scheduling assignments and overseeing the work of lower-level Water Quality Technicians.

Oversees and assures the quantity and quality of the work by requiring strict adherence to established methods and procedures.

Explains work instructions and adapts, if necessary, pertinent general methods and procedures in order to meet required needs.

Trains employees in water quality technician activities.

Water Quality Technician 11 (Senior Worker)

Performs on a regular basis water quality technician assignments which are recognized as the most complex.

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Water Quality Technician 12

Exercises independent authority and responsibility for an assigned program area.

Serves as the recognized expert within a program area and provides technical assistance to other departmental staff.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge in the area listed is required at the entry level, developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level, thorough knowledge is required at the advanced level, and extensive knowledge is required at the specialist level.

Knowledge of the equipment for and the techniques of sampling water and other parts of the environment for use in field and laboratory analysis.

Knowledge of the potential impact of construction projects on adjacent water, land, and wildlife and on their interrelationships.

Knowledge of the hazards of wastes, sewage, and other pollutants and of their safe handling and exposure.

Knowledge of the installation, operation, and maintenance of equipment used to measure water flow, industrial waste, and sewage.

Knowledge of work area procedures and safety standards and of pertinent local, state, and federal laws, regulations, and guidelines.

Knowledge of the operations of municipal and industrial waste and sewage treatment facilities.

Knowledge of the visual characteristics of water pollution.

Knowledge of the human and material resources necessary to conduct sanitary surveys.

Knowledge of the equipment and techniques necessary to safeguard people in proximity to hazardous waste.

Knowledge of the meaning of data obtained by water monitoring and sampling techniques.

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Ability to use and maintain equipment and tools associated with the work such as respirators, hand tools, pumps, boilers, chromatographs, sampling tools, lab equipment, etc.

Ability to interpret specific water and sewage test results relative to program guidelines.

Ability to use a computer to access, input, and manipulate data.

Ability to communicate verbally and work effectively with complainants, community officials, property owners, staff, and all others contacted in the course of the work.

Ability to communicate effectively.

Ability to write reports and correspondence.

Ability to read and understand blueprints, aerial, and topographic maps, and engineering plans relative to the impact of projects on land and water interfaces.

Ability to observe of monitored data and of treatment facility operations.

Ability to use tools to construct or modify apparatus to measure and to assist in the measurement of water.

Ability to interview people and elicit pertinent information.

Additional Knowledge, Skills, and Abilities

Water Quality Technician 11 (Lead Worker)

Ability to organize the work of the unit.

Ability to establish priorities, assign, and evaluate the work of lower-level Water Quality Technicians.

Water Quality Technician 11 (Senior Worker)

Ability to perform the most complex water quality technician assignments.

Water Quality Technician 12

Some knowledge of the programmatic and developmental aspects of assigned program area.

Ability to organize and operate assigned program.

Ability to adapt new technology and methods to increase program effectiveness.

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Working Conditions

Work is performed outdoors as well as in the office or the lab and involves such water quality activities as sampling and performing chemical tests of lakes, streams, and wastewater treatment systems and their surrounding environments.

The employee may experience considerable travel, exposure to the weather in all seasons, as well as hazardous wastes or chemicals, and may participate in emergency response activities.

Some assignments may require the use of protective clothing and respirators.

Physical Requirements

The job duties require an employee to walk, reach, and bend for extended periods.

The job duties require an employee to move heavy objects.

The job duties require an employee to traverse rough terrain.

Education

Possession of an associate's degree in environmental science, environmental engineering, sanitary engineering, geology, water resources, water resources engineering, or water pollution control and purification technology.

Experience

Water Quality Technician 8

No specific type or amount is required.

Water Quality Technician 9

One year of experience performing such inspection activities as monitoring and sampling lakes, streams, and wastewater treatment systems, and performing field chemical tests to determine water quality equivalent to a Water Quality Technician 8.

Water Quality Technician E10

Two years of experience performing such inspection activities as monitoring and sampling lakes, streams, and wastewater treatment systems, and performing field chemical tests to determine water quality equivalent to a Water Quality Technician, including one year equivalent to a Water Quality Technician 9.

Water Quality Technician 11

Three years of experience performing such inspection activities as monitoring and sampling lakes, streams, and wastewater treatment systems, and performing field chemical tests to determine water quality equivalent to a Water Quality Technician, including one year equivalent to a Water Quality Technician E10.

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Water Quality Technician 12

Four years of experience performing such inspection activities as monitoring and sampling lakes, streams, and wastewater treatment systems, and performing field chemical tests to determine water quality equivalent to a Water Quality Technician, including two years equivalent to a Water Quality Technician E10 or one year equivalent to a Water Quality Technician 11.

Special Requirements, Licenses, and Certifications

Some positions within this class series are assigned job duties that may require possession of the Commercial Driver's License (CDL) issued by the Secretary of State as required by Public Act 346 of 1988 to operate a designated state vehicle.

NOTE: Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code

WATQUATCH

Job Code Description

Water Quality Technician

Position Title

Water Quality Technician-E

Water Quality Technician-A

Water Quality Technician-SS

Position Code

WAQUTCHE

WAQUTCHA

WAQTCHSS

Pay Schedule

L32-006

L32-012

L32-013