

Water Quality Association Master Water Specialist Exam – Study Guide

The Master Water Specialist is the go-to person who has demonstrated a breadth and depth of knowledge in applying water treatment solutions for problem water.

Problem water is defined as having both difficult to address aesthetic contaminants such as iron and health-impacting contaminants such as nitrates, arsenites/arsenates, microbials, and other complicated conditions.

The MWS exam addresses both publicly provided water and private water sources and includes an expectation for familiarity with groundwater wells and well pumps.

Knowledge Domains addressed by the MWS exam

1. Gathering Information – 12%
The MWS is expected to know what information needs to be gathered to correctly size and apply a treatment system or treatment train and ensure the installation site meets all the necessary requirements for proper system operation.
2. Project Management – 8%
The MWS should be familiar with consumer protection laws and general plumbing and mechanical code information and requirements related to water treatment installations. The MWS should be familiar with allowed materials for use in a plumbing system as well as licensing requirements for work that may be needed for installation outside of plumbing in treatment systems.
3. Specifications – 6%
The MWS should be familiar with the process of specifying a system such as quoting, documentation, interpreting system drawings, and being able to draw a simple treatment process diagram.
4. Design – 74%
This largest section on the exam focuses on knowledge of contaminant behavior, treatment technology capabilities and pitfalls, pretreatment and post-treatment needs, treatment sequencing, equipment sizing, and multiple-tank control schemes. The MWS should be able to correctly specify media bed volume, pressure tank diameter, backwash flowrates, and calculate empty-bed contact times.



Training and Recommended Study Resources

In the process of completing the Certified Water Specialist (CWS) requirements, the MWS candidate will have either completed the Basics, Fundamentals and Design modules in WQA MEP or met the challenge requirements. The MWS candidate will have also passed the CWS exam.

Completion of the [Advanced Design Module](#) in the MEP is a pre-requisite for any CWS title holder wishing to take the MWS exam. The Advanced Design module provides training on topics covered in the following sections of the online Knowledge Base.

(Note: Reading of the Knowledge Base articles does not exempt the MWS candidate from completing the MEP coursework.)

[Water Chemistry](#)

[Water Contaminants](#)

[Treatment Methods & Technologies](#)

[Designing Treatment Systems](#)

[Sizing Water Treatment Devices](#)

[Environmental Considerations](#)

[Understanding the Law](#)

The online Knowledge Base is accessible to all employees of a WQA member company at any time and to all non-members for the duration of their enrollment in the MEP.

Registering for the MWS exam

Exams are available on-demand via video-proctoring and in-person at WQA- and state/regional WQA-hosted events.

Please see the [Testing](#) page at wqa.org for more information and registration forms.

For assistance, please contact Daniel LeBlanc, WQA's Professional Certification Coordinator, at dleblanc@wqa.org or 630 929 2508. You may also contact the Professional Certification & Training department at education@wqa.org.