



Basic Math Review for Water and Wastewater Operators

Wastewater ID #BC-2013-2577 - Water ID # MWWA 09-004

MWPCA and the MWWA are offering a Waterworks Mathematics Review Course for those who are preparing to take the Massachusetts Certification Exams for Operators (Water or Wastewater). This course is divided into three, two and one half hour sessions. The goal of the class is to prepare students for solving mathematical problems frequently encountered on the state operator licensure exams. Emphasis will be placed on the use of conversion factors, formulas and solving word problems. Those who complete this seminar will be awarded 7.0 TCH's (Training Contact Hours). By registering for this class, you are registering for all three sessions and must be present for 100% of total course time to qualify for TCHs. No Partial TCHs will be issued.

Class size is limited so please register early to guarantee a spot.

LOCATION:	Richard Alden Training Center 50 Route 20, Millbury, MA 01527 Phone: 508-755-1286
DATE(S):	Wednesday, April 3, 2013 Wednesday, April 10, 2013 Wednesday, April 17, 2013
TIME:	5:00 p.m. – 7:30 p.m. (Includes 15 minute break and sign in/out time)

AGENDA:

- Wed. April 3rd** Session 1 will emphasize the word problem solving process. Students will become familiar with manipulating waterworks mathematics formulas to solve for the unknown and using conversion factors. Example problems will be exercised to reinforce good word problem solving habits.
- Wed. April 10th** Session 2 will introduce Geometry calculation problems (such as perimeter, circumference, area, volume for various geometric shapes), Temperature conversion problems, Ratio-Proportion problems, Chlorination and Chemical Feed calculation problems, and Dilution problems. Session 2 will reinforce the problem solving techniques learned in Session 1.
- Wed. April 17th** Session 3 will review the topics of Flow and Velocity calculations, Detention Time and Rate calculations, Pressure and Hydraulic Force Calculations and Horsepower and Watts calculations. Further, specialty problems will be reviewed. Summary of the problem solving methods will be demonstrated to emphasize what the students have learned. If time permits, additional review of practice problems covered in the Review Course will be worked together with the class.

Class attendees must bring their own calculator to each session. A low cost scientific calculator is recommended.

PLEASE COMPLETE AND MAIL/FAX THE REGISTRATION FORM ON THE BACK OF THIS NOTICE

Massachusetts Water Pollution Control Association

Basic Math Review for Water and Wastewater Operators

Course Dates: April 3rd, 10th and 17th, 2013

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REGISTRATION FORM

Name: _____

Facility: _____

Business Address: _____

Phone No.: _____ E-mail: _____

Fax No.: _____ MWPCA Membership Number: _____

Pre-registration is required

To register: Mail registration with check payable to **MWPCA** by **March 26, 2013**.

Mail to: MWPCA, P.O. Box 60, Rochdale, MA 01542 / Fax to: 774-670-9956

Payment: _____ \$110.00 (MWPCA member) _____ \$150.00 (Non-member)

(*Note: *TCHs will not be issued until full payment is received*)

DIRECTIONS TO: Richard Alden Training Facility 50 Route 20, Millbury, MA 01527

From the Boston Area: I-90 W/Massachusetts Turnpike-Partial toll road, Take exit 10 for MA-12 toward I-395/I-290/Auburn/Worcester-Partial toll road, Keep right at the fork, follow signs for Massachusetts 12 S/U.S. 20 W/Charlton/Sturbridge and merge onto MA-12 S/Southbridge St-Partial toll road, Turn left onto Faith Ave, Turn right onto US-20 W/Washington St, Take the 1st left. Destination will be on the left.

From the North (Lowell/Lawrence area):I-495 S toward Worcester, Follow signs for I-495 S/Marlboro and merge onto I-495 S, Take exit 25B for Interstate 290 W toward Worcester, Merge onto I-290 W, Take exit 6B to merge onto US-20 W/Washington St toward Sturbridge, Turn left. Destination will be on the left.

From the West (Springfield area): Take the Interstate 291 E/U.S. 20 ramp to Mass Pike/Boston, Merge onto I-291 E/US-20 E, Continue to follow I-291 E, Take the I-90 E/I-90 W exit toward Masspike/Boston/Albany-Toll road, Keep left at the fork and merge onto I-90 E-Toll road, Take exit 10 for MA-12 toward I-395/I-290/Auburn/Worcester-Partial toll road, Keep right at the fork, follow signs for Massachusetts 12 S/U.S. 20 W/Charlton/Sturbridge and merge onto MA-12 S/Southbridge St-Partial toll road, Turn left onto Faith Ave, Turn right onto US-20 W/Washington St, Take the 1st left. Destination will be on the left.

From the South: I-495 N, Take exit 22 for I-90 toward Mass/Pike/Boston/Albany NY-Toll road, Keep left at the fork, follow signs for I-90 W/Springfield/Albany and merge onto I-90 W-Partial toll road, Take exit 10 for MA-12 toward I-395/I-290/Auburn/Worcester-Partial toll road, Keep right at the fork, follow signs for Massachusetts 12 S/U.S. 20 W/Charlton/Sturbridge and merge onto MA-12 S/Southbridge St-Partial toll road, Turn left onto Faith Ave, Turn right onto US-20 W/Washington St, Take the 1st left. Destination will be on the left.