



**Developer and Owner – WWOTC**

**Online Course – Instructor Led**

## **Understanding System Hydraulics**

**April 24-25, 2023 (8:30 – 12:30 AST)**

### **Course Objective / Description**

The objective of this course is to better understand how distribution or collection systems work, and in order to do that, a basic understanding of hydraulics is essential. This course will allow operators to better understand how water moves through pipes and how pressure size and biofilm can affect system operations. It contains information on potential and kinetic energy within these systems, how the amount of energy at any point can be determined, and how we use that energy to distribute water. Students will also gain a clear understanding of simple math calculations as they relate to day to day operations.

### **What will be covered:**

- How is pressure created in a water system
- Pressure and its affect on flow in service pipes
- Flow and its affect on pressure in pipes
- Pressure as it relates to backflow and backsiphonage
- Restoring diminished flows

<b>Lesson</b>	<b>Description</b>	<b>Contact Hours</b>
Lesson 1	Introduction and Overview	0.5
Lesson 2	How Pressure is Created	1.0
Lesson 3	Effect of Pressure on Flows	0.5
Lesson 3 con't	Effect of Pressure on Flows	0.75
Lesson 4	Effect of Pressure on Service Pipes	1.0
Lesson 5	The Effect of Flow on Pressure	1.0
Lesson 6	Backflow and Back Pressure	0.75
Lesson 7	Restoring Flow in Watermains	1.0
	Test	0.5
	<b>Total Instruction/Contact Time:</b>	<b>7.0</b>

**CEU: 0.7**

# Understanding System Hydraulics

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Name: \_\_\_\_\_

Company: \_\_\_\_\_

Company Mailing Address \_\_\_\_\_

City, Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

ACWWA Membership #: \_\_\_\_\_ WEF Membership #: \_\_\_\_\_  
If no membership number is listed, you will be invoiced as a non-member. See pricing below.

**Fee for ACWWA or WEF Members & Employees of UTILITY Members**

Course:  $\$355.00 + \$53.25 \text{ HST (15\%)} = \$408.25$

**Fee for Non – Members**

Course:  $\$380.00 + \$57.00 \text{ HST (15\%)} = \$437.00$

**Invoices will be sent to the address listed above.**

**PO number to be included on the invoice** \_\_\_\_\_

**Payment can be made by Visa, Master Card or cheque.**

Card Holder's Name \_\_\_\_\_

Credit Card Number \_\_\_\_\_ Expiry \_\_\_\_\_

Signature \_\_\_\_\_

Email address for credit card receipt \_\_\_\_\_

Cheques should be made payable to:

**ACWWA**

PO Box 28141 · Dartmouth, NS · B2W 6E2

Phone 902-434-6002 Fax 902-435-7796