



LIFT STATIONS AND FORCEMANS

March 11, 2019

Moncton, NB

COURSE OBJECTIVES AND OVERVIEW:

The objectives of this course are:

- To familiarize the attendees with lift stations and forcemans in wastewater conveyance; and
- To discuss issues related to design, operation and maintenance of lift stations and forcemans.

Introduction Orientation & objectives

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| 8:30 AM to 9:00 AM | Lesson 1 Wastewater terminology |
| 9:00 AM to 10:00 AM | Lesson 2 Hydraulic concepts |
| 10:00 AM to 10:15 AM | <i>Break</i> |
| 10:15 AM to 11:00 AM | Lesson 3 Types of pumps |
| 11:00 AM to 12:00 PM | Lesson 4 Design factors |
| 12:00 PM to 1:00 PM | <i>Lunch On your Own</i> |
| 1:00 PM to 1:45 PM | Lesson 5 Station configuration |
| 1:45 PM to 2:30 PM | Lesson 6 Odor and corrosion |
| 2:30 PM to 3:00 PM | Lesson 7 Operations |
| 3:00 PM to 3:15 PM | <i>Break</i> |
| 3:15 PM to 4:00 PM | Lesson Review- Review key points to ensure understanding |
| 4:00 PM to 4:15 PM | Conclusion Questions/answers |

COURSE FORMAT:

Every attempt is made to keep the course informal and an enjoyable day-long training experience. Registration starts at 8:00 am, and the instructor will start shortly after 8:30. Lunch is 12:00-1:00pm. Wrap-up time is usually around 4:00pm. Though all workshops are non-smoking, ample breaks are provided for coffee and discussion.

COORDINATORS & PRESENTERS:

Kevin Murphy, P.Eng. is a Senior Mechanical Engineer with CBCL Limited with over 28 years of professional experience in the field of water and wastewater treatment plant, pumping station design and commissioning. He has extensive experience in hydraulics, pumping system design, pump failure, transient analysis, and pumping systems for various fluids including fuels, sludges, non-newtonian fluids, brine, chemicals and various other liquids. Mr. Murphy's experience includes analysis of transmission mains up to 48" in diameter and pumps up to 2000 Hp.

CONTACT INFORMATION:

Registration can be made by faxing or mailing the registration form on the reverse of this page, or on-line at www.acwwa.ca. For further information, please contact ACWWA Section office at 902-434-6002.

COURSE LOCATION:

Moncton Lions Center
473 St. George St. Moncton, NB

Please print clearly and fax or mail to the address listed on the bottom of this form.

I wish to register for the following course:

Lift Stations and Forcemains

March 11, 2019

Moncton, NB

Name: _____

Organization: _____

Mailing Address: _____

City, Province: _____ Postal Code: _____

Phone: _____ Fax: _____ 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: \$280.00 + \$42.00 HST (15%) = \$322.00

Fee for Non – Members

Course: \$299.00 + \$44.85 HST (15%) = \$343.85

Fees include coffee breaks

Lunch on your own

Payment can be made by visa, master card or cheque. Invoices will be sent to the address listed above.

Please send PO number if you want it included on the invoice. _____

Card Holder's Name _____

Card Number _____ Expiry _____

Signature _____

Cheques should be made payable to

ACWWA

PO Box 28142 Dartmouth, NS B2W 6E2

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