

79th Annual North Carolina Waterworks Operators School

September 24 - 28, 2018



Including Advanced Day

Wednesday, September 26, 2018

NCSU McKimmon Center - Raleigh, NC

Presented by the North Carolina Waterworks Operators Association with the cooperation and sponsorship of the North Carolina Department of Environmental Quality, Division of Water Resources, Public Water Supply Section

Class Schedule for A, B & C Well and A, B & C Surface

Monday, September 24

1:00pm – 1:45pm Registration - McKimmon Center

1:45pm – 5:00pm Report to your assigned classroom for General Announcements & Classes

Tuesday, September 25

8:00am – 5:00pm Classes – Report to your assigned room – Lunch Provided

7:00pm – 9:00pm Review – Holiday Inn Express & Suites (3741 Thistle-down Dr. off of Gorman St.)

Wednesday, September 26

8:00am - 4:00pm Exhibit Hall Open during Lunch & Breaks

8:00am – 5:30pm Classes – Report to your assigned room – Lunch Provided

12:05pm – 1:45pm AWARDS BANQUET LUNCHEON - McKimmon Center

6:15pm – 7:45pm “Brain Break” - Buffet, fun & door prizes - Holiday Inn Express & Suites
(3741 Thistle-down Dr. off of Gorman St.)

Thursday, September 27

8:00am – 5:00pm Classes – Report to your assigned room – Lunch Provided

6:00pm – 8:00pm Exam for Lab Analyst Certification – Bacteriology or Process Control Chemistry
(see page 5 for details and registration)

Friday, September 28

8:00am – 1:00pm Classes – Report to your assigned room

School **REGISTRATION FORM** must be received by **September 14, 2018**.

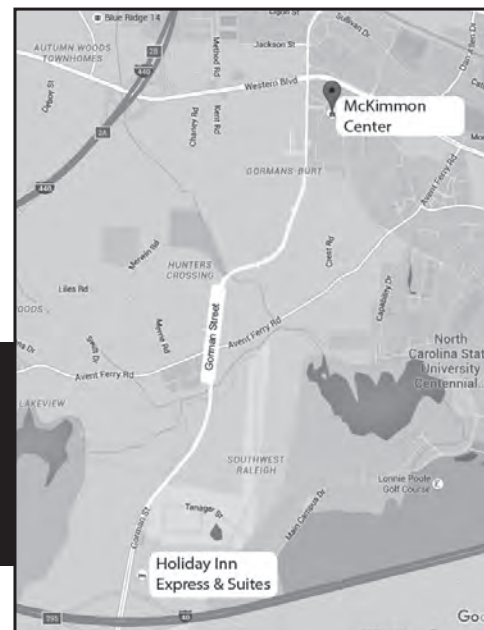
Applications accepted on a first-come, first-served basis. Class sizes are limited.

See page 4 for specific topics being REVIEWED in your class. Exact class agenda will be handed out at registration on Monday, September 24, 2018.

The first traditional exam following the school is Thursday, October 25, 2018.

***Host hotel will be the
Holiday Inn Express & Suites***

(3741 Thistle-down Drive - 2.2 miles from McKimmon Center)





CHECKLIST

The following checklist is provided for your use to insure that you have taken the necessary actions to attend the School and be qualified to take the Exam.

- Send Class Registration Form (see page 6) and payment for the SCHOOL to:

Cindy Gall, Comptroller

NCWOA

PO Box 4519, Emerald Isle, North Carolina 28594

Phone: 252-764-2094 ext 2,

Fax: 252-764-2095

Email: cindy@ncwoa.com

**Make check payable to: "NCWOA"
or "North Carolina Waterworks
Operators Association.**

**Registration must be received by
September 14, 2018.**

- Send EXAM APPLICATION and check for \$50.00 to the NCWTFO Certification Board: Visit the NCWTFO website for the electronic, apprentice or regular exam applications: <http://deq.nc.gov/about/divisions/water-resources/operator-certification/drinking-water-operator-certification/dw-operator-certification-exams>. Phone: 919-707-9040

If you wish to take the exam on October 25, 2018, your exam application must be postmarked no later than September 25, 2018. On application put "To Attend" dates of 9/24-9/28/2018.

- Make hotel reservations – **HOST HOTEL IS THE HOLIDAY INN EXPRESS & SUITES** To make reservations, call 919-854-0001 or 1-800-HOLIDAY. Guest should request group code WOA or group title NC Waterworks Operators Association. Deadline for special group rate is September 5, 2018. (See page 4).
- Information on books is listed on the next page. All exam questions are taken from the books listed on the next page.
- Individuals registering for the Lab Analyst Voluntary Certification Exam (Process Chemistry or Bacteriology), please refer to page 5 for more information.
- Read and study recommended materials. **Be sure to bring a calculator to ALL classes.**

REGISTRATION INSTRUCTIONS AND REQUIREMENTS

SCHOOL REGISTRATION FORM

To be completed by ALL students. Please complete one form per person. Please print or type. This form must be accompanied by a payment for the correct registration fee. Please make checks or money orders payable to **NCWOA or North Carolina Waterworks Operators Association**. We do not accept Purchase Orders. Please be sure to enter all information requested on the form. Incomplete forms will delay your registration or may be returned. All attendees must be pre-registered and paid in advance.

RECEIPT/CONFIRMATION OF REGISTRATION

All participants who pre-register will receive a receipt/confirmation in the mail. This acknowledgement will include specific information on the site and a map.

CERTIFICATES OF ATTENDANCE OR COMPLETION

At the conclusion of the event all participants, who have attended at least 75% of their classes, will receive a Certificate of Attendance. These certificates will document attendance for professional growth contact hour requirements and/or successful class completion. Participants must pick up their own certificate at the conclusion of the event. No certificates will be given out early, to another individual, or mailed.

REFUNDS

Refunds will be issued (minus a \$25 administrative fee), if the refund is requested, in writing, by September 14, 2018. Substitutions may be made. Please inform us as soon as possible of substitutions so appropriate certificates of attendance may be generated.

MEMBER/NON-MEMBER STATUS

Only individuals who are current members of NCWOA are eligible for the member rate. Please refer to your membership card for your member #. We will verify registrations for eligibility and will return those who pay the incorrect amount. If you would like to become a member, please complete the membership application in this brochure and return with payment.

How to get books for school

Surface Water Treatment - Study Materials

Sacramento Manuals:

Website: <http://www.owp.csus.edu/> or

call: (916) 278-6142

Water Treatment Plant Operator Vol. 1 – 7th Edition

Water Treatment Plant Operator Vol. 2 – 6th Edition

Rules Governing Public Water Systems (Green Book) (1/8/16)

Call 919-707-9100 or available for download from NCWOA website

Surface Water “Needs To Know” – A Certification Study Guide for Surface Water Systems (2018)

available for download from NCWOA website

Rules Governing Water Treatment Facility Operators (Blue Book) (12/12)

available for download from NCWOA website

All books available for download from NCWOA website are listed under Training - Books www.ncwoa.com

Well Water Treatment - Study Materials

Sacramento Manuals:

Website: <http://www.owp.csus.edu/> or call:

(916) 278-6142

Small Water System Operation & Maintenance – 6th Edition

Water Treatment Plant Operator Vol. 2 – 6th Edition

Rules Governing Public Water Systems (Green Book) (1/8/16)

Call 919-707-9100 or available for download from NCWOA website

Ground Water “Needs To Know” – A Certification Study Guide for Groundwater Systems (2018.1)

available for download from NCWOA website

Rules Governing Water Treatment Facility Operators (Blue Book) (12/12)

available for download from NCWOA website

Well Construction Standards (Red Book) (10/2009)

available for download from NCWOA website

WANT TO BE BETTER PREPARED TO TAKE YOUR CERTIFICATION EXAM? *Online Supplement for Certification Exam Review*

All attendees of NCWOA Certification Schools will be eligible to enroll in an online course that will supplement and enhance the materials presented in the week-long class. The online supplement is an optional, web-based Moodle class that includes multiple practice tests, videos of worked math problems, copies of presentation materials for many of the topics presented in the week-long school, and additional materials that will help you prepare for the certification exam. The online supplement will be available by the first day of the week-long school and will be accessible until the day of the first traditional certification exam after the school.

If you wish to participate in this program, please be sure that YOUR email address is included on your registration form. Please note the online supplement is optional.

Individuals who register for the week-long school will receive an email with directions on how to log in and access the class.

Surface & Well Review Topics

WELL REVIEW CLASSES

A	B	C	Class Title
X			Administration
X	X	X	Bacteriology
X	X	X	Corrosion Control
X	X	X	Disinfection & Disinfection By-Products
X	X	X	Distribution Systems & Cross Connection
X	X	X	Drinking Water Regulations & Records
X	X		Fluoridation
X	X	X	Ground Water Hydrology
		X	Groundwater Treatment Processes
X	X		Handling & Disposal of Process Wastes
X	X		Instrumentation
X	X		Iron & Manganese Removal
X	X	X	Lab Procedures & Sample Collection
X	X	X	Maintenance
X	X	X	Math
X	X		Membrane Processes
		X	Operation of Small Water Systems
X	X	X	Pumps
X	X	X	Safety
X	X	X	Softening
X	X	X	Well Construction
X	X	X	Well-Water Chemistry

SURFACE REVIEW CLASSES

A	B	C	Class Title
X			Administration
X	X	X	Bacteriology
X	X	X	Coagulation & Flocculation
X	X	X	Corrosion Control
X	X	X	Disinfection & Disinfection By-Products
X	X	X	Distribution Systems & Cross Connection
X	X	X	Drinking Water Regulations & Records
X	X	X	Fluoridation
X	X		Handling & Disposal of Process Wastes
X	X		Instrumentation
		X	Iron & Manganese Removal
		X	Jar Test
X	X	X	Lab Procedures & Sample Collection
X	X	X	Maintenance
X	X	X	Math
X	X	X	Plant Operations
X	X	X	Pumps
X	X	X	Safety
X	X	X	Sedimentation & Filtration
X	X	X	Taste & Odor
X	X	X	WTP Operator & Reservoir Management



HOTEL ACCOMMODATIONS

SPECIAL NOTE: The host hotel will now be the Holiday Inn Express & Suites. A block of rooms has been reserved in the name

of the NC Waterworks Operators Association until **September 5, 2018**. When you make your reservations be sure to request group code WOA or group title NC Waterworks Operators Association. This facility is also the site for the Wednesday Night "Brain Break" with Door Prizes and the Tuesday night review session.

Holiday Inn Express & Suites
3741 Thistledown Drive
Raleigh, NC 27606
Phone: 919-854-0001

Limited Number of Rooms Blocked – Special Group Rates
 \$ 105.00 Single or Double Rate (Breakfast is included)
 + \$ 13.91 13.25% Room Tax
 \$ 118.91 Single or Double Rate / Night

MEETING SITES

Advanced Day, Well & Surface classes and their lunches will be held at the McKimmon Center, which is located near the main NCSU campus at the corner of Western Boulevard and Gorman Street in Raleigh (919-515-2277). Maps will be mailed to each individual registered along with a confirmation/receipt letter.

OVERFLOW HOTEL

Holiday Inn Hotel and Suites Raleigh/Cary
 5630 Dillard Drive
 Cary, NC 27518
 Phone: 919-851-1220 (mention NCWOA Group)

Limited Number of Rooms Blocked – Special Group Rates
 \$ 101.00 Single or Double Rate (will include up to 2 breakfast coupons per night of stay per room)
 + \$ 13.64 13.5% Room Tax
 \$ 114.64 Single or Double Rate / Night

AWARDS BANQUET LUNCHEON

The Awards Banquet Luncheon and Business Meeting will be held on Wednesday, September 26, 2018. The festivities will begin at 12:05pm at the McKimmon Center. There will be door prizes given away. Please make plans to attend and congratulate your fellow operators for a job well done!



NORTH CAROLINA WATERWORKS OPERATORS ASSOCIATION

Advanced Day Agenda

Wednesday, September 26, 2018 in Raleigh, NC

Keeping It Safe & Secure - Asset Security

EXHIBIT HALL OPEN FROM 8:00AM - 4:00PM

Session 1

8:30 am – 8:40 am Welcome and Opening Remarks - *NCWOA Representative*
8:40 am – 9:25 am The Importance of Vulnerability Assessments - *John McLaughlin, Merrick*
9:25 am – 10:15 am Physical Asset Security - *Robert Melish, DHS*
Break: 10:15 - 10:45

Session 2

10:45 am – 11:15 am Hardening Our Facilities, a Case Study - *Eric Hatcher, CFPUA*
11:15 am – 12:15 pm Panel/Roundtable – Vulnerability Assessments Implementation - What to do with the Information! - *John McLaughlin-Merrick, Robert Melish-DHS, Eric Hatcher-CFPUA*
Lunch – Provided on Site 12:15 – 1:30

Session 3

1:30 pm – 2:15 pm Cyber Security – What are the Risks to our Networks and SCADA - *Perry Gayle, AECOM*
2:15 pm – 3:00 pm Cyber Security – Protecting our Networks and SCADA
Break: 3:00 – 3:20

Session 4

3:20 pm – 3:50 pm The Practical Application of Cyber Security, a Case Study
3:50 pm – 4:50 pm Panel / Round Table Discussions – Cyber Security - Mistakes – Guidelines to Improve Security
4:50 pm Certificates awarded

This class has been pre-approved for 6 contact hours for drinking water and/or wastewater certification.

Examination for Laboratory Analyst Certification Water Bacteriology OR Water Process Control Chemistry

OBJECTIVE: The North Carolina Waterworks Operators Association is sponsoring a voluntary certification program for laboratory analysts. Certification will be given in the area of water process control chemistry.

Upon completion of a written examination, the analyst will receive a certificate. The certificate must be renewed every five years.

Water Bacteriology Examination Content: The examination will cover sampling techniques, quality control and media, equipment and techniques used in the water bacteriology laboratory. Knowledge of the Multiple Tube Fermentation Procedure, Membrane Filter Procedure, Colilert Procedure and Standard Plate Count Procedure is required.

Water Process Control Chemistry Examination Content: The examination will include safety, sampling techniques, conductivity, hardness, turbidity, chlorine, and selective electrode and spectrophotometric techniques.

EXAMINATION DATE: Thursday, September 27, 2018 at 5:30 p.m.

PLACE: Holiday Inn Express & Suites (*Room to be announced*)

FEE: \$20.00 (*Payable at time of the examination.*) Payment must be made by check or money order to: North Carolina Waterworks Operators Association (NCWOA) - NO CASH WILL BE ACCEPTED.

HOW TO APPLY: Each applicant must contact Tiffany Kohl: (919) 807-8879 or tiffany.kohl@dhs.nc.gov



NORTH CAROLINA WATERWORKS OPERATORS ASSOCIATION

Annual Fall School Registration Form

Must be RECEIVED BY September 14, 2018

Please Print or Type

NAME (First, MI, Last): _____

NICK NAME for TAG: _____ SOCIAL SECURITY #: XXX-XX-_____

EMPLOYER / ORGANIZATION: _____

ADDRESS FOR CONFIRMATION & MAP: _____

CITY: _____ STATE _____ ZIP _____ COUNTY: _____

WORK PHONE: _____ EXT: _____ FAX: _____

ATTENDEE'S EMAIL ADDRESS: _____

ATTENDEE'S INDIVIDUAL NCWOA MEMBER # (must be included to be eligible for member rate): _____

NC WATER TREATMENT CERTIFICATE TYPE PRESENTLY HELD:

- AS BS CS AW BW CW DW
- AD BD CD DD CC/BF NONE

NC WATER TREATMENT CERTIFICATE # (OPERATOR ID #): _____

NC WASTEWATER CERTIFICATE# _____

PLEASE **CHECK** WHICH CLASS YOU ARE REGISTERING FOR AND **CIRCLE** RATE:

<u>CLASS TITLE</u>	<u>NCWOA MEMBER RATE</u>	<u>NON-MEMBER RATE</u>
<input type="checkbox"/> A-Surface (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> B-Surface (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> C-Surface (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> A-Well (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> B-Well (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> C-Well (M-F)	\$ 315.00	\$ 370.00
<input type="checkbox"/> Advanced (Wednesday)	\$ 150.00	\$ 195.00

CREDIT CARD PAYMENT

Credit Card Type: _____ Visa _____ MC _____ AmEx _____ Discover

Name on Credit Card: _____

Credit Card Number: _____

Exp Date: Month _____ Year _____ Security Code from back of Card _____

Cardholder's Signature: _____

If cardholder is other than attendee, what email address should the CC receipt be sent to? _____

To ensure that you receive the emailed receipt, please add cindy@ncwoa.com to your email address book.

PLEASE SEND APPLICATION AND PAYMENT TO:

Cindy Gall, NCWOA Comptroller
 PO Box 4519
 Emerald Isle, NC 28594
 Phone: 252-764-2094 ext. 2
 Fax: 252-764-2095
 Email: cindy@ncwoa.com

Credit Card Payments CANNOT
 be processed over the phone.

NCWOA USE: Amount: _____ CK# _____ E S Processed: _____



NORTH CAROLINA WATERWORKS OPERATORS ASSOCIATION

Membership Application

MEMBERSHIP APPLICATION – 2018 ANNUAL DUES ARE \$40.00

First Name: _____ Middle Initial: _____ Last Name: _____

Nickname: _____ Social Security #: XXX-XX-_____ If Renewal, what is your NCWOA Member #: _____

YOUR Individual Operator Certification #: (Issued by NCWTFOCB) _____

Certificate(s) Held:

____ A-Surface ____ B-Surface ____ C-Surface ____ A-Well ____ B-Well ____ C-Well ____ D-Well

____ A-Dist ____ B-Dist ____ C-Dist ____ D-Dist ____ Cross-Connection

____ None Yet ____ You are not an Operator & do not plan to become Certified.

____, _____, _____ Wastewater #'s

PLEASE SELECT YOUR PREFERRED ADDRESS (This is where confirmations & membership info will be sent.)

____ Home Address: _____

City: _____ State _____ Zip _____ County: _____

____ Employer Name: _____

MAILING Address: _____

City: _____ State _____ Zip _____ County: _____

Work Phone : _____ Ext: _____ Fax: _____

Home Phone: _____ Cell Phone: _____

Email Address: _____

How would you like to receive your issues of Go With The Flow? Postal Delivery _____ OR Email _____

How would you like to receive your Section Meeting notices? Postal Delivery _____ OR Email _____

NOTE: Memberships are based upon a calendar year. Membership cards will be mailed with receipt. These cards will contain your name, membership number, and membership expiration date.

NOTE: Please make checks payable to: **North Carolina Waterworks Operators Association** or **NCWOA**. We do NOT accept Purchase Orders.

CREDIT CARD PAYMENT

Credit Card Type: ____ Visa ____ MC ____ AmEx ____ Discover

Name on Credit Card: _____

Credit Card Number: _____

Exp Date: Month _____ Year _____ Security Code from back of Card _____

Cardholder's Signature: _____

PLEASE SEND APPLICATION AND PAYMENT TO:

Cindy Gall, NCWOA Comptroller
PO Box 4519
Emerald Isle, NC 28594
Phone: 252-764-2094 ext. 2
Fax: 252-764-2095
Email: cindy@ncwoa.com

.....
: Credit Card Payments CANNOT :
: be processed over the phone. :
.....

If cardholder is other than member, what email address should the CC receipt be sent to? _____

To ensure that you receive the emailed receipt, please add cindy@ncwoa.com to your email address book.

NCWOA USE: Amount: _____ CK# _____ E S Processed: _____

Heather Cagle, Administrator
NC Waterworks Operators Association
PO Box 4519
Emerald Isle, NC 28594
www.ncwoa.com

NON PROFIT
U.S. POSTAGE
PAID
Mailed from
Zip Code 56601
Permit No 71



NORTH CAROLINA WATERWORKS OPERATORS ASSOCIATION

79th Annual North Carolina Waterworks Operators School
September 24-28, 2018

Advanced Day Wednesday, September 26, 2018

AWARDS BANQUET LUNCHEON and ANNUAL BUSINESS MEETING
Wednesday, September 26, 2018 from 12:05pm - 1:45pm at the McKimmon Center

We Appreciate Our Corporate Sponsors! Look to them first for all of your industry needs.



Jack Moore & Associates, Inc.

