

APPENDIX P

AWWA RESOURCES FOR FLINT TRAINING MODULES



AWWA Resources for Flint Training Modules

AWWA is pleased to present a proposal for AWWA materials to support the training modules that Cornwell Engineering will be provided to operators at the City of Flint, Michigan. The proposed training modules cover the following areas:

- Introduction to the Flint System
- Introduction to Distribution System Functions
- Water Distribution System Operator Training
- Safety Training
- Customer Service Representative Training
- Heavy Equipment Training

AWWA-Provided Resources

Current priority areas for the City of Flint include Introduction to Distribution System Functions, Safety Training, and Heavy Equipment Training. To assist Cornwell Engineering and the City of Flint in achieving their training objectives, AWWA offers the following resources at no cost to the City.

City of Flint – Priority Training Package Resources
WSO Water Distribution, Grades 1, 2, 3, and 4 (books)
WSO Maintaining Distribution and Storage Systems DVD
Let's Talk Safety 2018 Book & Dual-Disc Set
Safety First: Heavy Equipment Yard Practices DVD

Additionally, materials on AWWA's online [Resource Communities](#) are available at no cost for user download. Resource Communities provide a collection of relevant resources on a variety of water and wastewater topics including [Distribution System Water Quality](#), [Lead](#), [How Water Works](#), and more.

The [Partnership for Safe Water](#) program has also been proposed as a potential resource for the City of Flint. The Partnership for Safe Water is a voluntary drinking water utility optimization and recognition program that provides resources for the optimization of water treatment plant and distribution system performance and operations. The program is designed to be flexible and self-paced, so that it may be adapted to best meet specific utility needs. Partnership staff would be happy to discuss potential options most suitable for the City of Flint's specific objectives. The City's first year of Partnership for Safe Water program participation is offered at no cost to the utility. Additional information is available from Partnership for Safe Water staff.

In addition to these resources, AWWA's WSO Operator Training App is anticipated to be available for download in March 2018. Based on the WSO Series of books, this new app will allow operators to practice and test their skills and knowledge conveniently from their smartphone.

Additional Resources

Lists of the most relevant additional AWWA resources are provided below to support each training module. Each package includes training content available on a variety of platforms, in order to accommodate a variety of delivery and learning styles. The current AWWA member price (as of February 16, 2018) is included for your reference.

1. Introduction to the Flint System

Resources	AWWA Member Price
How Water Works Resources	
How Water Works Resource Community (free)	Free
How Water Works Workbook (\$22.00-member price)	\$22.00
How Water Works: An Interactive Tour - CD-ROM	\$77.00
How Water Works Classroom Learning Kit	\$134.00
Water System Operations (WSO) Books	
WSO Water Treatment, Grades 1,2,3,4 (individual grades may also be purchased)	\$189
Water System Operations (WSO) DVDs	
WSO: Video Set (all WSO DVDs – relevant individual DVDs are referenced below)	\$2,596.00
WSO Coagulation, Flocculation and Sedimentation DVD	\$232.00
WSO Filtration DVD	\$232.00
WSO Disinfection DVD	\$232.00
Books	
The Water Dictionary: A Comprehensive Reference of Water Terminology	\$48.00
Water Operator Certification Study Guide	\$66.00
Resource Community Web Pages	
Health Effects Resource Community	Free
Source Water Protection Resource Community	Free

2. Introduction to Distribution System Functions

Resources	AWWA Member Price
Water System Operations (WSO) Books	
WSO Water Distribution, Grades 1, 2, 3, and 4 (individual grades may also be purchased)	\$124
Water System Operations (WSO) DVDs	
WSO: Video Set (all WSO DVDs – relevant individual DVDs are referenced below)	\$2,596.00
WSO Maintaining Distribution and Storage Systems DVD	\$232.00
WSO Disinfection By-products DVD	\$232.00
WSO Flushing and Cleaning DVD	\$232.00
WSO Instrumentation and Control DVD	\$232.00

WSO Pumps DVD	\$232.00
WSO Water Loss Control DVD	\$232.00
Other DVDs	
AWWA Field Guide: Hydrant Flow Tests DVD	\$191.00
AWWA Field Guide: Hydrostatic Testing DVD	\$191.00
AWWA Field Guide: Pipe Tapping DVD	\$191.00
AWWA Field Guide: Service Meters DVD	\$191.00
AWWA Field Guide: Valve Operation and Maintenance DVD	\$191.00
Backflow Prevention and Cross-Connection Control DVD	\$232.00
Elements of Successful Water Distribution Programs: AWWA Thought Leaders Series DVD	\$129.00
External Corrosion of Water Infrastructure DVD	\$232.00
GIS for Water Utilities DVD	\$216.00
Internal Corrosion Control and Lead Service Line Replacement DVD	\$232.00
Maintaining Water Quality in the Distribution System DVD	\$216.00
Managing Water Storage Tanks: A Key to Water Quality DVD	\$232.00
Nitrification in the Distribution System DVD	\$232.00
Pipeline Repair for Water Utilities DVD	\$232.00
Water Main Breaks and Repairs: AWWA Thought Leaders Series DVD	\$129.00
Water Main Disinfection and Dechlorination DVD	\$232.00
Programs	
Partnership for Safe Water's Distribution System Optimization Program	\$1,000 annually, first year membership offered at no charge to the utility
Books	
Disinfection of Pipelines and Storage Facilities Field Guide	\$60.00
Pump Selection and Troubleshooting Field Guide	\$56.00
Water Operator Field Guide	\$59.00
Resource Community Web Pages	
Backflow Prevention and Cross Connection Control Resource Community	Free
Distribution System Water Quality Resource Community	Free
Lead Resource Community	Free

3. Water Distribution System Operator Training

Resources	AWWA Member Price
Water System Operations (WSO) Books	
WSO Water Distribution, Grades 1, 2, 3, and 4 (individual grades may also be purchased)	\$124
Water System Operations (WSO) DVDs	
WSO: Video Set (all WSO DVDs – relevant individual DVDs are referenced below)	\$2,596.00
WSO Maintaining Distribution and Storage Systems DVD	\$232.00
WSO Disinfection By-products DVD	\$232.00
WSO Flushing and Cleaning DVD	\$232.00
WSO Instrumentation and Control DVD	\$232.00
WSO Pumps DVD	\$232.00
WSO Water Loss Control DVD	\$232.00
Additional DVDs	
Secrets to Success: How to Prepare for Operator Certification DVD	\$59.00
Watermath: Quick Calculator for Water Operators CD	\$44.00
Water Distribution Operator Training: Water Mains DVD	\$216.00
Water Distribution Operator Training: Services and Meters DVD	\$216.00
Water Distribution Operator Training: Pumps and Motors DVD	\$216.00
Water Distribution Operator Training: Hydrants DVD	\$216.00
Water Distribution Operator Training: Valves DVD	\$216.00
eLearning Courses	
Advanced Disinfection of Pipeline and Storage Facilities	\$90.00
Advanced Metering Infrastructure for the Water Industry	\$90.00
Backflow I (Prevention and Cross-Connection Control)	\$90.00
Basic Mathematics	\$270.00
Cybersecurity in the Water Sector	\$90.00
Disinfection of Pipelines & Storage Facilities	\$90.00
Distribution System Materials and Equipment	\$90.00
Distribution Service to Customers	\$135.00
Erosion and Sedimentation Control	\$90.00
Fire Hydrant Basics for Pressurized Water Systems	\$90.00
Flushing and Bacteriological Testing	\$90.00
Increasing Need for Water Loss Control	\$90.00
Instrumentation	\$255.00
Key Elements to Maintaining Distribution System Integrity	\$90.00

Optimizing Water Distribution System Quality	\$90.00
Plant to Tap: The Importance of Disinfection	\$90.00
Pump Maintenance	\$90.00
Water Storage Tanks: Operations and Maintenance	\$90.00
Water System Mechanical Equipment	\$90.00
Water Main Installation	\$135.00
Why Are Water Service Lines Important	\$90.00
Programs	
Partnership for Safe Water's Distribution System Optimization Program	\$1,000 annually, first year membership offered at no charge to the utility
Books	
Water Operator Certification Study Guide	\$66.00
Water Distribution Operator Training Handbook	\$70.00
Math for Distribution System Operators	\$64.00
Operator Math Made Easy, I & II	\$190.00
Set of Water Certification Study Guide and Math for Distribution System Operators	\$96.00
Resource Community Web Pages	
Backflow Prevention and Cross Connection Control Resource Community	Free
Distribution System Water Quality Resource Community	Free
Lead Resource Community	Free

4. Safety Training

Resources	AWWA Member Price
DVDs	
Safety First DVD Set Includes 30 topics such as PPE, Lockout/Tagout, Handling Chemicals, Hand and Power Tools, and Water Main Repair	\$5661.00 (most individual Safety First videos are \$26)
Let's Talk Safety 2018 Book & Dual-Disc Set	\$130.00 (\$69.00 book only)
Other Resources	
YouTube - Safety for Water Utility Workers	Free
Additional Safety Resources (linked here)	Free

5. Customer Service Representative Training

Resources	AWWA Member Price
Certification Program & eLearning	
Customer Service Certification Program – 3 Courses	Varies
High Bill Complaints? Easy Water Conservation Tips for Your Customers	\$90.00
Workplace Communication	\$90.00

Seminars	
Customer Service Seminar March 12-13, Holliston, MA	\$545.00
DVDs	
Customer Service Techniques for Utilities DVD	\$232.00
Additional Online Resources	
Customer Service Resource Community	Free
Communications and Customer Service Resources	Free

6. Heavy Equipment Training

Resources	AWWA Member Price
DVDs	
Safety First: Excavation Safety Set DVD	\$232.00
Safety First: Forklift Safety DVD	\$236.00
Safety First: Heavy Equipment Yard Practices DVD	\$236.00
Safety First: Indoor Crane Operation DVD	\$216.00
Safety First: Pipe Handling Safety for Field Crews	\$236.00
Utility Driver Safety DVD	\$216.00
Safety First: Work Area Traffic Control	\$236.00

7. Additional AWWA Resources

Standards & Manuals
Full list of AWWA publications
ANSI/AWWA Standards
Manuals of Water Supply Practices
Webinar Programming
2018 Webinars
2017 AWWA Archived Webinars (\$295.00 member price)
2016 AWWA Archived Webinars (\$295.00 member price)
Additional Education Products
eLearning Program
Seminars

Additionally, you are also encouraged to explore training and education offered through Michigan Section AWWA ([Michigan Section Training and Events](#)), including the [Michigan Water Academy](#).