



American Water Works Association **Pacific Northwest** Section Northwest Washington Subsection

Course Description & Outline

Emergency Preparedness

Northwest Washington Subsection – PNWS-AWWA

Goal - To provide a basic understanding of emergency preparedness, and the response of water and wastewater utilities in the event of emergencies and disasters. Assessing risks, planning and preparedness will lead to utilities that function better in emergencies, work more efficiently to restore service to customers and are better able to maintain water quality.

- **Section 0 – Introduction** (15 minutes, not included in the instruction time for the program)
 - Discussion of the day's program as an outline of utility emergencies and how to prepare for them
 - Housekeeping announcements
 - Safety emphasis
- **Section 1 - Water Utility Emergencies – 30 minutes**
 - Discussion of the variety of emergencies that can affect water utilities, including:
 - Commonalities
 - Natural Disasters
 - Human caused disasters
 - Water Sources – Where we get water.
 - Response to disasters
 - Interagency assistance
 - Volunteer management
- **Section 2 - Emergency Case Studies – 45 minutes**
 - Review of two or three emergencies that are local to the state or area that serve as examples of what can go wrong and how the utility responded
- **Section 3 - Emergency Action Plan- 30 minutes**
 - Discussion of an Emergency Action Plan (EAP) and how to develop one. specifically:
 - What is an EAP
 - Why do we need a plan
 - How to develop an EAP
 - Resources
- **Section 4 - Risk & Resilience – 45 minutes**
 - Introduce to the concepts of risk and resilience, how to quantify and how to compare.
 - Origins of risk & resilience planning
 - Risk Analysis and Management of Critical Asset Protection (RAMCAP)
 - 7-Step RAMCAP process
 - Resources
- **Section 5 - Incident Command System (ICS) – 45 minutes**

- Introduction to the Federal Emergency Management Agency Incident Command System elements and process
 - ICS – What is it?
 - ICS – Why use it?
 - Organization of an ICS
 - Where and how to get ICS training & certification
- **Section 6 - Public Outreach During Emergencies, Crisis Communication – 30 minutes**
 - To provide an understanding of how to work with the public during an emergency to keep them informed, safe and reduce misinformation and panic.
 - What message is given?
 - By whom?
 - To whom and how?
 - Media relations
 - Revisions & updates during the emergency
 - Use of social media
- **Section 7 – Business & Operational Continuity – 15 minutes**
 - Provide an overview of what needs to be considered in maintaining a water utility during the immediate aftermath and recovery
 - Essential functions
 - Continuity management
 - Employee needs
 - Financial resources
 - Supply chain disruption
 - Competing demands
- **Section 8 - Water/Wastewater Agency Response Network (WARNs) – 30 minutes**
 - Introducing the WARN organization and purpose.
 - What is a WARN? Why are WARNs needed?
 - How do WARNs work?
 - WARN progress review
 - Benefits of a WARN
 - How do WARNs fit within Emergency Response & Recovery?
 - How did WARNs get started?
 - WARNs in each state
- **Section 9 – Tabletop & Field Exercises, Other Training – 30 minutes**
 - Discussion of how to organize and run emergency preparedness planning and practice tools including who to involve, public notice and participations, logistics how to evaluate outcomes:
 - Tabletop exercises
 - Field exercises
 - Outline some of the training available online or through other sources that is valuable for Emergency Preparedness
 - FEMA
 - ID/OR/WA Labor & Industries
 - Safety/First Aid Training
- **Section 10 – Personal Preparedness – 30 minutes**
 - Discussion of the planning and preparation that utility employees and their families should undertake.
- **Section 11 – Facility Security – 60 minutes**

- To outline ways to review security of facilities and highlight some typical security measures
 - Guidelines
 - Facility Specifics
 - Physical Security Elements
 - Next Steps
- **Section 12 – Cyber Security – 30 minutes**
 - Develop a list of realistic vulnerabilities for your system and to identify possible mitigation measures
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 - Why Cyber Security is an Issue
 - Cyber Security Myths
 - Opening Questions
 - Federal Regulations
 - State Regulations
 - General Guidelines & Resources
 - What's it all lead up to?

Total Instruction time – 420 minutes (7 hours). 0.7 CUEs requested.

Presentation authors. The following PNWS-AWWA members were responsible for preparing and developing the curricula and presentations for the workshop:

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- Mike Jacobs – Tualatin Valley Water District
- Bob James – WSDOH
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- Jacki Masters – Mt View-Edgewood Water District
- Terry Pickle – City of Coeur d' Alene
- Shelley Rogers – Idaho Rural Water Association
- Mike Simmons – Formerly Island County
- Kurt VanBurkelo – Skagit County PUD No. 1
- Tom Vane – Alderwood Water & Wastewater District

Possible Handouts:

- a) AWWA Cyber Security Guide Tables 2-1 & 3-2
- b) Cyber Security Myths
- c) Emergency Response Additional Courses & Physical Security Resources
- d) RAMCAP flow chart – Figure 1 AWWA J100
- e) Table 1-1, Design Basis Threat Capability Matrix from “Guidelines for the Physical Security of Water Utilities”
- f) Handout Table 2-1 – Benchmark Security Measures from “Guidelines for the Physical Security of Water Utilities”
- g) Security Measure Decision Tree