

Improving Tribal Drinking Water Systems: Interdisciplinary Topics

Session 1: Sanitary Surveys – Approximate time: 3 hours

Trainers: Lori Blau & Claire Miller

Introduction (approximate run time 20 minutes)

- A. Topic, Moderator/Presenter, Organization Introductions (approximate time 5 minutes)
- B. How to interact with the platform (approximate time 5 minutes)
- C. Audience Polls/Topic Knowledge pre-quiz (approximate time 10 minutes)

What is a Sanitary Survey and why do we do them? (approximate run time 20 minutes)

Poll 3: Have you been through a sanitary survey before?

- A. What is a sanitary survey?
- B. Why do we do them?
- C. Who performs sanitary surveys
- D. Who should attend the survey?

5 minute Stretch Break – Think about what we have covered so far. Type any questions into the chat box.

How do I prepare for a sanitary survey? (approximate run time 45 minutes)

- A. Prepare Records
- B. Field Checklist (*prior to survey*)

5 minute Stretch Break – Think about what we have covered so far. Type any questions into the chat box.

During the Survey (approximate run time 30 minutes)

- a. **Poll 5: Do you have ground water system, surface water or GWUDI**
- b. **Poll 6: Do you have disinfection?**

- A. Records Review
- B. Field Inspection
 - a. For groundwater systems,
 - b. For surface water systems
 - c. For springs
 - d. Storage Tanks
 - e. Pressure Tanks
 - f. Pressure Relief Valves

Typical form used (approximate run time 20 minutes)

- A. Walk thru R10 Tribal Form

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After the Survey (approximate run time 10 minutes)

- A. Surveyor compiles information & sends to Primacy Agency
- B. Significant Deficiency vs. minor deficiency
- C. Addressing Deficiencies

Review (approximately 25 minutes)

- A. Review of topics covered (approximately 10 minutes)
- B. Questions and Open Discussion Period (approximately 10 minutes)
- C. Topic Knowledge post quiz (5 minutes)

Total Session Time: 3 hours

Attendance Tracking

- Training will be done on the Go To Training (GTT) platform
- Attendee participation will be tracked through GTT data reports, including pre- and post-tests, poll questions, chat box interaction.

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Session 2: Drinking Water Source Protection – Approximate Time 2.5 hours

Trainers: Mario Casillas & Claire Miller

Introduction (approximate run time 15 minutes)

- A. Topic, Moderator/Presenter, Organization Introductions (approximate time 5 minutes)
- B. How to interact with the platform (approximate time 3 minutes)
- C. Audience Polls/Topic Knowledge pre-quiz (approximate time 7 minutes)

Understanding Source and Wellhead Protection (approximate run time 60 minutes)

- E. Source types
 - A. Ground Water
 - B. Surface Water
 - C. Ground Water under the Influence of Surface Water
- F. Risks associated with each Source type
 - 1. Ground Water
 - D. Surface Water
 - E. Ground Water under the Influence of Surface Water
- G. Benefits and Incentives for Source Water Protection
 - a. Case Study

Break 5 minutes: Type into the chat box any questions you have up to this point.

Well Construction Standards And Aquifer Protection Concerns (approximate run time 60 minutes)

- C. Well types
 - 2. Casings
- F. Pumps
- G. Drilling standards
- D. Aquifer Protection Concerns
 - 3. Sanitary Defects
- H. Pathways of contamination

Conclusion (approximately 15 minutes)

- D. Review of topics covered (approximately 2-3 minutes)
- E. Questions and Open Discussion Period (approximately 7-8 minutes)
- F. Topic Knowledge post quiz (5 minutes)

Total Session Time: 2.5 hours

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Session 3: Identifying & Resolving Cross Connections – Approximate time: 3 hours

Trainers: Neil Worthen & Lori Blau

Introduction, tools tour and pre-test (15 min)

Module 1 - What is a Cross-Connection? (40 min)

- A. Definition of cross connections
- B. Causes of cross connections
- C. Hazards of cross connections
- D. Identifying cross connections

Short bio break (5 min) Come back & type in the chat box: After hearing this, can you think of potential cross connections in your system?

Module 2 - Cross connection control methods (30 min)

- A. Backflow prevention devices - descriptions
- B. Backflow prevention devices - selection and installation
- C. Premises isolation vs. fixture isolation

Module 3 - Implementing a cross connection control program (30 min)

- A. Establishing legal authority
- B. Budgeting and funding
- C. Conducting cross connection surveys

Short bio break (5 min) – Type in the chat box: Do you have a CCCP?

Module 3 - Implementing a cross connection control program (continued) (30 min)

- A. Time and training requirements
- B. Inspection and testing of backflow prevention devices
- C. Response to backflow incidents
- D. Recordkeeping
- E. Customer outreach and education

Module 4 - Case studies and group problem solving (15 min)

Wrap-up, Q&A, post test, course evaluation (15 min)

Total Session Time: 3 hours

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Course 2, Session 4: Sampling & Reporting Requirements – Approximate Time: 2.5 hours

Trainers: Mario Casillas & Lori Blau

Introduction (approximate run time 15 minutes)

- A. Topic, Moderator/Presenter, Organization Introductions (approximate time 5 minutes)
- B. How to interact with the platform (approximate time 3 minutes)
- C. Audience Polls/Topic Knowledge pre-quiz (approximate time 7 minutes)

Overview of Sampling and reporting requirements (approximate run time 30 minutes)

- A. Refresher of the Safe Drinking Water Act
 1. History
 2. Overview
 3. Sampling Requirements

Sample Collection, processing and analysis (approximate run time 60 minutes)

- A. Coliform Sampling
- B. Inorganic Chemical Sampling
- C. Organic Chemical Sampling
- D. Disinfection By-Products (DBP) sampling

5 Minute Break

Understanding Laboratory Requirements (approximate run time 30 minutes)

- A. Chain of Custody
- B. Validation of sample
- C. Documentation and recordkeeping

Conclusion (approximate time 15 minutes)

- A. Review of topics covered (approximately 2-3 minutes)
- B. Questions and Open Discussion Period (approximately 7-8 minutes)
- C. Topic Knowledge post quiz (5 minutes)

Total Session Time: 2.5 hours

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Course 2, Session 5: Leak Prevention & Repair – Approximate Time: 3 hours

Trainers: Jason Carman, Lori Blau

Introduction (approximate time 20 minutes)

- A. Topic, Moderator/Presenter, Organization Introductions
- B. How to interact with the platform
- C. Audience Polls
- D. Pretest

Overview of Leak Detection (approximate time 40 minutes)

- A. Overview of leak detection
- B. Three main break scenarios (Poll)

Break – 10 minutes – enter in the chat box any questions you have on the material so far

Reviewing the components of an Emergency Response Plan (approximate time 30 minutes)

- A. Review the required components of an ERP

Public Notification Language for possible Water Outages (approximate time 30 minutes)

- A. Door Hangers
- B. Scenarios for public notifications
- C. Poll

Break – 10 minutes - enter in the chat box any questions you have so far

Proper Construction Practices & Testing for Leaks (approximate time 20 minutes)

- A. Review best management practices for main repair
- B. Leak testing

Disinfection of repaired or new water mains and Bac-T Testing (approximate time 20 minutes)

- A. Review of AWWA C6561-14
- B. Poll

Conclusion (approximate time 20 minutes)

- A. Review material
- B. Discussion
- C. Post Test

Total Session Time: 3 hours

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