

Training Evaluation Request
Oregon Environmental Services Advisory Council
Watura
Operation of Wastewater Collection Systems

Course title: Operation of Wastewater Collection Systems

Drinking Water CEUs: 0 h

Wastewater CEUs: 2.0 h

Instructor bio: **Maelle LIMOUZIN** is a Water Resources and Environmental Engineer who studied at UT Austin. She spent 10 years working in a consulting company for drinking water and wastewater public utilities and 3 years in a company that manages drinking water and wastewater facilities. Currently, she uses her technical expertise and experience to train public and private organizations in managing their drinking water and wastewater systems.

Course description: The wastewater collection system, also called the sewer system, is designed to collect and transport wastewater to treatment plants (WWTPs) for proper treatment before being released back into the natural environment. This system consists of various components, each serving a specific function. This course will enable operators to identify and understand the operation of different types of sewer systems and their different components.

Learning goals:

- Identify the different components of a sewer system
- Explain the function of each component in a sewer system

Tracking attendance method:

The e-learning platform offers a highly interactive experience designed to engage learners at every stage. It begins with an initial test to assess knowledge and tailor the learning journey. The course includes short, focused videos interspersed with mandatory training quizzes that reinforce key concepts and ensure active participation. Students are required to watch every video entirely and to answer practice questions before advancing to the next course module. Students cannot skip course content. A final quiz at the end of each chapter evaluates overall comprehension and certifies the learner's mastery of the material. Students must obtain a minimum score of 70% for every chapter's final quiz to successfully complete the course and obtain the certificate of attendance. The platform automatically tracks each learner's learning time. The real learning time is indicated alongside the delivered credits in the course completion certificate.

Course outline: Operation of Wastewater Collection Systems

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| Initial Test | | 15 min |
| 1. Different Types of Sewer Systems | 1.1. Course overview | 2 min |
| | 1.2. Gravity, Low-Pressure and Vacuum Sewer Systems | 5 min |
| | 1.3. Grid and Tree Systems | 4 min |
| | 1.4. Chapter 1 - Fact Sheets | 1 min |
| | Chapter final test | 3 min |
| 2. Main Components | 2.1. Sewer Laterals | 4 min |
| | 2.2. Sewer Pipes | 5 min |
| | 2.3. Laying Sewer Pipes | 5 min |
| | 2.4. Lift Stations | 6 min |
| | 2.5. Chapter 2 - Fact Sheets | 2 min |
| | Chapter final test | 4 min |
| 3. Main Appurtenances | 3.1. Inverted Siphons and Air Valves | 6 min |
| | 3.2. Valves | 5 min |
| | 3.3. Manholes | 5 min |
| | 3.4. Chapter 3 - Fact Sheets | 1 min |
| | Chapter final test | 4 min |
| 4. Protective Devices | 4.1. Water Hammer Protection Tanks | 5 min |
| | 4.2. Drop Shafts | 5 min |
| | 4.3. Gas Control | 6 min |
| | 4.4. Chapter 4 - Fact Sheets | 1 min |
| | Chapter final test | 5 min |
| 5. Inspecting and Testing Wastewater Collection Systems | 5.1. Closed-Circuit Television Inspections | 6 min |
| | 5.2. Smoke Testing | 6 min |
| | 5.3. Course Glossary | 4 min |
| | 5.4. Chapter 5 - Fact Sheets | 1 min |
| | Chapter final test | 4 min |
| Minimum Learning Time | | 120 min |
| Requested Contact Hours | | 2 h |