

# **Oregon Environmental Services Advisory Council (OESAC)**

## **Water and Wastewater CEU Application**

### **OREGON WASTEWATER CEU REQUIRED ATTACHMENTS**

---

1	time schedule including start, end and meals.....	2
2	Course outline with training goal.....	2
3	Additional Instructor Information—Short Biography and Credentials.....	3

## 1 TIME SCHEDULE INCLUDING START, END AND MEALS.

---

### Workshop Time Schedule:

**9:30 am - 9:40 am:** Welcome and Introduction  
**9:40 am - 10:15 am:** Regional Climate Presentation  
**10:15 am - 10:30 am:** Break  
**10:30 am - 11:00 am:** Building Equity & Environmental Justice  
**11:00 am - 11:45 am:** Technical Support from EPA's Creating Resilient Water Utilities  
**11:45 am - 1:00 pm:** Lunch Break  
**1:00 pm - 1:45 pm:** Utility Resilience Planning: Local Case Studies  
**1:45 pm - 2:35 pm:** Funding Panel  
**2:35 pm - 2:45 pm:** Break  
**2:45 pm - 3:30 pm:** Small Group Discussions and Wrap-Up  
**3:30 pm:** Workshop concludes.

**Note:** The schedule may vary slightly depending on the length of discussions and Q&A sessions. Adjustments will be made to ensure all topics are adequately covered.

## 2 COURSE OUTLINE WITH TRAINING GOAL.

---

**Workshop Title:** Building Resilience and Adapting to Climate Change Impacts for Drinking Water and Wastewater Utilities in the Pacific Northwest

### Training Goals:

1. Recognize and recall local regional climate trends and projections.
2. Synthesize the intersections between climate, environmental justice, and water equity.
3. Engage with US EPA on the Creating Resilient Water Utilities (CRWU) tools.
4. Describe lessons learned from the Town of Middletown and Town of Boonsboro Climate Resilience Evaluation and Awareness Tool (CREAT) technical assistance experience.
5. Discover State and Federal funding opportunities and deadlines.

### Outline:

1. **Welcome and Introduction**
  - Introduction to the workshop objectives and agenda.
  - Overview of the importance of climate resilience for water utilities.
2. **Regional Climate Trends and Projections**
  - Presentation on historical trends and future climate projections specific to the Pacific Northwest region.
  - Question and answer session to clarify key points.
3. **Equity and Environmental Justice Considerations**
  - Discussion on integrating equity and environmental justice principles into climate adaptation planning.
  - Importance of inclusivity and fairness in resilience efforts.
4. **Technical Support from EPA's Creating Resilient Water Utilities**
  - Overview of resources available from EPA's program, focusing on their application in climate resilience.
  - Demonstration of tools and resources.
5. **Small Group Discussions on Climate Threats and Solutions**

- Participants engage in small group discussions on identified climate threats, challenges, planning activities, and proposed solutions.
  - Groups report out to find common themes and insights.
6. **Utility Resilience Planning: Case Studies**
    - Presentations from Town of Langley and King County Water District #90 on their resilience plans and outcomes using CREAT.
    - Panel discussion and Q&A session with presenters.
  7. **Funding Opportunities for Resilience Projects**
    - Panel discussion with funding partners on available funding opportunities for climate resilience projects.
    - Participants can ask specific questions related to funding.
  8. **Wrap-Up and Next Steps**
    - Summary of key learnings from the workshop.
    - Encouragement for continued collaboration and implementation of resilience plans.
    - Information on how to earn CEUs for certified drinking water and wastewater operators.
  9. **Networking and Collaboration**
    - Informal networking session for participants to connect and share contact information.
    - Opportunities for future collaboration and support.

**Program Abstract:**

This workshop, organized by the US EPA, focuses on increasing climate change resilience for drinking water and wastewater utilities in the Pacific Northwest. The agenda includes presentations on regional climate trends and projections, integrating equity and environmental justice considerations, utilizing EPA resources for resilience planning, and case studies from local utilities. Participants will engage in small group discussions, explore funding opportunities, and network with industry peers. Certified operators can earn CEUs, making this workshop a valuable opportunity for professional development and collaboration in climate resilience efforts.

### 3 ADDITIONAL INSTRUCTOR INFORMATION—SHORT BIOGRAPHY AND CREDENTIALS

---

**Name:** Dr. Geneva Gray, U.S. Environmental Protection Agency (EPA)

**Address:** United States Environmental Protection Agency, 1201 Constitution Ave NW, Washington, DC 20004

**Background:** Dr. Geneva Gray is a Physical Scientist with the Environmental Protection Agency's (EPA)

Creating Resilient Water Utilities initiative, which is situated within the Office of Water at EPA Headquarters in Washington, DC. Dr. Gray has a Doctor of Philosophy in Atmospheric Sciences and Meteorology from North Carolina State University. Dr. Gray will cover technical support for water systems from EPA's Creating Resilient Water Utilities.

**Name:** Curt Baranowski, U.S. Environmental Protection Agency (EPA)

**Address:** United States Environmental Protection Agency, 1201 Constitution Ave NW, Washington, DC 20004

**Background:** Curt Baranowski leads EPA's Creating Resilient Water Utilities (CRWU) initiative, which provides resources for drinking water and wastewater utilities to address climate change by a clear understanding of climate science and adaptation options. Previously, Mr. Baranowski managed Agency programs that provided technical assistance and training to small community wastewater utilities.

**Name:** Nash Keyes, U.S. Environmental Protection Agency (EPA)

**Address:** United States Environmental Protection Agency, 1201 Constitution Ave NW, Washington, DC 20004

**Background:** Nash Keyes is an ORISE Fellow with EPA's Creating Resilient Water Utilities (CRWU) initiative. Ms. Keyes has a bachelor's degree in applied mathematics from Yale University. Ms. Keyes will cover the topic of Building Equity & Environmental Justice.

**Name:** Karsten Shein, General Dynamics Information Technology (GDIT)

**Address:** GDIT, 3150 Fairview Park Dr, Falls Church, VA 22042

**Background:** Dr. Karsten Shein is a leading climate data expert with 30 years of experience in climate variability and change science, data collection and management, climate modeling, and translating data into information. In addition to 17 years of service to NOAA and NASA, Dr. Shein served as director of the Midwestern Regional Climate Center at the University of Illinois and has extensive experience utilizing historical and modeled climate data to produce climate change assessments for public and private sector risk and resilience activities worldwide, including in support of climate justice efforts. Dr. Shein is an award-winning communicator and engager who has organized and facilitated climate vulnerability workshops, cultivated public-private climate services partnerships, authored over 300 weather and climate articles, delivered more than 100 papers, and led several federal climate working groups and an international climate assessment report.

**Name:** Alfredo Lagos, General Dynamics Information Technology (GDIT)

**Address:** GDIT, 3150 Fairview Park Dr, Falls Church, VA 22042

**Background:** Alfredo Lagos is an emergency management/response specialist with GDIT working with EPA's Creating Resilient Water Utilities Initiative (CRWU). Alfredo has facilitated and led workshops and webinars for whole EPA regions, water utilities, and others. Alfredo holds a Master of Science in Crisis, Risk and Emergency Management from George Washington University

#### Method of Instruction

The training methods applied during this course will include a combination of PowerPoint presentation lectures, demonstrations of the US EPA's Climate Resilience Evaluation and Awareness Tool, hand-out materials, and small group discussions.

---