WASTEWATER AND AQUATIC BIOLOGY

COURSE OVERVIEW

Instructors: Steve Lundt, Senior Water Quality Scientist
Jordan Parman, Senior Water Quality Scientist

Date & Time: June 16, 2022; 8 a.m. to 5 p.m.

Location: Metro Water Recovery
6450 York Street
Denver, CO 80229

Contact: Colleen Miller – cmiller@metrowaterrecovery.com

Website: www.metrowaterrecovery.com

Course Description

- The course is designed to give teachers an overview of the treatment process at Metro Water Recovery's Robert W. Hite Treatment Facility in Denver and highlight the environmental benefits to the South Platte River. The program will include tours of the treatment and laboratory facilities.

- Water quality scientists will present an overview of aquatic life assessment techniques, including introductions to fish and macroinvertebrate sampling. Habitat and water quality assessment will also be discussed. Participants will get hands-on field experience conducting a macroinvertebrate survey.

- The course is designed primarily for teachers of biology, environmental science, earth sciences, chemistry, and related sciences but is open to all teachers.

Graduate Credit and Grading Policy

- To earn an **A** in the course, teachers must participate in all program activities and incorporate aspects of the day's events into a lesson plan appropriate for individual grade levels. Various formats will be accepted. All lesson plans should be submitted to Metro Water Recovery within one week of completing the site visit.

- To earn a **B** in the course, teachers must participate in all program activities.

Course Goals and Learning Objectives

- Provide teachers with background knowledge to help students become global stewards of the environment.
- Demonstrate the science behind decisions that affect the wastewater treatment process and aquatic habitat improvement projects.
- Provide hands-on field experiences with practical classroom applications.

Schedule

8:00 a.m. – 8:30 a.m.	Breakfast (provided) and history of Metro Water Recovery
8:30 a.m. – 9:00 a.m.	Introduction to the science and practice of wastewater treatment
9:00 a.m. – 9:15 a.m.	Travel to project site
9:15 a.m. – 11:30 a.m.	Visit a river site with Metro's water quality scientists for discussion and hands-on activities
11:30 a.m. – 11:45 a.m.	Travel back to the Metro
11:45 a.m. – 12:45 p.m.	Lunch (provided) with continued discussion of downstream water quality and habitat/watershed projects
12:45 p.m. – 1:45 p.m.	Tour the 170-acre Robert W. Hite Treatment Facility
1:45 p.m. – 2:45 p.m.	Tour the on-site laboratory where nearly 36,000 samples are analyzed and 314,000 analytical results are reported annually in support of Metro's clean water mission.
2:45 p.m. – 3:45 p.m.	Q&A with the subject-matter experts who participated in the activities and tours.
3:45 p.m. – 4:15 p.m.	Review of Metro's educational materials, which includes a virtual classroom option. What works and what doesn't?
4:15 p.m. – 5:00 p.m.	Course feedback and paperwork for continuing education credit available through Colorado School of Mines.

Dress Code and Safety Procedures

- Metro Water Recovery is a highly industrialized work environment and **closed-toed shoes are required.**
- Many of the activities will be conducted outside for an extended period of time. Hats, sunscreen, and insect repellent are recommended.
- Metro provides reasonable accommodations for classes and tours (and any other public programs) in accordance with the Americans with Disabilities Act. Please let us know if you have a disability-related need for accommodation. To ensure consideration of specific accommodation requests, visitors must contact Metro at least **14 days in advance of class and/or tour**.