

Aquatic Toxicology Dilution Water Research Project Intern

STEP Internship 2025

Location: Raleigh, NC
Division of Water Resources

Project/Initiative Objective

Establish a new synthetic dilution water for the ATB in-house Ceriodaphnia dubia culture.

Major Task to be Performed

- 1) Research types of synthetic dilution water using EPA methods and laboratory Standard Operating Procedures (SOPs) and prepare batches of test water.
- 2) Propagate and maintain a Ceriodaphnia dubia culture for use in water testing.
- 3) Final deliverable: perform a North Carolina pass/fail toxicity test to compare new synthetic dilution water with current Moderately Hard Synthetic Water (MHSW).

Desired KSAs (Knowledge, Skills & Abilities)

- 1) Knowledge of water quality principles, practices and state and federal rules and regulations.
- 2) Ability to communicate effectively in both written and oral form.

Final Product or Outcome Anticipated

Intern will have learned how to culture Ceriodaphnia dubia and understand the basics of Whole Effluent Toxicity (WET) testing in aquatic organisms. Final product will be a new synthetic water available for ATB use in culturing and testing activities.

Travel Required

No