

**Opportunity Title:** EPA Chesapeake Bay Water Quality Modeling Fellowship

**Opportunity Reference Code:** EPA-REG3-2020-14

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-REG3-2020-14

**How to Apply** *Connect with ORISE...on the GO!* Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click [here](#) for detailed information about recommendations.

All documents must be in English or include an official English translation.

**Application Deadline** 1/5/2021 3:00:00 PM Eastern Time Zone

**Description** \*Applications may be reviewed on a rolling-basis and this posting could close before the deadline. Click [here](#) for information about the selection process.

**EPA Office/Lab and Location:** A research opportunity is available at the Environmental Protection Agency (EPA), Region 3 Office, Water Division located in Annapolis, Maryland.

**Research Project:** The Chesapeake Bay Program Office (CBPO) of U.S. EPA Region 3 is seeking a participant with educational experience in water quality modeling in the field of coastal estuarine systems to conduct research on the Chesapeake Bay Water Quality Model. Under the guidance of a mentor, the participant will conduct research and have access to a world class team of model practitioners in the Chesapeake Bay Program who are contributing to ongoing projects involving the development and application of numeric models to support the historic Chesapeake Bay TMDL with technical support needed to restore and maintain Chesapeake living resources from challenges of climate change, growth, and other impacts. The research includes the state-of-the-art simulation of water quality processes in the water column, sediment, shallow water, shoreline processes, and ecological processes in support of Chesapeake Bay Program management needs. Model development activities will be development of the next-generation Chesapeake Bay model to assess Chesapeake Bay water and ecosystem quality using an unstructured grid model such as SCHISM, FVCOM, or other unstructured grid models.

**Learning Objectives:** This research project will involve extensive interaction and collaboration with managers, scientists, and engineers throughout the Chesapeake Bay Program Partnership and particularly with



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the CBPO Modeling Workgroup and CBPO Modeling Team. The participant will also collaborate with and learn from other CBP scientists and engineers as the research will support the development of the next generation tidal Bay Model.

**Mentor(s):** The mentor for this opportunity is Lewis Linker ([Linker.lewis@epa.gov](mailto:Linker.lewis@epa.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date: December 2020.** All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

**Appointment Length:** The appointment will initially be for one year and may be renewed up to three or four additional years upon EPA recommendation and subject to availability of funding.

**Level of Participation:** The appointment is full-time.

**Participant Stipend:** The participant will receive a monthly stipend commensurate with educational level and experience. The annual stipend will be up to \$60,000. Click [here](#) for detailed information about full-time stipends.

**EPA Security Clearance:** Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

**ORISE Information:** This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

**Questions:** Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email [EPArpp@orau.org](mailto:EPArpp@orau.org) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received a master's or doctoral degree in one of the relevant fields, or be currently pursuing one of the degrees and will reach completion by December 2020. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Evidence of strong quantitative skills.
- Evidence of experience in using numerical models for ocean and estuaries.
- Evidence of broad knowledge of coastal and estuarine systems.
- Record of peer-reviewed research and scholarship commensurate with experience.
- Evidence of experience in numeric modeling using unstructured grid models, particularly SCHISM.
- Evidence of experience in interdisciplinary collaboration.

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- One or more of the following skills:
  - Parallel programming and scripting languages.
  - Prior SCHISM or other unstructured grid model experience.
  - Strong background in physical/biogeochemical processes in estuarine and coastal waters.

**Eligibility  
Requirements**

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 12/18/2020 11:59:00 PM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** ([3](#))
  - **Communications and Graphics Design** ([1](#))
  - **Computer, Information, and Data Sciences** ([1](#))
  - **Earth and Geosciences** ([4](#))
  - **Engineering** ([2](#))
  - **Environmental and Marine Sciences** ([6](#))
  - **Life Health and Medical Sciences** ([3](#))
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).