

Opportunity Title: EPA Fellowship in Modeling Point Source Contaminant Release Impacts on Drinking Water Supplies
Opportunity Reference Code: EPA-ORD-CESER-LRTD-2024-03

Organization U.S. Environmental Protection Agency (EPA)

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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 11/8/2024 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 currently available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Solutions and Emergency Response (CESER), Land Remediation and Technology Division (LRTD) located in Cincinnati, Ohio. ORD is the scientific research arm of the USEPA. Its leading-edge research informs Agency decisions and supports the emerging needs of EPA stakeholders, including the Agency's state, territorial, tribal, and community partners.

Research Project: In the US, large quantities of chemical substances are stored in proximity to drinking water supplies. Determining the impacts to drinking water supplies for actual and potential releases from these facilities is needed. Releases may increase during extreme weather events, which are occurring more frequently with climate change.

This research training opportunity will investigate water quality impacts from contaminants, including petroleum and hazardous substances. This research training opportunity will also provide a foundation for developing critical information to adapt to climate change and the impact on water quality. Ongoing studies on the following research topics are of importance to the Division: modeling contaminant transport; assessing impact on water supplies; contaminant releases and fate and transport; climate change, and extreme weather events.

Learning Objectives: The research participant will collaborate with scientific staff in ORD on opportunities related to modeling contaminant releases and impacts on water supplies. The research participant will



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collaborate with Agency staff in applying modeling results in decision processes.

Under the guidance of a mentor, research activities may include:

- Learning innovative approaches in assessing water quality impacts from point sources
- Participating with a team of scientists in developing the modeling for contaminant sources and potential impacts on water supplies
- Assessing impacts of climate change on contaminant transport and water quality impacts, including flooding and drought
- Contributing to developing presentations and technical manuscripts.

Mentor(s): The mentor for this opportunity is Fran Kremer (kremer.fran@epa.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Fall 2024. 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. 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.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5-year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@ornl.gov and include the reference code for this opportunity.

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Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

Preferred Skills/Experience:

- Focus on hydrology and water resources.
- Demonstrated strengths in numerical modeling, coding, and advanced data analysis methods.
- Experience in surface and ground water modeling to understand contaminant fate and transport to assist in risk-based decision-making.
- Models will be used to support decisions on time of travel and concentrations in determining vulnerability to drinking water intakes (surface water and ground water) from for contaminant releases.
- Demonstrated project management skills.
- Experience collaborating effectively with diverse populations.
- Ability to collaborate in a multi-disciplinary environment.
- Ability to effectively communicate results through presentations and publications.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree received within the last 60 month(s).
 - **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([3](#))
 - **Earth and Geosciences** ([2](#))
 - **Engineering** ([5](#))
 - **Environmental and Marine Sciences** ([3](#))
 - **Mathematics and Statistics** ([2](#))