

National Priorities: Occurrence and Implications of De Facto Water Reuse on Drinking Water Supplies

**EPA National Priorities (NP) Funding Opportunity
Funding Opportunity Number (FON): EPA-G2024-ORD-E1**

Informational Webinar for Potential Applicants

July 11, 2024


Webinar Objectives

- Review application information requirements in the funding opportunity:

National Priorities: Occurrence and Implications of De Facto Water Reuse on Drinking Water Supplies

- Provide guidelines for eligibility, submission and technical aspects of application process
- Answer questions about the application process and information written in the funding opportunity notice

Webinar Ground Rules

- During the presentation, you may type your questions in the comment box 
- Questions will be addressed after the presentation
- No specific research project or idea can be discussed but clarifying questions regarding what is written in the funding opportunity announcement may be answered
- These slides are posted on the funding opportunity webpage: <https://www.epa.gov/research-grants/national-priorities-occurrence-and-implications-de-facto-water-reuse-drinking-water>
- Answers to questions will be posted on the webpage for this funding opportunity

Agency Contacts

- Technical Contact:
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- Eligibility Contact:
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- Electronic Submissions:
electronic-grant-submissions@epa.gov
- If interested in being on the **Peer Review Panel**, rather than applying, please contact:
Ron Josephson, Eligibility Officer and Science Review Officer
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Funding Opportunity and Award Information

- Deadline for Submission:
 - August 21, 2024 at 11:59:59 pm Eastern Time
- Funding Level:
 - Anticipated total for all awards: \$9.5 M
 - Estimated number of awards: 4
 - Proposed budget must not exceed \$2,375,000, including direct and indirect costs
 - Required 25% minimum cost share/match
 - Project duration up to 3 years

Expected Outcomes (Section I.D)

The overarching goal is to develop a better understanding of the **impact, risk, and strategies** to manage de facto reuse across the country with the goal of protection of human health from drinking water consumption.

- Increased collaboration between communities and water agencies to implement a united watershed approach
- Improved holistic approaches to consider a variety of water sources, utility size, and regions of the country

Research Areas (Section I.E)

Applications should address at least one research area

Proposed research should be national in scope

Research Area 1: Develop a holistic understanding of the national impact of de facto reuse

The main objective is to build-upon the current science of de facto reuse related to its prevalence across the country.

Research Area 2: Evaluate the potential human health risk associated with de facto reuse

The main objective is to evaluate the human health risks associated with de facto reuse in drinking water sources.

Research Area 3: Explore interventions to mitigate risk from de facto reuse impacted drinking water

The main objective is to explore actions that could be implemented to address de facto reuse, improve water quality of drinking water sources, and reduce potential risks.

Research Area 1

Develop a holistic understanding of the national impact of de facto reuse

- What surrogates, methods, tools, or models can be developed to estimate de facto reuse levels at any given time?
 - Are there action levels that can be defined for when interventions may be needed (e.g., WWTPs with significant compliance violations for wastewater effluent)?
 - How do current and future climate change impacts from sea level rise, flooding, and droughts affect levels of de facto reuse?
 - What contribution do different wastewater sources (e.g., municipal versus industrial, and differences among different types of industries) have on levels of de facto reuse?
- What is the relationship between proximity of wastewater outflow locations to downstream water intakes for percentage of de facto reuse?
- What role do other geographic features play in influencing wastewater presence downstream?
- To what extent do seasonal and temporal effects have on de facto reuse levels?

The research questions are suggested for consideration. Applicants are encouraged to consider other significant questions as needed to meet the objectives of this research area.

Research Area 2

Evaluate the potential human health risk associated with de facto reuse

- Are there potential associations between percent of effluent contribution and water quality in drinking water supply, including occurrence of pathogenic microorganism and regulated/unregulated DBPs in treated water?
- What level of risk and degree of confidence associated with such risk for chemical contaminants (e.g., CECs, PFAS, DBPs, microplastics, nutrients, salt) are a result of de facto reuse?
- What impact do different wastewater sources (municipal versus industrial, and differences among different types of industries) have on risk?
- What influence does treatment or other interventions have on pathogen concentrations in waters impacted by de facto reuse? How could this lead to potential reductions in public health risk?
- How does the water supply source impact the de facto reuse risk?

The research questions are suggested for consideration. Applicants are encouraged to consider other significant questions as needed to meet the objectives of this research area.

Research Area 3

Explore interventions to mitigate risk from de facto reuse impacted drinking water

- What strategies (e.g., treatment, operation, infrastructure, interagency cooperation) can water utilities implement to reduce risk from de facto reuse through both treatment and pollution prevention?
 - Do operational strategies such as retention time in an environmental buffer and source water blending lower risk and to what extent?
- Are improvements to the quality of wastewater effluent more or less effective than increased treatment at the downstream DWTP? o Are improvements to wastewater and stormwater collection and management systems to prevent sewer overflows effective at reducing risk?
- What treatment technologies, either at the WWTP or DWTP, are effective at mitigating the risk of de facto reuse? How can utilities optimize their existing treatment technologies?
- How can nature-based solutions such as constructed wetlands mitigate the impact of de facto reuse?
- What are the costs to implement treatment technologies to address de facto reuse? Are there achievable cost-savings for treatment plants to optimize existing treatment, upgrade their systems or address other water quality concerns?
 - Treatment cost analysis may adapt the U.S. EPA Drinking Water Treatment Technology Unit Cost Models and model for variables relevant to de facto reuse.
- How does effective intervention vary for large and small water utilities?

The research questions are suggested for consideration. Applicants are encouraged to consider other significant questions as needed to meet the objectives of this research area.

Expected Outputs

(Section I.D)

- Frameworks and methodologies for utilities, states, municipalities, and communities to quantify the extent and contribution of de facto reuse
- Decision support tools to assess risks
- Risk assessments, risk models, and quantification of de facto reuse
- Cost analysis for mitigation methods
- Research, testing reports, and peer reviewed publications
- Support for small and large utilities for a better understanding of the potential impacts
- Resources designed to assist states, municipalities, treatment facilities, and other stakeholders to identify concerning levels of de facto reuse and tools to respond accordingly

Eligibility Information (1)

Eligible Entities (III.A)

Public and private nonprofit institutions/organizations in the U.S. and U.S. territories

Public and private nonprofit institutions of higher education in the U.S. and U.S. territories

Hospitals located in the U.S. and U.S. territories

Eligibility Information (2)

- The following entities are **NOT** eligible:
 - U.S. State, territorial, and local governments
 - Federally recognized Indian Tribal governments
 - Profit-making companies
 - Foreign governments
 - International organizations
 - Federally-funded research and development centers (FFRDCs)
 - Federal agencies
- Eligible entities may partner with some ineligible entities under [EPA's Subaward Policy](#)
- For profit companies are NOT eligible and may NOT be subawardees
- For profit companies may be consultants
 - Consultants are not to be considered key personnel
 - Contacts/Consultants are subject to competitive procurement requirements (see Section IV.C.5.iv.f)

Eligibility Information (3)

- Applications must be submitted via [Grants.gov](https://www.grants.gov)
 - If you cannot access [Grants.gov](https://www.grants.gov), see <https://www.epa.gov/grants/exceptions-grantsgov-submission-requirement>.
 - You must have [SAM.gov](https://www.sam.gov) registration ACTIVE in order to apply via [Grants.gov](https://www.grants.gov).
- Applications that exceed federal funding or performance period time limits will not be reviewed
 - Period of performance must be 3 years or less
 - Projects usually start nine to twelve months after the end of the solicitation period
- Applications from ineligible organizations, or that are somehow not substantially compliant, will not be reviewed
- Organizations and PIs may submit more than one application, as long as the applications are substantially different

Eligibility Information (4)

Cost Sharing (Section III.B)

- **Each applicant must contribute a minimum non-federal cost share/match of 25% of the federal funds awarded.** This is equivalent at a minimum to 20% of the total project costs (See Section III.B)
- For example, if an applicant requests \$2,375,000 in EPA funds, a minimum of \$593,750 must be included. Including matching, total project costs can exceed \$2,968,750 (if the applicant proposes more than the minimum required non-federal cost share/match), however, **the federally funded portion of the budget must not exceed \$2,375,000**
- The cost share/match may be provided in cash or can come from in-kind contributions subject to the regulations governing matching fund requirements at 2 CFR § 200.306, but generally not from other federal sources
- **Cost shared amounts must be described in the budget justification under each applicable category (See Section IV.C.5.iv)**

Application Materials (1)

- See Section IV. “Application and Submission Information”
- To apply under this solicitation, use the application package available at [Grants.gov](https://www.grants.gov)
 - For further submission information see: Section IV.F. “Submission Instructions and other Submission Requirements”
- All necessary forms are included in the electronic application package, with the exception of the current and pending support form, which is available at: [Research Funding Opportunities: How to Apply and Required Forms](#)
 - Current and pending support forms must include certification from each senior/key person and Authorized Organization Representative (Section IV.B.5.vi)
- Letters of support or intent from EPA employees are prohibited

Application Materials (2)

Component	NOFO Section	Page Limit
¥SF-424 (Application for Federal Assistance)	IV.C.1	N/A
¥EPA Form 5700-54 (Key Contacts)	IV.C.2	N/A
¥EPA Form 4700-4 (Preaward Compliance Review Report)	IV.C.3	N/A
¥SF-424A Section B (Budget Information for Non-Construction Programs)	IV.C.4	N/A
Table of Content	IV.C.5.i	none
Abstract	IV.C.5.ii	1
Research Plan	IV.C.5.iii.a	15
Quality Assurance Statement (QAS)	IV.C.5.iii.b	3
Human Subjects Research Statement (HSRS)	IV.C.5.iii.c	4
Scientific Data Management Plan (SDMP)	IV.C.5.iii.d	2
References	IV.C.5.iii.f	none
Budget Justification	IV.C.5.iv	3
Resume	IV.C.5.v	2 per investigator/senior personnel
§Current and Pending Support (w/ certification statements)	IV.C.5.vi	N/A
Letters of Intent/Letters of Support	IV.C.5.vii.a	1 per letter
§Additional Key Contacts Form, if appropriate	IV.C.2	N/A

Submit
as one
PDF

¥Available at <https://www.grants.gov>; §Available at <https://www.epa.gov/research-grants/research-funding-opportunities-how-apply-and-required-forms>

Electronic Submissions

- See Section IV.F “Submission Instructions and Other Submission Requirements.”
- If you experience difficulty with [Grants.gov](https://www.grants.gov), do the following steps **before** the end of the solicitation period (Section IV.F.5.):
 - Contact [Grants.gov](https://www.grants.gov) Support Center (support@grants.gov; 1-800-518-4726)
 - Document the Grants.gov ticket/case number.
 - Send an email with the FON (EPA-G2024-STAR-D1) in the subject line to electronic-grant-submissions@epa.gov , including the following information:
 - i. Grants.gov ticket/case number(s)
 - ii. Description of the issue
 - iii. The entire application package in PDF format.
- You may resubmit an application before the deadline, but changes are not permitted after the solicitation period ends. If we see duplicates of the same application, we will process the most recent one
- If you are experiencing a natural disaster and cannot submit on time, please contact us immediately

Application Review Information

- **Peer Review Criteria** (see Section V.A for details, including sub-criteria)
 1. Research Merits
 2. Responsiveness
 3. Project Management
- **Relevancy Review Criteria** (Section V.B)
 1. The degree to which the proposed science/research is relevant to EPA's priorities as described in Goal 5: Ensure Clean and Safe Water for All Communities, Objective 5.1: Ensure Safe Drinking Water and Reliable Water Infrastructure, and Objective 5.2: Protect and Restore Waterbodies and Watersheds, of [EPA's FY2022-2026 Strategic Plan](#)
 2. The degree to which results (i.e., outputs/outcomes) of the research have broad application or affect large segments of society
 3. The degree to which the research is designed to produce data and methods that can immediately and/or with little to no translation be utilized by the public, states, and tribes to better assess or manage environmental problems
- See **Section V** for more detail on the above criteria and other review components

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Questions?