Stakeholder Input on Research Direction for Inland Waters

Multi-stakeholder Engagement
Washington, DC
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Background

New criteria will:

- Be CWA §304(a) criteria
- Apply to inland waters as well as Great Lakes and coastal recreational waters.

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Issue

- Challenge is to define what science/research is needed to ensure applicability to inland waters.

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Critical Path Science Plan – P28

- Evaluate applicability of NEEAR Great Lakes data to inland waters

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What are Inland Waters?

- Waterbodies that are not coastal recreation waters as defined by the Clean Water Act
- Typically freshwater
  - But could include saltwater waterbodies (that are not also coastal recreation waters).
- Generally include flowing waterbodies (rivers/streams) and lakes.

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Purpose of CPSP Project – P28

- Evaluate whether it is scientifically valid to extrapolate results from epi studies conducted in the Great Lakes and coastal recreation waters to other fresh waters.
- Assess similarities and differences and determine whether differences are significant enough to require additional research.
- Increase likelihood of state adoption of new/revised criteria.

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Key Science Questions

- Is the risk to primary contact recreators the same in inland/flowing waters as in the Great Lakes and coastal epi study locations?
  - How are inland waters, specifically flowing waters, different?
  - Do those difference matter with regard to human health consequences?

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What Might Make Inland/Flowing Waters Different?

- Hydrology
- Exposure
- Source Control and Management Strategies

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Potential Path to Answer the Key Questions – Specific to P28

- Perform Literature Review
- Compare indicator levels from a diverse set of flowing waters to epi study data
- Review longer-term state ambient monitoring data

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Potential Path to Answer the Key Questions – Other CPSP Projects

- Validate analytical methods, predictive models and sanitary surveys for use in inland/flowing waters
- Characterize fate & transport of indicators and selected pathogens from different sources (e.g., POTWs, CAFOs)
- Collect data for use in QMRA

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P28 Specific Activities - Literature Review

Collect information on:

- Fate & Transport of indicators and pathogens in flowing waters
- Microbial ecology in flowing v. standing waters
- Persistence of indicators and pathogens in flowing waters

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P28 Specific Activities - Compare Indicator Levels

- Leverage EPA's Office of Wetlands, Oceans, and Watersheds Rivers & Streams Survey
  - Collect samples from 1100 randomly selected sites
  - Characterize sites and sources through GIS and field data
  - Use data to identify subset by predominant source
  - Analyze select subsets
  - Compare indicator levels to levels in epi studies (according to predominant source).

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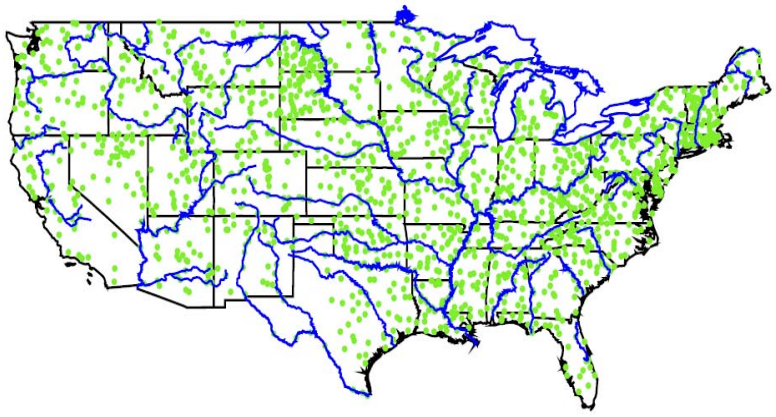
OWOW Rivers & Streams Sample Locations



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P28 Specific Activities – Review State Data

- Identify longer-term ambient monitoring data on inland/flowing waters
- Compare indicator levels to NEEAR Great Lakes data
  - Culture methods to culture methods
  - QPCR methods to QPCR methods

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Discussion

- Reactions?
- Is this sufficient?
- What else is needed?

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