

## 2022 ITRC Teams

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### Framework for Chemicals of Emerging Concern

Jan 2022 – Dec 2023

NEW!

**Team Leaders: Paula Panzino (AZDEQ) & Vivek Mathrani (CADTSC)**

Chemicals of emerging concern are an issue that often demands an immediate response by state regulatory agencies and requires a clear procedure on how to identify, evaluate, and manage them. Once an emerging chemical is identified, public concern and interest may become elevated, requiring States to rapidly respond. Regulatory agencies, and the regulated community, need to more effectively address exposure to emerging chemicals while meeting the expectations of concerned or interested public stakeholders. The ITRC Chemicals of Emerging Concern Team will create a framework for anticipating and responding to emerging chemicals, built on lessons learned from the emergence of PFAS and coupled with proactive identification of potential future chemicals. The objectives of this team are to develop a series of fact sheets that 1) address how states can track and identify chemicals of emerging concern to better manage them, 2) address the properties and traits that lead to identification, and 3) provide guidance for evaluating these properties.

### Sediment Cap Guidance Update

Jan 2022 – Jun 2023

NEW!

**Team Leaders: Wesley Thomas (ORDEQ) & Richard Doucette (VADEQ)**

Dredging alone is often costly, unsustainable, and insufficient at achieving remediation action objectives for contaminated sediments. As a result, the use of engineered caps is a widespread approach to achieve the remediation objectives either in conjunction with removal or as a standalone solution. For sediment caps to remain effective long-term, there needs to be a clear guidance on the key aspects and activities of design. Currently, the technical guidance for key design activities is insufficient, outdated, or is represented across a collection of varied literature that are collectively incomplete in covering key aspects. The ITRC Sediment Cap Update team will supplement the [2014 ITRC Contaminated Sediments Remediation Guidance](#) with a new Technical Guidance document, supported by online training, that integrates recent advancements, new information, and details on key design considerations of capping design and monitoring, including the examination of caps impacted from extreme weather events. The Guidance document produced by the team facilitate greater consistency and efficiency in completing effective and sustainable sediment cap designs and monitoring plans.

### Managed Aquifer Recharge

Jan 2022 – Dec 2023

NEW!

**Team Leaders: Kelsey Bufford (OKDEQ) & Kris McCandless (VADEQ)**

In the United States, groundwater is a major resource, accounting for 41% of the population drinking water, which supplies freshwater for irrigation, domestic use, public use, industrial, and mining (NGWA, 2020). Aquifer recharge is a growing practice in response to water scarcity concerns and remedial driven withdrawals. However, there is a lack of consistency in how these practices are described, implemented, and managed. The Managed Aquifer Recharge (MAR) Team will produce a Technical Guidance Document and Training that will evaluate the potential uses of MAR, the factors for the safe and successful implementation and innovative characterization, and modeling tools to appropriately place MAR infrastructure. The MAR team will also establish reference sites where technologies and tools for monitoring managed aquifer recharge systems, groundwater quality, characterizing sub-surface geology and modeling/visualization software could be assessed for Project Management teams and Stakeholders. Applying appropriately scaled model tools for cost-effectiveness and site complexity could provide the decision-maker with the right tool for the job with confidence in achieving desired project outcomes.

*Team descriptions reflect the original project proposal and may change over the lifetime of the project.*

**Ethylene Oxide Emissions – EtO****Jan 2022 – Apr 2023****NEW!****Team Leaders: Keisha Long (SCDHEC) & April Lazzarro (MIEGLE)**

Ethylene Oxide (EtO) in the environment is a result of emissions from agricultural, industrial, medical processes, and mobile sources such as vehicle tailpipes and tobacco smoke. To better manage and effectively communicate risk to communities living near EtO-generating facilities, it is key to differentiate between point and nonpoint source emissions and to establish a consensus on how to measure and analyze EtO in the environment. This team seeks to develop informational videos and fact sheets exploring the background of Ethylene Oxide (EtO), appropriate measurement methods, risk communication, interagency regulatory authority, and reduction technologies, as well as providing a useful framework for characterizing risk in communities living near EtO-generating facilities.

**PFAS Update****Jan 2022—Dec 2023****Team Leaders: Sandra Goodrow (NJDEP) & Kate Emma Schlosser (NHDES)**

The state of the science and understanding of PFAS is constantly evolving. The goal of the PFAS continuation team is to produce comprehensive guidance updates and new resources to help regulators and other stakeholders improve their understanding of the current science regarding per- and polyfluoroalkyl substances (PFAS). The team will also develop video training resources, establish a new subgroup dedicated to collecting data, information, and scientific knowledge to support states in their work on surface water; and perform classroom trainings based on ITRC's published technical resources.

**Pump & Treat Optimization****Jul 2021 — Jun 2023****Team Leaders: Janet Waldron (MADEP) & Michael Sexton (VADEQ)**

Pump-and-treat (P&T) systems have been one of the most used methods for hydraulic containment and treatment of contaminated groundwater at sites with large groundwater plumes. Optimization of pump-and-treat remedies is important for maintaining contaminant removal effectiveness throughout the remedy operation lifetime and managing the system toward an exit strategy. This proposed project aims to develop technical guidance materials and training modules that summarize existing information and best practices and develop a systemic and adaptive optimization framework specifically for P&T well-network design and management.

**Quickening Environmental Solutions and Training (QUEST)****Jul 2021 — Jun 2023****Team Leaders: John McVey (SDDANR) & Thomas Wallace (MDEQ)**

Over the years, ITRC products have helped to provide a common understanding and acceptance of environmental challenges and solutions. However, while regulatory acceptance can find its way into law or policy, that acceptance can also be lost when staff move on, and many beneficial ITRC products go underutilized because newer staff are unaware of their existence. This proposal seeks to develop trainings, video modules and web tools, incorporating existing ITRC products to help new environmental program staff gain rapid exposure to years of lessons learned and proven best practices, helping them better understand the nuances of the environmental profession.

**Microplastics****Jan 2021 — Dec 2022****Team Leaders: Kim Nimmer (NCDENR) & Valerie Hanley (CADTSC)**

Although microplastics are small — plastic debris less than five millimeters long — they pose one of the largest emerging threats to the global environmental community today. Microplastics have been introduced to the environment over the last 50 years through plastic refuse which has been broken down, and particles in health and beauty products which have entered the waste stream. Recent studies have shown their harmful effects on environmental media, due to their chemical nature and persistence. The ITRC Microplastics Team will develop free resources and fact sheets designed to provide the latest information and best management practices for the most important issues surrounding microplastics.



## Effective Application of Guidance Documents to Hydrocarbon Sites

Jan 2021 — Jun 2022

**Team Leaders: Tom Fox (CODLE) & Richard Spiese (VTDEC)**

While ITRC guidance already exists for hydrocarbon impacted sites, such as the PVI, LNAPL-3 and TPH technical regulatory documents, there are many situations where these guidance documents overlap. These documents do not acknowledge interrelated disciplines, and as such, they become harder to follow when reviewed together. This team will work to develop a training series on the implementation of these guidance documents, in order to help professionals, understand what information is contained within each document and how to apply these concepts holistically at a site.

## Environmental Data Management Best Practices

Jan 2021 — Oct 2022

**Team Leaders: Douglas Morrison (NYDEC) & Brian Pointer (NCDENR)**

Effective data management serves as the foundation for accurate data analyses, data visualizations, and sound decision-making. Given the crucial role data management plays throughout the regulatory and scientific communities and beyond, this multidisciplinary ITRC team will search for broad consensus on the current patchwork of guidelines for data management. The team will develop Environmental Data Management Best Practices that can be applied across a wide spectrum of environmental data.