

# Actionable Science for Communities

## Technical Support for Contaminated Sites SHC Task 3.61.1

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## Problem Summary & Decision Context

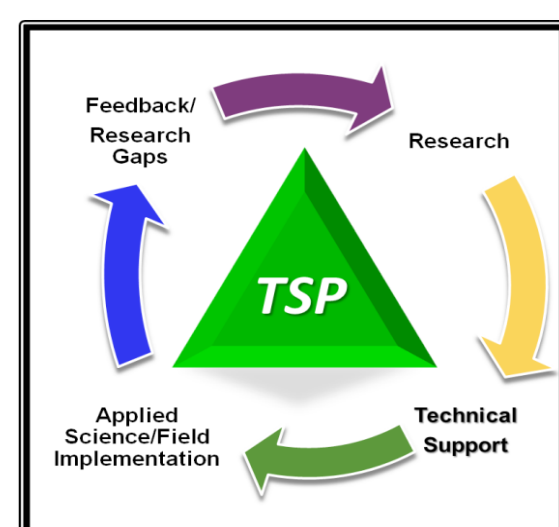
Each ORD Technical Support Center (TSC) is dedicated to serving the EPA and its clients by supplying high-quality, quick-response technical support services when the scope of work is beyond what is available to the Regions, Program Offices, or states.

- The goal of the **Engineering Technical Support Center (ETSC)** is to provide scientific and engineering knowledge and expertise in soil, sediment, and mine remediation technology to Regional staff for risk management decisions.
- The goal of the **Ground Water Technical Support Center (GWTSC)** is to provide technical support for issues related to subsurface contamination (contaminants in groundwater, soils, and sediments); cross-media transfer (movement of contaminants from the subsurface to other media such as surface water or air); and restoration of impacted ecosystems.
- The goal of the **Site Characterization & Monitoring Technical Support Center (SCMTSC)** is to provide site characterization assistance to waste program project managers by supporting the use of state-of-the-science methods and technologies for identifying contaminants, determining levels and concentrations, and identifying their geographic extent.

These TSCs provide site-specific assistance and technical support to EPA Regions and program offices by leveraging their network of EPA/ORD scientists and programs, contracts, and expertise from other federal agencies, to collaboratively deliver the latest methods, approaches and technologies needed to investigate, remediate, and manage risk at contaminated sites. It is within the scope of the Centers to develop and evaluate innovative methods, and collaborate on National-level disaster events.

The technical support cycle involves three main components:

- Linking ORD research to Agency decisions:** developing the critical links between ORD scientists and Agency decision-makers to channel technical expertise and research results to the EPA's operating programs.
- Applying best practices to field applications:** facilitating application of the best scientific understanding and practices to solve real-world problems and reduce risks to human health and the environment.
- Providing feedback from field application to research:** serving as a conduit to ensure ORD research is addressing the most important problems the Agency is facing.



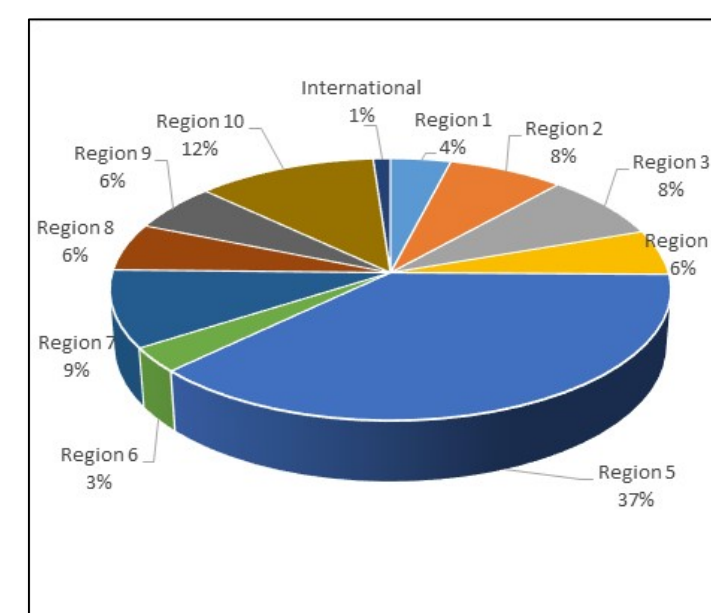
## Task Overview

In 1987, the U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD), Office of Land and Emergency Management (OLEM, formerly OSWER), and regional waste management offices established the Technical Support Project (TSP).

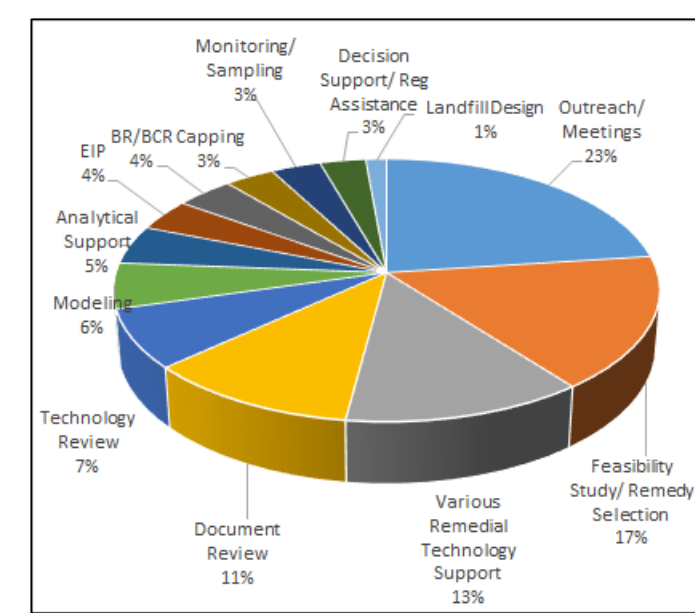
- The TSP was created to enable ORD personnel to provide effective technical assistance by ensuring the ORD scientists and engineers were accessible to the Agency's regional decision makers, including Remedial Project Managers (RPMs), On-Scene Coordinators (OSCs), and corrective action staff.
- Three of the five ORD Technical Support Centers (TSCs) are supported by the SHC Research Action Plan.
- This includes the *Engineering Technical Support Center (ETSC)*; the *Ground Water Technical Support Center (GWTSC)*; and the *Site Characterization & Monitoring Technical Support Center (SCMTSC)*.
- All are co-funded by ORD and OLEM, and supported by EPA Regions and Offices.
- Each TSC is dedicated to serving the EPA and its clients by supplying high-quality, quick-response technical support services when the scope of work is beyond what is available to the Regions, Offices, or states.
- The TSCs also conduct Superfund-related research. This research includes innovative and novel ideas to solve emergent or on-going Superfund related issues (e.g., conducting site investigation or cleanup activities after a natural disaster, or remediating persistent organic pollutants and perfluorinated compounds from groundwater and soil).

## Accomplishments

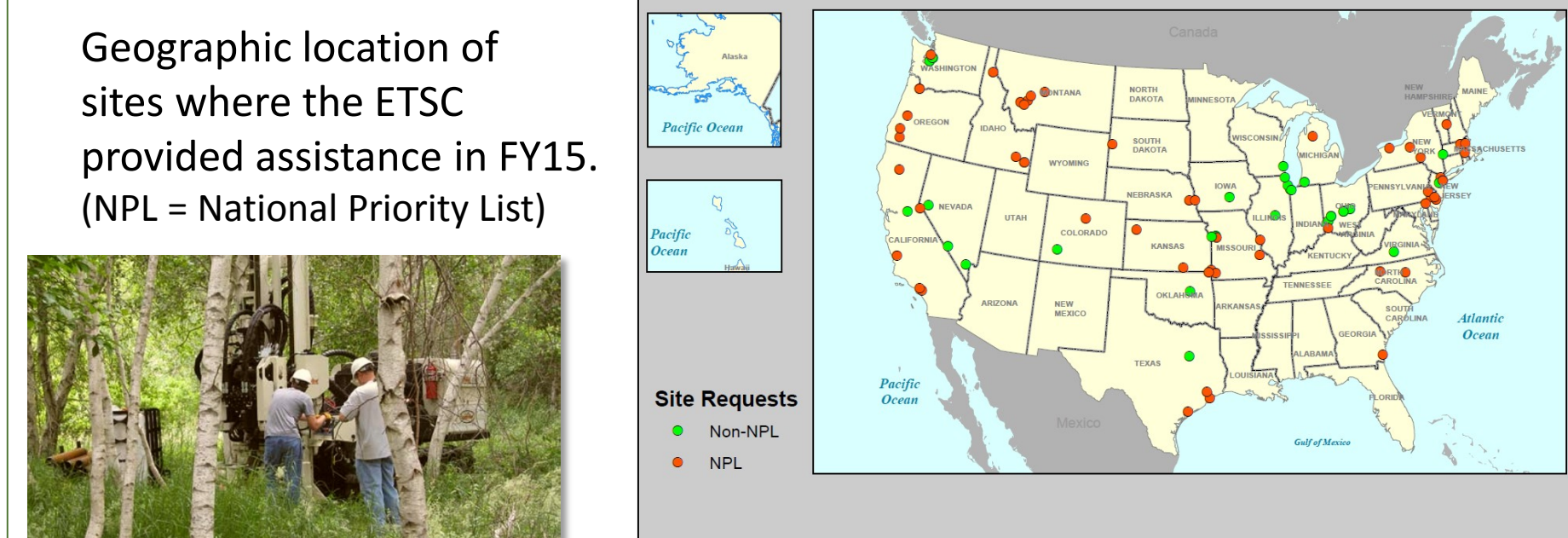
- In FY15, the **ETSC** received 357 technical support requests across all 10 Regions and internationally.
- Approximately 45 percent were expert reviews of feasibility studies, remedy selection, technology reviews, technical document reviews, and the preparation of Engineering Issue Papers.
- Most other requests involved the application of site-specific technologies; use or development of decision support tools; modeling activities; and analytical support.



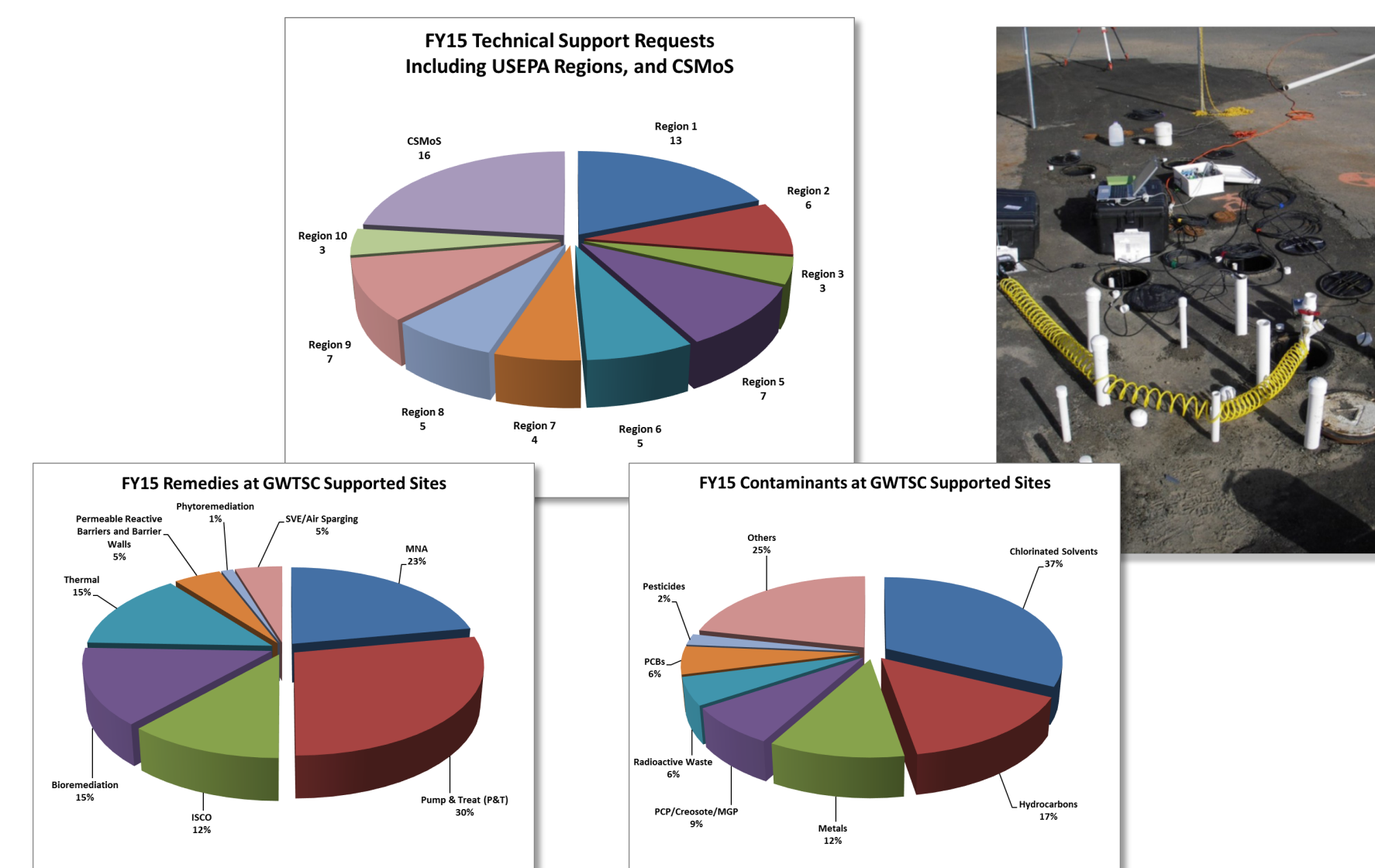
Technical support by EPA Region



Technical support by project category

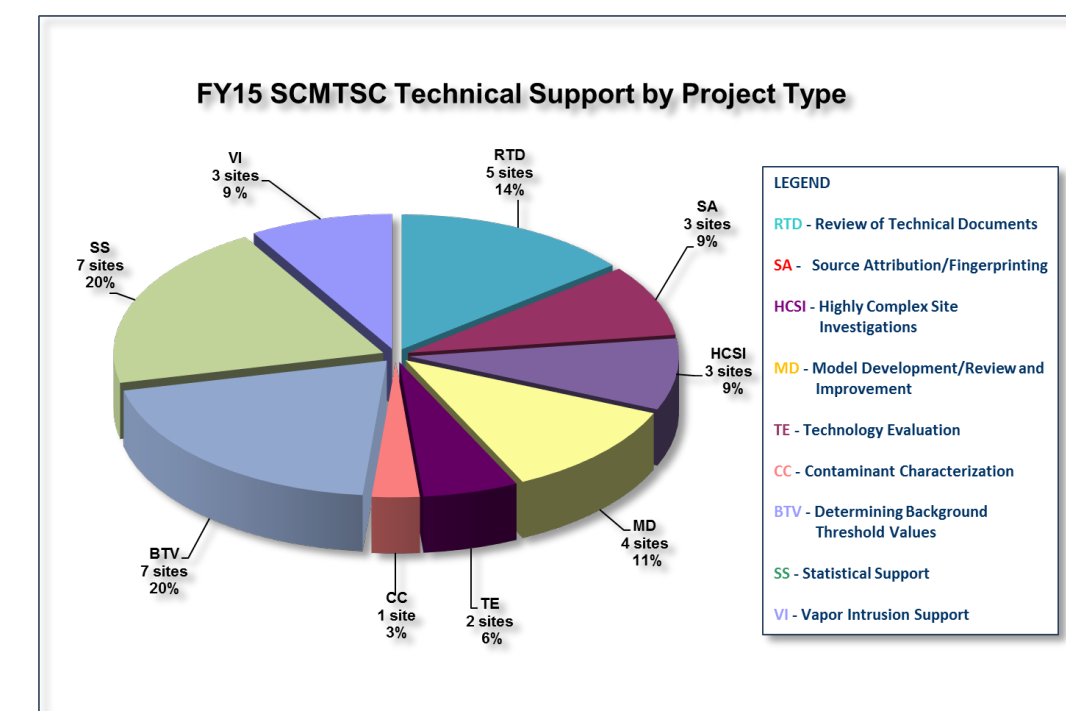
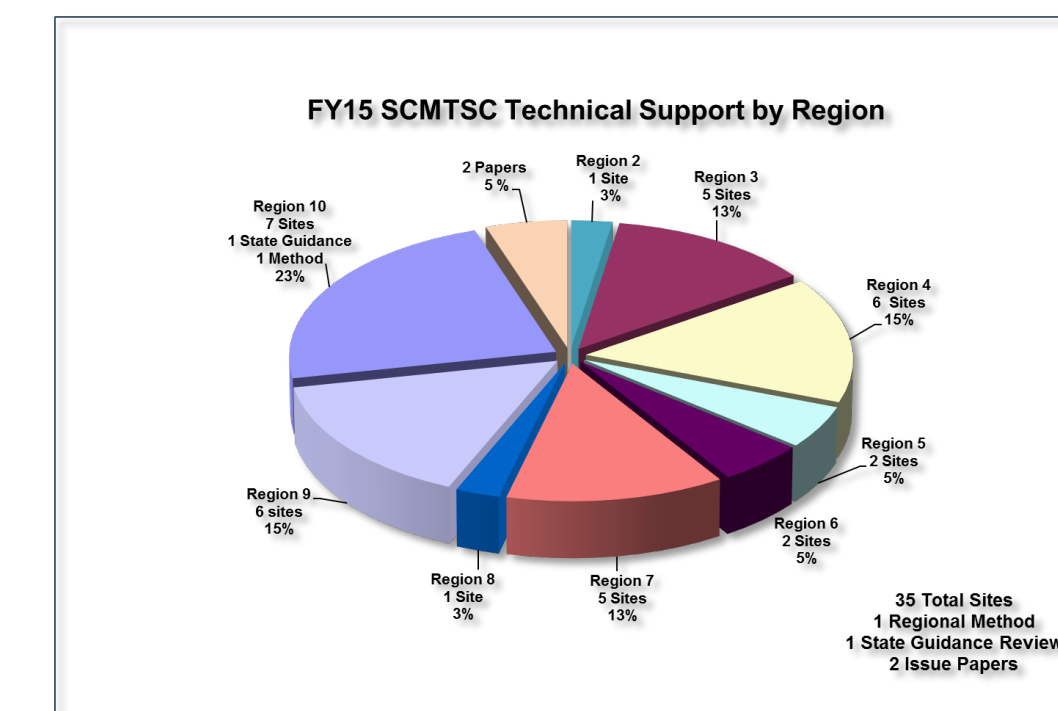


- In FY15, the **GWTSC** provided technical support on 53 individual Superfund and/or RCRA sites covering all 10 EPA Regions.
- Most technical support requests generate several GWTSC responses (i.e., emails, conference calls, review memoranda, meetings, site visits), and support often continues for several years as GWTSC advises on site activities from characterization to remedy evaluation, selection, implementation, and performance monitoring.
- Also part of the GWTSC is EPA's Center for Subsurface Modeling Support (CSMoS) which provides direct technical support on the application of groundwater models.



## Accomplishments (cont'd.)

- In FY15, the **SCMTSC** supported 35 sites in 9 EPA Regions.
- Support included numerous site tasks for each project such as site-specific work, report reviews, sampling technology evaluations, presentations, site meetings, and conference calls.
- The SCMTSC offers a suite of technical & statistical services including; assisting with statistical needs for site characterization; reviewing field sampling/monitoring activities; assessing vapor intrusion issues; environmental forensics; and evaluation of geophysics and remote sensing technologies.
- The SCMTSC has helped site managers make statistically defensible decisions by developing and enhancing the ProUCL software. In FY15 the SCMTSC helped more than 100 users with ProUCL inquiries.



## Future Directions

- The TSCs will continue to provide valuable high quality technical assistance to the EPA Regions, Program Offices and states to address contaminated sites.
- TSC Annual Reports will be produced each year highlighting each Center's activities and accomplishments.
- Development of TSC topic specific issue papers addressing the most pressing issues facing the Agency.
- Continued support of EPA developed groundwater models and statistical software.
- TSCs Lesson Learned document in FY19.

