

Ports, Harbors, and Waterfront



Connecting the world by water

complex world | CLEAR SOLUTIONS™

The Neo-Panamax Wave

Change is underway in the maritime industry to prepare for receiving tomorrow's megaships. Ports, harbors, and waterways are expanding; improving infrastructure; and meeting more stringent security, regulatory, and environmental requirements. Tetra Tech provides clear solutions to help our clients navigate this complex world. With a long history of excellence in water, coastal engineering, and environmental services, Tetra Tech leverages its comprehensive services and client relationships to respond to the demand for port expansion and the need to upgrade facilities for future needs.



Tetra Tech offers comprehensive engineering and environmental design, planning, and execution for an array of port, harbor, and waterfront projects.

Service Areas

Science

Our work begins with surveying, modeling, geotechnical engineering, security, and environmental services. These disciplines provide information about how the project will function within its environment. Tetra Tech has an in-depth understanding of water movement, the dynamics of chemicals in water, the geology of the marine floor, human and natural environmental constraints, sedimentation, and security preparedness. We produce designs that control costs, ensure safety, and create efficient facility operation while considering resilient structures.

Planning and Design

Tetra Tech applies science and engineering to the art of navigation and coastal development. We build consensus among stakeholders for specific design goals and develop attributes to achieve them. We have developed a risk-based structural assessment approach for prioritizing spending for our port infrastructure clients. From small craft harbors to international port projects, our engineering expertise in every component of ports, harbors, and waterfronts enhances trade and recreation, supports the livelihoods of residents in nearby communities, and protects the environment.

Construction Oversight and Management

Tetra Tech's transition from design to construction is seamless. Our construction professionals collaborate closely with our design professionals from the outset to establish a strategy for constructability that meets the client's design goals. These efforts protect the client's interests by facilitating adjustments when necessary, ensuring a higher level of quality control, and keeping the project on time and on budget.



Tetra Tech's range of services encompasses the full spectrum of design and construction across major markets. We have built our experience, vast technical resources, and financial strength through five decades of service on all aspects of ports, harbors, waterfront, and coastal projects. Our work ranges from designing state-of-the-art locks at the Panama Canal to improving air quality at major ports, managing infrastructure improvements that allow more effective and efficient movement of people and resources, and implementing homeland security measures at foreign ports to assure protections are in place where they are needed.

Specialty Services

Coastal Engineering and Modeling

Tetra Tech has served coastal engineering clients for five decades, addressing coastal development and protection with science that begins with modeling and design.

Permitting and Compliance Support

Tetra Tech helps our clients secure local, state, and federal approval for maritime projects. This includes services required under the U.S. National Environmental Policy Act, marine and aquatic surveys, inspections, certifications, and compliance monitoring before, during, and after project completion.

Marine Engineering

Tetra Tech connects development to marine waters by creating functional landside access for commercial ports, public and private marinas, residential developments, and recreational destinations. We provide engineering services for coastal hurricane surge protection barriers, navigational locks, approach walls, breakwaters, rockfill dikes, and hydraulic control structures such as sector gates that permit navigation while protecting estuaries, harbors, and waterfront canal entrances.

Oceanographic and Bathymetric Mapping

Tetra Tech uses the most advanced tools and technologies to view the world below. Single and multi-beam sonar; bathymetric, magnetometer, and metocean studies; and other tools provide clients comprehensive and reliable data for erosion, deposition, turbidity, and more.

Remediation and Air Quality Management

Since the 1960s, Tetra Tech has been protecting air, land, and water resources. This experience supports our work reducing vehicle emissions, removing contaminated sediments, preventing erosion, and managing wastewater for ports, harbors, and waterfronts.

Security

Tetra Tech provides expert knowledge of U.S. Department of Homeland Security protocols to assess, plan, and design cargo and passenger screening portals and cargo gate entry systems, to make strategic decisions, and to manage an entire ports and harbors security program.



TETRA TECH

3475 East Foothill Boulevard, Pasadena, CA 91107 USA

+1 (626) 351-4664 | ports@tetratech.com

Tetra Tech's innovative, technology-enabled solutions help our clients address their water, environment, sustainable infrastructure, renewable energy, and international development challenges. We are proud to be home to leading technical experts in every sector and to use that expertise throughout the project life cycle. Our commitment to safety is ingrained in our culture and at the forefront of every project. We combine the resources of a global, multibillion dollar company with local, client-focused delivery. [tetratech.com](https://www.tetratech.com)