Water Resources Services

For more than 50 years, we have been helping our clients discover, produce, transport, manage, control, and treat water. By combining technical expertise with an understanding of client and stakeholder needs, we help find and implement sustainable solutions. With a global network of scientists and engineers, Golder engages technologies and new ideas from many diverse environments and cultures. This blend of diversity and talent helps us develop close, long-term relationships with our clients.

Resource Assessment and Evaluation, Planning, and Development

Developing a long-term strategy for sustainable water resources means balancing long-term yield and quality against future needs. We use our global field experience to assess and characterize sources of water at the local or basin scale. We help you arrive at an optimum water source development plan based on flood and drought assessment, permitting requirements, and water quality objectives.

Water Supply Services

Whether it is groundwater, surface water or something non-structural like conservation, our professionals can find the appropriate solution for your water supply needs.

Our global diversity and use of local resources allow you to develop and optimize your water system to meet the diverse needs of your community and the environment. Today, water supply management is more than infrastructure. Planning, protection, and innovation are equally important to water system managers today and are necessary to balance community and environmental needs.
Aquatic And Ecological Services
Our ecological scientists help you comply with regulations, and protect, restore, and mitigate aquatic habitats. Our riparian restoration and stream channel improvement projects are recognized for their comprehensive ecosystem sensitivity and technical creativity. Our experience in environmental permitting, policy development, and legislative frameworks around the world positions us to provide professional advice wherever our clients need us.

Dam And Reservoir Services
We provide professional services to design and build embankment dams, from preliminary planning through design and construction. Owners of operating dams seek our assistance with inspections, risk evaluations, and upgrades. Our technical expertise in geology, geotechnical engineering, and seismic hazard evaluation supports our water resources planning and project siting skills.

Specialty Services
As if managing a water resource wasn’t responsibility enough, you sometimes need assistance that goes beyond customary engineering and environmental services. Our diverse network of professionals across the globe is able to fulfill an array of new and specialty client needs.

Coastal Engineering
- Marina and harbor design and feasibility studies
- Waterway and channel design
- Design of coastal shore protection and related structures
- Coastal structure surveys
- Dredging operations and sediment management
- Measurement, analysis, modeling of wind, waves, currents, tides, circulation, sediment transport, bottom morphology
- Shipwake and wave analysis and impact assessment
- Outfall / diffuser design and modeling

SAN ROQUE DAM, LUZON ISLAND, PHILIPPINES – Our team conducted seismic engineering, dam analysis, and rock slope engineering for a 200-meter dam now providing hydropower, irrigation water supply, and flood control.

WALLA WALLA, WASHINGTON, USA
We helped the city increase its available treated water storage though aquifer storage and recovery. Instead of an expensive new well, the Golder-led team designed a method for using existing piping and wells to inject system water underground for storage and later recovery.

ITAJUBA, MINAS GERAIS, BRAZIL
Golder provides real-time flood forecasting and flood plain zoning in Itajuba, Brazil.

SIHU BASIN, HUBEI PROVINCE, CHINA
Golder’s hydrological expertise and award-winning decision support systems help protect landowners and infrastructure from flooding and waterlogging in the Sihu Basin.