I&E INDUSTRIES & ENVIRONMENT

SGS Actions for Sustainable Management of Marine and Coastal Waters

In coastal areas, impacts from human activities in nearby urbanized, industrialized and intensively farmed catchment areas can be deleterious, and this may be combined with pressures to the natural environment from sea-based human activities. If not managed in a sustainable manner, many coastal and marine ecosystems quickly deteriorate which may prohibits their further optimal utilization. In an effort to circumvent this and to preserve natural resources, an increasing number of Marine Protected Areas are developed, but activities to support the development of societies living in coastal areas is still a necessity.

SGS is the world's leading testing and inspection company and is rated the most sustainable among all its competitors. Over the past seven years, SGS has consistently earned global recognition as one of the most sustainable companies in the world. In a year which marked the completion of its 2020 Sustainability Ambitions strategy, SGS was ranked in first place for the seventh year in a row in the Dow Jones Sustainability Indices (DJSI) World and Europe, SGS is proud of the recognition of the hard work of its people in delivering sustainable value for society.

SGS supports clients in developing programs in the coastal and offshore environment to meet their objectives in terms of monitoring and evaluation of impacts. This is carried out extensively using SGS's powerful combination of global experts, teams of scientists, and a large network of field technicians and accredited laboratories available worldwide. To understand the state and the quality of the marine and coastal environments, SGS has developed several monitoring programs, which consist of sampling and testing activities to provide the best practices in managing coastal and marine ecosystems.

SAFER
GREENER
SMARTER

SGS

Our services include the following:

- Water Quality and Sediment Quality Monitoring

SGS offers a range of water sampling and analysis services from the development of sampling plans to the field deployment of personnel and equipment to laboratory testing of physical, chemical and biological parameters. This may include for example analyses of nutrients, suspended solids, chlorophyll, description of ecological assemblages (e.g., microbiological and plankton composition), organics, contaminants such as pesticides, PCBs, herbicides, a variety of petroleum hydrocarbon and metals. In areas where industrial outfall (discharges from industries and from ships) are present or where discharges of stormwaters occurs from catchment areas, SGS can implement sampling campaigns to add focus on particular potential pollutants and physico-chemical disturbances (water temperature, salinity gradients acidification, etc.).

- Continuous Monitoring of Physicochemical Parameters

SGS has decades of experience measuring environmental parameters in the field. SGS is fully equipped with the latest testing and measuring instrumentation to continuously monitor water quality across depths (water quality profilers).

- Noise Monitoring

IMO and other world organizations recognized that underwater noise is negatively affecting coastal and marine habitats (ABS, 2021). SGS has experience in measuring noise in the marine environment.

- SGS Ecological Monitoring using eDNA

SGS laboratories are pioneering commercial laboratories for environmental DNA (eDNA) testing services as well as dedicated PCR tests to detect potential pathogens/invasive species in water. Environmental DNA sequencing is a powerful tool for studying biodiversity and monitoring environmental changes over time. SGS utilizes the latest biosensor technology, new generation sequencing and artificial intelligence to support the monitoring of marine biodiversity.

- Plastics and Marine Litter

SGS offers programs to support clients in understanding the source and presence of macro and microplastics in the environment. SGS has developed cutting-edge laboratory capabilities to measure microplastics and marine litter from micrometers to centimeters and can inventory the quality and quantity of human-made polymers in the environment.

- SGS Ecotoxicological Testing

Through its centers of excellence, SGS provides support to clients to understand the ecotoxicological impacts of discharges (e.g., in water, dredged materials, etc.). This testing allows an understanding of the potential effects of toxic chemicals on biological organisms and their populations in coastal and marine environments, including potential synergistic (cocktail) effects. SGS offers ecotoxicological testing on multiple trophic levels following the latest international standards and can combine this testing with the application of ultra-trace analysis of small-molecule entities, measuring xenobiotics, and their metabolites for using FI or LC-MS and high-resolution GC-MS techniques.

- SGS Recreational and Industrial Water Testing (i.e. blue flag testing)

In response to International Health Regulations (IHR, 2005) requirements and the international "blue flag" scheme emphasizing high standards in both environmental activities and hygiene for beaches, marinas, sustainable boating tourism, SGS offers laboratory services for the recreational water testing, including routine quality sampling, monitoring and consulting.

With over 6,000 environmental specialists covering over 100 countries, backed by an unrivaled network of accredited laboratories, SGS offers the world's most comprehensive range of Coastal and Marine Monitoring and Testing services.

CONTACT US

To learn more about Coastal and Marine Monitoring and Testing services, contact your local SGS office on www.sgs.com/marine

WHEN YOU NEED TO BE SURE