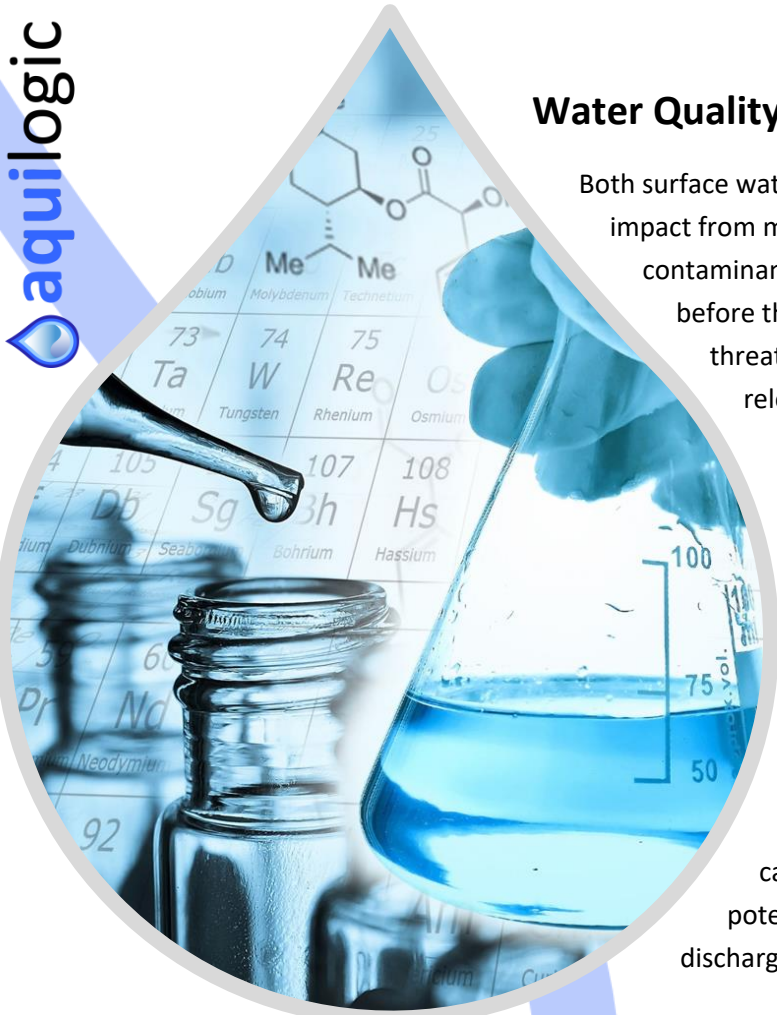


Water Quality Monitoring



Both surface water and groundwater resources are susceptible to impact from man-made chemicals. In some cases, a release of contaminants is identified, investigated, and remediated before the impact becomes severe or a water supply is threatened or contaminated. However, in other cases, releases go unidentified at the “source site” and are only detected by water quality monitoring programs or when a receptor is impacted (e.g. contaminants are detected in a water supply well). Therefore, it is essential that the quality of water resources be monitored on a regular basis to identify impacts that impair that resource and threaten or impact a water supply. This monitoring includes both surface and groundwater resources, and regional and point-source sampling. Point-source sampling can be done at known release sites, sites with a potential for a release, and/or at permitted discharges at such facilities.

Groundwater quality can be assessed with either temporary monitoring probes, such as Geoprobe® or Hydropunch® samplers, or through the installation of groundwater monitoring wells. Groundwater monitoring wells can be installed as a single well, a well cluster with monitoring wells installed at different depths to target multiple groundwater zones, or a multiport/multilevel system which targets multiple groundwater zones in a single boring, such as a Westbay®, FLUTE™, CMT®, or Waterloo Multilevel System.

Once the appropriate monitoring system is in-place, it is crucial to select an appropriate sampling methodology for the site-specific chemicals of concern (COCs). Water samples may also be collected from spring discharges, water treatment systems, or groundwater production/extraction wells.

Aquilologic staff has developed and implemented water quality monitoring programs for groundwater, flood control systems, natural streams and rivers, wetlands, lakes, estuarine, and near-shore marine environments.