aquilogic

Water Resources Assessment

Water is one of the earth's precious natural resources, and only 2.5% of all the water on earth is considered "fresh", with 97.5% saline or ocean water. Of the 2.5% freshwater, 1.65% is trapped in the polar ice caps and glaciers, 0.75% is groundwater, and only 0.1% is surface fresh water (rivers, lakes, seasonal snow). Therefore, we must ensure that the freshwater is protected, preserved, restored, developed, and managed effectively.

Mankind relies on sources of freshwater for drinking, bathing, cooking, washing, irrigating crops, and for industrial process and cooling. The location, availability, yield, seasonal variation, and quality of these water resources, need to be assessed prior to their development for domestic, agricultural, or industrial use. This is often referred to as a water resources assessment or source water assessment. The process involves the mapping of water resources, quantification of yield and seasonal variations, identification and quantification of current withdrawals, sampling and analysis of water samples to determine water quality, identification of withdrawal or extraction points, and estimation of available withdrawal volumes.

Aquilogic staff has conducted water resources assessments for domestic, industrial, and agricultural use. These have included the development of new water supplies, and optimization or enhancement of existing supplies – both for volume and quality.