

Taiwanese Groundwater Pollution Containment Measure and Remediation Policy

Rules and definitions of groundwater pollution remediation provision in Taiwan are pursuant to the “Soil and Groundwater Pollution Act”. Remediation plans or countermeasures are proposed by polluters and may be implemented after review and approval by the competent authorities.

I. Regulations on groundwater pollution remediation

According to Article 6 of the “Soil and Groundwater Pollution Act”, when groundwater pollutant concentrations exceed the groundwater pollution control standards, the competent authorities shall take necessary measures and investigate the party responsible for the pollution. (§6) There are 50 items in the “Groundwater Pollutant Control Standards” announced by the Taiwan EPA, including aromatic hydrocarbons, polycyclic aromatic hydrocarbons, agricultural chemicals and heavy metals. High potential groundwater contaminants are regularly reviewed in conjunction with risk management.

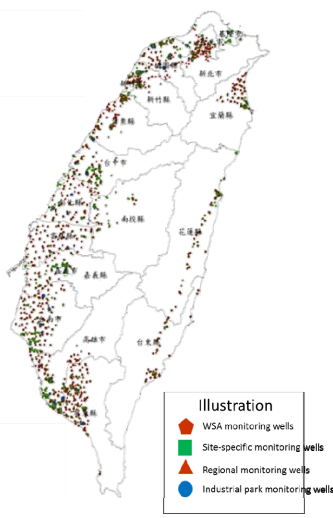
II. Monitoring and investigation of groundwater pollution

Domestic background groundwater quality is monitored through the Regional Groundwater Monitoring Network, which includes 450 monitoring wells managed by the Taiwan EPA. Groundwater quality in industrial parks is currently under surveillance through 850 wells along with a Light Classification System, which is based on various pollution attributes, to comprehensively manage the areas. Meanwhile, investigations of sites suspected of having soil and groundwater pollution, such as gas stations, operating factories and military camps, are performed as part of the operations at over 1,000 site-specific monitoring wells installed nationwide. Moreover, the Water Resources Agency (WRA) of the obtaining Ministry of Economic Affairs has also installed 747 monitoring wells for obtaining hydrogeology data at different depths, to provide references for water usage policy-making. Statistics on and distributions of various types of monitoring wells in Taiwan are summarized in Table 1.

III. Implementation and management of groundwater pollution remediation

If the results of the aforementioned investigations and verifications indicate any concentrations of pollutants exceeding groundwater pollution control standards, the competent authorities shall call on experts, scholars, and relevant agencies to form a surveillance committee to help review the control/remediation plan submitted by the polluters. In principle, removal from the regulatory listing of groundwater pollution remediation sites will be announced only after pollution concentrations meet soil and groundwater pollution control standards.

Table 1 : Groundwater Monitoring Network and distribution in Taiwan (2014)

Monitoring network	Reginal monitoring network	Site-specific monitoring wells	Early-warning monitoring network for industrial parks	Monitoring wells	
Purpose	Groundwater quality background monitoring and pollution prevention	Pollution investigation and verification	Groundwater quality monitoring and pollution early-warning	Water source investigation and management	
Competent authorities	EPA	EPA	Industrial park, EPA	WRA	
Number of wells	450	More than 1,000	More than 850	747	