

Capital city: Mexico City Inhabitants: 128 Million

INSTITUTIONAL SETTING AND PURPOSE

The National Water Commission (CONAGUA) of Mexico is an administrative, technical, consultative and decentralized agency of the Ministry of Environment and Natural Resources (SEMARNAT). CONAGUA is responsible for administration of national water resources, management and control of hydrological systems and promotion of social development. It also manages the national groundwater monitoring network.

CHARACTERISTICS OF THE NETWORK

The national groundwater monitoring network is composed of more than 12,000 wells. These wells monitor 370 aquifers in total, which represent 57% of all Mexican aquifers. CONAGUA also carries out the management and assessment of collected data.

PROCESSING AND DISSEMINATION

CONAGUA maintains a web portal for the Piezometric Monitoring Network, Figure 1. It was designed by the Water Geographical Information Sub-Directorate (SIGA) with the aim of offering a spatial information analysis platform populated with geo-referenced data on groundwater monitoring to CONAGUA users.

By clicking on a well icon in the platform, one can access metadata and a time-series graph of the groundwater level (when there is enough piezometric information to generate the hydrograph). Data are not available for downloading. The platform shows the map of Mexican aquifers with available metadata for each aquifer. Additionally, SIGA designed the Geographic Information System for Aquifers and Watersheds of Mexico (SICAGUA). This system offers users a visualization of geographic elements and serves as a support in the determination of water rights payment, Figure 2. Available layers are: availability of aquifers, type of climate, surrounding seas, urban localities, rural locations, states, municipalities, water bodies, major rivers, surface water use, groundwater use, and discharge of wastewater.



Figure 1 - Groundwater monitoring wells in Mexico. Source: SIGA



Figure 2 – SICAGUA web platform

Sources

- GGMN Workshop Latin America 2013 GeoVisor of CONAGUA;
- National Water Commission (CONAGUA) https://www.gob.mx/conagua;
- Piezometric Monitoring Network https://sigagis.conagua.gob.mx/rp; and
- SICAGUA web platform https://sigagis.conagua.gob.mx/aprovechamientos.

