



INSTITUTIONAL SETTING AND PURPOSE

The Latvia Environment, Geology and Meteorology Centre (LEGMC, www.meteo.lv/en/) is in charge of the state groundwater monitoring network. Its objective is to provide data on long-term state and trends of groundwater in the country, and input for national water policy planning, regulatory agencies and the public. Specific objectives of groundwater monitoring in Latvia are:

1. assessing quantitative and qualitative status of groundwater resources and the impact of various sources of pollution,
2. developing river basin management plans and measures for a rational use of groundwater resources, and
3. assessing the effectiveness of measures taken.

CHARACTERISTICS OF THE NETWORK

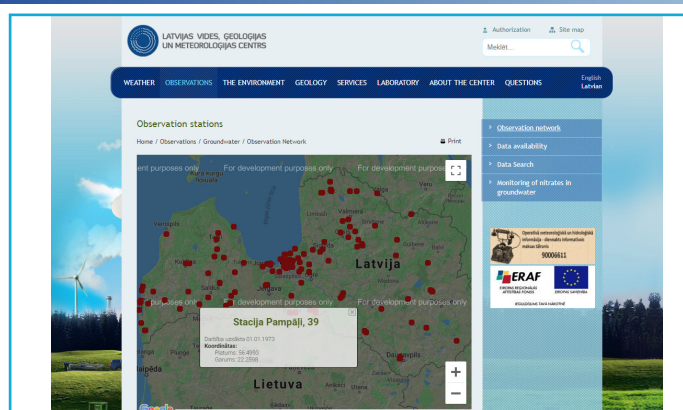
The network covers the whole territory of Latvia and provides observations from all exploited water horizons (aquifer system layers), focusing on the layers which are mainly used for water supply. The largest density of network is in Riga, Jūrmala and Liepāja, the cities with the highest groundwater extraction rate and with the most potential sources of groundwater contamination. The groundwater level observation network consists of 305 wells distributed over 60 stations.

Data on groundwater quantity and quality are collected both manually and automatically (data loggers and automatic transmission). 197 wells distributed in 41 stations are equipped with automatic loggers measuring the level every day. In the case of manual observations, the frequency ranges from once a month to four times a year, depending on the aim of monitoring.

PROCESSING AND DISSEMINATION

The evaluation is based on large-scale and long-term observation datasets. Time series analysis, spatial interpolation and statistical analysis are used to process the data. On the LEGMC website, it is possible to download groundwater monitoring data and statistically processed information, Figure 1. The Data Accessibility tool provides info on kind of observation that can be found at each station whereas the Data Search tool has a data download option as well. The results of long-term and not-digitalized observations can be requested from the Environmental Data Archive (also a part of the LEGMC).

Figure 1 – Location of observation points from LEGMC website



Sources

- **Feedback from LEGMC** - received on 27-05-2020;
- **Feedback from LEGMC (answer to form)** - received in 2018;
- **Latvian Environment, Geology and Meteorology Centre. Monitoring stations** - <https://www.meteo.lv/pazemes-udens-staciju-karte/?&nid=474>;
- **Latvian Environment, Geology and Meteorology Centre. Groundwater** - https://www.meteo.lv/lapas/noverojumi/pazemes-udens/pazemes-udens_ievads?id=1330&nid=473;
- **Latvian Environment, Geology and Meteorology Centre. Data Search** - <http://www.meteo.lv/pazemes-udens-datu-meklesana/?nid=475>; and
- **Latvian Environment, Geology and Meteorology Centre. Data availability** - <https://www.meteo.lv/pazemes-udens-datu-pieejamiba/?&nid=476>.