

GENERAL INFORMATION

Parameter name	Minimum groundwater temperature
Name of the layer in EGDI Map Viewer	Minimum groundwater temperature, Vienna
Original name of the layer uploaded to EGDI database	PP01_GBA_min_gw_temp.shp
Category	Resources for open-loop systems
Definition	Annual minimum groundwater temperature.
Harmonized unit	Degree Celsius
Relevance for shallow geothermal energy	Cooler groundwater temperatures mean higher resources for cooling with groundwater heat exchangers in general. Legally binding minimum temperatures of the injected water might limit the temperature shift between pumping and injection well (and hence the thermal capacity for heating of the system) depending on the minimum groundwater temperature at a specific location.
Data type	Continuous dataset
Data format	Raster
Projection	EPSG: 3034
Dataset selected for pilot area	Bratislava, Brussels, Ljubljana, Vienna , Prague, Cardiff, Glasgow, Cork, Zaragoza, Zagreb

ATTRIBUTES

Unit	Degree Celsius
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DATA SOURCE

Pilot area	Vienna
Data source	Vienna Water Management (MA45)
Contact data owner	Cornelia.steiner@geologie.ac.at
Last Update	13.04.2021

Explanatory text English

Map of minimum groundwater temperature in 2020. The minimum temperature was determined via a long term sine-wave analysis for temperature measurements in observation wells. In case of multiple measurements in different depth intervals, a mean value was calculated first for each day of measurement. The values of the observation wells were interpolated using “spline with barriers”.

Explanatory text national language

Language	German
Karte der minimalen Grundwassertemperatur in 2020. Die Minimalwerte der einzelnen Messstellen wurden durch Anpassung einer Sinuskurve an die Temperaturdaten ermittelt und anschließend mit der Interpolationsmethode „Spline with barriers“ interpoliert. Im Falle mehrere	

Messungen in verschiedenen Tiefenintervallen wurde zunächst daraus ein Mittelwert für den jeweiligen Messtag gebildet.