January 1 - December 31, 2024 ÇEL-MER Çelik End. A.Ş. Corporate Water Footprint Report

-Summary



ÇEL-MER Çelik End. A.Ş. Corporate Water Footprint Report

Purpose of the Report

This report has been prepared to calculate and evaluate the corporate water footprint of ÇEL-MER Çelik Endüstri A.Ş. resulting from its activities between January 1 - December 31, 2024. The calculations are based on the ISO 14046:2014 standard and The Water Footprint Assessment Manual published by the Water Footprint Network (WFN). The report aims to monitor the company's water consumption performance, analyze its environmental impacts and support the development of sustainable water management strategies.

Scope and Methodology

Water footprint is an indicator that assesses the environmental impacts of direct and indirect water use. In this context, the report includes

- Blue Water Footprint: Consumption of surface and groundwater (municipal water, well water, tanker water and packaged drinking water),
- Green Water Footprint: Rainwater and soil moisture use,
- Gray Water Footprint: The amount of clean water required to dilute the wastewater released into the environment due to pollution, three components were evaluated separately.

The report focuses on the activities carried out at the company's facility in Çayırova, Kocaeli and collects data only within the scope of this facility.

Organizational boundaries include all activities under the operational control of the company.

Operational boundaries include items such as water sources used (municipal water, well, tanker and packaged water), wastewater generation and rainwater harvesting.

Data were collected monthly and annual total consumption and pollution values were calculated.

Total Nitrogen (TN) parameter was identified as the limiting pollutant in gray water calculations.

The receiving environment characterization was carried out based on data from a scientific study of Izmit Bay.

Contact Information

Contact information of the persons responsible for the report is provided in the table below.

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Calculation Results

In this study, the corporate water footprint of ÇEL-MER Çelik End. A.Ş.'s corporate water footprint was calculated. Based on the water consumption data used by ÇEL-MER Çelik End. A.Ş.'s total water footprint was determined as 485,567.30 m3/year based on water consumption data.

Туре	Quantity (m³/yıl)
Blue Water Footprint	8,116.66
Green Water Footprint	0
Gray Water Footprint	477,450.65
Total Water Footprint	485,567.30

There is no **green water** footprint as the facility has no permeable area and no rainwater is used.

The **blue water** footprint consists mainly of well water and water transported by tanker and partly of packaged drinking water.

The **gray water** footprint is calculated based on the amount of water required to dilute the nitrogen load contained in wastewater, especially from production activities.

Intensity Indicators

- Water footprint per person: 5,780 m³/employee

- Water footprint per area: 5.11 m³/m²

ÇEL-MER Steel's water footprint consists mainly of the gray water component, which indicates that a significant amount of dirty water is generated in the production processes. The absence of a green water footprint is due to the lack of permeable area or rainwater harvesting. The majority of blue water use comes from well and tanker water. This increases dependency on external water supply and groundwater use and may pose a risk to the sustainability of water resources.