3.1 HOCHLAND AIMS TO REDUCE CONSUMPTION OF NATURAL RESOURCES 3.1.1. "LESS WATER"

PURPOSE: LIMITATION OF ENVIRONMENTAL IMPACT

KPI: reduction in water consumption by 1.5% per year

(base year 2017)

The production plants use water from their own deep-water intakes. Environmental permits have been issued for these intakes, ensuring that the use of water resources is respectful of the environment. Each is located on the plant premises and adequately protected. The quantity and quality of the water used are monitored at all stages.

Plant	Permitted groundwater abstraction in accordance with the permit [m³/year]	Water consumption in 2023 [m³]	
Kaźmierz	85 000	46 731	
Węgrów	600 000	409 888	

The Company has the following tools to identify impacts on water resources:

• NMG program – a program for the ongoing monitoring and analysing of, among other things, the consumption of utilities at the Kaźmierz plant, to which data is supplied by compatible meters • MES (Manufacturing Execution System) program – a system for continuous monitoring production processes and the acquisition of status and quality information.

Hochland striving to keep water consumption to a minimum at its production plants, setts environmental targets to reduce consumption by 1.5% per tonne of product each year.



A number of measures were carried out to reduce water Reduction of water consumption in 2023 vs base year 2017 [%] consumption, including:



Hochland Poland aims to reduce water consumption per tonne of product in accordance with the goals set in their Sustainable Development strategy.

3.1 HOCHLAND AIMS TO REDUCE CONSUMPTION OF NATURAL RESOURCES 3.1.1.1. WATER AND WASTEWATER MANAGEMENT

The plants generate wastewater as a result of their production processes. The waste water generated at Hochland's production plants is covered by environmental decisions and managed in accordance with the provisions of these decisions:

- at the Kaźmierz plant, wastewater is discharged after treatment at the Hochland mechanical-physical-biological treatment plant into a drainage ditch and then into the Sama River. The watercourse is subject to maintenance. Hochland commissions the work after agreeing the scope with Wody Polskie. In addition, in 2023, at the request of the Representatives of the Municipality of Kaźmierz, Hochland has committed to the proper maintenance of the River Sama on an additional section from the Radzyny reservoir towards the village of Kiączyn. The scope of work included: mowing and removal of aquatic vegetation overgrowing the bottom of the watercourse and its slopes, desilting and hooking the bottom in areas that are particularly overgrown and prone to siltation. The entire financial outlay resulting from the maintenance work carried out in 2023 was borne by Hochland Poland. - at the Węgrów plant, industrial wastewater is treated in the on-site wastewater pre-treatment plant and then directed to the municipal sewage network. Wastewater treatment started at the end of 2022, with the aim of lowering the loads of discharged industrial wastewater.



3.1 HOCHLAND AIMS TO REDUCE CONSUMPTION OF NATURAL RESOURCES 3.1.1.2. TECHNOLOGICAL SOLUTIONS IN WATER AND WASTEWATER MANAGEMENT

Hochland Poland focuses on continuous analysis of the processes in place in search of possible wastage and fields for improvement. The Company is aware that the drive to close the loop and the project implemented to this end make a measurable contribution to saving natural resources. Hence the decision to implement the wastewater pretreatment plant project at the plant in Węgrów.

Through this action, the Company is pursuing several aspects of its strategy:

- **using energy from sewage sludge** by transferring it to biogas plants to generate green energy
- reducing demand for fossil fuels by heat energy recovery
- reducing pollutant emissions, including CO2, ammonia, hydrogen sulfide

Among the environmental effects to which the investment has contributed are:

1. Energy savings:

- From recovering heat from wastewater for heating the pre-treatment building during the heating period and for heating the screen was water: 107 317 kWh/year
- Amount of energy generated from biogas [kWh/year]: 240,000
- Reduction in eCO2 emissions [T/year]: 204*

* a rate of 850 kg eCO2/MWh is assumed

2. Reduction of pollutants in raw wastewater

Thanks to the technology used, the amount of pollutants in the wastewater caught in the pre-treatment process has been reduced:

Specification	Values averaged over the tributary	Unit	Actual reduction %
BOD ₅	2000	mg/l	63
COD	3000	mg/l	47
TP	40	mg/l	53
Total suspended solids	800	mg/l	29

Based on a comparison of monthly average parameter reductions from before and after the investment.

3. Reduction of foul gases

The technology used, equipped with a mineral-filled bio-filter, ensures the reduction of odour-forming gases such as ammonia, hydrogen sulphide, mercaptans, amines, aldehydes, ketones and fatty acids. The use of volcanic lava as a filter bed in the first biological filtration stage and an additional purification stage on activated



carbon ensure a reduction in odours occurring in very high concentrations of more than 99%.



Hochland Poland was awarded the prize for the environmental effects resulting from the commissioning of a wastewater sub-treatment plant at its Węgrów plant in the "Eco-Investor 2023 in the Food Industry" competition.