

UPM Pietarsaari

# ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2019



# UPM Pietarsaari

The UPM Pietarsaari mill integrate consists of the Pietarsaari pulp mill, the Alholma sawmill and the UPM Forest Northern Region office. The mills are located in the UPM industrial estate in Alholma, Finland, alongside BillerudKorsnäs Finland, Walki and Alholmens Kraft.

The mill site contains a versatile array of forest-based bioindustry. At the site, wood from adjacent areas is processed into sawn timber, pulp, paper, paper products and energy. UPM Forest is responsible for procuring wood for the pulp mill and sawmill, and for their on-site measurement processes. Logs are sawn at the Alholma sawmill, and pulpwood, sawdust and wood chips are pulped. A portion of the pulp is delivered to the BillerudKorsnäs paper mill for kraft paper manufacturing. The Walki factory processes some of the kraft paper to make different packaging materials. Bark and other wood residues are used by the Alholmens Kraft power plant to generate electricity, steam and district heating.

This EMAS report covers the environmental performance of the UPM Pietarsaari pulp mill and the Alholma sawmill. This report examines the social responsibility of the entire integrated unit.



	Pulp mill	Alholma sawmill
<b>Production capacity</b>	800,000 t	280,000 m <sup>3</sup>
<b>Employees</b>	312	67
<b>Products</b>	<b>Softwood pulps:</b> UPM Conifer UPM Conifer Thin  <b>Birch pulps:</b> UPM Betula UPM Betula TCF	Pine and spruce timber, woodchips, sawdust and bark
<b>Side-products and residues</b>	Tall oil, turpentine, lime and green liquor dregs	
<b>Bioenergy</b>	Thermal energy and electricity	
<b>Certificates</b>	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ETJ+ – Energy Efficiency System ISO 9001 – Quality Management System ISO 22000 – Food Safety Management System OHSAS 18001 – Occupational Health and Safety Management System PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council®	
	All certificates can be found from UPM’s Certificate Finder (available at <a href="http://www.upm.com/responsibility">www.upm.com/responsibility</a> )	
<b>Environmental labels</b>	EU Ecolabel	



UPM Pietarsaari Environmental and Societal Responsibility 2019 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM’s pulp and paper mills (available at [www.upm.com](http://www.upm.com)) and provides mill-specific environmental and societal performance data and trends for the year 2019. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next Updated UPM Corporate Environmental Statement and also this supplement will be published in 2021.

UPM offers renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 18,700 people worldwide and our annual sales are approximately EUR 10.2 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. [www.upm.com](http://www.upm.com)



For more information about FSC certification visit [www.fsc.org](http://www.fsc.org)



Alholma sawmill

For more information about PEFC certification visit [www.pefc.org](http://www.pefc.org)

# Review of year 2019



## Pulp mill

The year 2019 was very good for pulp production. In fact, the pulp mill achieved a new annual production record. One of the mill's central long-term environmental objectives is to increase production volumes without increasing the environmental load. An excellent level of purifying efficiency was reached, due to the optimized running of the water treatment plant. Operation of the plant is stable, and the plant is not sensitive to variations in effluent loads.

In 2019, the mill site's effluent volumes remained at a level similar to the previous year. The optimisation of the water treatment plant's operation continued. Optimising the nutrient feed rate reduced phosphorous emissions compared to the previous year, and the stable operation of the treatment plant reduced biological oxygen demand (BOD) and solids emissions. Calculated as specific emissions, the effluent released into the sea was clearly at the BAT level specified in 2014 (BAT ref. 2014). Air emissions remained in line with previous years. Calculated as specific emissions, air emissions were clearly at the BAT level specified in 2014.

One hundred and thirteen environmental observations relating to proactive environmental safety were recorded at the pulp mill. Permit conditions were not exceeded. Efforts to utilise solid waste continued. UPM has set a target for no solid waste to be sent to landfill or burnt without energy recovery after 2030. The work to promote a circular economy continues, and the aim is to reintroduce operational sidestreams into the material cycle. In 2019, the pulp mill was contacted eight times by stakeholders about environmental issues. The feedback mainly related to noise and odour nuisances, as well as waste recovery. The

amount of feedback was at about the same level as in previous years.

## Alholma sawmill

The Alholma sawmill performed well in regard to production and environmentally. The sawmill's production efficiency was good, and the energy efficiency of the new drying tunnel reached the target level. A new, drying-tunnel-specific energy measurement system was introduced in the autumn of 2019. The system enables better analysis of energy consumption and allocates intensification measures to right targets. The Alholma sawmill did not receive any environmental feedback or reports on deviations from external stakeholders in 2019.

## Safety as a part of professional competence

Safety is an integral part of our everyday actions and the professional competence of our employees. We strive to reduce and eliminate accidents that are under our control through continuous improvement, effective risk management

and preventive safety work. In 2019, the employees of the pulp mill and sawmill were responsible for 1657 safety walks and discussions and 1664 safety observations and incident reports.

## Local cooperation in many forms

We are committed to promoting the vitality of the communities near our facility through active collaboration and open dialogue with different stakeholders, as well as through different sponsorship projects. Our focus is on activities and projects that are relevant to our business, that support innovation and sustainability or that promote local vitality and wellbeing. In 2019, we pledged almost EUR 90,000 to support these projects in the Pietarsaari area. The majority of the sponsorship money was used to support sport and culture, and education for children and young people. In addition, we supported local education by donating a significant amount to Centria University of Applied Sciences.



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Environmental Manager



*Simon Fagerudd*  
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General Manager,  
Integrate and Pulp Mill



*Mika Åby*  
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Director, Alholma Sawmill

# Responsibility figures 2019

## Air



Fossil carbon dioxide emissions have reduced by

# 14%

per tonne of pulp produced since 2010

## Water



Emissions causing biological oxygen demand (BOD<sub>5</sub>) have reduced by

# 80%

per tonne of pulp produced since 2010

Nitrogen emissions contributing to eutrophication have reduced by

# 51%

since 2010

## Supply chain



# 84%

of raw materials spend qualified against UPM Supplier and Third Party Code (wood suppliers not included)

## Certified wood



Proportion of certified fibre in pulp production

# 70%

The proportion of PEFC- and/or FSC-certified fibre in pulp production. UPM's goal is to be using only certified fibre by 2030.

## Safety



In 2019, the employees of the pulp mill and sawmill were responsible for

# 1,657

safety walks and discussions and

# 1,664

safety observations and incident reports

## Sponsorship and donations



We supported projects that promote the region's vitality and wellbeing with

# EUR 90,000



## Energy

The proportion of renewable fuels in energy generation was over

**99%**

## Consumption impact\*

The mill integrate's consumption impact in region approx.

EUR **15** million

In Finland approx.

EUR **29** million

\*Generated through the private consumption of commodities from internal and indirect employees' net wages.

## Waste



**55%**

of the waste generated at the pulp mill during the year was placed in intermediate storage or utilised directly

## Health

The amount spent on the wellbeing of pulp mill and sawmill employees was

EUR **100,000**



## Taxes



The mill integrate's local tax impact approx.

EUR **11** million

Real estate tax EUR 0.5 million  
Estimate of tax on salaries EUR 3.3 million  
Estimate of corporate income tax EUR 7.4 million based on the number of employees\*

\* Approximately 30% of corporate income tax goes to municipalities, which is split between each municipality according to their share of business activities and forests operations.

## Employment



The mill integrate employed

**399** people

**79** summer employees

Indirect employment effect in region approx.

**360** persons





As in previous years, the pulp mill had an excess of electricity generation due solely to the energy recovered from the burning of black liquor. The excess electricity was sold back to the grid through UPM Energy.

The pulp mill and sawmill delivered bark and wood residues from the debarking of logs and pulpwood to Alholmens Kraft for use as fuel. Measured with specific emission factors, all air emissions were within BAT levels. All emission parameters remained below permit regulations. The amount of gaseous reduced sulphur compounds was lower than in previous years thanks to improved collection and disposal. The mill ramp-ups and shutdowns related to planned and unplanned shut downs caused some odour issues in the vicinity of the mill.

One of the pulp mill's long-term objectives is to become a carbon-neutral mill. Accordingly, direct and indirect fossil CO<sub>2</sub> emissions have been systematically reduced at the mill. The objective is in line with the group's responsibility targets for 2030.

The portion of renewable fuels used in pulp production remained high at 99.4%.

In pulp production, the fossil CO<sub>2</sub> emissions per tonne of pulp produced were at about the same level as in previous years and remained below the target level. Fossil CO<sub>2</sub> emissions per pulp tonne produced were reduced by approximately 14% compared to the initial level in 2010.

The burning of odorous gases in the recovery boiler was successful with a good time-benefit ratio. Due to equipment failures, strong odorous gases had to be burnt in the emergency burner at times. Strong odorous gases were bypassed through back-up systems for 0.9% of the operating time.

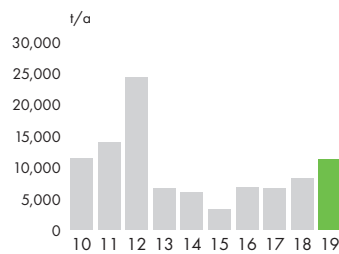
## AIRBORNE EMISSIONS FROM PULP PRODUCTION IN 2019

	Solids t/year	Sulphur dioxide t SO <sub>2</sub> /a	TRS t S/a	Nitrogen oxides t NO <sub>2</sub> /a	Chlorine compounds t Cl/a
Recovery boiler	78	8	7.9	1,003	
Lime-sludge kiln	4	5	0.5	56	
Odorous gas emergency burner (flare)		45			
Bleaching 1					2.81
Bleaching 2					0.06
Fugitive emissions			8.5		
Total amount	81	58	17	1,059	2.9

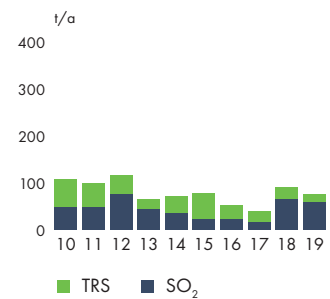
## ODOROUS GAS DISPOSAL, % of time

	2016	2017	2018	2019
Burnt in the recovery boiler	98.6	99.0	97.7	99
Burnt in the emergency burner (flare)	1.0	0.7	1.9	0.9
Bypass to the smokestack	0.4	0.3	0.4	0.1

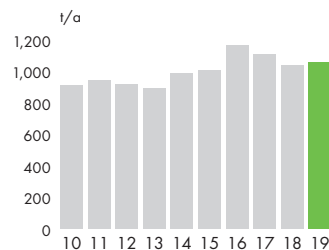
Development of fossil CO<sub>2</sub> emissions at the Pietarsaari mill



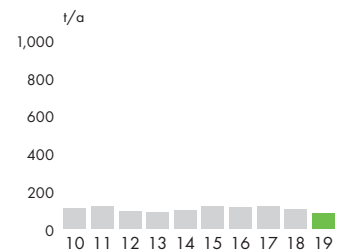
Gaseous sulphur compounds



Nitrogen oxides, NO<sub>2</sub>



Particulates



# Water



## Raw water supply

Lake Larsmosjön provides raw water for the UPM Pietarsaari mill. In 2019, the pulp mill and sawmill consumed 60,208,278 m<sup>3</sup> of water in total. Less than half of the raw water was used for cooling, and the rest was used as process water for the pulp mill. The Alholma sawmill consumed around 35,000 m<sup>3</sup>, less than 0.1% of the total.

## Effluent released into the sea

Internal targets were set in 2014 for the pulp mill's effluent load, to ensure that operations were continuously improved.

The permit-regulated effluent emissions stayed almost identical to the previous year, even though production increased slightly. In 2019, all effluent emissions were clearly below the limits specified in the environmental permit.

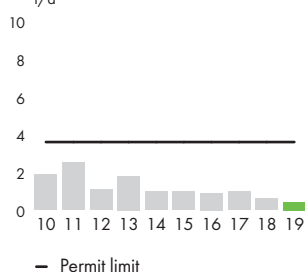
Optimisation of the effluent treatment plant kept the nutrient emissions of nitrogen and phosphorus below the internal target levels. The eutrophication of the immediate sea area in Pietarsaari is sensitive to phosphorus, which is why particular effort was made to reduce phosphorus effluent without affecting the efficiency of effluent treatment. Compared to 2010, phosphorous emissions causing biological oxygen demand in waters (BOD<sub>7</sub>) by 80% and nitrogen emissions by 51% per pulp tonne produced.

The effluent COD emissions of the pulp mill per tonne of pulp produced have been reduced by 40% compared to 2008. The target for 2030 is to reduce the figure by 40%.

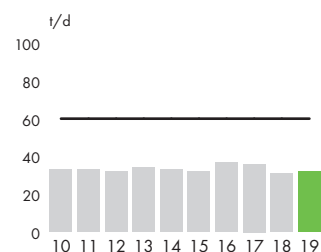
## TOTAL LOAD COMPARED TO PERMIT CONDITIONS 2019

	Annual average compared to permit conditions 2019	Target (pulp mill's portion) 2019	Permit condition, annual average
COD, t/d	30	35	45
BOD <sub>7</sub> , t/d	0.4	1.0	
Nitrogen, kg/d	196	400	500
Phosphorus, kg/d	18	35	45
AOX, t/d	0.18	0.20	0.45
Solids, t/d	1.5	1.5	4

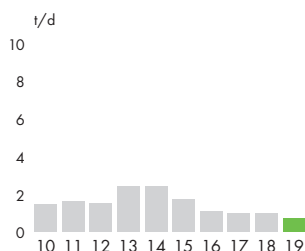
Biological oxygen demand, BOD<sub>7</sub>, t/d



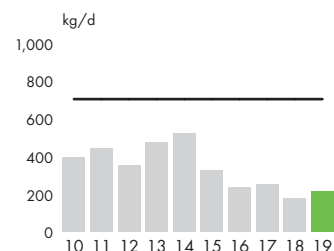
Chemical oxygen demand, COD, t/d



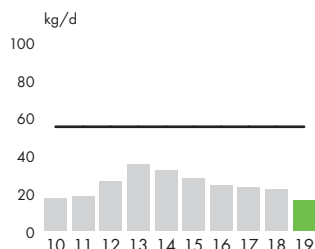
Total suspended solids, TSS, t/d



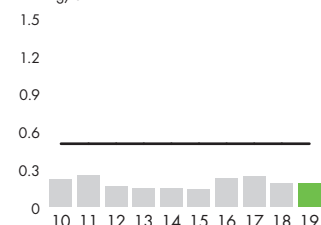
Nitrogen, N, kg/d



Phosphorus, P, kg/d



Absorbable organic halogen compounds, AOX, kg/d



# Waste and side products



The UPM Pietarsaari landfill is located on the industrial estate. In 2019, the pulp mill and sawmill produced 12,084 tonnes of solid waste. In addition, 15,149 tonnes of sludge, dredged from the effluent treatment plant in previous years, was moved from the sedimentation basin to the interim storage field. 55% of the waste generated over the year was placed in interim storage or utilised directly.

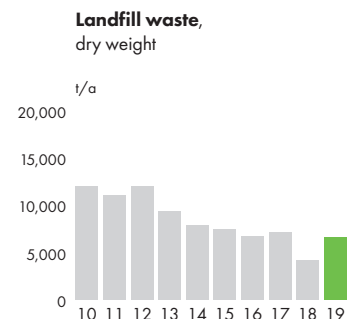
A total of 6,606 tonnes of pulp mill and sawmill waste was placed in the landfill, of which more than 99% was green liquor dregs. The work to utilise

green liquor dregs continues. One of the circular economy objectives is to utilise all sidestreams and stop the generation of landfill waste by the end of 2030. The amount of landfill waste generated per tonne of pulp produced has been reduced by 45% from the 2010 reference level.

Waste components weighing 1,870 tonnes were placed in interim storage for later use. All waste amounts are stated in dry matter tonnes.

A total of 41.6 tonnes of hazardous waste was delivered elsewhere for

processing. Approximately 17.7 tonnes of the hazardous waste (waste oils, lubricants etc.) were channelled for reuse.



SOLID WASTE (dry weight, t/year)			
	Landfill	Interim storage	Reused waste
Green liquor dregs	6,527		
Wood and bark residue		346	1,473
Asphalt		1,254	950
Cable and metal waste		26	625
Energy waste			75
Building waste	79	25	445
Soil and timber yard cleaning waste		219	
Sludge <sup>1)</sup>		15,149	
Total solid waste in 2019	6,606	17,019	3,568
Total solid waste in 2018	4,215	2,758	9,773

<sup>1)</sup> Sludge moved from the coagulation basin to the interim storage field

SIDE PRODUCTS (dry weight, t/year)	
	Reused waste
Lime and lime mud	1,429
Green liquor dregs	1,356
Total by-products in 2019	2,785

## Crisis management and exceptional situations

Well-defined internal instructions are followed in the management and reporting of emergency and crisis situations. The following events are considered emergency and crisis situations at UPM mill properties and sites:

- Serious accidents at work and when travelling to or from work.
- Serious accidents (e.g. major fires, explosions, chemical accidents).
- Environmental damage.
- Significant production disruption.
- Other exceptional situations (sabotage, demonstrations, occupational health and safety risks, risks related to UPM's reputation etc.).

- External situations, such as problems at other industrial plants.

Operational management includes the controlled shutdown of production and measures required to gain control of the exceptional situation, among other things. Event investigation and the flow of information takes place in accordance with the organisation's chain of command and agreed roles. Our crisis communication group consists of members of the mill's executive board or is formed separately on a case-by-case basis.

External companies operating on the mill site will follow their own guidelines. However, all emergencies will be reported to the Ostrobothnia alarm centre.

Emergency and crisis situations are regularly practised, both independently and in collaboration with rescue authorities in order to maintain and improve our ability to react to such situations.

Numerous emergency drills are conducted annually. The most significant drill in 2019 was the fire extinguishing training given to all pulp mill employees.



# Societal responsibility

Well-functioning dialogue with stakeholders is key to our success. We are committed to promoting the vitality of the communities near our facilities through active collaboration and open dialogue with different stakeholders, as well as through different sponsorship projects and employee volunteering.

UPM is a significant operator in Pietarsaari. In 2019, UPM employed 399 people directly and 360 people indirectly in Pietarsaari. Furthermore, UPM employed 79 summer employees. Four people started on the pulp mill's two-year apprenticeship programme in processing industry.

## Local tax and consumption impact

Tax revenue generated by UPM's business operations is an essential part of our social impact. UPM pays corporate income taxes in the countries where we create added value and generate profit. In 2019, UPM (Group) paid approximately EUR 211 million (283 million in 2018) in total in corporate income taxes and real estate taxes.

The mills' operations also benefit local communities in many ways. Real estate taxes and the municipal share of corporate income taxes paid by UPM support the local economy. In addition, the taxes and social security contributions that UPM employees pay on their wages have a significant local impact. Furthermore, the purchasing power of UPM employees and subcontractors maintains and enhances the vitality of local communities. Our tax contributions in the Pietarsaari region amounted to approximately EUR 11 million in 2019. Our local consumption impact was approximately EUR 15 million. For Finland as a whole, the impact was approximately EUR 29 million). These figures reflect the consumption generated through internal and indirect employees' net wages.

## Local cooperation in many forms

By participating in a large number of collaborative projects, UPM supports sustainability and promotes the financial and mental wellbeing of local communities. Our work in this arena is clearly connected to our Biofore Strategy and responsibility targets. It is coordinated under the umbrella of our Biofore Share and Care programme.

The Biofore Share and Care programme comprises three forms of support: sponsor-

ships, donations and employee volunteering. The support can be a monetary contribution, products, materials or concrete work in projects agreed on locally. Our focus is on activities and projects that are relevant to our business, that support innovation and sustainability or that promote local vitality and wellbeing. In 2019, we pledged almost EUR 90,000 to support these projects in the Pietarsaari area. The majority of the sponsorship money was used to support sport and culture, and education for children and young people. In addition, we supported local education by donating a significant amount to Centria University of Applied Sciences.

We invest in the future by actively collaborating with local educational institutions. Our aim is to inform young people about jobs in our field and to encourage them to study and pursue careers in the forest industry. In April, we hosted 30 student counsellors and teachers from 17 local educational establishments. In September, pupils from the primary schools in Pietarsaari participated in forestry excursions held in cooperation with the Finnish Forest Association. In October, we organised a training camp for the students of Jakobstads Gymnasium. The students solved real-life problems of sustainable development and circular economy. Approximately 250 students and teachers from various educational establishments visited the mills of UPM Pietarsaari in 2019.

Maintaining a dialogue with other stakeholders, such as customers, forest owners, decision-makers, authorities and the media, is also important to us. Over the course of the year, we've organised several stakeholder meetings and mill site visits which attracted around 150 participants.

## Safety

Our goal at UPM is to be the industry leader in occupational health and safety. Our target is zero serious and fatal accidents. Safety is fully integrated into our daily activities and is not seen as secondary to any other consideration. We strive to reduce and eliminate accidents under our control through continuous improvement, effective risk management and preventive safety work. In 2019, the employees of the pulp mill and sawmill were responsible for 1657 safety walks and discussions and 1664 safety observations and incident reports. Our employees, as well as business partners and their employees, are required to adopt safe work practices and comply with the rules and standards that we have established. Before accessing UPM production sites, contractors participate in UPM safety training, which presents and demonstrates basic safety requirements. This is complemented by job-specific safety inductions and work permits.

## Responsible sourcing

We require all suppliers to uphold the UPM Supplier and Third-Party Code, which lays out our minimum requirements for corporate responsibility relating to environmental impact, human rights, labour practices, health and safety, product safety, corruption and bribery.

UPM's target is to have 100% of raw material spend and 80% of all spend qualified against UPM Supplier and Third-Party Code by 2030 (Qualified spend). At UPM Pietarsaari, 84% of raw material spend (excl. wood) was qualified against the UPM Supplier and Third-Party Code.



# Environmental parameters

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental and Societal Responsibility Statement.

		2017	2018	2019
<b>Production capacity</b>	Sawn timber	280,000 m <sup>3</sup>	250,000 m <sup>3</sup>	280,000 m <sup>3</sup>
	Pulp	825,000 Adt	800,000 Adt	800,000 Adt
<b>Raw materials and chemicals</b>	Timber	See the Corporate Environmental and Social Responsibility Statement		
	Pulping and bleaching chemicals			
	Others			
<b>Energy</b>	Biofuels	99.69%	99.54%	99.43%
	Fossil fuels	0.31%	0.46%	0.57%
	Purchased energy	See the Corporate Environmental and Social Responsibility Statement		
<b>Emissions to air</b>	Particulates	121 t	105 t	81 t
	Sulphur dioxide, SO <sub>2</sub>	33 t	131 t	58 t
	Odorous sulphur compounds, TRS (S)	23 t	25 t	17 t
	Nitrogen oxides, NO <sub>2</sub>	1,109 t	1,037 t	1,059 t
	Carbon dioxide, CO <sub>2</sub> (fossil)	6,631 t	8,101 t	11,190 t
<b>Water intake</b>	Process and cooling water	61,337,884 m <sup>3</sup>	62,617,920 m <sup>3</sup>	60,208,278 m <sup>3</sup>
<b>Discharges to water</b>	Cooling and drainage water	27,677,646 m <sup>3</sup>	27,429,619 m <sup>3</sup>	29,998,088 m <sup>3</sup>
	Cleaned effluent	31,524,752 m <sup>3</sup>	32,271,599 m <sup>3</sup>	33,799,276 m <sup>3</sup>
	Biological oxygen demand, BOD <sub>7</sub>	369 t	232 t	153 t
	Chemical oxygen demand, COD <sub>Cr</sub>	13,138 t	12,571 t	10,906 t
	Total suspended solids, TSS	350 t	347 t	261 t
	Total phosphorus, P <sub>tot</sub>	8 t	8 t	6 t
	Total nitrogen, N <sub>tot</sub>	73 t	47 t	64 t
	Absorbable organic halogen compounds, AOX	87 t	68 t	69 t
<b>Side products</b>	Lime		312 t	1,429 t
	Green liquor dregs		2,814 t	1,356 t
	Total amount		3,126 t	2,785 t
<b>Waste<sup>1)</sup></b>	Solid landfill waste (abs. dry)	<sup>2)</sup>		
	– Green liquor dregs		4,140 t	6,527 t
	– Building waste		75 t	79 t
	– Other waste		0 t	0 t
	– Total		4,215 t	6,606 t
	Recyclable waste			
	– Metal waste		80 t	625 t
	– Wood and bark residue		1,611 t	1,473 t
	– Energy waste		79 t	75 t
	– Asphalt		913 t	950 t
	– Building waste		151 t	445 t
	– Total		5,047 t	3,568 t
	Temporarily stored waste intended for reuse			
	– Branch rejects		0 t	0 t
	– Lime		259 t	0 t
	– Metal waste			26 t
	– Asphalt		913 t	1,254 t
	– Wood and bark residue		1,271 t	346 t
	– Building waste		310 t	25 t
	– Soil and timber yard cleaning waste			219 t
– Sludge <sup>3)</sup>		5	15,149 t	
– Total		2,758 t	17,019 t	
Hazardous waste		64.9 t	41.60 t	
<b>Size of mill area</b>		210 ha	210 ha	210 ha
Includes landfills maintained by the mill				

<sup>1)</sup> Waste amounts given as dry weight

<sup>2)</sup> Reporting of waste data was changed in 2018

<sup>3)</sup> Sludge moved from the coagulation basin to the interim storage field

# Performance against targets in 2019

TARGET	ACHIEVEMENT	COMMENTS
Clean Run environmental observations, class 3–5 deviations: zero.	Yes	The pulp mill did not produce any emissions that did not comply with the permit conditions in 2019
Reduction of landfill waste – solid waste utilisation analyses continue – emphasis on the utilisation of green liquor dregs	No	The utilisation rate of green liquor dregs decreased a little year-on-year. We have conducted many different tests to further utilise green liquor dregs.
The energy conservation agreement development programme is still underway	Yes	As in previous years, the pulp mill generated more energy than it needs. The energy efficiency of the pulp mill has been improved, for example, by introducing more energy-efficient solutions in the vacuum pumping system used in pulp drying.
Improving energy measuring at the sawmill	Yes	New drying-plant-specific energy meters installed at the sawmill in the autumn of 2019
Reduce energy consumption	Partly	Thanks to the new canal drying plant at the sawmill, the energy efficiency of board drying partly improved. In regard to the whole unit, the energy consumption target was not reached.
Reduce amount of waste	Yes	Waste amount per timber square produced was reduced

## Targets for 2020

TARGET
<b>Pulp mill</b> Clean Run environmental observations, class 3–5 deviations: zero. Reduction of landfill waste – Study to continue on solid waste utilisation. – Emphasis on the use of green liquor dregs. The energy conservation agreement development programme to still be underway.
<b>Alholma sawmill</b> Introduction of bio-oil as conductive oil surveyed/implemented Energy review completed by the end of the year Sawmill Clean Run environmental observations, class 3–5 deviations: zero. Number of environmental observations: 1 pcs/month Environment reviews at least once a month



### Revalidation statement

As an accredited environmental verifier (FI-V-0001), Inspecta Sertifiointi Oy has examined the environmental management system and updated UPM Pietarsaari Environmental and Societal Responsibility 2019 report as well as the information concerning UPM Pietarsaari in the Updated UPM Corporate Environmental Statement 2019.

On the basis of this examination, the environmental verifier has herewith confirmed on 2020-03-30 that the environmental management system, the updated UPM Pietarsaari Environmental and Societal Responsibility report and the information concerning UPM Pietarsaari in the Updated UPM Corporate Environmental Statement are in compliance with the requirements of the EMAS Regulation (EC) No 1221/2009.

We reduce the world's reliance on fossil-based materials by developing renewable and responsible products and solutions in all our businesses. **UPM Biofore – Beyond fossils.**



[www.upm.com](http://www.upm.com)

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