WATER

Targets: maintain recycled water ratio and reduce pollution; continue providing clear water to local communities.

Key next steps: build and run new treatment facilities, adopt new technical solutions, remediate pollution from environmental accidents in line with the Great Norilsk Expedition recommendations.

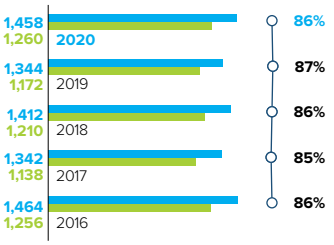
The Company's major production assets are located in regions with sufficient water resources. Nonetheless, the Company is extremely careful about its use of fresh water and strictly complies with restrictions applicable to industrial water withdrawal. **The Company is committed to sustainable use of water resources and prevention of water body pollution.**

Nornickel's key production facilities use closed water circuits to maintain water withdrawal on a relatively low level. Furthermore, the Company never withdraws water from protected natural areas. In 2020, 86% of all water used by the Company was recycled or reused. Water is mostly withdrawn from surface and underground water bodies as well as from wastewater of other companies and natural water inflow. Natural water inflow and meltwater accounted for 12% of the total water withdrawal in 2020. All facilities using water have programmes in place to monitor water bodies and water protection areas.

Wastewater discharge also does not exceed the approved limits or have any major impact on biodiversity of water bodies and related habitats.

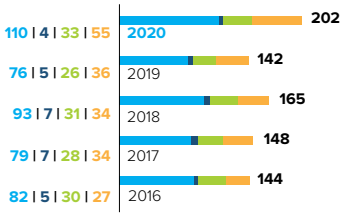
The year-on-year increase in discharge can be explained by the fact that, as of 2020, the Report discloses wastewater discharge to municipal sewage networks.

WATER CONSUMPTION (MCM)



- Consumed water volume
- Volume of reused and recycled water
- Share of reused and recycled water

WASTEWATER DISCHARGE (MCM)



- Clean
- Treated
- Insufficiently treated
- Contaminated

WATER CONSUMPTION AND DISCHARGE

WATER WITHDRAWAL

375 Mcm

Surface sources – 260 Mcm

Underground sources – 31 Mcm

Wastewater – 29 Mcm

Natural water inflow – 47 Mcm

Other – 8 Mcm

WATER CONSUMPTION

1,458 Mcm =

198 (new) +1,260 (reused and recycled water)

31 Mcm – water reused in other production processes (2%)

1,229 Mcm recycled water (84%)

WASTEWATER DISCHARGE

202 Mcm

Clean – 110 Mcm

Treated – 4 Mcm

Insufficiently treated – 33 Mcm

Contaminated – 55 Mcm

WATER RISK MANAGEMENT

The Company also conducts assessments of impact on water resources on an ongoing basis.
The impact on water resources can materially affect the Company's financial performance.

Procedures used by Nornickel to identify and assess the risks of its impact on water resources include:

- wastewater inventory
- monitoring of wastewater discharge volume and quality at discharge sites
- observation of surface water bodies at control points upstream and downstream of discharge sites
- investments in improving the performance of water treatment systems and building new systems
- we also monitor wastewater treatment processes at treatment facilities and take organisational and technical measures to improve treatment effectiveness.
- Tailings and waste

TAILINGS AND WASTE

Targets: maintain safe operation of tailings facilities and minimise environmental impact of mineral and non-mineral waste.

Key next steps: build mass balance model for waste management and prepare for the self-assessment under Global Tailings Standard.

WASTE

The Company reuses most of its industrial waste as approximately 99% of the waste generated are hazard class 5, i.e. non-hazardous waste. This is mostly waste from the mining and smelting operations, including rock and overburden, tailings, and metallurgical slags. Ore extraction waste is used as backfill for underground workings and open pits, road fill, or for tailings dam reinforcement. The increase in waste generation in 2020 was attributed to the commissioning of Bystrinsky GOK.

TAILINGS

Nornickel currently operates six tailing dumps: four in the Norilsk Division, taking tailings from Talnakh and Norilsk concentrators and Nadezhda Metallurgical Plant; one at Kola MMC, storing tailings from Zapolyarny Concentrator; and Bystrinsky GOK tailing dump.

WASTE GENERATION BY HAZARD CLASS (KT)

Hazard class	2016	2017	2018	2019	2020
V	32,118	30,722	29,517	35,300	144,052
IV	1,114	1,190	1,191	1,115	1,175
III	30	12	15	5	7
II	5.8	2.4	1.1	0.03	0.05
I	0.1	0.1	0.1	0.04	0.04
Total	33,267	31,926	30,725	36,420	145,234