

# Soil protection and responsible mining

## Land protection

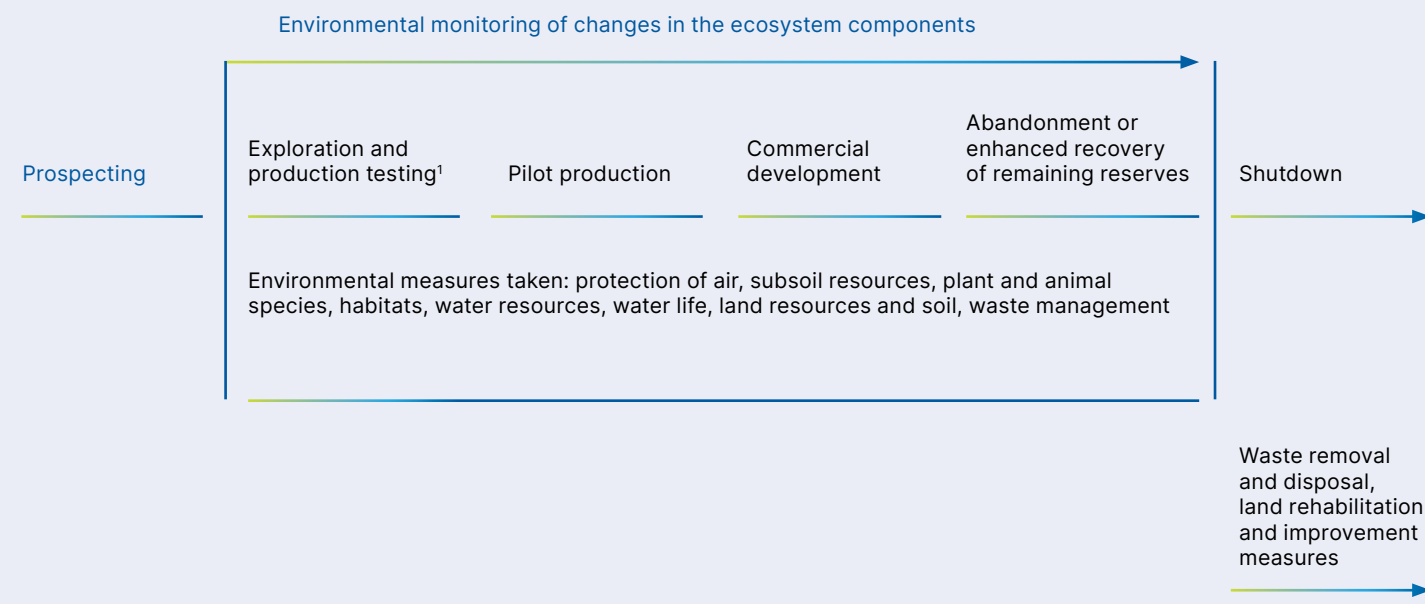
Nornickel seeks to reduce the negative impact on soils resulting from the Company's operations. To this end, Nornickel focuses on the rehabilitation of all land affected by construction and mining, as well as otherwise affected by our operations.

Nornickel is developing the Oktyabrskoye, Talnakhskoye and Norilsk-1 deposits on the Taimyr Peninsula, Zhdanovskoye, Zapolyarnoye, Kotselvaara and Semiletka deposits on the Kola Peninsula, and the Bystrinskoye deposit in the Trans-Baikal Territory.

For each deposit, the Company has built and is continuously updating a list of measures to prevent or mitigate potential negative effects on the environment while ensuring sustainable use of natural resources throughout the deposit life cycle.

The Company conducts an environmental impact assessment, including a negative impact on land, in accordance with the Russian laws.

### Environmental protection and monitoring measures taken during the deposit life cycle



- 1 • State and public environmental review
- Environmental Impact Assessment (EIA):
  - Review of layout options and technology
  - Environment analysis and environmental impact assessment
  - Mitigants
  - Monitoring programmes
  - Public discussions with local community

The Company has field development, mine liquidation and land rehabilitation project documents in place for all of its deposits. Nornickel's deposits are in commercial

development, exploration or production test stages with liquidation or abandonment not expected until 2050 and special provisions set aside for rehabilitation activities.

### Disturbed and rehabilitated land area in 2022, ha

GRI 304-3

Indicator	Total	Including:			
		during mining	during construction	during disposal of solid domestic and industrial waste	during other activities
Total disturbed area, beginning of period	16,694	14,055	1,066	782	791
Total rehabilitated area <sup>1</sup>	75	0	0	0	75
Total disturbed area in the reporting period	317	145	127	45	0
Total disturbed area, end of period	16,936	14,199	1,193	828	716

### Completion of the restoration efforts at CHP-3

In January 2022, NTEC transferred land plots of a total area of 47.5 ha to the Norilsk Administration, with certificates for acceptance and delivery signed; 2021 saw the rehabilitation of these land plots, which were contaminated by the fuel spill and disturbed during clean-up activities.

As for the remaining area of 27.4 ha, the rehabilitation works were completed in full in the reporting year.

The quality of the work performed is confirmed by:

- lab tests of the rehabilitated soils conducted by the Trofimuk Institute of Petroleum Geology and Geophysics of the Siberian Branch of the Russian Academy of Sciences;
- report on the inspection control and evaluation of the work quality submitted by the Institute of Soil Science and Agrochemistry of the Siberian Branch of the Russian Academy of Sciences.

The transfer of the rehabilitated land plots of a total area of 27.4 ha to the Norilsk Administration is scheduled for 2023.

<sup>1</sup> The table does not include data on disturbed and rehabilitated land near CHP-3.

## Responsible exploration and field development

To replenish its resource base, Nornickel focuses closely on exploration, including geophysical and geochemical surveys and drilling at promising subsoil areas across the Company's current operations. Nornickel sees a significant potential for the discovery of new deposits and plan to continue exploration both within and beyond its footprint to unlock it.

The Group's exploration activities are subject to various regulations of the Russian Federation covering subsoil use, environmental protection, occupational health, industrial and fire safety. Furthermore, Nornickel assesses its environmental protection obligations based on the requirements of applicable laws in various jurisdictions, terms of licence

agreements and internal engineering estimates as interpreted by the Company's management.

In order to assess, monitor and predict the environmental situation during exploration, development and operation of deposits to make competent management decisions aimed at preserving habitats and ensuring environmental safety of traditional trades, we conduct environmental monitoring at all stages of exploration and development.

As Nornickel seeks to keep ecosystem intact, it avoids exploration at protected natural areas and world heritage sites, and ensures no negative impact on the traditional industries, cultural heritage, interests and traditional lifestyles of indigenous peoples.

In addition to environmental monitoring, exploration is accompanied by a set of measures to protect the subsoil, topsoil, vegetation and water bodies. Upon completion of reserve exploration, disturbed land is subject to rehabilitation including liquidation of drilling sites, neutralisation of soil contaminated with fuel and lubricants, as well as land levelling. The sites are brought to a condition suitable for further use according to their intended purpose.

### Exploration areas of Nornickel Group in 2022



Environmental impact of exploration activities

Activity	Source of impact	Type of impact	Object of impact	Environmental activities
Preparatory works: <ul style="list-style-type: none"> <li>• Drilling site lay-out</li> <li>• Equipment transportation and storage</li> <li>• Construction of storage facilities for chemicals, fuel and lubri-cants</li> </ul>	<ul style="list-style-type: none"> <li>• Road transport</li> <li>• Exhaust gases of motor vehicles, construction and road machinery</li> <li>• Excavated soil</li> <li>• Materials for site construction and preparation of drilling mud and ce-ment slurries</li> </ul>	<ul style="list-style-type: none"> <li>• Physical disturbance of the fertile soil layer, natural landscapes, thermal abuse, degradation of topsoil layers.</li> <li>• Ecosystem disturbance, changes in the flora and fauna habitats</li> </ul>	<ul style="list-style-type: none"> <li>• Fertile soil layer on drilling equipment sites, routes of linear facilities</li> <li>• Flora and fauna, atmospheric air, soil, ground, sur-face water, land-scape</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with land allotment standards</li> <li>• Land rehabilitation</li> <li>• Construction of trays and platforms at machinery parking lots</li> <li>• Soil protection measures</li> <li>• Fire safety measures</li> </ul>
Well drilling	<ul style="list-style-type: none"> <li>• Mud mixing unit</li> <li>• Drilling waste circulating system</li> <li>• Chemicals used for drilling and plugging</li> <li>• Waste products (mud spills, slime)</li> <li>• Domestic wastewater</li> <li>• Solid domestic waste</li> <li>• Crossflows inside the annulus and damaged casing string</li> </ul>	<ul style="list-style-type: none"> <li>• Ecosystem disturbance and changes in habitats of certain plant and animal species</li> <li>• Machinery-generated noise</li> </ul>	<ul style="list-style-type: none"> <li>• Flora and fauna, soils, subsoil, surface and underground water, snow cover, air</li> <li>• Animal and human habitats</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with the requirements for the completeness of the study and use of subsoil</li> <li>• Planning protective measures based on the results of hydrological, geotechnical and environmental monitoring</li> <li>• Well plugging</li> </ul>
Well abandon-ment and mothballing	<ul style="list-style-type: none"> <li>• Leaks in casing, casing pipes, wellhead equipment, mineralised water</li> </ul>	<ul style="list-style-type: none"> <li>• Ecosystem disturbance and changes in habitats of certain plant and animal species</li> </ul>	<ul style="list-style-type: none"> <li>• Flora and fauna, soils, surface and underground water, air, animal and human habitats</li> </ul>	<ul style="list-style-type: none"> <li>• Plug and abandonment operations</li> <li>• Rehabilitation</li> </ul>

# Biodiversity

## Biodiversity impact management

SASB EM-MM-160a.1

Nornickel recognises the need to protect the environment and seeks to prevent net biodiversity losses caused by the Company's operations.

The Company's activities in this area are guided by the following principles:

- biodiversity impact management;
- sustainable use of natural resources;
- conservation of key biodiversity values;
- recognition of the importance of biodiversity conservation in preventing climate change;
- protection and promotion of the sustainable use of terrestrial ecosystems;
- protection of freshwater and marine ecosystems;
- assistance in preventing the extinction of threatened species;
- transparent operations and open dialogue with local communities on biodiversity impact management;
- prohibition of exploration and mining at World Heritage sites and in all protected natural areas.

In 2021, the Company committed to preserve biodiversity by issuing a Position Statement on Biodiversity<sup>1</sup>. In 2022, Nornickel started to deliver on its commitments, with the first step being a baseline biodiversity research.

The project on the baseline biodiversity research called the Big Scientific Expedition was the jump-off point for the development of the Company's biodiversity impact

### Nornickel's biodiversity goals

- Ensure preservation, recovery and sustainable use of terrestrial ecosystems
- Ensure sustainable management and protection of marine and coastal ecosystems
- Ensure protection and restore biodiversity of water bodies
- Protect, restore and promote sustainable use of terrestrial ecosystems and their biological resources
- Take measures to stem the degradation of habitats, biodiversity loss, and extinction, protect endangered species
- Ensure that the value of ecosystems and their biodiversity is taken into account when planning new and expanding current operations of the Company.

management system. The expedition included a comprehensive study of ecosystems in the areas where the Group companies operate, which helped identify the main aspects necessary to develop a biodiversity impact management system:

- historical data on ecosystems;
- boundaries of areas with a negative impact on ecosystem biodiversity;
- negative factors and threats to biodiversity;
- indicator species reflecting the ecosystem condition;
- key biodiversity values in the negative impact areas;
- reference areas;
- biotic and abiotic indicators of the present state of ecosystems in the identified areas of negative impact and in reference areas.

In 2023, the Company plans to continue its biodiversity research, aiming for continuous monitoring of biodiversity. This approach will help capture changes in the state of ecosystems, while changes in the deviation targets of the impacted areas as opposed to reference areas will help assess the effectiveness of the Company's initiatives.

The data on biodiversity indicators obtained in 2022 following the expedition<sup>2</sup> helped form the basis for determining the Company's biodiversity conservation target.

To effectively manage the negative impact at the Head Office level, a draft corporate standard for ecosystem biodiversity conservation and monitoring was developed and is expected to be finalised in 2023–2024.

<sup>1</sup> Publicly available at Nornickel's website.

<sup>2</sup> For more details, please see the presentation on the results of the Big Scientific Expedition at Nornickel's website.