Sustainability Report 2017

nyrstar

Nyrstar is a global multi-metals business with market leading positions in zinc and lead, and growing positions in other base and precious metals. Nyrstar has mining and smelting operations located in Europe, North America and Australia and employs approximately 4,100 people. Nyrstar is incorporated in Belgium and has its corporate office in Switzerland. Nyrstar is listed on Euronext Brussels under the symbol NYR. For further information please visit the Nyrstar website: www.nyrstar.com

Contents

Introduction

2017 marked the 10-year anniversary since Nyrstar was founded in October 2007. During this time, we have made significant contributions to the communities in which we operate and provided products which are needed to sustain and improve life in our modern society. We take pride in these achievements. At the same time, we recognise the financial and operational challenges experienced over the years and the need to re-examine the way we operate. As we embark on the second decade as a company, we are in the midst of a major business transformation initiative aimed at delivering the full potential from our assets, maximising productivity and placing safety, health and environment at the core of our values. We are confident the step-change improvements delivered through this initiative will lay the foundation for a successful and sustainable future of our business.

Safety First

Safety is our first priority and a core value of Nyrstar. We are pleased to report that 2017 saw another year of improvement in our safety performance and we ended the year with the best-ever safety record since Nyrstar was founded. There were no fatalities and the recordable injury rate decreased by 11%, building upon the 25% reduction achieved in 2016. Several significant safety milestones were also achieved at our operations in 2017. For example, our Auby smelter in France finished the year without any lost time or restricted work injuries whereas the Tennessee Mines and Hoyanger operations were all lost-time injury (LTI) free in 2017. Most impressively, the Port Pirie Redevelopment Project, which involved in excess of 2.8 million working hours over a three-year period, was concluded without any permanently disabling injuries and world-class injury rates. These achievements are especially pleasing as they occurred against a back-drop of significant change, large-scale construction activities at the Port Pirie smelter and a challenging operating environment.

Whilst our safety accomplishments in 2017 are satisfying, we realise that we still have a long way to go to realise our ***Towards Zero*** vision which is for every employee to return home safe and healthy every day. To this end, our 2018 safety targets demand further improvement in both management processes and the day to day behaviours of our leaders and employees. For 2018, we also place a particular emphasis on process safety with several initiatives being launched across the business.

Transformation

During 2017, Nyrstar embarked on a company-wide business optimisation initiative aimed at transforming our operations to deliver their full potential by the end of 2019. Through the Transformation, we go to great lengths to reduce costs, improve productivity and to establish a foundation of operational excellence – while all the while not compromising on our focus on safety, health and environment. These efforts are critical to our sustainability ambitions as they contribute to more efficient use of water, energy and other resources, take advantage of reprocessing and recycling opportunities to reduce waste, and produce more stable operations with less incidents and non-routine activities. Operating with lower unit costs also makes our assets more resilient to external influences such as metal price fluctuations, increasing carbon costs and shifts in demand, allowing us to provide steady employment to our people and invest in our assets through both good and bad times. In this way, the Transformation is establishing a solid platform for responsible and sustainable operations.

Environment

In 2017, much of our environmental efforts were focused on maintaining regulatory compliance and on controlling major physical risks that could impact surrounding environments and the communities in which we operate. We believe this prioritisation to be protective of shareholder value and aligned with society's expectations of a mid-tier organisation such as ours. Going into 2018, we are taking further steps in this direction through the establishment of an Independent Tailings Review Board (ITRB) for our mining assets. The purpose of the ITRB is to provide independent expert input and advice to Nyrstar on the design, construction, operational management and ultimate closure of our tailing storage facilities.

Whilst several of our environmental indicators for energy use, freshwater withdrawal, emissions and waste trended up in 2017, we are confident that the transformative changes currently underway will set us up for more resource efficient and less polluting operations in years to come. Central to this is the commissioning of the Port Pirie Redevelopment Project which is expected to deliver step-change reductions in Nyrstar's environmental footprint. Commissioned at the end of 2017, the Project transforms the Port Pirie operations from a lead smelter with outdated technology into an advanced poly-metallic processing and recovery facility with state-of-the-art environmental abatement equipment. Once fully ramped up over the coming two year-period, the new plant installations will enable the site to significantly reduce its emissions of lead and sulphur dioxide to atmosphere while also cutting water use and improving carbon and energy efficiency.

Outlook

As we look forward to 2018, we will continue to stay focused on our core priorities of keeping our people safe and healthy, controlling our environmental impacts, upholding ethical and transparent business practices and maintaining our social licence to operate. We know that this is central to the success and sustainability of our company. As we strengthen our balance sheet, transform our operational performance and improve the integrity of our assets, we will also formulate a longer-term view on Nyrstar's sustainability ambitions and the strategy required to deliver on these ambitions.

About the Report

Materiality

This report provides disclosures and information on Nyrstar performance in relation to sustainability matters of material importance to the company and its stakeholders. In determining what matters to report on, we consider legal requirements and disclosure commitments made by Nyrstar as well as the potential for the topic to impact our financial or operational performance. The materiality assessment is further guided by the disclosure topics identified by the Sustainability Accounting Standards Board's (SASB) Sustainability Accounting Standard for Metals & Mining. Whilst the SASB standards are designed for use by companies providing 10-K filings to the US Securities and Exchange Commission (SEC) and therefore not directly applicable to Nyrstar, we believe the industry-specific assessment completed by SASB to provide a good representation of the material issues facing a metals and mining organisation of our size, operational profile and global footprint. The relevance of the SASB disclosure topics to Nyrstar has been validated by comparing them to the outcomes of qualitative and quantitative risk assessments conducted under the Nyrstar Enterprise Risk Management Framework and to the contents of functional reports on environment, health and safety, community relations and other sustainability matters prepared during the year. To a large extent, the topics identified by SASB and through our higher level risk assessments represent structural risks that are inherent in what we do and, for this reason, the list of material issues requiring disclosure in our sustainability reporting does not change significantly from year to year. The specific exposures that these topics represent at a site or business unit level are, however, often more dynamic. To the extent relevant for Nyrstar's financial and operational performance, we strive for our sustainability reporting to consider and incorporate impacts resulting from long-term structural shifts as well as those relating to local and dynamic risk exposures.

Reporting Approach and Scope

This report is published as a standalone complement to the Management Report included in Nyrstar's 2017 Annual Report. It is prepared in accordance with the requirements of the European Union Directive on Non-Financial and Diversity Disclosure – as transposed into Belgian law – and in consideration of the disclosure guidance contained in the SASB Standard for Metals & Mining. In accordance with these benchmarks, the report is primarily aimed at investors but other interested stakeholder groups such as employees, local communities, non-governmental organisations (NGOs), customers and regulators are likely to find it useful as well.

Additional mechanisms are in place to report on sustainability performance and to engage with particular stakeholders on matters that are of specific interest to them.

In reporting against the sustainability disclosure topics identified through our materiality analysis, we have grouped the topics into three dimensions of performance. These comprise: Governance, Social Responsibility and Environmental Stewardship. For each disclosure topic, we present information on: the strategy and policies pursued, principal risks and how they are managed, and achieved performance including key performance indicator data of relevance to the topic.

The narrative descriptions and consolidated data presented in the report includes all operations that we own and operate including our six smelters (Auby, Balen/Overpelt, Budel, Clarksville, Hobart and Port Pirie), the Høyanger fumer and our four mining operations (East Tennessee Mines, Langlois, Mid Tennessee Mines and Myra Falls). In making year-on-year comparisons of performance, it should be noted that the Myra Falls operations have been on care and maintenance since May 2015 and that Mid Tennessee Mines were brought back into production in Q2 2017 following a care and maintenance period that started in December 2015. Performance indicators for which the suspension of mining activities have had a material effect on Group results are highlighted under the relevant disclosure topics. Data disclosed in the report represents the fiscal year ending December 31, 2017 and is accurate as of May 31, 2018.

Independent Assurance

We engaged ERM Certification and Verification Services (ERM CVS) to provide limited assurance on a selection of sustainability data indicators. The assurance statement from ERM CVS is provided on page 20.

Governance

Risk Management

Understanding and addressing our material risks is critical to the achievement of our objectives and strategy. Within Nyrstar, risk is managed through an enterprise risk management (ERM) framework which is aligned to the ISO 31000 risk management standard. The ERM framework specifies a common approach and process to the assessment, prioritisation and control of risks across the Group. Functional risk management processes including those for safety & health, environment and community (SHEC) are all aligned and connected to the framework, although they may use varying qualitative and quantitative risk assessment mechanisms in determining the risk posed by specific sources. Our functional leaders are responsible for ensuring the policies, plans and programmes developed within their areas of accountability contribute to the achievement of Nyrstar's business strategy and risk management objectives.

Assessment of sustainability risks draws on information from a range of sources, including performance data reported by our operations, scientific research reports, best practice guidelines, peer company reports and external sustainability initiatives and regulatory frameworks. Our functional leaders keep abreast of developments (internal and external) in Nyrstar's sustainability context and evaluate stakeholder concerns and feedback obtained through the various engagement activities occurring at site, regional and corporate levels. The outcomes of these risk assessment and stakeholder engagement activities are used to develop and review the management standards, procedures and guidelines used for the control of SHEC risks. At a Group level, key SHEC policy and risk control documents are organised under the Group SHEC Management Framework – more information about the SHEC Framework is available on our website at: http://www.nyrstar.com/sustainability/our-approach/Pages/shec-management-framework.aspx.

Critical risks of significance to the Group, including sustainability related risks, are reported to and monitored by the Audit and SHEC Committees of the Board of Directors. Below Board level, reporting on sustainability risks is addressed through routine management reports developed by functional and operational leaders at different levels of the organisation.

Monitoring of sustainability risks is further supported by our Group Assurance programmes for safety & health, environment and business risk. Under these programmes, in 2017 all Nyrstar operations were audited against Nyrstar standards for critical safety risks.

In addition, reviews of environmental liabilities were conducted across all operational and non-operational locations and internal audits of business processes were completed at select corporate and site functions. The outcomes of the audits form the basis for treatment plans to address identified performance deficiencies and weaknesses in risk management processes.

Business Ethics and Payments Transparency

Nyrstar is committed to ethical and transparent business practices in accordance with our Corporate Governance Charter, Code of Business Conduct and Anti-Corruption Policy. Our governance structures provide clear lines of responsibility from the operations through to the Board of Directors. The Safety, Health, Environment and Community (SHEC) Committee of the Board has the specific mandate to monitor Nyrstar's SHEC performance and the effectiveness of the SHEC control framework. Further details on our governance structures and processes are provided in our Annual Report and on the Nyrstar website at: www.nyrstar.com/about.

Following the divestiture of our South American mines, all of Nyrstar's operations are located in jurisdictions that are of low risk with respect to corruption as measured by Transparency International's 2017 Corruption Perception Index. Nevertheless, implementation of our Anti-Corruption Policy is required wherever we do business and we do not tolerate any form of corruption or bribery from our employees, contractors or business partners. Nyrstar's expectations regarding ethical and transparent business practices are also incorporated in standard contracts provided to suppliers of goods and services and all Nyrstar contracts commit suppliers to comply with the Nyrstar Code of Conduct and Anti-Corruption Policy.

The Code of Business Conduct prescribes a mechanism by which breaches of the Code of Business Conduct, Group Policies and regulatory requirements can be reported to the Nyrstar Compliance Officer. No complaints, issues or incidents of corruption were reported or identified in 2017. Further, Nyrstar was not involved in any legal actions regarding anti-competitive behaviour or violation of anti-trust and monopoly legislation in 2017.

Payments to governments made by Nyrstar are primarily made up of taxes, royalties and financial guarantees for mine closure. A report on payments to government prepared under the requirements of the EU Accounting Directive 2013/34/EU (as transposed into Belgian law) is available on our website at: www.nyrstar.com/en/investors/results-reports-and-presentations.

Nyrstar does not support any political parties and does not make any political donations either through direct funding or assistance in-kind.

Responsible Sourcing

Minimisation of environmental and social impacts in the value chains of minerals and metals is inherently a shared responsibility of the actors involved in bringing metals to the market. For Nyrstar, this shared responsibility does not only involve the extraction and production activities that we directly manage but also extends to our upstream supply chain and to the downstream processing and use of our products.

Since 2016, sustainability aspects associated with our supply chain and products have been overseen by an internal governance body referred to as the Nyrstar Material Stewardship Forum. The Forum is composed of senior executives and managers from throughout the company and its mandate is to monitor and direct the improvement of risk management and due diligence processes related to Nyrstar's value chain. The oversight provided by the Forum has driven much improvement in the rigour by which material stewardship risks and obligations are evaluated, managed and reviewed.

From an upstream supply chain perspective, the most significant source of risk for Nyrstar lies in the sourcing and procurement of raw materials for our smelters. In 2017, our 'feed book' of third party suppliers of mineral concentrates included approximately 60 mines worldwide. As a global operator, we have a responsibility to ensure the supplier mines that we work with operate in socially and environmentally responsible ways. This also includes a responsibility to make sure our sourcing of minerals does not contribute to the financing of armed conflicts in politically unstable regions of the world. Whilst the European Union's Conflict Minerals Regulation established for this purpose has relatively limited impacts on Nyrstar - given the legislation's narrow focus on tin, tungsten, tantalum and gold - we recognise supply chain risks related to armed conflicts and human rights abuses apply more broadly and could impact our business. Whilst we maintain close dialogues with our suppliers, continued efforts are needed to integrate environmental and social considerations in our raw material sourcing practices. As a first step towards this, a mapping and risk assessment of supply chain participants (in particular third party mines) will be completed in 2018.

The mining concentrates and smelting by-products that we sell to our customers sometimes contain naturally occurring elements which, if not handled responsibly, can have negative effects on human health and the environment. From a product stewardship perspective, we therefore have an obligation to provide customers and other users of our products with information about the contents and hazards of the materials we supply. Beyond this obligation, good risk management dictates that we assess and confirm the capabilities of our customers to handle our products and by-products responsibly. To address these obligations and risks, we actively query potential and existing customers about their environmental programmes and processing capabilities and incorporate their responses in go/no-go decisions, contracting and evaluation of additional due diligence requirements. The desk-based evaluations are complemented by site visits to customer facilities when needed to fully assess social and environmental risks.

Social Responsibility

Our People

We strive to provide a workplace that is safe, engaging and rewarding for our people and that ultimately makes Nyrstar a great place to work. This is at the heart of our success as a company and a fundamental driver of long-term business value.

The value proposition to our employees is based on the following key pillars:

- A Value-Based Culture: We work to promote a non-discriminatory, fair and equitable working culture that is founded on the principles and values embodied in The Nyrstar Way.
- A Safe and Healthy Work Environment: We are committed to creating a workplace where everyone goes home safe and healthy every day of their working lives.
- Providing Opportunities for Training and Development: We offer a range of programmes supporting continued learning and development of our people.
- Recognising and Rewarding Performance: We provide competitive compensation and recognise employees who make an outstanding contribution to the success of our company.

Supporting this value proposition, we are implementing a comprehensive human resource strategy aimed at building a talented, engaged and high-performing workforce. In 2017, we reviewed our organisational structure in order to create a leaner and more efficient organisation, to align the right people to the right roles and to make sure employees at every level have clearly articulated accountabilities that support our business objectives. We also made a significant investment towards developing the leadership capabilities of our executives, senior managers and operational supervisors.

Organisational Design

During 2017, Nyrstar embarked on a company-wide business optimisation initiative aimed at transforming our operations to deliver their full potential by the end of 2019. As the first order of business for this transformation initiative, full potential reviews are being completed across all operations and support functions in order to identify the concrete and specific measures that will be pursued to achieve full potential. Alongside technical, commercial and financial optimisations and with the support of external expertise, these reviews also included a thorough assessment and redesign of Nyrstar's organisational structure. The overall aim of the organisational optimisation is to establish an organisational model built around highly efficient and production-focused operating units which are supported by value-adding corporate functions and technological expertise. The organisational reviews are largely complete and are being implemented across the company in 2017, 2018 and 2019. The redesigned organisational model provides a key enabler supporting the success of Nyrstar's transformation and will deliver improved organisation capability and effectiveness for a long-term sustainable business.

Developing and Enhancing Leadership Capability

At the launch of Nyrstar's transformation programme in early 2017, a group of around 40 executives and senior managers gathered for a three-day leadership workshop. The purpose of the workshop was to equip the participants with a set of leadership tools to make them more efficient in their roles and to establish alignment around key values and mind-sets that each person would need to demonstrate in order to support the transformation. Recognising the friction and disruptions that are typically associated with a organisation-wide change programme, strong leadership from the top is critical to bring about lasting change and for inspiring the remainder of the organisation to get involved. Drawing on the success of this initial workshop, a number of additional training sessions with similar content and purpose have been conducted at the majority of Nyrstar's operations and for the corporate organisation. Considering that the success of Nyrstar's transformation will stand and fall by the involvement of the workforce, the workshops have been crucial in order to get everyone aligned, encourage and inspire a mind-set of change, and to remove the behavioural roadblocks that hold us back from reaching full potential. Going into 2018, we are seeing these benefits come through across the company.

Other leadership capability initiatives pursued in 2017 include the introduction of a structured talent mapping process and reinitiation of our graduate programme. Both initiatives will serve to strengthen our leadership pipeline and to motivate and retain our most promising talent.

Labour Relations

We are committed to respecting our employees' rights in line with the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work. In support of this commitment, we recognise and respect the principles of freedom of association and collective bargaining. At the end of 2017, 57% of our global workforce was covered by collective bargaining agreements.

Two one-day work stoppages occurred at our Port Pirie and Auby operations in 2017. No other strikes, lockouts or industrial actions leading to significant work stoppages took place in 2017.

Workforce Health & Safety

Safety and health are core values of Nyrstar. Our ***Towards Zero*** vision is for every employee to return home safe and healthy every day. We believe that every work-related illness and injury is preventable and we empower our employees to turn the vision into reality.

The ***Towards Zero*** vision is supported by a comprehensive health and safety strategy built around four focus areas. Everything we do to improve the safety and health of our people fits into one of these focus areas, which include: Fatality Prevention; Behavioural Safety; Health and Safety Management Systems; and Occupational Health.

Fatality Prevention

Whilst we aim to operate with zero harm, our main priority is to prevent loss of life and serious injuries. Our fatality prevention programme focuses on eliminating and reducing risks related to a set of critical hazards of particular importance to mining and smelting operations. The selection of critical hazards to focus on was based on a review of incident records since 2007 which suggested 80% of potentially serious incidents within Nyrstar are associated with one or several of the following risk sources: Energy control (lockout & tagout); Confined space entry; Interactions between mobile equipment and pedestrians; Work at heights; Operation of lifting equipment; Work in the vicinity of electricity; Fall of ground; Blasting; and Contractor management.

2017 KEY HEALTH AND SAFETY METRICS

METRIC	2017 TARGET	2017 OUTCOME		2018 TARGET
Work-related fatalities	0	0	✓	0
Recordable injury frequency rate (RIFR)	10% reduction on 2016	11% reduction	✓	10% reduction on 2017
Days away, restricted duty or job transfer frequency rate (DARTFR)	10% reduction on 2016	25% reduction	✓	10% reduction on 2017
New cases of employees or contractors exceeding lead in blood transfer limit	No 2017 target	91 new cases (vs 57 in 2016)	✗	20% reduction on 2017

2017 Performance

In 2017, continued delivery of our health and strategy produced the best-ever safety performance since Nyrstar was founded. There were no fatalities and the recordable injury frequency rate (RIFR) improved by 11% to 6.4 at the end of 2017. The DART indicator, measuring the number of incidents involving days away from work or under restricted duties, showed a 25% reduction in 2017 relative to 2016. Our primary indicator of occupational health, being the number of new cases of lead in blood above transfer levels, deteriorated substantially in 2017 compared to 2016.

Several significant safety milestones were achieved at our operations in 2017. For example, our Auby smelter in France finished the year without any lost time or restricted work injuries whereas the Tennessee Mines and Hoyanger operations were all lost time injury (LTI) free in 2017. Significantly, the Port Pirie Redevelopment Project, which included in excess of 2.8 million working hours over a three-year period, was concluded without any permanently disabling injuries and a world-class DART frequency rate of 2.8.

Additional health and safety statistics for 2017 and prior years are provided in the Data Table in Appendix A.

Under our fatality prevention programme, the critical hazards receive particular attention through Group standards, audits, self-assessments, inspection programmes, hazard reporting, intervention and observation programmes. The overarching purpose of these efforts is to identify the controls that must be in place to manage the critical risks and to improve the effectiveness of these controls. In 2017, all operations were audited against the Nyrstar standards for critical risks.

Whilst there were no fatalities in 2017, we experienced 25 Critical Incidents which had the potential to cause a fatality or a permanently disabling injury. All Critical Incidents are given the utmost attention through detailed incident investigations and corrective action plans. Lessons learned from Critical Incidents are actively shared throughout the company via safety alerts and presentations in management meetings.

Behavioural Safety

Our behavioural safety programmes encompass several initiatives and activities aimed at establishing a safety culture where each employee is responsible for his own safety and for the safety of their colleagues. Consistent with our health and safety vision, the behavioural safety programmes promote a mind set and collective belief that ZERO is possible.

Since 2014, we have worked actively to increase the identification and reporting of unsafe acts in the workplace. Under our intervention programme, employees observing an unsafe act are expected to intervene and engage in a constructive discussion about the task that is being completed, potential hazards and what can or should be done to make the work safer. In 2017, 25% of Nyrstar's employees reported at least one unsafe act and 4,847 unsafe acts were reported altogether. Our analysis shows that the progressive improvement in reporting of unsafe acts and conditions has been a key driver for the reduction in recordable injuries achieved since 2014.

In 2017, we added two additional components to our behavioural safety programmes including: a set of Life-Saving Rules, and a Visible Felt Leadership initiative. The Life-Saving Rules set out a number of basic principles and rules which must be adhered to at all times in order to avoid potentially life-threatening situations and activities. The rules are based on lessons learned from previous incidents within Nyrstar and the mining & metals industry. Under the newly introduced Visible Felt Leadership initiative, leaders and employees at all levels of the company establish their commitment to safety, define how they will increase their safety presence in the workplace, and express their personal safety values. The initiative is strongly focused on leaders being visible in the workplace and modelling the safety behaviours they expect from others.

Other components of our behavioural safety programmes include a global safety day involving executive management site visits and safety activities across all Nyrstar locations as well as company-wide safety campaigns on pertinent themes such as mobile equipment, fall prevention, safe lifting, etc.

Health and Safety Management Systems

We maintain a robust health and safety management system which is supported by a set of Nyrstar standards aligned to industry best practice. All of Nyrstar's smelters except Auby are certified to the OHSAS 18001 occupational health and safety management standard. On the mining side, the Tennessee Mines operations achieved OHSAS 18001 certification in 2015. Migration of the OHSAS-certified health and safety management systems to the new ISO 45001 standard is underway at the relevant operations.

Continuous improvement in health and safety performance is driven through annual targets established Group-wide and for each individual operation. The targets encompass a comprehensive set of leading and lagging indicators as well as annual management initiatives. Other tools applied under our global health and safety management system include incident reporting and investigation, an online reporting system available at all operations, auditing and sharing of good practices.

Occupational Health

Occupational health risks facing our employees arise from the physical and chemical hazards inherent in our work environment as well as the nature of activities undertaken by our employees and contractors. Priority areas of attention include exposure to lead and cadmium, musculoskeletal injuries and noise-induced hearing loss. Monitoring for, and preventing, the exposure to chemical and physical agents is a core element of our occupational health programmes.

Occupational exposure to lead represents a potential health risk for employees working at our Port Pirie lead smelter but also at other locations across our mines and smelters. As a result of our efforts to reduce lead exposure, we have seen declining numbers of employees with elevated levels of lead in blood. However, this positive trend was not sustained in 2017 when we experienced an increase in the number of new cases of lead in blood* – 91 new cases of lead in blood were recorded in 2017 versus 57 cases in 2016. The increase was largely attributed to contractor-employees conducting turnaround activities at the Port Pirie and Hobart smelters.

Process Safety

During 2017, the Nyrstar smelter in Budel, Netherlands, experienced two hydrogen explosions in the purification stage of the zinc production process. Whilst not involving any personnel injuries, the accidents caused significant damage to plant installations and led to production outages. The two incidents, and the investigations that followed, provided the impetus for a critical review and improvement of Nyrstar's Process Safety Management (PSM) systems across all operations. The intent of these efforts is to improve our capabilities to identify and prevent process-related events that may have catastrophic impacts through the release of hazardous substances, fires and explosions. In 2017, we initiated a series of detailed hazard and operability (HAZOP) studies related to the risk of hydrogen explosions at our zinc smelters; followed by the implementation of improved risk controls identified through the HAZOPs. Continued implementation of strengthened PSM controls and further assessment of process safety risks will remain a priority throughout 2018 and in subsequent years.

*New cases of lead in blood are defined as the number of employees recording lead in blood levels exceeding internal transfer concentrations. The transfer value for men are 30 µg/dL and for women 15 µg/dL. Employees identified with blood lead levels exceeding the transfer values must be assigned alternative work duties with reduced exposure to lead-bearing materials.

Community Relations

Maintaining the trust and ongoing support of the local communities where we operate is critical to the viability and success of our business. Without this support we run the risk of operational disruptions, delays to permitting and approval processes and of being prevented access to the land and geological resources that we need to operate. Our social licence to operate is intrinsically linked to the way we engage with our communities and to our ability to control environmental and social impacts that may be generated from our operations.

Our aim is to be a welcome and valued member of the communities in which we operate. To achieve this, we actively engage with the local communities that have an interest in or that may be impacted by our operations. The understanding of community expectations gained from these engagement activities are incorporated in everyday decision making and operational activities. All Nyrstar sites have stakeholder engagement plans that are regularly revised to reflect the current community context, risks, opportunities and needs of the individual sites.

All Nyrstar operations have established processes for recording community feedback, whether positive or negative. In 2017, a total of 71 community complaints were received which compares to the 55 complaints recorded in 2016. A significant portion of the complaints related to ground-level emissions of sulphur dioxides from an ageing acid plant at Port Pirie. This situation is expected to improve significantly as the ageing acid plant is phased out and the new acid plant installed as part of the Redevelopment Project is commissioned and ramped up in 2018. A community dispute leading to road blockages and production outages occurred at the Contonga mine in Peru at the beginning of 2017; however this operation has since been divested. No other significant community disputes were experienced in 2017 and we suffered no operational delays or disruptions as a result of non-technical factors. There was no resettlement of communities at any of Nyrstar's sites in 2017.

Security and Human Rights

Nyrstar's operations are strategically focused on stable jurisdictions with low risk for armed conflicts and security-related human rights abuses. This risk decreased further through the divestiture of the Campo Morado, Coricancha and Contonga mines located in Mexico and Peru during 2017.

Notwithstanding the operating contexts of our operations and the low political risk that they imply, protection of human rights is a core consideration for Nyrstar and we are committed to respecting fundamental human rights wherever we operate. As a member of the Mining Association of Canada we are committed to implementing the Voluntary Principles on Security and Human Rights, where applicable.

Our approach to human rights is founded in The Nyrstar Way and our Code of Business Conduct. The Framework for Ethical Decision Making included in the Code of Business Conduct helps to ensure that human rights are considered in key business processes such as risk assessments, procurement and contractor management and in our dealings with employees, communities and other stakeholders. Respecting human rights also requires us to work with contractors and suppliers to ensure that they hold themselves to the same human rights standards that we hold ourselves accountable to. We recognise that further efforts are necessary in order to more systematically assess and manage human rights conditions in our supply chain and plan to start tackling this in 2018 (refer to the Responsible Sourcing section of this report).

Nyrstar's Canadian mines, Myra Falls and Langlois, are located within areas claimed by indigenous peoples as traditional territories. Whilst these claims have not been defined in treaties, we recognise and respect the rights, cultures and interests of indigenous peoples and seek opportunities to engage with them in regards to our use of the land. Our engagement with indigenous peoples is led by the General Manager at each of the operations.

No breaches of human rights were reported in 2017.

Environmental Stewardship

Environmental Incidents

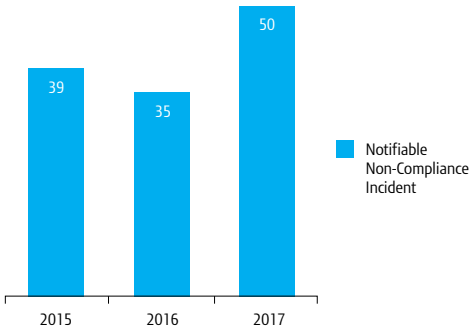
We make substantial efforts to reduce the number and severity of environmental incidents at our operations. Recognising that many environmental incidents occur as a result of equipment malfunction or inadequate process control, to a large extent these efforts are focused on operational excellence improvements. For example, strengthening of operational and maintenance routines, improving the reliability of environmental abatement equipment such as wastewater treatment plants, identifying and communicating responsibilities for operational control activities, and improving the analysis of incidents to prevent re-occurrence.

In 2017, we revised our classification system for environmental incidents requiring Group level reporting. A new incident measure named 'Notifiable Non-compliance' was introduced to provide more meaningful monitoring of environmental incidents involving regulatory breaches and to allow for target setting. A Notifiable Non-compliance incident is defined as a regulatory non-compliance event for which notification to regulatory authorities is legally mandated. Reporting against the new incident type was introduced at the start of 2017; however we also established baseline data for 2015 and 2016 by applying the new incident definition to historic incident records available in our database. Since the 2015 and 2016 incident statistics were developed retroactively and have not been externally assured, they are associated with some uncertainty. Alongside the reporting of Notifiable Non-Compliances we continue to report Critical Environmental Incidents (CEIs) as well as near miss events that could have resulted in a CEI (High Potential Environmental Incidents).

No Critical Environmental Incidents occurred in 2017 whereas the number of Notifiable Non-Compliance events increased from 35 in 2016 to 50 in 2017. 20 of these non-compliance incidents took place at the Myra Falls mine and at the Balen/Overpelt smelter, most of them involving exceedance of effluent discharge limits. All incidents have been investigated and corrective action taken to prevent reoccurrence, as required under Nyrstar standards. None of the environmental incidents experienced in 2017 caused, or are expected to cause, significant impacts to the environment or to Nyrstar's operating and financial results.

Two environmental fines totalling approximately US$23,000 were paid in 2017, representing a significant reduction relative to the 10 fines paid in 2016. One of the two fines related to non-compliance events at the Contonga mine, which has subsequently been divested.

Environmental Incidents 2015-2017



Environmental Fines 2015-2017

Year	Number of fines	Amount (US$)
2015	9	$1,042,000
2016	10	$896,092
2017	2	$23,088

Energy and Greenhouse Gas Emissions

Energy and greenhouse gas (GHG) emissions represent one of Nyrstar's most material sustainability risks. This is especially the case for our smelters which consume large quantities of electricity and that are therefore sensitive to energy prices and carbon regulations. To mitigate these risks, we work to continuously improve our energy efficiency and to reduce the carbon footprint of the power that we use.

As a global zinc manufacturer, our products can also make a difference in the transition to a low-carbon society. By protecting steel against corrosion, zinc extends the life and durability of steel structures and products by up to ten times (compared to bare steel). Zinc-air batteries may also prove a reliable, cheap and safe alternative for storage of energy with application for electric vehicles and power grids.

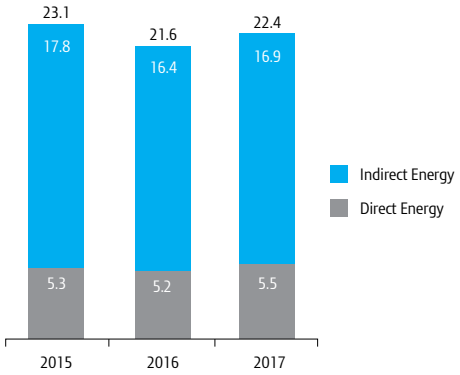
Further disclosure on climate change matters is provided in our annual submission to the CDP (www.cdp.net).

Energy Use and Efficiency

Energy use is measured in petajoules (PJ) and includes purchased electricity (indirect energy), energy from combustion of fuels and electricity that is generated on site from non-fuel sources (direct energy). In 2017 we consumed a total of 22.4 petajoules (PJ) of energy which was around 4% higher than the consumption in 2016.

The increase was mainly attributable to the restart of the Mid Tennessee mining operations and to deteriorating energy use efficiency at some of the smelters.

Energy Use (petajoules)



Purchased electricity is our leading source of energy, accounting for three quarters of our total energy consumption. Most of the electricity is used in the electrowinning process of our smelters. The primary source distribution for the electricity that we purchase from third parties varies across our operating locations and we have not yet mapped this in detail. We do know that the electricity sourced by Langlois and Hobart is largely obtained from hydro power and that the dominating energy source for electricity purchased by Auby is nuclear. It should also be noted that a large portion of the electricity consumed by Myra Falls, which is not connected to public electricity networks, comprises hydro power generated on site.

Fuels used at our sites primarily include coal, coke, natural gas and diesel. Coal and coke are used at the Port Pirie smelter for smelting of concentrates whereas natural gas is used for heating purposes and for melting of cathodes at our zinc smelters. Diesel is used for transport purposes, roaster ignition at the smelters and for electricity production at certain sites.

At this time, power purchase strategies applied by Nyrstar do not specifically target the sourcing of low-carbon electricity. Instead, we are actively working with third parties to explore opportunities for installation of low-carbon energy technologies such as wind and solar at our operations. The feasibility of such opportunities is evaluated in consideration of several factors including financial return, access to reliable energy and the possibility of reducing Nyrstar's carbon footprint. Going into 2018 we are reviewing several projects involving the installation of wind and solar parks on top of reclaimed residue ponds at our European smelters.

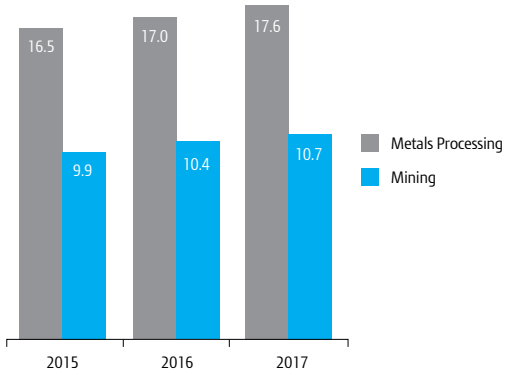
Energy Use by Source (petajoules)

Energy Source	2015	2016	2017
Electricity	17.8	16.4	16.9
Coal and Coke	2.3	2.4	2.4
Natural Gas	1.8	1.9	2.1
Diesel and Gasoline	0.8	0.5	0.7
Liquefied Petroleum Gas	0.1	0.1	0.1
Electricity generated on-site from hydro, wind and process heat	0.2	0.2	0.2
Total energy use	**23.1**	**21.6**	**22.4**

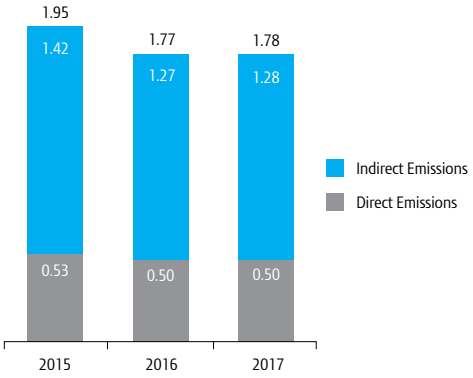
Involving an exothermic reaction, the oxidation of sulphide concentrates in the roasting process of our smelters produces excess heat that can be applied in other parts of the process. We strive to recover as much of this excess energy as possible, e.g. for heating of process liquids in the leaching department and for generation of electricity through the use of co-generation technology. We also capture and recycle excess heat generated in the sulphuric acid plants. For our five zinc smelters, the total amount of waste heat recovered and used in the production processes in 2017 was estimated at around 4.7 petajoules. This represents a very significant amount of energy which would otherwise have to be sourced from electricity or fuels. The accuracy of the estimates for recycled process heat vary between the sites and as this indicator is yet to be included in our internal data verification process the estimates have not been incorporated in the consolidated energy use accounts as presented above.

Given the energy intensive nature of our operations, achieving continuous improvement in energy efficiency and reducing greenhouse gas emissions are top priorities. Accounting for more than 90% of Group energy consumption, all Nyrstar smelters have formal energy efficiency programmes and ways to reduce the carbon footprint of the operations are continuously investigated, analysed and pursued. Whilst several energy efficiency improvements were delivered during 2017, year-on-year energy intensity (measured in terms of energy consumed relative to tonnes of metal produced) deteriorated compared to 2016 owing, primarily, to unstable operations at some of our smelters and increased development activities at the Langlois mine.

Energy Use Intensity (gigajoules per tonne of metal)



Greenhouse Gas Emissions (CO_2 million tonnes)



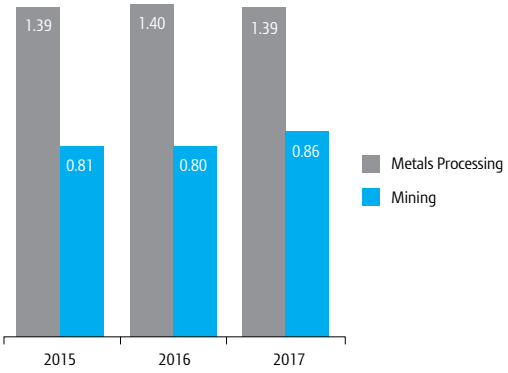
Greenhouse Gas Emissions

2017 greenhouse gas (GHG) emissions from our operations totalled 1.78 million tonnes of carbon dioxide (CO_2) which was similar to the amount of emissions produced in 2016. Almost three quarters (72% in 2017) of our GHG emissions are indirect and are emitted by the utility companies supplying electricity to our sites. Fuels used in stationary and mobile (transport) site applications accounted for 25% of our 2017 GHG emissions while the remaining GHGs are released in the processing of carbon-containing raw materials (e.g. mineral concentrates) and process additives (e.g. explosives and carbonates).

Our emissions of GHGs are largely proportional to the consumption of fuels and electricity as described in the Energy Use and Efficiency section above. For 2017, this relation between Group-level energy use and GHG emissions deviated slightly from the norm in that GHG emissions remained more or less unchanged although year-on-year energy use increased by around 4%. Primarily, this situation is attributed to reduced 2017 production volumes at sites with more carbon-intensive energy uses (in particular Budel and Port Pirie) as well as lower carbon content in raw materials processed by several of our smelters.

The greenhouse gas emission intensity of our smelters (measured as tonnes of CO_2 per tonne of metal produced) did not change significantly relative to 2016 whereas the GHG intensity for the mines deteriorated by 8%, due to the restart of Mid Tennessee Mines following a period of care and maintenance.

Greenhouse Gas Emission Intensity
(tonnes of CO_2 per tonne of metal produced)



Carbon Pricing and Regulation

At the present time, four Nyrstar operations are subject to carbon pricing mechanisms. This includes our three European smelters (Auby, Balen/Overpelt and Budel), which operate under the EU Emissions Trading System (ETS), and the Myra Falls mine in British Columbia, Canada, which is subject to a carbon tax on fossil fuels. In 2017, the direct (scope 1) emissions produced by these operations accounted for 18% of Nyrstar's total footprint of direct GHG emissions. We expect similar carbon pricing mechanisms to be introduced in most, if not all, of our other operating jurisdictions in years to come as countries take action to meet the commitments made in the 2015 Paris Agreement of the United Nations. The timelines and formats of such mechanisms, and therefore their impacts on Nyrstar, are, however, difficult to predict.

We engage actively with governments to help inform public policy and legislation on energy pricing and carbon emissions. We do this through direct dialogue with government officials, institutions and subject matter experts, by participating in multi-stakeholder consultations and via industry associations, most importantly Eurometaux.

Climate Change Adaptation

In addition to risks posed by increasing regulation and carbon pricing, extreme weather events, availability of water and other physical impacts resulting from climate change could also affect our operations. Working together with technical experts and external stakeholders we strive to understand how these changes may affect us and to devise appropriate response and adaptation strategies. For example, climate change modelling is incorporated in the planning for mine closure and in emergency response planning. Whilst site-specific studies of this kind have been completed at several of our operations, we are yet to model the potential impacts on our complete network of sites, suppliers and transport routes that may be caused from rising sea levels, extreme weather events, drought, flooding and other physical risks of climate change.

Water

Water Risks

For the past decade, water scarcity has consistently ranked as one of the most impactful risks globally with potentially devastating effects on human health and economic activity. For Nyrstar, a decline in the available quality and quantity of freshwater could affect our business through supply restrictions, increased water withdrawal costs, investment in water treatment technologies and/or reduced production volumes. Given the importance of water to local communities and other stakeholders, responsible management of scarce water resources is also key to our social licence to operate.

Based on the World Resources Institute's (WRI) Water Risk Atlas (Aqueduct), two of Nyrstar's operations are located in regions with High Baseline Water Stress being the smelters in Auby (France) and Balen/Overpelt (Belgium). Baseline Water Stress measures the ratio of total annual water withdrawals to total available annual renewable supply. In 2017, freshwater withdrawals at Balen/Overpelt and Auby represented approximately 27% of Nyrstar's total freshwater withdrawal. None of Nyrstar's operations are located in regions for which Overall Water Risks are rated as High or Extremely High using the WRI Aqueduct tool. Overall Water Risk is an aggregated measure of the indicator categories for Physical Quantity, Quality and Regulatory & Reputational Risk analysed by WRI.

Notwithstanding the WRI analysis, at the current time the Nyrstar operation facing the most significant water supply risks is the Port Pirie smelter in South Australia. Obtaining its freshwater from public water utilities, these risks impact the operations through high water use fees making effective water stewardship a key priority for the site.

In the longer term, we expect water-related risks to grow in importance in step with increased competition for scarce water resources and as regulation forces the internalisation of costs for water withdrawal and use.

Water Management

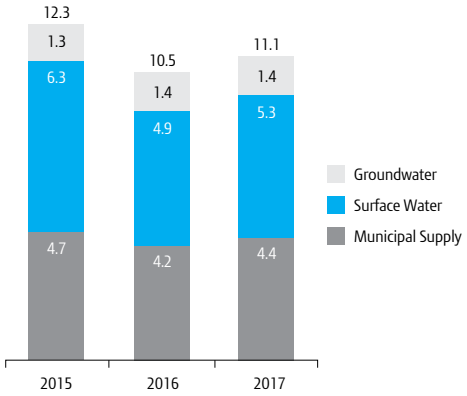
We seek to minimise our use of water, avoid impacting the quality of freshwater resources and ensure a fair, equitable and sustainable use of these resources in cooperation with other users and stakeholders. Mitigation measures implemented to achieve these objectives focus on the diversion of clean water from areas and activities that may impact its quality, improvement of water use efficiency, maximisation of water recycling opportunities, and treatment of impacted water before returning it to nature. At sites facing more complex or significant water risks, such as Port Pirie, the water management strategies and activities are guided by integrated water management plans. The plans provide a holistic and comprehensive approach to the management of water resources across the sites and establish a process by which water withdrawals, uses and discharges are regularly reviewed and evaluated for improvement opportunities.

Water Withdrawal, Recycling and Intensity

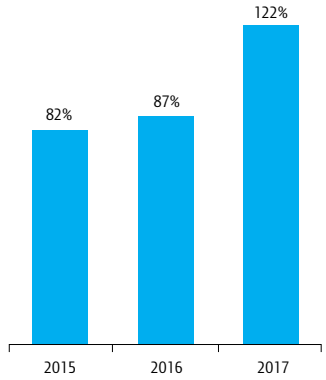
We measure quantities of freshwater withdrawn from surface waters, groundwater and from third party sources such as municipal mains. In 2017, freshwater withdrawals from these sources totalled 11.1 million m^3 which compare to the 10.5 million m^3 reported for 2016. The year-on-year increase was primarily driven by the restart of mining operations at Mid Tennessee Mines.

By applying wastewater recycling and reuse our operations are able to reduce their reliance on scarce freshwater resources and limit their environmental footprint. In 2017, more than 13 million m^3 of water were recycled and reused in our production processes representing 122% of the freshwater withdrawn during the year.

Freshwater Withdrawal by Source (million m³)



Reused/Recycled Water as a % of Withdrawn Freshwater



Emissions to Air and Water

Our mining and smelting operations produce emissions which have the potential to affect human health and the environment. Key pollutants emitted from our operations include metals, which are released to both air and water, and acid forming gases (nitrogen oxides and sulphur dioxide) released to atmosphere. Emission of particulate (dust) can also be of concern to local residents and environmental receptors in the surroundings of our sites.

Emission related risks are largely associated with increasingly stringent regulations which demand investment in treatment technologies and other operational improvements. Poorly managed, impacts from effluent discharges and air emissions could also affect our relationship with local communities and threaten our social licence to operate.

Our approach to managing emissions to air and water is focused on: investing in environmental abatement technologies, such as air emission control equipment and effluent treatment plants; maintaining process control and the integrity of key emission controls; and engaging with key stakeholders to understand how they may be affected by emissions from our operations. In addition, we actively monitor regulatory developments, public opinion and research to make sure we are aware of any potentially emerging issues with implications for our operations.

Air Quality

At our smelters, key emission constituents of concern are sulphur dioxide (SO_2) and particulate containing zinc, lead, cadmium and other metals. The emissions are strictly regulated through permit requirements and other laws and regulations. The strict legal enforcement in combination with the high visibility and public awareness of air quality issues demand that we operate with a high level of control and use best available emission treatment technologies. From a materiality perspective, the emission of lead-bearing particulate from our lead smelter in Port Pirie is particularly important to our operations and to the health and wellbeing of the local community. Whilst compliant with regulatory limits, 2017 emissions from the Port Pirie smelters did not meet our expectations and were marked by several emission events contributing lead-bearing dust to the local community. We expect the emission performance in Port Pirie to gradually improve over the coming two years as the new furnace installed as part of the Redevelopment project is ramped up and old plant and equipment is phased out.

Emissions to air from our mining operations mainly comprise particulate matter (dust) from ore handling and storage, vehicle movements on unpaved roads and wind-blown dust from tailing beaches. Whilst these emissions are typically less heavily regulated, their management is important for our social licence to operate and relationship with local communities.

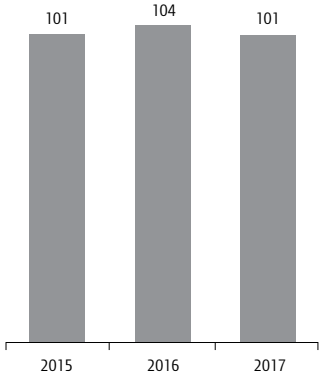
We use a variety of measures to control air emissions, including abatement technologies such as filters, electrostatic precipitators and scrubbers; regular watering and spraying of dusty areas (sometimes using binders); enclosure of dusty activities; and process monitoring. Sulphuric acid plants for capture of sulphur dioxide emissions are installed at all our smelters.

From a Group perspective, emissions to air are dominated by emissions from the smelting operations with the mines only contributing a small portion of our emission footprint. In 2017, emissions of metal to air decreased by approximately 2% relative to 2016. Our emissions of sulphur dioxide, which to an overwhelming extent (96%) are emitted from the Port Pirie smelter, also fell by around 2%.

These emissions are expected to decrease significantly (by up to 50%) following the commissioning and ramp-up of the Port Pirie Redevelopment Project which includes a new acid plant.

13 Notifiable Non-Compliance incidents (refer to Environmental Incidents on page 12) related to air emissions were recorded in 2017. The majority of the incidents involved short-term exceedances of regulatory limits for SO_2 and dust resulting from ineffective emission control. In all cases, the cause(s) of the regulatory breaches have been addressed and no significant fines or other legal consequences are expected.

Emission of Metals to Air (tonnes)



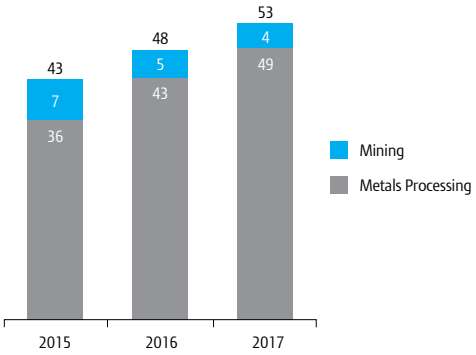
Water Quality

Our principal water quality-related risks include acid rock drainage generated at several of our mines and discharge of metals in effluent from our smelters. Similar to emissions to air, the effluent discharges from our sites are strictly regulated and enforced through permits and other legislation. Compliance with regulatory requirements is monitored through comprehensive water monitoring plans which specify regular sampling and analysis of the water returned to the environment.

The majority of our sites have water treatment plants for treatment of effluent prior to release. Other water quality controls include the separation of clean water, e.g. using diversion structures, to minimise effluent quantities, reuse and recycling of impacted water within our production processes, implementation of operational and maintenance routines to ensure the integrity of water treatment plants and other key control equipment, and regular auditing to verify that established controls are being implemented and working as intended.

In 2017, a total of 79 million m^3 of water was discharged from Nyrstar's operations. The majority (81%) of the water was discharged to inland freshwater streams and waterways with the remainder being discharged to the sea. 2017 discharges of metals to water increased by 9% relative to 2016, primarily as a result of increased loading of lead and copper from the Port Pirie smelter.

Discharge of Metals to Water (tonnes)



In 2017, 30 effluent-related incidents involving breach of regulatory requirements were documented at our operations. Whilst inconsistent with the performance that we expect from our operations, most of the breaches were of a minor nature and none of the incidents are expected to significantly impact the environment or our operating results.

Investing in Environmental Abatement Technology

Several projects involving investments in environmental abatement and improvement technologies were advanced and commissioned during the year. Of most significance to our overall environmental footprint, construction of the Port Pirie Redevelopment project was finalised and commissioning of the new project installations was commenced. The new processing and environmental control equipment provided by the project are designed to deliver a step change reduction in the emission of lead and sulphur dioxide to air and will also allow for increased reprocessing of residue materials. These benefits are expected to be realised gradually over the coming two years as the new project installations are ramped up and fine-tuned. In combination with the community lead exposure reduction activities delivered through the Targeted Lead Abatement Program (TLAP), the emission reductions will help achieve further improvements in community health in terms of blood lead levels amongst the local population, especially children.

In 2017, we also commissioned new water treatment equipment at our zinc smelter in Balen, Belgium. Involving an investment of €18 million, the project provides for the treatment of process effluent as well as contaminated groundwater abstracted for remediation purposes. The state of the art treatment technology allows the operations to meet more stringent regulatory requirements and to reduce its reliance on clean freshwater.

Waste

Our operations generate significant amounts of waste, most of which is mineral waste from our mining and metals processing activities. Key process wastes produced from our smelters include iron-containing slags and sludge from wastewater treatment. The most important waste stream generated at our mines is tailings (typically consisting of finely crushed rock minerals, water and small amounts of process chemicals) from the concentrating of mined ore. Whilst our mines also produce waste rock, the majority of this waste is disposed underground where it originated and where it presents less environmental risk. The operations also generate smaller quantities of non-mineral wastes, including both hazardous and non-hazardous materials. Systems and processes for the responsible management of waste are in place at all sites.

Tailing Dam Safety

The majority of the tailings produced at our mines is placed in engineered storage facilities which typically comprise one or several dams or embankments. Given the catastrophic impacts that could result from a tailing dam failure, maintaining the safety and integrity of our tailing dams is of utmost importance to our licence to operate, shareholder value and to the communities and ecosystems around our sites. Responsible tailing facility management is therefore a top priority for the company and we go to great lengths to ensure the safety of our tailing facilities.

Nyrstar is responsible for eight tailing storage facilities (TSFs) of which four are operational, three are non-operational and in the process of being reclaimed, and one facility for which reclamation has been completed. Systems and procedures for the safe management of the TSFs are in place at all locations. Central to this are Operating, Maintenance and Surveillance (OMS) manuals which describe the day-to-day operational and monitoring processes implemented by site personnel to achieve compliance with regulatory requirements and facility design parameters. Additionally, each operation is supported by a qualified external engineer (Engineer of Record) who is responsible for the design of the tailing facilities. The Engineers of Record (EoR) also provide ongoing support on the maintenance of facility water balances, review and update of OMS manuals and quality assurance during facility construction projects and completes annual dam safety inspections and performance reviews.

In order to further assure and advance the safety of Nyrstar's tailing storage facilities, an Independent Tailings Review Board (ITRB) is being established in 2018. The purpose of the ITRB is to provide independent expert input and advice to Nyrstar on the design, construction, operational management and ultimate closure of our TSFs. The ITRB is composed of three independent experts and report to our corporate office. For 2018, ITRB meetings are scheduled for Langlois, East Tennessee Mines and Mid Tennessee Mines.

No dam safety related incidents took place at our tailings storage facilities in 2017.

Waste Performance

In 2017, approximately 1.2 million tonnes of waste were generated by our operations of which 98% comprised mineral waste.

Waste Quantities (tonnes)

Waste Type	2015	2016	2017
Mineral Waste	1,345,770	895,064	1,197,271
Tailings disposed above ground	967,052	508,528	819,184
Waste rock disposed above ground	40,607	7,412	42,194
Smelters mineral waste	338,111	379,124	335,893
Non-Mineral Waste	16,516	18,624	18,268
% recycled or reused	62%	50%	65%

Tailings generated by our mines and deposited in above ground storage facilities totalled approximately 820,000 tonnes in 2017 which compares to the 510,000 tonnes produced in 2016. The increase is explained by the restart of mining activities at Mid Tennessee Mines. The amount of waste rock deposited above ground also increased in 2017, primarily due to intensified development activities at Langlois generating waste rock which could not all be placed underground. Mineral waste from our smelters fell by around 11% in 2017 relative to 2016.

Non-mineral wastes encompass a variety of waste streams, the quantity of which can vary significantly from year to year due to particular site activities such as maintenance shutdowns, demolition work and cleaning activities. Non-mineral waste generated in 2017 totalled 18,268 tonnes of which 65% was disposed via recycling or reuse.

Land Use and Biodiversity

Mining and metals processing operations require large areas of land and have the potential to impact biodiversity, ecosystems and the provision of ecosystem services. Impacts may result from the clearing and disturbance of land, discharge of effluent into waterbodies and emission of pollutants to the atmosphere as well as from increased transport activities and other indirect causes. Managing regulatory requirements and meeting community expectations regarding land use and the protection of ecosystems is critical to Nyrstar's licence to operate.

Contextually, all except one of Nyrstar's operating sites are located adjacent to or near (within 10 kilometers) protected areas[1] or areas of high biodiversity value[2]. For example, our European smelters are located in the vicinity of areas protected under the European Union Natura 2000 system and the Myra Falls mine is located within the Strathcona Provincial Park in British Columbia, Canada. Further, eight of our operations are situated within or near habitats for endangered species.

We work proactively to minimise the environmental footprint of our activities, protect sensitive habitats and to conserve biodiversity values and landscape functions in the locations where we operate. By and large, the work is guided by legal requirements and the outcomes of environmental impact assessments completed as part of permit applications for new activities or land developments. The biodiversity obligations, risks and opportunities identified under these processes are incorporated in decisions concerning the use of land, water and other natural resources, operational controls and environmental monitoring programmes. As a general rule, these decisions and management controls are developed with a view to avoiding losses of biodiversity values, whenever possible, or else reducing and rehabilitating the impacts that cannot reasonably be avoided. In regards to biodiversity management plans, it should be noted that whilst various plans, programmes and processes for management biodiversity risks are in place at all Nyrstar operations few of our sites have comprehensive management plans that apply above and beyond what is required under local regulations.

We are committed to progressively rehabilitating land that is no longer needed for production purposes and to fully reclaim areas after operations have been concluded. To support this commitment, all our mines are required to develop, implement and maintain closure plans that outline intended post-closure land uses, key closure concepts and estimated closure costs. The closure plans help to ensure that rehabilitation aspects are considered in operational planning and that sufficient funds are allocated for closure and post-closure monitoring. Site-wide closure plans are in place for all Nyrstar mines. Considered a 'going concern' with an infinite operating life, our smelters do not have documented closure and reclamation plans.

At the end of 2017, Nyrstar's total footprint of disturbed land was 1,475 hectares (ha). No reclamation activities leading to significant reductions in the amount of disturbed land were completed in 2017.

Nyrstar also has a portfolio of non-operational legacy sites, inherited through acquisitions, that require additional rehabilitation works in order to be fully closed. We recognise that an important part of maintaining our social licence to operate depends on our track record of addressing and mitigating the environmental impacts of our legacy sites, regardless of their ownership history. To this end, we work diligently to rehabilitate and restore the land to make it available for other uses.

Stakeholder consultation and engagement form an integral part of all our biodiversity and land management activities. By engaging with local communities, land owners and other parties we seek to balance our needs with those of other users and to obtain consensus on preferred closure and land management strategies.

[1] Geographically defined areas that are designated and managed to achieve specific conservation objectives. Protected areas may be regulated under national and regional laws or designated by international organisations, including International Union for Conservation of Nature (IUCN) Protected Areas, Ramsar Wetlands, UNESCO World Heritage Sites and European Union Natura 2000 sites.

[2] Areas not subject to legal protection but recognised for important biodiversity features by a number of governmental and non-governmental organisations. Biodiversity features of importance may include provision of essential ecosystem services relied on by humans; provision of critical habitats for endangered species, endemic and/or restricted-range species or globally significant concentrations of migratory species and/or congregatory species; highly threatened and/or unique ecosystems; areas with an abundance of species; or large areas of natural habitat.

Auditor Report

Independent Assurance Statement to Nyrstar Sales & Marketing AG

ERM Certification and Verification Services (ERM CVS) was engaged by Nyrstar Sales & Marketing AG ('Nyrstar') to provide assurance in relation to the information set out below and presented in the Nyrstar 2017 Sustainability Report ('the Report').

Engagement summary	
Scope of our assurance engagement	Whether the 2017 corporate totals for the following key performance indicators ('KPIs') are fairly presented, in all material respects, with the reporting criteria. • Lost time injury frequency rate • Recordable injury frequency rate • Days away, restricted duty or job transfer frequency rate • Occupational illnesses (No.) • Critical environmental incidents (No.) • Notifiable non-compliance incidents (No.) • Direct energy consumption (fuels) (PJ) • Indirect energy consumption (purchased electricity) (PJ) • Direct (Scope 1) GHG emissions (Mt CO2) • Indirect (Scope 2) GHG emissions (Mt CO2), location-based • Freshwater withdrawal (million m^3) • Recycled water (million m^3) • Emissions to air – total metals (sum of Zn, Pb, Cd, Cu and As) (t) • Emissions to air – sulphur dioxide (t) • Total water discharge (million m^3) • Emissions to water - total metals (sum of Zn, Pb, Cd, Cu, As and Hg) (t) • Total mineral waste (t) • Total non-mineral waste (t)
Reporting criteria	The internal indicator criteria developed by Nyrstar.
Assurance standard	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).
Assurance level	Limited assurance.
Respective responsibilities	Nyrstar is responsible for preparing the Report and for the collection and presentation of the information within it. ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

Our conclusions

Based on our activities, as described below, nothing has come to our attention to indicate that the 2017 data for the selected indicators, as listed above, are not fairly presented, in all material respects, with the reporting criteria.

Our assurance activities

Our objective was to assess whether the selected data are reported in accordance with the principles of completeness and accuracy (including calculations, use of appropriate conversion factors and consolidation). We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our assurance conclusions.

A multi-disciplinary team of EHS and assurance specialists performed the following activities:

- A review of external media reporting relating to Nyrstar to identify relevant sustainability issues in the reporting period;
- Interviews with relevant staff at Nyrstar Head Office in Zurich to understand and evaluate the data management systems and processes (including IT systems and internal review processes) used for collecting and reporting the selected KPIs;
- An analytical review of the year end data submitted by all sites included in the consolidated 2017 group data for the KPIs;
- Year-end assurance activities in Zurich including the results of Nyrstar's own internal review procedures and reviewing the accuracy of the consolidation of the data for the selected indicators from the site data;
- A review at corporate level of a sample of qualitative and quantitative evidence supporting the reported information; and
- Reviewing the presentation of information relevant to the scope of our work in the Report to ensure consistency with our findings.

The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context. Our work was undertaken at Nyrstar's head office in Zurich. We did not undertake source data verification at any operated facilities.

Our Observations

We have provided Nyrstar with a separate management report with our detailed (non-material) findings and recommendations. Without affecting the conclusions presented above, we have the following observation:

Nyrstar currently reports Scope 2 emissions using the location-based method. It should consider reporting these emissions also using the market-based method to align with recognised good practice for reporting GHG emissions.

Jennifer Iansen-Rogers
Head of Corporate Assurance Services

01 June 2018

ERM Certification and Verification Services, London
www.ermcvs.com Email: post@ermcvs.com

ERMCVS

ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS and the staff that have undertaken work on this assurance exercise provide no consultancy related services to Nyrstar in any respect.

Appendix A: Summary Data Table

Data Indicator	2015	2016	2017	2016-2017
SOCIAL RESPONSIBILITY				**% CHANGE**
Workforce Health & Safety				
Work-related fatalities	0	1	**0**	-
Number of lost time injuries (LTIs)	30	19	**25**	32%
Lost time injury frequency rate (LTIFR)	2.6	1.8	**2.0**	11%
Number of recordable injuries (RIs)	112	75	**82**	9%
Recordable injury frequency rate (RIFR)	9.7	7.2	**6.4**	(11%)
Number of cases involving days away, restricted duty or job transfer (DART)	78	54	**50**	(7%)
Days away, restricted duty or job transfer frequency rate (DARTFR)	6.8	5.2	**3.9**	(25%)
Number of cases of occupational illness	-	-	**24**	-
New cases of employees or contractors exceeding lead in blood transfer limit	126	57	**91**	60%
Value of safety fines (US$)	$259,000	$134,000	**71,934**	-
Sites with OHSAS 18001 certification	7	7	**7**	-
Our People (year-end data)				
Total workforce	3,832	3,846	**4,146**	8%
Workforce by region – Americas	1,149	1,151	**1,454**	26%
Workforce by region – Australia	1,197	1,234	**1,203**	(3%)
Workforce by region – Europe	1,486	1,461	**1,489**	2%
Workforce by gender – males (%)	92.8%	93.3%	**93.7%**	-
Workforce by gender – females (%)	7.2%	6.7%	**6.3%**	-
Portion of workforce covered by collective bargaining agreements (%)	59%	60%	**57%**	-
Number of strikes and lockouts	0	0	**2**	-
Duration of strikes and lockouts (in days)	0	0	**2**	-
Community Relations				
Community complaints	59	55	**71**	29%
Number of non-technical delays or disruptions	0	0	**0**	-
Duration of non-technical delays or disruptions (in days)	0	0	**0**	-
ENVIRONMENTAL STEWARDSHIP				
Environmental Incidents				
Critical environmental incidents	0	0	**0**	-
Notifiable non-compliance incidents	39	35	**50**	43%
Number of environmental fines	9	10	**2**	-
Value of environmental fines (US$)	$1,042,000	$896,092	**$23,088**	-
Energy				
Total energy consumption (PJ)	23.1	21.6	**22.4**	4%
Portion from electricity generated on-site from hydro, wind and process heat (%)	1%	1%	**1%**	-
Direct energy consumption (fuels) (PJ)	5.3	5.2	**5.5**	6%
Indirect energy consumption (purchased electricity) (PJ)	17.8	16.4	**16.9**	3%
Energy use intensity - smelters (GJ/t product)	16.5	17.0	**17.6**	4%
Energy use intensity - mines (GJ/t product)	9.9	10.4	**10.7**	3%

Data Indicator	2015	2016	2017	2016-2017
Greenhouse Gas (GHG) Emissions				
Total GHG emissions (Mt CO_2)	1.95	1.77	**1.78**	0%
Portion from Metals Processing operations (%)	93%	96%	**94%**	-
Portion from Mining operations (%)	7%	4%	**6%**	-
Direct (Scope 1) GHG emissions (Mt CO_2)	0.53	0.50	**0.50**	0%
Indirect (Scope 2) GHG emissions (Mt CO_2)	1.42	1.27	**1.28**	0%
Portion of scope 1 emissions covered under regulatory programmes (%)	22%	17%	**18%**	-
GHG emission intensity - smelters (t CO_2/t metal)	1.39	1.40	**1.39**	0%
GHG emission intensity - mines (t CO_2/t metal)	0.81	0.80	**0.86**	8%
Water				
Total freshwater withdrawn (million m^3)	12.3	10.5	**11.1**	6%
Freshwater use by source – municipal supply (million m^3)	4.7	4.2	**4.4**	5%
Freshwater use by source – groundwater (million m^3)	1.3	1.4	**1.4**	1%
Freshwater use by source – surface water (million m^3)	6.3	4.9	**5.3**	8%
Recycled water (million m^3)	10.1	9.2	**13.6**	48%
Recycled water as % of freshwater withdrawal	82%	87%	**122%**	-
Freshwater use intensity - smelters (m^3 water/t metal)	8.0	8.2	**8.3**	2%
Freshwater use intensity - mines (m^3 water/t metal)	11.3	5.7	**9.4**	65%
Emissions to Air and Water				
Emissions to air – metals (t)	101	104	**101**	(2%)
Emissions to air – nitrogen oxides (t)	731	541	**502**	(7%)
Emissions to air – sulphur dioxide (t)	70,564	67,990	**66,935**	(2%)
Emissions to water – metals (t)	43	48	**53**	9%
Total water discharge ('000 m^3)	72,018	75,366	**78,995**	5%
Waste				
Total waste (t)	1,362,287	913,687	**1,215,539**	33%
Portion classified as hazardous (%)	35%	45%	**38%**	-
Portion classified as non-hazardous (%)	65%	55%	**62%**	-
Total mineral waste (t)	1,345,770	895,064	**1,197,271**	34%
Mine tailings deposited in above ground storage facilities (t)	967,052	508,528	**819,184**	61%
Waste rock disposed above ground (t)	40,607	7,412	**42,194**	469%
Smelter mineral waste (t)	338,111	379,124	**335,893**	(11%)
Total non-mineral waste (t)	16,516	18,624	**18,268**	(2%)
Portion recycled or reused (%)	62%	50%	**65%**	-
Land Use and Biodiversity				
Footprint of disturbed land (ha)	1,446	1,476	**1,475**	0%

Notes to Data Table

General

Consolidated data presented in the table includes all facilities operated by Nyrstar at the end of 2017 including our six smelters (Auby, Balen/Overpelt, Budel, Clarksville, Hobart and Port Pirie), the Høyanger fumer and the four mining operations (East Tennessee Mines, Mid Tennessee Mines, Langlois and Myra Falls). In order to allow for year-on-year comparisons, data for 2015 and 2016 has been restated to exclude performance information related to the mining operations (Campo Morado, Contonga, Coricancha, El Toqui and El Mochito) which were divested in 2016 and 2017.

Data disclosed in the table represents the fiscal year ending December 31, 2017 and is accurate as of May 31, 2018.

Efficiency and intensity indicators are calculated based on tonnes of metal production for each site. For Metals Processing sites, metal production includes tonnes of zinc, lead, copper, cadmium, indium, silver and gold. For Mining sites, metal production includes tonnes of zinc, lead, copper, silver and gold in concentrate.

Workforce Health and Safety

We record all safety incidents and classify them according to established Nyrstar Group procedures. Key definitions applicable under these procedures include:

Recordable Injury (RI) - An injury with a more serious classification than First Aid including all Medical Treatment, Restricted Work and Lost Time Injuries.

Lost Time Injury (LTI) - Any work-related injury that results in the injured person not being able to work for one full calendar day or longer (not including the day of the injury).

Days Away from work, Restricted or Transferred (DART) - An injury classified as a Restricted Work or Lost Time Injury.

Lost Time Injury Frequency Rate (LTIFR), DART Frequency Rate and Recordable Injury frequency Rate (RIFR) are 12 month rolling averages of the number of Lost Time Injuries, Restricted Work Injuries and Recordable Injuries per million hours worked, including all employees and contractors directly and non-directly supervised by Nyrstar at all operations.

Accidents occurring during transport to and from work are not included in the safety statistics.

An occupational illness is defined as: An abnormal condition diagnosed by a medical practitioner that results from exposure in a workplace to a physical, chemical or biological agent to the extent that the normal physiological mechanisms are affected and the health of the worker is impaired. External reporting of occupational illnesses commenced in 2017.

For lead in blood, Nyrstar applies a transfer value of 30µg/100ml for men and 15µg/100ml for women.

Our People

The number of employees is recorded as all employees excluding contract workers, employees on unpaid leave, interns, and substitutes at year-end.

Environmental Incidents

Critical Environmental Incidents (CEIs) represent incidents with impacts to receptors of significant environmental value or for which remediation is difficult or expensive. A Notifiable Non-Compliance incident is defined as a regulatory non-compliance event for which notification to regulatory authorities is legally mandated. Reporting of Notifiable Non-Compliance incidents was introduced at the start of 2017. The number of Notifiable Non-Compliance incidents reported for 2015 and 2016 was derived by applying the definition for the new incident type to historic incident records for 2015 and 2016. Hence, the reported information on Notifiable Non-Compliance incidents for 2015 and 2016 is approximate and has not been externally assured.

Fines – Safety and Environment

Reported data on fines includes current and previously held assets for which Nyrstar has incurred and remains exposed to fines from the regulatory authorities. Notably, this includes the Peruvian operations (Contonga & Coricancha) divested in 2016 and 2017 and for which Nyrstar remains liable for certain regulatory infractions committed while Nyrstar operated the sites.

Energy

Energy use is measured in petajoules (PJ) and includes both purchased electricity (indirect energy) and energy from combustion of non-renewable fuels (direct energy). The reporting also includes consumption of electricity that is generated on site from non-fuel sources (hydro, wind and process heat). Energy consumed in off-site applications, e.g. for transport of Nyrstar products and raw materials, is not reported. The reporting and calculation of energy use also does not consider the import (purchasing) and export (sales) of heating, cooling and steam since these energy flows are currently immaterial for all Nyrstar sites. For fuels, conversion between activity data (e.g. tonnes of coal consumed) and energy content (in joules) is achieved by applying documented conversion factors to the activity data. Applied conversion factors are obtained from published sources including from local utility providers, fuel suppliers and/or national standards, where available.

2015 and 2016 energy data for Hoyanger and Port Pirie has been restated in regards to the use of coke. At these operations, all (Hoyanger) or part (Port Pirie) of the consumed coke is supplied for reduction purposes. Following the restatements, the portion of consumed coke supplied for reduction purposes is excluded from the calculation of energy use.

GHG Emissions

The reporting of greenhouse gas (GHG) emissions is focused on Direct (Scope 1) and Indirect (Scope 2) emissions. GHG emissions are measured as tonnes of carbon dioxide (CO_2 t) except in a minority of locations where available emission factors are expressed as carbon dioxide equivalent tonnes (CO_2-e t). These inconsistencies in carbon accounting are not material for the accuracy of consolidated Group-level GHG emissions.

GHG emissions are calculated by applying documented emission factors to activity data (e.g. tonnes of coal consumed). For Scope 1 emissions, applied emission factors are obtained from fuel suppliers and/or national standards. Scope 2 emissions are calculated using a combination of location and market based methods, applying available emission factors that most accurately account for the electricity consumed at each site. Few, if any, of the power contracts negotiated by Nyrstar convey information about delivered electricity. Given this and that Nyrstar's procurement of electricity does not currently include a mandate to source low-carbon energy, accounting for Scope 2 emissions using the location and market based methods has not been deemed meaningful at this point in time.

2015 and 2016 greenhouse gas emission data for Balen/Overpelt and Budel has been restated in regards to emissions from purchased electricity (Scope 2 emissions). New emission factors were applied to more accurately reflect the greenhouse gas emissions contributed from the electricity imported and used by Nyrstar.

Water

Accounting for water withdrawals and use is focused on freshwater obtained from surface waters, groundwater and from third party supplies. The focus on these sources reflects their significance to Nyrstar's operations and stakeholders. Cooling water returned to its original water source, mine drainage and groundwater abstracted for remediation purposes are not included in the reporting of freshwater withdrawals and use.

Emissions to Air and Water

The performance indicators for emissions to air and water quantify the amount of key pollutants released to the environment from Nyrstar's operations. Key pollutants of material importance to the Group are considered to be metals, which are released both to water and air, and acid forming gases (nitrogen oxides and sulphur dioxide) released to the atmosphere. The reporting includes emission sources and elements that are regulated under national or local laws and regulations, including those included in environmental permits issued to the operations and in pollutant inventory schemes (e.g. E-PRTR in Europe, NPRI in Canada and NPI in Australia).

2015 and 2016 data on emissions to air and water from the Hobart smelter were restated to address calculation errors. For emissions to air, the restatements produced the following material changes (reductions) in annual totals at a Group level: Emission of nitrogen oxides (NOx), 2015 – 17% reduction, 2016 – 18% reduction; Emission of metals, 2015 – 4% reduction, 2016 – 4% reduction.

Waste

The reporting of waste quantities generated by our operations principally comprise mineral waste and non-mineral waste. Mineral waste is defined as waste that originates from mined rock or smelter raw materials. Non-mineral waste is defined as all other waste streams generated by the operations including both process and non-process waste and both hazardous and non-hazardous waste. Materials that are sent off-site for further processing and valorisation are considered by-products and are not included in the accounting for waste.

Mineral and non-mineral wastes are reported as tonnes of dry materials.

Land Use and Biodiversity

Disturbed land includes any areas for which pre-existing habitats and land covers have been substantially altered or disrupted.

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