

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

Centerra Gold ("Centerra" or the "Company") is a Canadian-based gold mining company focused on operating, developing, exploring and acquiring gold properties worldwide. Centerra's principal operations are the Kumtor Gold Mine located in the Kyrgyz Republic, the Mount Milligan Gold-Copper Mine located in British Columbia, Canada, and the Öksüt Gold Mine located in Turkey. The Öksüt mine achieved commercial production as of May 31, 2020. In 2020, Centerra produced 824,059 ounces of gold and 82.8 million pounds of copper.

The Company has one property in Canada in the pre-development stage, the Kemess Underground Gold Property. The Company sold its interest in the Greenstone Gold Mines Partnership, which included its interest in the Hardrock deposit, effective January 19, 2021, and as a result, treated it as available for sale as at December 31, 2020. The Company owns exploration properties in Canada, the United States of America and Turkey and has options to acquire exploration joint venture properties in Canada, Finland, Turkey, and the United States of America. The Company owns various assets within its Molybdenum Business Unit, particularly the Langeloth metallurgical processing facility in Pennsylvania, United States of America and two primary molybdenum mines currently on care and maintenance, Thompson Creek Mine in Idaho, United States of America, and the Endako Mine (75% ownership) in British Columbia, Canada.

At Centerra, we are focused on quality assets defined by low cost, long life and sustainable robust margins and returns. We recognize that robust environmental and social performance is not only the right thing to do but that it is key to achieving this strategy.

Being a responsible miner is one of our key values. For Centerra, this means putting our people first, creating and sharing economic value in the countries and communities where we operate, and protecting our surrounding natural environment. Managing our environmental footprint is critical to protecting our social license to operate and maintaining our operational permits.

Environmental negligence can result in increased operational costs, fines and penalties, potential liabilities, reputational damage, and impact to our long-term revenue potential. Proactively protecting and managing our environmental footprint may also increase operational efficiencies, strengthen local stakeholder, and group relationships and mitigate permitting and regulatory costs.

Each site-specific environmental management system (EMS) has been designed to include scheduled monitoring, engineering, administrative controls, and internal and external reporting on areas including water, waste and hazardous materials, biodiversity, air quality, tailings management, energy and emissions, and reclamation.

Each site's environmental focus areas are determined by a variety of factors including:

- the results of our environmental impact assessments (EIAs);
- environmental requirements set out by current and former financiers like the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC);
- internal identification of Significant Environmental Aspects (SEAs) that are required to meet our regulatory compliance and environmental performance objectives;
- international standards and frameworks Centerra has adopted, including the World Gold Council's *Responsible Gold Mining Principles*; and,
- standards we broadly seek alignment against including those set-out by the International Council on Mining and Metals (ICMM).

Centerra's shares trade on the Toronto Stock Exchange (TSX) under the symbol CG and on the New York Stock Exchange (NYSE) under the symbol CGAU. The Company is headquartered in Toronto, Ontario, Canada.

This CDP Forests Questionnaire is prepared in respect of the 2020 financial year. Readers are cautioned that, in May 2021, the Government of the Kyrgyz Republic seized control of the Kumtor Mine and therefore Centerra is no longer in control of the Kumtor Mine or the ESG policies, procedures and initiatives relating to the Kumtor Mine which are described in this disclosure. Reference is made to news releases of Centerra dated May 7, 16, 17 and 31, 2021, available on SEDAR at www.sedar.com, for more information regarding this matter. As of the date of this disclosure, the situation continues to develop, and additional news release can be expected.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

	Start Date	End Date
Reporting year	January 1 2020	December 31 2020

F0.3**(F0.3) Select the currency used for all financial information disclosed throughout your response.**

USD

F-MM0.6/F-CO0.6**(F-MM0.6/F-CO0.6) Select the option that best describes the reporting boundary for which biodiversity-related issues are being reported?**

Companies, entities or groups over which operational control is exercised

F-MM0.7/F-CO0.7**(F-MM0.7/F-CO0.7) Within your reporting boundary, are there any geographical areas, business units or mining projects excluded from your disclosure?**

Yes

F-MM0.7a/F-CO0.7a**(F-MM0.7a/F-CO0.7a) Please report your exclusions and describe their potential for biodiversity-related risk.**

Exclusion	Description of exclusion	Potential for biodiversity-related risk	Please explain
Mining project(s)	Incomplete information pertaining to the Kumtor Mine is included in this disclosure, including evaluation and mitigation strategies relating to its risks, opportunities, and initiatives in 2020.	Potential for biodiversity-related risks evaluated, but not disclosing to CDP	This CDP Forests Questionnaire is prepared in respect of the 2020 financial year. Readers are cautioned that, in May 2021, the Government of the Kyrgyz Republic seized control of the Kumtor Mine and therefore Centerra is no longer in control of the Kumtor Mine or the ESG policies, procedures and initiatives relating to the Kumtor Mine which are described in this disclosure. Reference is made to news releases of Centerra dated May 7, 16, 17 and 31, 2021, available on SEDAR at www.sedar.com, for more information regarding this matter. As of the date of this disclosure, the situation continues to develop, and additional news release can be expected.
Other, please specify (Development Projects)	Centerra's development projects (namely, the Kemess Underground Project and Greenstone-Hardrock Project) are excluded from this disclosure. Further, on January 19, 2021, Centerra completed the sale of its 50% interest in Greenstone Gold Mines LP, which owns the Hardrock Mine Project.	Potential for biodiversity-related risks evaluated, but not disclosing to CDP	In this disclosure, Centerra will be reporting only on its three operating mines as these reflect the Company's significant operations and areas of impact.
Business unit(s)	Centerra's Molybdenum Business Unit (namely, the Thompson Creek Mine, Endako Mine and Langeloth Metallurgical Facility) are excluded from this disclosure. The Thompson Creek Mine and Endako mines are currently in care and maintenance.	Potential for biodiversity-related risks evaluated, but not disclosing to CDP	In this disclosure, Centerra will be reporting only on its three operating mines as these reflect the Company's significant operations and areas of impact.
Other, please specify (Exploration Projects)	Centerra's exploration projects are excluded from this disclosure.	Potential for biodiversity-related risks but not evaluated	In this disclosure, Centerra will be reporting only on its three operating mines as these reflect the Company's significant operations and areas of impact.

F9 Current state**F-MM9.1/F-CO9.1****(F-MM9.1/F-CO9.1) Provide details on the mining projects covered by this disclosure, by specifying your project(s) type, location and mining method(s) used.****Mining project ID**

Project 1

Name

Kumtor Gold Mine

Share (%)

100

Country/Area

Kyrgyzstan

Latitude**Longitude****Project stage**

Production

Mining method

Open-cut

Raw material(s)

Gold

Year extraction started/is planned to start

1997

Year of closure

2031

Description of project

The Kumtor Mine is in the Kyrgyz Republic, about 350 km southeast of the capital Bishkek and about 60 km north of the border with the Peoples Republic of China. It is at an altitude of 4,000 meters above sea level in a partially glaciated permafrost zone in the Central Tien Shan Mountains. It is one of the largest gold mines operated in Central Asia by a Western-based company, having produced more than 13.2 million ounces of gold between 1997 and the end of 2020. Kumtor considers responsible environmental management an important part of its business and spends approximately \$4 million USD per year on environmental management. This includes maintaining a department of dedicated full-time environmental staff, and the on-site and regional monitoring of water, air, biodiversity, and waste. Kumtor places importance on the conservation of the region's biodiversity and has worked with stakeholders concerned about conservation since the start of operations, including contributing to the creation of the Sarychat-Ertash Nature Reserve. The current mine plan indicates that operations will cease in 2031. In May 2021, the Government of the Kyrgyz Republic seized control of the Kumtor Mine and therefore Centerra is no longer in control of the Kumtor Mine or the ESG policies, procedures and initiatives relating to the Kumtor Mine which are described in this report. Reference is made to news releases of Centerra dated May 7, 16, 17 and 31, 2021, available on SEDAR at www.sedar.com, for more information regarding this matter. As of the date of this report, the situation continues to develop, and additional news release can be expected.

Mining project ID

Project 2

Name

Mount Milligan Mine

Share (%)

100

Country/Area

Canada

Latitude**Longitude****Project stage**

Production

Mining method

Open-cut

Raw material(s)

Copper

Gold

Year extraction started/is planned to start

2014

Year of closure

2028

Description of project

Mount Milligan is located approximately 150km northwest of Prince George in central British Columbia, Canada. The Mount Milligan mine is a conventional truck-shovel open-pit copper and gold mine and concentrator with a 60,000 tpd capacity copper flotation processing plant. Mount Milligan has 959 million pounds of copper in proven and probable reserves and 2.4 million ounces of gold in proven and probable reserves. Mount Milligan considers responsible environmental management an important part of its business and spent approximately USD \$2.88 million in 2020 on environmental management. Our goal is to have no net loss of fish and aquatic resources habitat at Mount Milligan. In addition, our end land use objectives are to restore the area to land that can support wildlife, recreation, and traditional uses by Indigenous communities. Future end-land use planning studies will guide the direction of the implementation of the closure plan. Mount Milligan is located within the traditional territories of several Indigenous groups. We work in partnership and close cooperation with Indigenous Peoples to ensure effective representation and input of Indigenous groups on our proposed activities and to incorporate Traditional Ecological Knowledge into our biodiversity, reclamation, and environmental stewardship planning.

Mining project ID

Project 3

Name

Öksüt Mine

Share (%)

100

Country/Area

Turkey

Latitude

Longitude**Project stage**

Production

Mining method

Open-cut

Raw material(s)

Gold

Year extraction started/is planned to start

2020

Year of closure

2028

Description of project

The Öksüt Mine is in the Develi district in Central Anatolia, 45km south of Kayseri province and 290km southeast of Turkey's capital, Ankara. Öksüt is a conventional truck and shovel open pit heap leach mining operation with a stacking rate of 11,000 tonnes per day. The initial eight-year mine life is expected to process approximately 1.2 million contained ounces of gold from two open pits, the Keltepe pit and the smaller Güneytepe pit. The Öksüt mine achieved commercial production as of May 31, 2020. In 2016, Centerra announced that it had secured US \$75 million in senior secured project financing loan from the European Bank for Reconstruction and Development (EBRD). As per the requirements of the loan, Öksüt developed a formalized and participatory environmental and social impact assessment (ESIA). The ESIA built upon an already approved local EIA and included a suite of management and monitoring plans. Key impacts and risks considered included land acquisition and impacts on land users and livelihoods, impacts to biodiversity, water use, cyanide risks, impacts on surface and groundwater, emissions including dust, noise, worker and community health and safety risks, labour and contractor issues and site closure and rehabilitation planning. On January 30, 2020, our Turkish subsidiary that owns the Öksüt Mine, repaid its Öksüt Project financing facility, despite this OMAS plans to remain in compliance with EBRD Performance Requirements moving forward. Öksüt considers responsible environmental management an important part of its business and spent approximately \$0.47 million USD in 2020 on environmental management. At Öksüt, we are committed to achieving net gains for critical habitat (CH) and no net loss for priority biodiversity features (PBF) described in further detail in section F-MM14.1a/F-CO14.1a.

F-MM9.2/F-CO9.2**(F-MM9.2/F-CO9.2) Can you disclose the mining project area and the area of land disturbed for each of your mining projects?**

	Disclosing mining project area and area of land disturbed?	Comment
Row 1	Yes	

F-MM9.2a/F-CO9.2a**(F-MM9.2a/F-CO9.2a) Provide details on the mining project area and the area of land disturbed for each of your mining projects.****Mining project ID**

Project 2

Total area of owned land/lease/concession (hectares)

58847.5

Total area disturbed to date (hectares)**Area disturbed in the reporting year (hectares)****Type(s) of habitat disturbed in the reporting year**

Natural habitat

Comment**Mining project ID**

Project 3

Total area of owned land/lease/concession (hectares)

3995.8

Total area disturbed to date (hectares)**Area disturbed in the reporting year (hectares)****Type(s) of habitat disturbed in the reporting year**

Natural habitat

Comment**F-MM9.3/F-CO9.3**

(F-MM9.3/F-CO9.3) Are any of your mining projects located in or near legally protected and internationally recognized areas?

	Are any of your projects in or near?	Comment
Legally protected area(s)	Yes	Project 1: The Sarychat-Ertash Nature Reserve is in the vicinity of the Kumtor Mine concession. Project 3: Öksüt intersects with the Sultan Sazlığı Wetland, a national park.
UNESCO World Heritage sites	No	Our company policy prohibits exploration or mining in UNESCO World Heritage sites.
UNESCO Biosphere Reserves	No	
Ramsar sites	Yes	Project 3: Öksüt uses two powerlines that intersect the Sultan Sazlığı National Park and the Erciyes Mountain Key Biodiversity Area.
Key Biodiversity Area(s)	Yes	Project 2: Mount Milligan sits within the Mackenzie Land and Resource Management Plan (LRMP) as part of the #42 Philip Resource Management Zone (RMZ). The Plan provides provisions and protections for fish and wildlife habitat, forest resources, outdoor recreation and tourism, visual quality and for the development of mineral resources. Project 3: In the proximity of the Öksüt Mine is the Erciyes Dagi (Mountain), recognized as an Important Plant Area (IPA) and a Key Biodiversity Area (KBA). In addition, the Sultan Sazlığı Wetland is also recognized as an Important Bird Area (IBA) and Important Plant Area (IPA).

F-MM9.3a/F-CO9.3a

(F-MM9.3a/F-CO9.3a) Provide details on mining projects that are in or near legally protected and internationally recognized areas.

Mining project ID

Project 1

Type of legally protected/ internationally recognized area

Legally protected area

Protected area category (IUCN classification)

Category Ia-III

Name of area

Sarychat-Ertash Nature Reserve

Proximity

Adjacent

Area of overlap (hectares)

<Not Applicable>

Please explain

Kumtor mine is in the vicinity to the Sarychat-Ertash Nature Reserve. The Reserve is a strictly protected Zapovednik ("protected wilderness"). The Reserve, established in 1995 with Kumtor's financial investment and collaboration, was created to protect and conserve the local ecosystems, flora, and fauna. The Reserve covers 72,080 hectares. Since 1995, we have maintained a strict no-hunting policy in our permitted area which acts as a barrier to poachers. As of January 2020, there are 3,250 argali, 1,889 ibex (mountain goats), 20 brown bears, 13 snow leopards and 11 manuls living in the Reserve. Given that the Sarychat-Ertash Nature reserve is in the vicinity of the mine site, regular monitoring of air has been conducted in the northeastern part of the concession area and in the northwestern part of the reserve. Kumtor has historically supported several initiatives at the Reserve including the studies of mammals and vertebrate mammals, glacier and water management, funding and administration base, funding for employee guest houses, and field apparel.

Mining project ID

Project 3

Type of legally protected/ internationally recognized area

Legally protected area

Protected area category (IUCN classification)

Category Ia-III

Name of area

Sultan Sazlıği Wetland

Proximity

Overlap

Area of overlap (hectares)

1599.84

Please explain

The Sultan Sazlıği Wetland is an important area for birds and is in the junction of two main bird migration routes through Europe, Asia, and Africa. The site is known to provide 301 bird species with feeding, breeding, and staging habitats. A powerline was constructed for Öksüt's operation that intersects the Wetland. The physical footprint of the powerline is located within the periphery of the National Park ("the buffer zone") and outside the Ramsar area, in an area that includes villages and other infrastructure and as such, sensitive species like rare or threatened taxa and congregating and nesting birds are less likely to be found in these areas. Nonetheless, to minimize impacts, Öksüt has installed bird flight diverters on the powerline. Öksüt's environmental team checks the powerline buffer zone monthly, at minimum, and ornithologists visit the powerline during migration periods (spring and autumn) to inspect bird activities. Furthermore, Öksüt also completed a risk assessment on its cyanide transportation route to ensure it complies with stringent ICMC guidelines.

Mining project ID

Project 3

Type of legally protected/ internationally recognized area

Key Biodiversity Area

Protected area category (IUCN classification)

<Not Applicable>

Name of area

Erciyes Dagi (Mountain)

Proximity

Overlap

Area of overlap (hectares)

Please explain

Öksüt's uses a powerline for its operations that intersects the Erciyes Dagi. The powerline crosses the southern and lower slopes of this mountain region. These areas include natural, semi-natural and modified habitats.

F-MM9.4/F-CO9.4

(F-MM9.4/F-CO9.4) Are there artisanal and small-scale mining (ASM) operations active in your mining concessions or in their area of influence?

No

F-MM9.5/F-CO9.5

(F-MM9.5/F-CO9.5) Have biodiversity-related issues led to detrimental impact(s) on your business in the reporting year?

	Biodiversity-related issues led to detrimental impacts on the business?	Comment
Row 1	No	

F-MM9.6/F-CO9.6

(F-MM9.6/F-CO9.6) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for violation of biodiversity-related regulation?

	Any penalties for violation of biodiversity-related regulation?	Comment
Row 1	No	A financially substantive or significant fine/enforcement order/penalty did not occur the reporting year for Centerra. Centerra defines 'substantive strategic or financial impact' as any financial (e.g. revenue or cost variance to budget) and/or operating impacts (e.g. shutdowns or impacts to production) to employee health and safety, the environment, local stakeholder relations and reputation, legal and regulatory compliance that could adversely affect the Company's business operations, prospects, financial condition, results of operations, or cash flows.

F10 Procedures

F-MM10.1/F-CO10.1

(F-MM10.1/F-CO10.1) Have biodiversity impacts and risks of your mining projects been assessed before the project development stage?

	Biodiversity impacts and risks assessed before the project development stage?	Please explain
Row 1	Yes, in all cases	Across our operating sites, an environmental impact assessment (EIA) is completed during the permitting phase of the project. The EIA is completed in accordance with national legislation and in certain cases, may be further supplemented by international standards. At Kumtor, the initial Environmental Assessment (1993/1994) was completed in line with the World Bank Directive 4.1. Kumtor's most recent version of its Environmental Assessment is aligned with the Kyrgyz Republic's legislation. At Mount Milligan, an Environmental Impact Assessment was completed in 2009 according to federal and provincial legislation. The EAC has been amended several times based on changes on site and the need for additional infrastructure (e.g., the water sourcing infrastructure from Rainbow Creek and Philip Lake). The EA processes are also supported by project specific permitting and risk assessments through other government agencies. At Öksüt, an Environmental and Social Impact Assessment (ESIA) was completed, assessing the biodiversity impacts and risks of the mining project. The ESIA was completed according to Turkish legislation and then was supplemented with the requirements by the European Bank for Reconstruction and Development (EBRD) when project financing was established. Visit https://www.ebrd.com/work-with-us/projects/esia/centerra-turkey.html for the full ESIA.

F-MM10.1a/F-CO10.1a

(F-MM10.1a/F-CO10.1a) Select the options that best describe your procedures for identifying and assessing biodiversity-related impacts and risks.

Mining project ID

Project 1

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Indirect impacts

Cumulative impacts

Scope defined by

Governmental agency requirements

Lender requirements

Methods and tools

Desk-based research

Field surveys

Expert consultation

Stakeholder consultation/analysis

Aspects considered

Threatened species

Migratory species

Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

No

Please explain

Kumtor's EIA was completed in 1994 and is not publicly available.

Mining project ID

Project 2

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts
Indirect impacts
Cumulative impacts

Scope defined by

Governmental agency requirements

Methods and tools

Desk-based research
Field surveys
Expert consultation
Stakeholder consultation/analysis

Aspects considered

Threatened species
Migratory species
Endemic species
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

Mount Milligan's Environmental Impact Assessment Report is available here: <https://iaac-aeic.gc.ca/052/details-eng.cfm?pid=39778>. As part of its Environmental Impact Assessment, the potential environmental effects of the Mount Milligan Mine were considered, including physical, biological, and human environments, considering measures that are technically and economically feasible to prevent or reduce any potential adverse effects of the Project to an acceptable level. This included: biological components (fish; fish habitat and aquatic resources; wildlife and wildlife habitat; species at risk; vegetation and plant communities), physical components (surface water quality and sediment quality, hydrology and hydrogeology, air quality and climate; metal leaching and acid rock drainage, and terrain, soils and geology), and human components (current use of lands and resources for traditional purposes by Indigenous Peoples; effects on sustainable use of renewable resources; navigable waters; fisheries; human health; archaeological sites and cultural heritage, visual and aesthetic resources; and noise). In addition, stakeholder engagement and public participation was carried out during the various stages of the EA process, which included components lead by the Mine, the British Columbia Environmental Assessment Office (BC EAO), Responsible Authority and the Canadian Environmental Assessment Agency (CEA Agency). From the EIA, the Mount Milligan Mine committed to the Fish Habitat Mitigation and Compensation Plan, which is described in further detail in Section F-MM14.1a/F-CO14.1a.

Mining project ID

Project 3

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts
Indirect impacts
Cumulative impacts

Scope defined by

Governmental agency requirements
Lender requirements
Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Expert consultation
Stakeholder consultation/analysis

Aspects considered

Locational alternatives
Threatened species
Migratory species

Endemic species
 Protected areas
 Critical habitats
 Natural habitats

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

Öksüt's Environmental and Social Impact Assessment is available to the public from the European Bank for Reconstruction and Development's website, located here: <https://www.ebrd.com/work-with-us/projects/esia/centerra-turkey.html> A national environmental impact assessment for the Öksüt Mine, as part of the Turkish Permitting process, was undertaken in 2014-15, and this was approved by the Ministry of Environment and Urban Planning. An Environmental and Social Impact Assessment (ESIA) was completed between 2015 - 2016 according to the requirements by the European Bank for Reconstruction and Development (EBRD) when project financing was established. Key impacts and risks considered included land acquisition and impacts on land users and livelihoods, impacts to biodiversity, water use, cyanide risks, impacts on surface and groundwater, emissions including dust, noise, worker and community health and safety risks, labour and contractor issues and site closure and rehabilitation planning. The ESIA identified that development of the mine will directly impact critical habitat for two plant species and the project's power line, which runs parallel to an existing power line, is adjacent to a protected wetland and Ramsar site. Biodiversity impacts will be mitigated through implementation of a biodiversity action plan (BAP) and offset strategy, which will ensure a net gain of species and habitats of conservation importance. Specific actions include, among others: the salvage and translocation of flora species of conservation importance from the mine site; conservation of on-site vegetation; seed collection and flora cultivation; and the installation of bird diverters on the power line together with additional bird surveys along the power line route.

F-MM10.2/F-CO10.2

(F-MM10.2/F-CO10.2) Does your organization undertake a corporate-level procedure to assess biodiversity-related risks to your business?

	Is there a procedure to assess biodiversity-related risks?	Comment
Row 1	Yes	Site-specific environmental risks are assessed by site teams and key risks are inputted into Centerra's site-level risk register [a part of Centerra's Enterprise Risk Management program (ERM)] and shared with the VP, Risk and Insurance, and the senior leadership team. The ERM program is overseen by the Board of Directors through the Risk Committee. Centerra's Corporate VP, Risk & Insurance is responsible for providing the requisite tools, guidance, oversight, and strategic direction for the ERM program. The VP, Risk & Insurance prepares and presents a quarterly report for the Risk Committee on the key strategic, operational, project, and exploration risks, as well as emerging risks. As required, the presented risks may include biodiversity-related issues. In addition, on a quarterly basis, general and site-specific environmental risks and issues are presented to the Sustainable Operations Committee by the VP, Security, Sustainability, and Environment as needed. Topics for inclusion include environmental incidents, closure plans, status of any EIA / ESIA's, water management plans, etc.

F-MM10.2a/F-CO10.2a

(F-MM10.2a/F-CO10.2a) Select the options that best describe your procedure for identifying and assessing biodiversity-related risks.

Row 1

Risk assessment procedure

Assessed as part of other company-wide risk assessment system

Frequency of assessment

Other, please specify

How far into the future are risks considered?

> 6 years

Tools and methods used to identify and assess risks

Internal company methods
 External consultants
 National specific tools and databases

Please explain

Centerra Gold's procedure for identifying and assessing biodiversity-related risks takes place at both a corporate and site-level. The sites update their site risk assessments at minimum monthly and complete quarterly reporting as part of Centerra's Board Risk Committee reporting. Each site's activities and focus areas (areas of potential risk) are determined by the: 1. Findings of third-party environmental and social impact assessments (ESIAs) or environmental impact assessments (EIAs). 2. Environmental requirements set out by our financiers like the European Bank for Reconstruction and Development (EBRD). 3. Internal identification of Significant Environmental Aspects (SEAs) that are required to meet legal compliance and environmental performance objectives. Key SEAs include: Waste and hazardous materials; Biodiversity; Air quality; Water management; Energy and emissions; and Mine closure and reclamation. Once the key focus areas are identified, each site develops an environmental management system (EMS) to manage these topics. The Kumtor and Öksüt sites have implemented an ISO 14001-aligned EMS and Mount Milligan intends to work towards the implementation of an 14001 ISO-aligned EMS. Each site-specific EMS has been designed to include scheduled monitoring, engineering, administrative controls, and internal and external reporting. Centerra has implemented an Enterprise Risk Management (ERM) program to ensure risk-informed decision making. The program is based on leading international risk management standards such as ISO 31000 and COSO as well as industry best practices. It employs both a bottom-up and top-down approach to identify and address risks from all sources that threaten the achievement of our objectives. Each operating site and project are responsible for identifying, assessing, treating, and monitoring risk. Efforts to mitigate risks are coordinated by appointed "Risk Champions" who facilitate the process to ensure consistency and continuity. We work to reduce our impact on the environment by adopting best available technologies economically achievable, focusing on automation and proactive collaboration with key stakeholders and local and indigenous communities. Finally, in 2019, we introduced a company-wide governance process to strengthen our internal procedures related to permitting compliance and related environmental obligations.

(F-MM10.2b/F-CO10.2b) Which of the following issues are considered in your organization's biodiversity-related risk assessment(s)?

	Relevance & inclusion	Please explain
Deforestation	Relevant, always included	As mining is a high-footprint industry, impacts of deforestation and forest degradation are considered in a biodiversity-related risk assessment. Centerra's mining sites include a land reclamation program as part of the mining life cycle.
Legally protected areas	Relevant, always included	Two of Centerra's operating sites, Kumtor in the Kyrgyz Republic and Öksüt, in Turkey, are within proximity of a legally protected area. As these areas intersect or are adjacent to our operations, the legally protected areas are considered in the biodiversity-related risk assessment, including flora and fauna directly, indirectly, and cumulative impacts.
Internationally recognized areas	Relevant, always included	One of Centerra's operating sites, Öksüt, in Turkey, is within proximity of an internationally recognized area. The powerline used intersects with the Sultan Sazlığı National Park and the Erciyes Mountain Key Biodiversity Area. Approximately 10km (or 28 poles) of the Öksüt Mine site is within the Buffer Zone of the Sultan Sazlığı National Park and outside the Ramsar area, therefore outside the most sensitive areas. As the mine is within proximity, the internationally recognized area is considered in the biodiversity-related risk assessment, including the flora and fauna directly, indirectly, and cumulatively impacted.
Threatened, migratory and endemic species	Relevant, always included	As part of the Environmental Impact Assessment and Biodiversity Action Plans, natural habitats, and their species – endemic, migratory, threatened, and endangered – are always included in all biodiversity-related risk assessments.
Ecosystem services	Relevant, sometimes included	Ecosystem services are considered in biodiversity-related risk assessments as appropriate. The effect of mine operations on ecosystem services varies widely, depending on the regional site in question. Some sites, such as Kumtor, are quite remote (80 km from the nearest village) and there is limited scope for the operations to negatively impact ecosystem services. Whereas at the Mount Milligan Mine, ecosystem services were considered as part of the environmental impact assessment (and continue to be considered) in relation to Indigenous communities rights.
Regulation	Relevant, always included	Centerra's global operations comply with regional / national environmental regulations specific to the site and country of operation. Centerra's Board has also adopted its International Business Conduct Policy which is Centerra's anti-corruption policy.
Indigenous peoples	Relevant, always included	Centerra's Mount Milligan Mine operates in British Columbia, Canada. Mount Milligan is located within the traditional territories of several Indigenous groups. We work in partnership and close cooperation with Indigenous Peoples to ensure effective representation and input of Indigenous groups on our proposed activities and to incorporate Traditional Ecological Knowledge into our biodiversity, reclamation, and environmental stewardship planning. For example, Mount Milligan completes annual fall fish enumeration studies at Phillip Creek and Rainbow Creek. These studies help us assess impacts on the mountain whitefish population in these waterbodies from medium-term operational water withdrawals. Mountain whitefish, which are valued by local Indigenous groups as sport fish, lay eggs that incubate over winter and are thus, susceptible to effects of decreasing lake water levels during winter months.
Local communities	Relevant, always included	Centerra is committed to respecting the rights, cultures, and traditions of the local communities and Indigenous groups where we operate and engaging in a transparent, consistent, and accessible manner to build strong and resilient relationships. Centerra is committed to creating and equitably sharing economic and social value in the countries and communities where we operate. Economic value may include direct contributions to national and regional governments, employee wages, direct and indirect taxes, and mandatory payments, purchases of local goods and services, and strategic community investment programs. These investments contribute toward securing and helping us maintain our social license to operate in the communities where we operate.
Other, please specify	Relevant, always included	In addition to the biodiversity-related issues listed above, Centerra also considers the impact of forest fires and water quality and access in its biodiversity-related assessments. Centerra considers how increases in extreme weather as a result of climate change could impact its operations. For example, the Mount Milligan site is affected by changes in precipitation patterns and intensity, including drier conditions that may increase the risk of forest fires. In addition, Centerra considers the impacts of water quality and water access on biodiversity. For example, Mount Milligan completes annual fall fish enumeration studies at Phillip Creek and Rainbow Creek. These studies help us assess impacts on the mountain whitefish population in these waterbodies from medium-term operational water withdrawals. Mountain whitefish, which are valued by local Indigenous groups as sport fish, lay eggs that incubate over winter and are thus, susceptible to effects of decreasing lake water levels during winter months.

(F-MM10.2c/F-CO10.2c) Which of the following stakeholders are considered in your organization's biodiversity-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	There has been a global increased expectation on refineries to understand the conditions in which their purchased gold is mined. Through our commitment to the World Gold Council's Responsible Gold Mining Principles (RGMPs), we demonstrate to the downstream gold supply chain, that our gold is mined according to best environmental practices. Specifically, the RGMPs hold Centerra accountable to environmental stewardship, managing biodiversity, ensuring all wastes and tailings are in alignment with best practices, and using resources and land efficiently.
Employees	Relevant, always included	Operating with a 'zero harm' health and safety (H&S) approach is fundamental to our commitment to being a responsible miner and maintaining our employee's trust. This includes protecting the air quality at site by meeting air quality requirements.
Investors	Relevant, always included	We engage directly and indirectly (through ESG Rating Agencies) with the investor community to ensure that our ESG strategy meets investor expectations. Increasingly, investors are concerned with the risks and opportunities posed by biodiversity issues and seek disclosure from companies on how they are managing these risks. Our ESG reports are aligned with the Sustainability Accounting Standard Board (SASB) framework. This is the ESG reporting framework preferred by our institutional investors because it provides consistency and comparability in their investment analysis and focuses on material ESG factors.
Local communities	Relevant, always included	Centerra has a responsibility to develop and maintain relationships with host communities; two-way engagement and dialogue build trust and foster genuine collaboration with local communities. Local communities also have a unique and knowledgeable perspective on the ecosystem services and species that provide their community with resources and its people with a strong livelihood. Stakeholder concerns that are considered include employment opportunities, environmental impacts of the mine, community support and donations, and effects on water resources.
Indigenous peoples	Relevant, always included	Centerra's Mount Milligan Mine operates in British Columbia, Canada. Mount Milligan is located within the traditional territories of several Indigenous groups. We work in partnership and close cooperation with Indigenous Peoples to ensure effective representation and input of Indigenous groups on our proposed activities and to incorporate Traditional Ecological Knowledge into our biodiversity, reclamation, and environmental stewardship planning.
NGOs	Relevant, sometimes included	In the Kyrgyz Republic, biodiversity conservation academic groups and NGOs are important stakeholders. These include Fauna & Flora International, the Snow Leopard Trust, World Wide Fund for Nature, and Naturschutzbund Deutschland with whom the Mine has worked previously.
Regulators	Relevant, always included	The regulatory environment is a key consideration. Maintaining strict adherence to regulations is a continuous process. Although each operating jurisdiction is unique, the areas usually considered are waste rock management, tailings dam management, impacts on glaciers/forests/lakes, floods, water sourcing, and mine closure. For example, at the Kumtor Mine, in the Kyrgyz Republic, the State Agency of Environmental Protection and Forestry is a key stakeholder. This agency includes several departments, including Natural Reserves and National Parks, Department of Hunting Control, and Regulation of Hunting Resources Population. Inspections at the mine site are carried out by the State Inspectorate for Environmental and Technical Safety.
Suppliers	Relevant, always included	Centerra's Supplier Code of Conduct mandates that suppliers operate in an environmentally responsible and efficient manner to minimize adverse impacts on the environment. Further, the Code stipulates that all Centerra suppliers shall comply with all applicable environmental laws and relevant regulations.
Other stakeholders, please specify	Relevant, sometimes included	Project financiers, such as the European Bank for Reconstruction and Development (EBRD), are relevant and sometimes considered in our organization's biodiversity-related risks assessment. For example, in 2016, Centerra announced that it had secured US \$75 million in senior secured project financing loan from the European Bank for Reconstruction and Development (EBRD). As per the requirements of the loan, Öksüt developed a formalized and participatory environmental and social impact assessment (ESIA). The ESIA built upon an already approved local EIA and included a suite of management and monitoring plans. Key impacts and risks considered included land acquisition and impacts on land users and livelihoods, impacts to biodiversity, water use, cyanide risks, impacts on surface and groundwater, emissions including dust, noise, worker and community health and safety risks, labour and contractor issues and site closure and rehabilitation planning. On January 30, 2020, our Turkish subsidiary that owns the Öksüt Mine, repaid its Öksüt Project financing facility, despite this OMAS plans to remain in compliance with EBRD Performance Requirements moving forward.

F-MM10.3/F-CO10.3

(F-MM10.3/F-CO10.3) Do you adopt biodiversity action plans to manage your impacts on biodiversity?

Yes

F-MM10.3a/F-CO10.3a

(F-MM10.3a/F-CO10.3a) Describe your criteria for defining which sites are required to produce biodiversity action plans.

Each site varies in the criteria required to produce biodiversity action plans. Within Centerra, the three main operational sites, Kumtor, Öksüt and Mount Milligan, have slightly varied criteria. Kumtor and Öksüt have developed and maintain a biodiversity management plan which outlines their approach to managing biodiversity risks, including a governance framework, monitoring procedures and KPIs that performance is measured against. Mount Milligan has stand-alone topic specific plans that together make-up the main components of a comprehensive biodiversity plan, including wildlife management, fisheries management, cultural heritage plan, invasive plant management, landscape, soil and vegetation management and reclamation plan.

The criteria considerations are below:

- National legislation and governmental regulations are two criteria that determine if a site will have a biodiversity action plan. In B.C., this means complying with the *Water Protection Act*, *Water Sustainability Act*, *Environmental Management Act*, *Fish Protection Act*. In Turkey, environmental legislation such as *Environmental Law No. 2872*, *Mines Law No. 3212*, *Forest Law No. 6831*, *Regulation on Environmental Impact Assessment*, are complied with.
- Sites that have migratory, threatened, and endangered species will assess these species in its respective environmental impact assessment.
- Lender requirements: Lenders such as the European Bank for Development and Reconstruction have comprehensive environmental requirements.
- International best practices and frameworks: Centerra aligns its operations and activities to international best practices, notably the International Council on Mining and Metals Mining Principles, and the World Gold Council's *Responsible Gold Mining Principles*. These principles require its members to fulfil requirements regarding Risk Management (ICMM Principle 4); Environmental Performance (ICMM Principle 6); Conservation of Biodiversity (ICMM Principle 7); Environmental Stewardship (RGMP Principle 8); and Biodiversity, Land Use and Mine Closure (RGMP Principle 9).
- Proximity to KBAs: Centerra recognizes land in proximity to ecological value as a criterium for a biodiversity action plan. For example, Centerra's Kumtor Mine site in the Kyrgyz Republic is in the vicinity of a nature reserve, the Sarychat-Ertash Nature Reserve. In Turkey, the Öksüt Mine is within proximity to Ramsar sites, key biodiversity areas, etc. These areas host vulnerable, migratory, threatened, and/or endangered species; due to the presence of these populations, a biodiversity action plan has been developed and implemented.
- Site Infrastructure: Tailings Storage Facilities (TSF) qualify as a criterium for a biodiversity action plan and environmental/ecosystem monitoring. To protect the wildlife and native plant species surrounding the TSFs, a plan is developed and implemented.

Individual sites have different requirements and criteria with respect to developing a biodiversity action plan. Centerra Gold is working towards establishing company-wide best practices related to environment and biodiversity that hold all sites accountable to the same requirements.

F11 Impacts, risks and opportunities

F-MM11.1/F-CO11.1

(F-MM11.1/F-CO11.1) Have any of your projects caused, or have the potential to cause, significant adverse impact(s) on biodiversity?

	Any projects caused, or have the potential to cause, significant adverse impact(s) on biodiversity?	Comment
Row 1	Yes	

F-MM11.1a/F-CO11.1a

(F-MM11.1a/F-CO11.1a) For your disclosed mining projects, provide details of the significant adverse impacts on biodiversity, with the respective response.

Mining project ID

Project 1

Type of impact

Direct

Impact

Conversion and/or degradation of natural habitats (other than forests)

Description of the impact

This answer is for all projects covered under this disclosure. Direct plant mortality has occurred from site clearing, soil salvage and stockpiling activities, as well as dust generation, at all three operating sites. This is an expected outcome of mining activities. At Mount Milligan, of the five plant communities at risk within Mount Milligan's footprint, only one plant community is likely to be affected, the Slender sedge – Common hook-moss community. At Kumtor, there are 205 species of vascular plants, belonging to 33 families, of which 8 were noted to be endemic to the Tien Shan Mountains. At Öksüt, 397 taxa from 60 plant families were identified based on field surveys conducted in 2009 and 2015. Of the species identified 53 are considered endemic of Turkey; of these taxa 48 are widespread endemic and 5 are regional endemic.

Consequence

Please select

Likelihood

Please select

Describe response

Generally, across all our operating sites, specific mitigation measures are implemented to avoid the loss of any rare plant species. These relate to: 1. Monitoring and equipping the Environmental Teams with species-specific plant identification information; 2. Salvaging and relocating any vulnerable or endangered flora species. At Mount Milligan, effects to vegetation and plant communities created during construction and operations are predicted to be reversed for much of the mine site by reclamation activities during both progressive reclamation and closure, although the composition and structure of restored habitats will likely be substantially different from that which existed before mining due to the presence of new landforms created by mining activities and the incorporation of end-land use planning initiatives. To mitigate the effects on plant species traditionally used by Indigenous Peoples, during Decommissioning and Closure, our reclamation will include replanting native plants, including those plant species used for traditional purposes by Indigenous Groups. At Mount Milligan, we collect native seeds with collaboration from indigenous community members for future reclamation and closure efforts especially around riparian areas, as these can be important as a key habitat for many species of plants and animals. Refer to Section F-MM14.4a/ F-CO14.4a for further information on Mount Milligan's progressive reclamation activities. At Öksüt, on-site conservation of vulnerable flora species is provided by setting aside specific fenced areas where soil and vegetation will be preserved, and access will not be permitted. In addition, vulnerable flora individuals directly impacted by the project are identified and salvaged. The salvaged individuals will be temporarily grown in a greenhouse by an ecologist. To ensure dust during construction activities does not harm the vulnerable flora species, dust accumulation will be monitored in both areas characterized by vulnerable flora species on-site and within 100m from the facilities. If excessive dust accumulation or stress signs are noticed, additional location specific mitigation measures will be applied (e.g., additional dust management measures, temporary dust screens, water spray to clean plants). Refer to Section F-MM14.1a/F-CO14.1a for further information on Öksüt's Biodiversity Offset Management Plan.

Mining project ID

Project 1

Type of impact

Indirect

Impact

Fragmentation of ecosystems

Description of the impact

This answer is for all projects covered under this disclosure. The presence of mine facilities and new linear infrastructure (including roads, electric power lines and fences) will cause habitat fragmentation for terrestrial species (fauna) within the study area. The level of fragmentation depends on the mobility and on the sensitivity of the species to anthropic disturbance.

Consequence

Please select

Likelihood

Please select

Describe response

Across our operating sites, we apply the mitigation hierarchy. At the Öksüt and Mount Milligan sites, avoidance measures have been considered particularly during the design of the facilities. General examples of avoidance measures include minimizing the footprint of individual facilities; minimizing the length of internal roads; fencing the mining areas within the permitted area to reduce the risk of footprint creep; using existing external roads and disturbance corridors; and, instituting a "no fishing and hunting" policy at sites (which is also a policy at the Kumtor Mine). Second, where feasible, our practices include direct translocation or seeding for wild stock populations of vulnerable flora. Refer to Section F-MM14.1a/F-CO14.1a for more information on Öksüt's ongoing offset activities and its Biodiversity Management Plan. Across Centerra, we strive to reclaim portions of mine sites that are no longer required for current mining operations. Rehabilitation measures may include the stripping and safe storage of fertile topsoil, to use for progressive reclamation, and progressive restoration of areas no longer required for operations. Refer to Section F-MM14.1a/F-CO14.1a for information on Mount Milligan's progressive reclamation activities.

F-MM11.2/F-CO11.2

(F-MM11.2/F-CO11.2) Have you identified any biodiversity risks with the potential to have a substantive financial or strategic impact on your business?

Yes

F-MM11.2a/F-CO11.2a

(F-MM11.2a/F-CO11.2a) How does your organization define substantive impact on your business?

Centerra defines 'substantive strategic or financial impact' as any financial (e.g. revenue or cost variance to budget) and/or operating impacts (e.g. shutdowns or impacts to production) to employee health and safety, the environment, local stakeholder relations and reputation, legal and regulatory compliance that could adversely affect the Company's business operations, prospects, financial condition, results of operations, or cash flows.

F-MM11.2b/F-CO11.2b

(F-MM11.2b/F-CO11.2b) For your disclosed mining projects, provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Type of risk

Physical

Primary risk driver

Other physical driver, please specify (Cyanide-related biodiversity impacts)

Primary potential impact

Fines, penalties or enforcement orders

Magnitude of the potential impact

Please select

Likelihood

Please select

Where does the risk driver occur?

Selected mines, business units or geographies only

Mining project ID

Project 1

Project 3

Company-specific description

The Kumtor and Öksüt Mines use cyanide. Cyanide is a hazardous chemical, and a spill could have short-term, direct impacts, or cumulative, long-term impacts on water and soil, vegetables and plants, fish populations, wildlife, human health, and the livestock that graze in the spill area. Water and soils subject to a spill could accumulate cyanide concentration levels that are poisonous for animals that drink the water and plant species growing in the soil. Fish populations exposed to a cyanide spill could bioaccumulate or accumulate within fish. Birds relying on local water sources that have been subject to a spill could also be negatively or fatally impacted. Flora and fauna species are vulnerable to a cyanide spill in the area, depending on the severity, scope, and duration of the spill.

Timeframe

Current - up to 1 year

Primary response to risk

Implementation of environmental best practices in direct operations

Description of response

The Cyanide Code is recognized as international best practice and helps protect human health and reduce the potential for environmental impacts. Companies that become signatories to the Cyanide Code must have their operations audited by an independent third party every 3 years to demonstrate compliance. The Kumtor Mine is certified by the ICMC for transportation of cyanide from the Balykchy Marshalling Yard to the mine site, with its current certification expiring three years from December 18, 2018. The Öksüt Mine uses a sodium cyanide (NaCN) to extract gold. The processing operation at the site was designed to utilize the state-of-the-art NaCN storage and handling system offered by German supplier CyPlus GmbH. Their proprietary CyPlus® SLS (Solid to Liquid System) was selected to minimize risks associated with the transportation and handling of sodium cyanide. In June 2018, CyPlus® GmbH's Wesseling cyanide plant passed its fifth certification in accordance with the ICMC. In 2020, Öksüt completed a gap assessment that included a review of activities and practices concerning the acquisition of cyanide; responsible transportation; handling and storage; usage; decommissioning planning; workers safety; emergency planning and community engagement. On June 26, 2020, Öksüt became a signatory to the Cyanide Code, beginning the certification process. Öksüt will complete the verification and audit process within three years of the certification date.

Type of risk

Physical

Primary risk driver

Other physical driver, please specify (Tailings-related biodiversity impacts)

Primary potential impact

Fines, penalties or enforcement orders

Magnitude of the potential impact

Please select

Likelihood

Please select

Where does the risk driver occur?

Selected mines, business units or geographies only

Mining project ID

Project 1

Project 2

Company-specific description

A tailings dam collapse would have significant impacts on the local biodiversity at both the Mount Milligan Mine site in Canada and Kumtor Mine Site in the Kyrgyz Republic. The spread of tailings and hazardous waste into the local watershed could have significant downstream effects, immediately impacting mammals, fish, reptiles, birds, insects, infiltrate soils, and potentially affect the ecosystem. The pollution could impact sensitive species, migratory species and impact the populations of endangered or threatened species in the area. Water quality could be compromised throughout the area, and due to the extensive network of rivers and lakes, the downstream effects could be widespread.

Timeframe

Current - up to 1 year

Primary response to risk

Implementation of environmental best practices in direct operations

Description of response

Centerra's Tailings Storage Facilities (TSFs) are managed to maintain structural performance and ensure worker, environmental and public safety. Centerra's TSFs, including the Centreline design TSF at Mount Milligan, are designed in accordance with all applicable dam safety regulations and requirements. In addition, operation of the TSFs is informed by, and routinely checked against, guidance from the Canadian Dam Association and the International Commission on Large Dams. In light of the recent global events and our commitment to public and environmental safety, Centerra formed a multi-disciplinary TSF Steering Committee ("the Committee") in 2019. The global Committee is comprised of: • Senior management from Risk & Insurance, Capital Projects & Technical Services, Sustainability and Environment, and Investor Relations; • General Managers and / or tailings engineers from sites; and, • Subject matter experts in areas such as water management. The Committee is mandated to: 1. Strengthen Centerra's internal and external tailings risk management procedures 2. Monitor the development of emerging regulatory requirements and international best practices. Centerra has initiated a project to implement a comprehensive risk management framework to capture and document the key components of risk management at its tailings facilities. Centerra is currently conducting initial baseline assessments for each site it owns or operates.

Type of risk

Physical

Primary risk driver

Other physical driver, please specify (Cumulative effects of metals/leaching)

Primary potential impact

Other, please specify (Potential for long-term water treatment)

Magnitude of the potential impact

Please select

Likelihood

Please select

Where does the risk driver occur?

Selected mines, business units or geographies only

Mining project ID

Project 2

Company-specific description

Metal Leaching (ML), or Acid Rock Drainage (ARD) has the potential to occur at the Mount Milligan and Öksüt Mines. Waste material classifications are distinguished as Non-Acid Generating (NAG), Potentially Acid Generating (PAG), oxide, and overburden. The segregation of waste materials are designed to minimize metal leaching, and to prevent Acid Rock Drainage during both the operational and closure phases of the project. ML/ARD occurs when sulphide minerals are exposed to oxygen and water in the absence of acid-neutralizing carbonate minerals. Oxidation of sulfides in tailings and waste rocks could have serious long-term environmental impacts. Sulfuric acid can lower the pH of waste rock leachate, which can mobilize heavy metals out of the rock, and these metals can contaminate nearby water sources and soils. This metal leaching can have significant cumulative effects, as the process can continue for years after the closure of a mine. More heavy metals in water and soil can degrade natural habitats for mammals, insects, reptiles, fish, microbes, etc. Contaminated water can be poisonous and/or lethal to fish living in contaminated waters, fish eggs hatched in waters, and insect larvae in water. Animals reliant on the water as a drinking source or as a habitat may also be negatively impacted.

Timeframe

>6 years

Primary response to risk

Implementation of environmental best practices in direct operations

Description of response

Mount Milligan has developed a comprehensive ML/ARD monitoring program which includes the interpretation of static and kinetic testing and characterization of waste rocks and tailings. Geochemical data is used to assess the longer-term behaviour of the net acid generation potential of the different waste materials. All waste materials with a neutralization potential (NP) cut off <2 are considered potentially acid generating (PAG) and are segregated within the TSF away from the outer extents of the dam to ensure that proper acid generation control and prevention methods are used. Finally, Mount Milligan has installed a 2-metre layer of non-PAG scavenger tailings or processed overburden over all PAG waste rock and cleaner tailings stored in the TSF at closure, effectively encapsulating all PAG materials and mitigating potential for oxidation and associated ML/ARD risks to receiving surface waters. Öksüt has comprehensive monitoring and measurement procedures in place manage ARD risks. At Öksüt, contact water generated on site has been limited by rigorously separating non-contact from contact water flows. All contact waters are contained within storage ponds on site to maintain the operation's status as a zero-discharge operation and to avoid environmental impacts. All contact water pond projects have been approved by the Ministry of Environment and Urbanization. If any seepage risk is identified, actions will be taken according to related procedures and legislation.

Type of risk

Physical

Primary risk driver

Other physical driver, please specify (Water-related impacts)

Primary potential impact

Increased operating costs

Magnitude of the potential impact

Please select

Likelihood

Please select

Where does the risk driver occur?

Company-wide

Mining project ID

<Not Applicable>

Company-specific description

Access to water is a universal human right and that good quality water is critical both to human life and to sustain ecosystems. Good quality water is defined as water used for potable, agricultural, sanitation and recreational use that should require only minimal to moderate levels of treatment to meet appropriate drinking water standards. We recognize that some of our operations require external water supply sources and that this has the potential to impact local sources of surface water and groundwater. We monitor the quality of surface and our groundwater sources, and conduct hydrology monitoring on a daily, monthly and/or quarterly basis, depending on site-specific permits and other requirements. In addition to internal monitoring, our operations are routinely subject to inspections by local government agencies. Practices include regular monitoring and reporting on surface and groundwater quality and quantity, data quality assurance protocols, development of water quality source terms based on host rock geochemistry to compare annual trends to long-term predictions, especially regarding metal leaching and acid rock drainage potential, and trend analysis against relevant federal and regional water quality standards and baseline data. All monitoring results are processed and stored in the company's environmental software, which is programmed with relevant and applicable monitoring guidelines for each site.

Timeframe

Current - up to 1 year

Primary response to risk

Implementation of environmental best practices in direct operations

Description of response

For example, Mount Milligan has developed and implemented a Site-Wide Adaptive Management Monitoring Plan. The purpose of the plan enables withdrawal of a sufficient volume of water from groundwater and surface water sources to support milling and processing activities while protecting fish, fish habitat and other aquatic resources in affected lakes and watercourses. The plan relies on monitoring data from select locations to identify where groundwater or surface water withdrawals could result in changes to groundwater and surface water quantity. In 2020, water quality samples were collected from the 35 permit-prescribed surface water monitoring sites and 40 permit-prescribed groundwater monitoring wells in addition to some additional monitoring programs implemented for assessing more specific trends. In addition, At Öksüt, the Heap Leach pad and Adsorption-Desorption Regeneration (ADR) plant is designed as a zero-discharge facility which has the aim to contain all process solution within the facility. The Heap Leach pad ADR ponds have been designed with a double liner system and have a leak detection and recovery system to minimize the risks of seepage. The ponds have been designed to be sufficient for extreme precipitation events, plus maintain an extra safety margin. During drier parts of the year, water collected in the overflow pond will be used as make-up water. Mount Milligan is also designed and permitted as a zero-discharge facility during operation.

Type of risk

Physical

Primary risk driver

Other physical driver, please specify (Mine's impact on surrounding air quality)

Primary potential impact

Increased operating costs

Magnitude of the potential impact

Please select

Likelihood

Please select

Where does the risk driver occur?

Company-wide

Mining project ID

<Not Applicable>

Company-specific description

Air pollution and air quality near mine sites have the potential to be negatively affected by mining activities. The key issues in terms of potential impacts on air quality include dust emissions (particulate matter of 2.5 micrometres and 10 micrometres). Nearby habitats, communities, and ecosystems may be impacted from settled dust. Additionally, emissions of potentially polluting gases such as sulphur dioxide, nitrogen oxides; and emissions of greenhouse gases, principally carbon dioxide.

Timeframe

Current - up to 1 year

Primary response to risk

Other, please specify (Implementation of environmental best practices, implementation of dust mitigation strategies)

Description of response

Throughout 2020, we routinely monitored air quality at Mount Milligan, Kumtor and Öksüt. Air quality monitoring is completed by monitoring stations located strategically around each mine. For example, at our Mount Milligan Mine, ambient air monitoring includes meteorological monitoring, dustfall monitoring, fine particulate, and plant metal update monitoring. At the Mine, we have fine particulate monitoring device that run every 3 days, called a Partisol station. The station measures the volume of PM10 and PM2.5 in the air over a 24-hour period. The Mount Milligan dustfall monitoring program consists of five air quality stations and one ambient air quality monitoring station. All dustfall stations were active throughout 2020 and are equipped with dustfall monitoring canisters to collect potential fugitive dust emissions from the project site. Monthly and annual dustfall canister samples are sent to an accredited laboratory for analysis. In addition to air quality monitoring, air quality management is a critical component to ensure we remain compliant with our permits and obligations. For example, at our Öksüt Mine, we have implemented control measures where potential for dust generation is significant, including soil stockpiles, highly trafficked roads, and especially for activities near sensitive receptors. Specific controls to manage dust include wetting and covering powdery materials transported on trucks, enforced speed limits, and washing facilities at site exits.

F-MM11.3/F-CO11.3

(F-MM11.3/F-CO11.3) Have you identified any biodiversity-related opportunities with the potential to have a substantive financial or strategic impact on your business?

No

F12 Governance

F-MM12.1/F-CO12.1

(F-MM12.1/F-CO12.1) Is there board-level oversight of biodiversity-related issues within your organization?

Yes

F-MM12.1a/F-CO12.1a

(F-MM12.1a/F-CO12.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for biodiversity-related issues.

Position of individual	Please explain
Board-level committee	Centerra's Sustainable Operations Committee (SOC) of the Board of Directors provides oversight on the company's environmental performance. The SOC is responsible for assisting the Board in fulfilling its oversight responsibilities in relation to Safety, Health and Environment, Reserves, and the Corporate Social Responsibility. The Committee establishes and reviews Centerra's environmental policies; manages the implementation of compliance systems; monitors the effectiveness of Centerra's environmental policies, systems, and monitoring processes. Policies and internal performance standards are approved by the Vice President and Chief Operating Officer and administered by the Vice President, Security, Sustainability, and Environment (SSE). Implementation of these policies and standards are managed by site-based environmental teams. On a quarterly basis, the VP, SSE provides the Sustainable Operations Committee with an update on performance related to key corporate and site-based environmental issues and provides an overview and analysis of emerging issues. To support this, on a quarterly all environmental site teams review the status of identified operational environmental risks and assess the likelihood and impact of emerging risks. This regular risk assessment process ensures that the team has proper resources to manage current and emerging risks. The Sustainable Operations Committee has seven (7) members: six (6) independent members, and one (1) member is non-independent. The Risk Committee provides oversight on significant or critical risks, including strategic, financial, and operational risks. Risk assessments are reviewed by the Vice President, Risk & Insurance. Risks assessed as a priority are presented to the Risk Committee at the quarterly meeting to ensure appropriate oversight and resources are provided to mitigate these risks. Centerra's Risk Committee of the Board of Directors provides oversight on the company's TSF management. Centerra's Risk & Insurance and Capital Projects & Technical Services teams provide an annual update to the Committee, at minimum, on the status of the company's TSFs and more frequently if changes occur to the TSF risk ratings. The Risk Committee has five (5) members: four (4) members are independent, and one (1) member is non-independent.

F-MM12.1b/F-CO12.1b

(F-MM12.1b/F-CO12.1b) Provide further details on the board's oversight of biodiversity-related issues.

	Frequency that biodiversity-related issues are a scheduled agenda item	Governance mechanisms into which biodiversity-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies	The Sustainable Operations Committee discuss/are made aware of biodiversity-related issues on a quarterly-meeting basis. The Vice President of Security, Sustainability, and Environment present quarterly updates on environmental performance, sustainability initiatives, indigenous relations, and security. The Sustainable Operations Committee is responsible for assisting the Board in fulfilling its oversight responsibilities in relation to, among other things: • The establishment and review of Centerra's safety, health, and environmental policies. • Management of the implementation of compliance systems. • Monitoring the effectiveness of Centerra's safety, health, and environmental policies, systems, and monitoring processes. • Receiving audit results and updates from management with respect to Centerra's health, safety, and environmental performance. • Reviewing the annual budget for safety, health, and environmental operations. • The Company's sustainability policies, programs, and performance. • The estimation of reserves by management. • The review of reserve information before publication. • Any additional matters delegated to the Sustainable Operations Committee by the Board. The Risk Committee provides oversight on significant or critical risks, including strategic, financial, and operational risks related to biodiversity and the environment. Risk assessments are reviewed by the Vice President, Risk & Insurance. Risks assessed as a priority are presented to the Risk Committee at the quarterly meeting to ensure appropriate oversight and resources are provided to mitigate these risks. The Risk Committee is responsible for assisting the Board in fulfilling its oversight responsibilities in relation to, among other things: • Company-wide risk management practices. • Ensuring risk informed decision making • Overseeing that the executive team has in place processes designed to identify and assess the key risks that the organization faces and has established appropriate mechanisms designed to address those risks. • Overseeing, in conjunction with other Board-level committees or the full Board, significant or critical risks, including strategic, financial, and operational risks. • Clarifying the division of risk-related responsibilities to each Board committee and analysis to determine that the oversight of significant or critical risks is not overlooked.

F-MM12.2/F-CO12.2

(F-MM12.2/F-CO12.2) Provide the highest management-level position(s) or committee(s) with responsibility for biodiversity-related issues (do not include the names of individuals)

Name of the position(s) and/or committee(s)

Other committee, please specify (Vice President, Security, Sustainability & Environment)

Responsibility

Both assessing and managing biodiversity-related risks and opportunities

Frequency of reporting to the board on biodiversity-related issues

Quarterly

Please explain

The Vice President of Security, Sustainability, and Environment (SS&E) is responsible for the development of environmental and/or sustainability standards, policies, and strategies, as well as oversees the implementation of environmental protocols and conformance. The Vice President also communicates key issues with the Board of Directors and the executive team. The VP, SS&E also presents a summary of updates and metrics to the Board every quarter. The summary includes updates of environmental performance (water, waste management, environmental management systems, and monitoring), social sustainability and community initiatives, indigenous relations, and security. Specific environmental and biodiversity-related risks may be addressed in these quarterly meetings on an 'as needed' basis. Risk assessments are reviewed by the Vice President, Risk & Insurance. Risks assessed as a priority are presented to the Risk Committee at the quarterly meeting to ensure appropriate oversight and resources are provided to mitigate these risks.

F-MM12.3/F-CO12.3

(F-MM12.3/F-CO12.3) Do you provide incentives to C-suite employees or board members for the management of biodiversity-related issues?

	Are there incentives to C-suite employees or board members?	Comment
Row 1	Yes	

F-MM12.3a/F-CO12.3a

(F-MM12.3a/F-CO12.3a) What incentives are provided to C-Suite employees or board members for the management of biodiversity-related issues (do not include the names of individuals)?

	Role entitled to incentive	Indicator for incentivized performance	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Other, please specify (Employees with AIPs)	Achievement of commitments and targets	Centerra's annual cash bonus incentive plan is a short-term incentive plan designed to provide annual cash bonuses based upon the achievement of corporate and individual targets in the year. Awards are based on the Company's results achieved during the year and the achievement of predetermined personal objectives. As stated above, health, safety, and sustainability performance (which includes environmental performance) accounts for 25% of the corporate objectives. 2020 corporate targets were: - To achieve the first 5%, Centerra had to have 0 Level IV or Level V environmental incidents. 0 incidents will give 100% or 150% of total weight. - To achieve the second 5%, the category is ESG rating improvement initiatives. At 150%, the company must have developed two (3) new Centerra Corporate Environmental Standards (e.g., Climate Change Resilience, Water Management etc.) and Implement two (2) new Centerra Corporate Standards at each operational site.
Non-monetary reward	Please select	Please select	

F-MM12.4/F-CO12.4

(F-MM12.4/F-CO12.4) Does your organization have a policy that includes biodiversity-related issues?

No, but we plan to develop one within the next two years

F-MM12.5/F-CO12.5

(F-MM12.5/F-CO12.5) Has your organization made any public commitment(s) to reduce or avoid impacts on biodiversity?

Yes

F-MM12.5a/F-CO12.5a

(F-MM12.5a/F-CO12.5a) Provide details on your public commitment(s), including the description of specific criteria, coverage, and timeframe.

Commitment

Adoption of the mitigation hierarchy approach

Coverage

Company-wide

% of total production covered by commitment

100%

Commitment timeframe

Mine closure

Please explain

Centerra is committed to contributing to the protection and conservation of biodiversity and requires the application of integrated approaches to land-use planning throughout the mining lifecycle. These practices are to be aligned with Good International Industry Practice ("GIIP") like the International Council on Mining and Metals. This means that management plans will apply the mitigation hierarchy, beginning with avoidance and followed by minimization, mitigation, and then offsetting if appropriate.

Commitment

Not to explore or develop mines in World Heritage sites

Coverage

Company-wide

% of total production covered by commitment

100%

Commitment timeframe

No specified timeframe

Please explain

Centerra Gold publicly committed to the World Gold Council's Responsible Gold Mining Principles (RGMPs). With this commitment comes the responsibility to fulfil the requirements of the RGMPs, specifically Principle 9, subsection 9.2: "We will not explore or seek to develop new mining operations in an area designated as a World Heritage Site". Centerra Gold commits to not exploring or developing mines in World Heritage Sites. All current exploration projects comply this commitment.

Commitment

Respect legally designated protected areas

Coverage

Company-wide

% of total production covered by commitment

100%

Commitment timeframe

No specified timeframe

Please explain

Centerra respects legally designated protected areas. These commitments apply from exploration into operations and through to mine closure. For example, the Kumtor Mine is in the vicinity of the Sarychat-Ertash Nature Reserve (SCER). Historically, Kumtor has committed to not expand into, develop, or explore in legally protected or internationally recognized areas and as such, avoids expansion into this protected area, ultimately helping protect the biodiversity in the nature reserve.

Commitment

Avoidance of negative impacts on threatened and protected species

Coverage

Company-wide

% of total production covered by commitment

100%

Commitment timeframe

No specified timeframe

Please explain

To protect endangered and threatened species within or near our permitted area, we have comprehensive monitoring and protection programs across our sites. Activities may include: • Defining corridors of movement and migratory patterns of key species, including through and/or near our permitted and exploration areas. • Daily monitoring of all avian and mammalian wildlife on our TSF and its immediate surroundings. • "No hunting" policies within our permitted area; and, • Recording the number of animals and birds in the permitted area. At Kumtor, our operations are adjacent to the Sarychat-Ertash Nature Reserve (SCER), comprising 135,000 hectares. To protect the endangered wildlife of the SCER, which frequently move through the concession area, we have maintained a strict no-hunting policy in our permitted area and provide annual training to all site employees on proper protocols for ensuring human and wildlife safety (including prompt notification to the environmental team when wildlife is spotted, decreasing vehicle speeds around wildlife) at Kumtor. Since the establishment of the Nature Reserve in 1995, the number of argali (mountain sheep), a near threatened species, has tripled in size in this area. As of January 2020, there are 3,250 argali, 1,889 ibex (mountain goats), 20 brown bears, 13 snow leopards and 11 manuls living in the Reserve. At our Mount Milligan Mine, in 2019 and 2020, we conducted a baseline data collection program for wildlife and wildlife habitat to support the ongoing identification of viable life-of-mine water supply sources including potential surface water supply options. The baseline work included field surveys which were also used to identify mitigation measures that would help to avoid or reduce potential adverse effects on wildlife and wildlife habitat during construction and operation of the Project.

F13 Business strategy

F-MM13.1/F-CO13.1

(F-MM13.1/F-CO13.1) Are biodiversity issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are biodiversity-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, biodiversity-related issues are integrated	Please select	Centerra's policy is to conduct business in a way that safeguards public health and the environment. We aim to ensure that our operations have closure plans or frameworks in place, depending on the site's current stage of operations. Our annual reviews include annual closure cost updates. Across Centerra, we strive to reclaim portions of mine sites that are no longer required for current mining operations. Rehabilitation measures may include the stripping and safe storage of fertile topsoil, to use for progressive reclamation, and progressive restoration of areas no longer required for operations. In early 2021, we formed a company-wide Mine Closure Steering Committee (MCSC) focused on helping sites manage closure costs, identify opportunities for progressive reclamation, and ensure alignment with international good industry practice on decommissioning and closure.
Strategy for long-term objectives	Yes, biodiversity-related issues are integrated	Please select	Centerra's policy is to conduct business in a way that safeguards public health and the environment. We aim to ensure that our operations have closure plans or frameworks in place, depending on the site's current stage of operations. Our annual reviews include annual closure cost updates. Across Centerra, we strive to reclaim portions of mine sites that are no longer required for current mining operations. Rehabilitation measures may include the stripping and safe storage of fertile topsoil, to use for progressive reclamation, and progressive restoration of areas no longer required for operations. In early 2021, we formed a company-wide Mine Closure Steering Committee (MCSC) focused on helping sites manage closure costs, identify opportunities for progressive reclamation, and ensure alignment with international good industry practice on decommissioning and closure.
Financial planning	Yes, biodiversity-related issues are integrated	Please select	All sites record appropriate (IFRS-compliant) asset retirement obligations (AROs) that are reviewed regularly and audited annually with our financial statements. These are estimates based on the risk-adjusted costs required to settle present obligations. Our AROs are approved by Centerra's executive team. In 1995, in connection with Centerra's license to mine in the Kyrgyz Republic, Kumtor set up a reclamation trust fund to pay for mine closure liabilities. As of December 31, 2020, the balance in the fund was US\$47.0 million. For our operations in North America, as at December 31, 2020, we provide financial assurance (surety bonds) for reclamation costs of approximately C\$52.6 million for Mount Milligan Mine.

F14 Implementation

F-MM14.1/F-CO14.1

(F-MM14.1/F-CO14.1) Have you specified any measurable and time-bound targets related to your commitment(s) to reduce or avoid impacts on biodiversity?

Yes

F-MM14.1a/F-CO14.1a

(F-MM14.1a/F-CO14.1a) Provide details of your target(s) related to your commitment(s) to reduce or avoid impacts on biodiversity, and progress made.

Target reference number

Target 1

Target label

Öksüt Biodiversity Offset Strategy Targets

Base year

2016

Target year

2028

% of target achieved

Please select

Please explain

Centerra has made a no net loss commitment at its Öksüt Mine. Öksüt's permitted mine area is significant for the conservation of species. The site's goal is to have a net positive impact on biodiversity of the Develi region. Öksüt aims to reach this goal during the mine closure but will seek opportunities to achieve net positive impact as early as practicable in the project life. Öksüt has a Biodiversity Offset Management Plan (BOMP) which aims to ensure that residual and unavoidable impacts on Priority Biodiversity Features (PBFs) and Critical Habitats (CHs), resulting from the mine's activities after the application of the mitigation measures, will be offset in accordance with EBRD Performance Requirement 6 (PR6). Öksüt's offset activities are focused on vulnerable flora species, threatened habitat, and endangered and endemic flora species. The offset target for each species derives from the calculation of the net loss. To consider uncertainties and the need to provide a safety buffer, the offset requirement was calculated as 150% of net loss biodiversity values for critical habitats and as 120% of net loss biodiversity values for priority biodiversity features. Offset activities include the protection of existing populations (fencing existing populations to protect from excessive grazing and trampling), reintroductions and direct translocation or seeding for wild stock populations of vulnerable flora, enrichment planting of existing forested areas and reforestation of selected areas along the mine fence line. Throughout 2020, Öksüt's activities were focused on: - Collaborating with botanists from Gazi University on laboratory studies for *Astragalus vestitus* spp. nov. (CR) to determine germination physiologies; - Scoping studies to determine whether species with critical distribution were present in the area planned for a new overflow pond (*Astragalus vestitus*, *Verbascum luridiflorum*, *Cirsium aytatchii*, *Campanula stricta* var. *alidagensis*). *Astragalus vestitus* was identified and replanted in a selected plantation area; - Determine success status of species with critical distribution that were being grown in the greenhouse environment; In addition, approximately 50,000 *Verbascum luridiflorum* seeds that were grown in the greenhouse environment were collected either planted in oak habitats or sent for germination studies.

Target reference number

Target 2

Target label

Mount Milligan No Net Loss of Fish and Aquatic Habitat

Base year

2011

Target year

2027

% of target achieved

Please select

Please explain

At Mount Milligan, Section 27.1 of the Metal Mining Effluent Regulation (MMER) and the Department of Fisheries and Oceans Canada (DFO) Authorization requires the Mine to establish a 'no net loss' of fish habitat, meaning that the Mine must have a plan to create or enhance impacted fish habitats. At Mount Milligan, a Fish Habitat Compensation Plan was developed through consultation with regulators, Indigenous Groups, fisheries, biologists, environmental engineers, and forestry professionals. The Plan is comprised of two parts: 1) an impact assessment on fish from the mine, excluding the TSF, and 2) an impact assessment specifically on the fish habitat inside the TSF. Between the years of 2011 and 2017, Mount Milligan's Fish Habitat Compensation Program included compensatory works such as habitat complexing, construction of three offsetting ponds, restoration and improvement of fish passages and building habitat in the Rainbow Creek watershed. In 2020, Mount Milligan retained a consultant to monitor the performance of the intended function and effectiveness of various compensation projects as part of the effectiveness monitoring program developed in 2013. A few of the key conclusions from the assessment included: - A subset of 89 structures of the 368 enhancement structures, in Rainbow Creek were assessed and it was concluded that the compensation projects are functioning as intended and providing habitat for fish. The structures remained in stable condition, resulting in 19,607 m² of enhanced habitat. - Water temperatures and dissolved oxygen concentrations in the ponds met the success criteria throughout the winter months - Successful revegetation of riparian areas was documented. - Fish are utilizing the ponds and corrective actions taken place in fall 2020 restored a fish passage previously restricted by a beaver dam.

F-MM14.2/F-CO14.2

(F-MM14.2/F-CO14.2) Provide details on mining projects that are required to produce Biodiversity Action Plans.

Row 1

Number of mining projects required to produce a biodiversity action plan

3

% of mining projects required to produce a biodiversity action plan that have one in place

100

Format

Stand-alone document

Frequency biodiversity action plans are reviewed

Regularly

Please explain

Öksüt has a Biodiversity Action Plan. The Biodiversity Action Plan (BAP) features 9 specific tasks related to biodiversity conservation and sustainable management of living natural resources. These tasks consider flora studies, a threatened flora species conservation plan, flora salvage plan, on-site conservation of flora and vegetation, flora seed collection, flora cultivation, threatened habitat studies, threatened habitat restoration, common tortoise survey, installation of tortoise-friendly culverts, bird studies in the Sultan Sazlığı National Park and along the powerline route, mitigation measures for birds, a Biodiversity Offset Strategy (BOS) and Biodiversity Offset Management Plan (BOMP) and Biodiversity Management Plan (BMP). Mount Milligan has several standalone plans, including a: Wildlife Management Plan; Fisheries Management Plan; Invasive Plant MP; Landscape, Soil and Vegetation Management Plan; Environmental Effects Monitoring Plan; and Receiving Water Quality Management Plan. Summarizations of these plans can be publicly accessed here: <https://projects.eao.gov.bc.ca/api/document/5888e5b7817b85ae43cf7bf6/fetch>

F-MM14.3/F-CO14.3

(F-MM14.3/F-CO14.3) Has your organization adopted avoidance and/or minimization as strategies to prevent or mitigate significant adverse impacts on biodiversity?

Yes

F-MM14.3a/F-CO14.3a

(F-MM14.3a/F-CO14.3a) Provide relevant company-specific examples of your implementation of avoidance and minimization actions to manage adverse impacts on biodiversity.

Mining project ID

Project 1

Approach

Minimization

Type of measure

Operational controls

Description

In 2013, Kumtor developed an integrated waste management strategy with input from international consultants. This strategy includes principles such as minimizing the negative impact of waste on the environment. In 2017, Kumtor introduced a partial separate collection and recycling of solid domestic waste in the camp. In particular, a four-component separate collection of waste was introduced in the camp kitchen. In 2020, Kumtor achieved the previously set objectives for waste management, namely: • 100% recycling of industrial and shipping waste; • 100% composting of food waste from the camp kitchen on site. A biodegradable waste processing station, or compost unit, is operated on-site. In 2020, 244,040kg of food waste was processed, generating 63 tonnes of compost.

Mining project ID

Project 3

Approach

Minimization

Type of measure

Operational controls

Description

In December 2020, Öksüt was issued a Zero Waste Certificate by the Ministry of Environment and Urban Planning (MoEU). Turkey's Zero Waste Regulation requires companies to develop 'zero waste management systems' aimed at proper waste separation, prevention and reduction of waste generation. There are four different zero waste certificates that are prescribed in the regulation. Öksüt has achieved its basic certification and will aim for gold (tier three) certification in 2021. As per the regulation, provincial directorates of the MoEU will complete at least one inspection of Öksüt's zero waste management system during the certificate's validity period. Öksüt's current Zero Waste Certificate will expire in five years from the date of issuance.

Mining project ID

Project 1

Approach

Avoidance

Type of measure

Other avoidance measure, please specify (Footprint expansion)

Description

The Kumtor Mine is in the vicinity of the Sarychat-Ertash Nature Reserve (SCER). Historically, Kumtor has committed to not expand into, develop, or explore in legally protected or internationally recognized areas and as such, avoids expansion into this protected area, ultimately helping protect the biodiversity in the nature reserve.

Mining project ID

Project 3

Approach

Minimization

Type of measure

Abatement controls

Description

At Öksüt, vegetation clearing for the construction of the mine area will occur. To minimize the impacts, Öksüt has implemented the mitigation hierarchy strategy to minimize the amount of vegetation cleared and the amount of topsoil removed or disturbed. These minimization efforts include: - Ensuring all vehicles drive on designated routes unless otherwise authorized; - Using "bird repellent tape" to guide nesting birds away from the construction area; - Hiring an ecologist to perform pre-construction surveys in the areas prior to vegetation clearing. The survey will focus on fauna species with limited mobility that cannot move ahead of the construction (e.g., the common tortoise). Species that cannot move will be properly relocated; - Preserving vegetation areas which host nests; and, - Installing tortoise-friendly culverts for reptiles to use in crossings and to minimize the effects of habitat fragmentation.

F-MM14.4/F-CO14.4

(F-MM14.4/F-CO14.4) Have significant impacts on biodiversity been mitigated through restoration?

	Have significant impacts on biodiversity been mitigated through restoration?	Comment
Row 1	Partially	The Mount Milligan Mine in BC, Canada has continued to implement progressive reclamation measures throughout 2020.

F-MM14.4a/ F-CO14.4a

(F-MM14.4a/ F-CO14.4a) Provide details on restoration actions you have in place in your sites.

Mining project ID

Project 2

Description of the impact being mitigated by restoration

Impacts that are being mitigated by restoration and progressive reclamation are deforestation, vegetation clearing, and soil erosion – which are all due to surface development of the mine and expansion of the pit.

Type of ecosystem restored

Forest ecosystems

Total area restored to date (hectares)

Total area to be restored (hectares)

Target year

Describe restoration actions

Since construction began in 2012, Mount Milligan has reclaimed land through recontouring, seeding/planting, fertilization, and revegetation. As of December 2020, the total area disturbed is 1857 hectares and total area recontoured is 29.1 hectares (5.4 hectares in 2020), total area seeded / planted is 53.4 (8.5 in 2020), and total area fertilized is 34.3 hectares (0 in 2020). During 2020, Mount Milligan Mine continued reclamation research trials and operational reclamation along sections of the Tailings Storage Facility (TSF) designed to foster establishment of native plant cover and to inform future operational reclamation strategies. Mount Milligan placed a growing order with a local nursery for 880 willow seedlings that were grown from cuttings collected during the 2019 willow staking program on the TSF. Mount Milligan also placed a growing order with a Native Plant Nursery for 5,040 Sitka alder and 2,000 fireweed seedlings for planting in the Spring of 2020. Mount Milligan hired a crew of three tree planters to plant both the reclamation research trials and a portion of the dam under the supervision of a reclamation specialist. A total of four hectares (ha) of dam slope were planted in 2020. An additional tree planting campaign took place consisting of planting 6,000 conifers at several locations around the mine site. These locations had previously received topsoil placement and surface preparation. These areas included sections along the Rainbow Forest Service Road and along disturbed areas along waterline corridor and Lower Rainbow Valley groundwater well field. Mount Milligan will continue to assess the survivorship and growth rates of the plants in the reclamation research trials and assess the site for additional opportunities for progressive reclamation.

F-MM14.5/F-CO14.5

(F-MM14.5/F-CO14.5) Have significant residual impacts of your projects been compensated through biodiversity offsets?

	Have residual impacts been compensated through biodiversity offsets?	Comment
Row 1	Partially	Centerra has made a no net loss commitment at its Öksüt Mine. Öksüt's permitted mine area is significant for the conservation of species. To ensure that the biodiversity of the Develi region ultimately benefits from Öksüt's presence in the region, the site's goal is to have a net positive impact on biodiversity of the Develi region.

F-MM14.5a/F-CO14.5a

(F-MM14.5a/F-CO14.5a) Provide details on the biodiversity offsets you have in place.

Mining project ID

Project 2

Description of the impact being offset

Centerra has made a no net loss commitment at its Öksüt Mine. Öksüt's permitted mine area is significant for the conservation of species. To ensure that the biodiversity of the Develi region ultimately benefits from Öksüt's presence in the region, the site's goal is to have a net positive impact on biodiversity of the Develi region.

Motivation

Lender requirements

Type of offset

Restoration offset (forests)

Area (hectares)

Describe the offset

Öksüt has a Biodiversity Offset Management Plan (BOMP) which aims to ensure that residual and unavoidable impacts on Priority Biodiversity Features (PBFs) and Critical Habitats (CHs), resulting from the mine's activities after the application of the mitigation measures, will be offset in accordance with EBRD Performance Requirement 6 (PR6). Öksüt's offset activities are focused on vulnerable flora species, threatened habitat, and endangered and endemic flora species. The offset target for each species derives from the calculation of the net loss. To consider uncertainties and the need to provide a safety buffer, the offset requirement was calculated as 150% of net loss biodiversity values for critical habitats and as 120% of net loss biodiversity values for priority biodiversity features. Offset activities include the protection of existing populations (fencing existing populations to protect from excessive grazing and trampling), reintroductions and direct translocation or seeding for wild stock populations of vulnerable flora, enrichment planting of existing forested areas and reforestation of selected areas along the mine fence line.

F-MM14.6/F-CO14.6

(F-MM14.6/F-CO14.6) Is your organization implementing or supporting additional conservation actions?

	Implementing or supporting additional conservation actions?	Comment
Row 1	No	

F-MM14.7/F-CO14.7

(F-MM14.7/F-CO14.7) Do your mining projects have closure plans in place?

	Are there closure plans in place?	Comment
Row 1	Yes	The Kumtor Mine has a conceptual closure plan, last updated in 2019. The Öksüt Mine will develop a conceptual closure plan one year after production commences. Mount Milligan annually prepares a Five-Year/Conceptual Reclamation Mine and Reclamation Plan and submits it to the Ministry of Energy, Mines and Low Carbon Innovation. For all sites, we record appropriate (IFRS-compliant) Asset Retirement Obligations (ARO) that are reviewed regularly and annually audited with our financial statements. This is an estimate based on the risk-adjusted costs required to settle present obligations discounted using a pre-tax risk-free discount rate consistent with the time period of expected cashflows. These cash flows can represent third party or internal costs assumed for work intended to be completed in conformity with each site's agreed upon closure plan. Our AROs are approved by Centerra's executive team.

F-MM14.7a/F-CO14.7a

(F-MM14.7a/F-CO14.7a) Please provide details on mines with closure plans.

Row 1

Percentage of mines with closure plans

33

Percentage of closure plans that take biodiversity aspects into consideration

100

Is there a financial provision for mine closure expenditure?

Yes, for all mines

Frequency closure plans are reviewed

Regularly (all projects)

Please explain

The Kumtor Mine has a conceptual closure plan, last updated in 2019. The Öksüt Mine will develop a conceptual closure plan one year after production commences. Mount Milligan annually prepares a Five-Year/Conceptual Reclamation Mine and Reclamation Plan and submits it to the Ministry of Energy, Mines and Low Carbon Innovation. In early 2021, Centerra formed a company-wide Mine Closure Steering Committee (MCSC) focused on helping sites manage closure costs, identify opportunities for progressive reclamation, and ensure alignment with international good industry practice on decommissioning and closure.

F-MM14.8/F-CO14.8

(F-MM14.8/F-CO14.8) Can you disclose the area rehabilitated (in total and in the reporting year) for each of your mining projects?

	Disclosing area rehabilitated (in total and in the reporting year)?	Comment
Row 1	Partially	Refer to F-MM14.8a/F-CO14.3a.

F-MM14.8a/F-CO14.8a

(F-MM14.8a/F-CO14.8a) Provide details on the area rehabilitated (total/reporting year) for each of your mining projects, including post-mining land use.

Mining project ID

Project 2

Total area rehabilitated (hectares)

116.8

Area rehabilitated in the reporting year (hectares)

13.9

Describe post-mining land use

The end land use objectives for the reclaimed Mt. Milligan Mine are wildlife, recreation, and reestablishment of opportunities for traditional use of the land by Indigenous groups. Recreation opportunities expected after reclamation activities include the following: Improved safety access to the area by the upgraded Rainbow Forest Service Road (FSR); Access to reclaimed areas that provide wildlife habitat and contain native vegetation species (i.e., opportunities for activities such as hiking, wildlife viewing, and plant harvesting); Continued use of Rainbow Creek for fishing; and Hunting opportunities on the former mine site.

Mining project ID

Project 3

Total area rehabilitated (hectares)

0

Area rehabilitated in the reporting year (hectares)

0

Describe post-mining land use

The post-mining land use objectives are to: • Return as much land as possible back to its original state and usage by rehabilitating, constructing engineered soil, replanting, and reseeded of disturbed areas • Minimize risks to the environment • Minimize safety risks to local communities by removing and safely disposing of all surface infrastructure and wastes, chemicals, reagents, and materials from the EIA permitted area • Implement a long-term post-closure monitoring program to ensure stable and safe landforms are left behind

F15 Engagement

F-MM15.1/F-CO15.1

(F-MM15.1/F-CO15.1) Do you participate in or endorse any of the following global initiatives?

	Participate or endorse?	Comment
Extractive Industries Transparency Initiative	Yes	Centerra has played an active role in promoting the Extractive Industries Transparency Initiative ("EITI") in the Kyrgyz Republic. The Company's mine in the Kyrgyz Republic were among the first to sign on, report and help improve EITI infrastructure. Centerra joined EITI as a Supporting Company in 2011. The EITI Report on the Kyrgyz Republic, 2015-2017, can be found here: https://eiti.org/files/documents/en_2015-2017_eiti_report_kyrgyz_republic.pdf
UN Global Compact	No	
Natural Capital Coalition	No	
Business and Biodiversity Pledge	No	
New York Declaration on Forests	No	

F-MM15.2/F-CO15.2

(F-MM15.2/F-CO15.2) Do you participate in or support industry-led and/or standards-setting initiatives and organizations promoting sustainability in the mining sector?

	Participating or supporting industry-led and/or standards-setting initiatives?	Comment
Row 1	Yes	Refer to F-MM15.2a/F-CO15.2a.

F-MM15.2a/F-CO15.2a

(F-MM15.2a/F-CO15.2a) Indicate the initiatives and/or organizations you took part in or supported during the reporting year.

Activities	Initiatives	Comment
Industry-led mining sustainability initiative/organization	Other industry-led initiative, please specify (World Gold Council)	Site-specific activities are guided by the requirements set out by international standards and frameworks that Centerra has adopted. Centerra is a member of the World Gold Council (WGC), participates in the WGC ESG Taskforce, and is aligned to the WGC's Responsible Gold Mining Principles (RGMP). The RGMPs is a comprehensive framework of best environmental, social and governance principles that provide clear expectations for consumers, investors, and the downstream supply chain as to what constitutes responsible gold mining.

F-MM15.3/F-CO15.3

(F-MM15.3/F-CO15.3) Do you collaborate or engage in partnerships with non-governmental organizations to promote the implementation of your biodiversity-related goals and commitments?

	Collaborating or partnering with non-governmental organizations?	Comment
Row 1	No	Historically, Kumtor has worked with Flora & Fauna International (FFI) on several projects, a majority being initiatives for the Sarychat-Ertash Nature Reserve. In the past, FFI worked with Kumtor to evaluate the situation, activities, and skills of employees at the Sarychat-Ertash Nature Reserve. The project also conducted baseline surveys on flora, mammals, insects, and aquatic invertebrates in 2007 and 2008 and produced a Reserve management plan and biodiversity monitoring and anti-poaching strategies. Additional botanical and zoological surveys were carried out in 2013 with the assistance of FFI. Along with FFI, Kumtor has worked with the World Wildlife Fund to fundraise and implement sustainability initiatives for the Sarychat-Ertash Nature Reserve. As of 2020, there were no collaborations or partnerships with NGOs.

F-MM15.5/F-CO15.5

(F-MM15.5/F-CO15.5) Do you engage with other stakeholders to further the implementation of your policies concerning biodiversity?

Yes

F-MM15.5a/F-CO15.5a

(F-MM15.5a/F-CO15.5a) Provide relevant examples of other biodiversity-related engagement activities that happened during the reporting year.

Activities

Other, please specify (Engaging with local universities)

Mining project ID

Project 1
Project 3

Please explain

Centerra's Kumtor and Öksüt mines have collaborated with local universities on biodiversity monitoring and management programs. At Kumtor, the Institute of Biology and Soil Sciences from the National Academy of Sciences of the Kyrgyz Republic conducted the mine's annual 2020 wildlife census at the Kumtor Mine and its adjoining area. In addition, at our Öksüt Mine, the site collaborates with botanists from Gazi University on germination studies and to monitor progress of the site's biodiversity management offset plan. Further details can be found in Section F-MM14.1a/F-CO14.1a of this disclosure.

Activities

Engaging with indigenous peoples

Mining project ID

Project 2

Please explain

Throughout 2020, the Mount Milligan Mine continued its engagement and collaboration with local Indigenous groups on the development of its reclamation strategies and activities. This provides Mount Milligan with an opportunity to incorporate traditional ecological knowledge into its reclamation plans.

F16 Verification

F-MM16.1/F-CO16.1

(F-MM16.1/F-CO16.1) Do you verify any biodiversity-related information reported in your CDP disclosure?

Yes

F-MM16.1a/F-CO16.1a

(F-MM16.1a/F-CO16.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module

F10. Procedures

Data points verified

Presence of a Biodiversity Management Plan and Offset Strategy.

Verification standard

World Gold Council's Responsible Gold Mining Principles

Please explain

In November 2020, Centerra completed an external assurance on its progress implementing and conforming to the Responsible Gold Mining Principles. At the Öksüt Mine, the assurance activities reviewed the site's processes and practices related to biodiversity commitments, including the existence of a biodiversity action management plan. Centerra's 2020 RGMP Progress Report can be referred to here: https://sustainability.centerragold.com/_doc/Centerra_Gold_RGMP_Progress_Report_2020.pdf

F17 Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Information contained in this response which are not statements of historical facts, and the documents incorporated by reference herein, may be "forward-looking information" for the purposes of Canadian securities laws. Such forward-looking information involves risks, uncertainties and other factors that could cause actual results, performance, prospects, and opportunities to differ materially from those expressed or implied by such forward looking information. The words "believe", "expect", "anticipate", "contemplate", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule", "understand" and similar expressions identify forward-looking information. These forward-looking statements relate to, among other things: potential biodiversity impacts of the potential risks and opportunities identified, as set out in the responses, plans for site reclamation, plans for the development of internal standards, community development projects, certifications, including the International Cyanide Management Code, and plans / commitments under any frameworks like the Responsible Gold Mining Principles.

Forward-looking information is necessarily based upon several estimates and assumptions that, while considered reasonable by Centerra, are inherently subject to significant political, business, economic and competitive uncertainties, and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking information.

There can be no assurances that forward-looking information and statements will prove to be accurate, as many factors and future events, both known, and unknown could cause actual results, performance, or achievements to vary or differ materially from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements contained herein or incorporated by reference. Accordingly, all such factors should be considered carefully when making decisions with respect to Centerra, and prospective investors should not place undue reliance on forward looking information. Forward-looking information is as of July 28, 2021, Centerra assumes no obligation to update or revise forward looking information to reflect changes in assumptions, changes in circumstances or any other events affecting such forward-looking information, except as required by applicable law.

This CDP Forests Questionnaire 2021 is prepared in respect of the 2020 financial year. Readers are cautioned that, in May 2021, the Government of the Kyrgyz Republic seized control of the Kumtor Mine and therefore Centerra is no longer in control of the Kumtor Mine or the ESG policies, procedures and initiatives relating to the Kumtor Mine which are described in this report. Reference is made to news releases of Centerra dated May 7, 16, 17 and 31, 2021, available on SEDAR at www.sedar.com, for more information regarding this matter. As of the date of this report, the situation continues to develop, and additional news release can be expected.

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

	Job Title	Corresponding job category
Row 1	President & Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms