



Environmental & Social Management System

Surface Water Management Plan

Surface Water Management Plan		
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1 INTRODUCTION

1.1 Purpose

Centerra Gold Inc. (Centerra) has developed this Surface Water Management Plan for the exclusive application at the Gatsuurt Gold Project site. This Management Plan is one of a series of environmental procedures (EPs) that outline how Centerra manages the environmental aspects of its Gatsuurt operations. The purpose of this Management Plan is to:

- Define the scope of the Management Plan and set out applicable management interfaces;
- Define roles and responsibilities;
- Outline the applicable Project Standards relevant to this Management Plan;
- Define Project commitments, operational procedures and guidance relevant to this Management Plan;
- Define monitoring and reporting procedures, including Key Performance Indicators;
- Defined training requirements; and
- Set out references for supporting materials and information.

1.2 Application

The requirements set out in this Management Plan apply to all Gatsuurt Project operations, as well as personnel and contractors, including: the Gatsuurt Mine site; the ore processing and tailings management facilities at Boroo Gold Mine; the ore haulage route between Gatsuurt Mine and Boroo Gold Mine; and the mine support and accommodation facilities located at Boroo Gold Mine.

This Management Plan is a component of the Centerra owned Boroo Gold Company (BGC) Safety, Health and Environmental Management System (HSEMS), which is currently in effect at the Boroo Gold Mine, is owned by the BGC General Manager and will be tailored and applied to the Gatsuurt Project. Any subsequent changes to the HSEMS may result in the changes to this Management Plan.

1.3 Commencement

This Management Plan applies from commencement of project construction.

1.4 Authority and Management

This Management Plan is owned by the BGC Director Environment. This Management Plan will be reviewed on a two-yearly basis to determine whether any changes or updates are required to the plan unless a more frequent update is required to reflect changing project design or procedures.

Any requests for changes to this Management Plan must be addressed to the owner of this management plan and will be subject to appropriate review and approval processes as outlined in the BGC change management processes.

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2 SCOPE

2.1 Scope of this Management Plan

This Management Plan applies to all Centerra activities undertaken for the Gatsuurt Project, including contracted activities relevant to construction, mining operations and mine closure. The Gatsuurt Project scope include the Gatsuurt Mine site; the ore processing, and tailings management facilities at Boroo Gold Mine; the ore haulage route between Gatsuurt Mine and Boroo Gold Mine, and; the mine support and accommodation facilities located at Boroo Gold Mine.

2.2 Overlaps with other Management Plans

This Management Plan is part of the overall suite of Management Plans developed for the Gatsuurt Project and as described in the HSEMS. Other plans that are relevant to this plan include:

- Acid Rock Drainage Management Plan;
- Gatsuurt Mine Closure Plan;
- BGC Tailings Management Facility Manual;
- Hazardous Materials Management Plan; and
- Biodiversity Management Plan.

3 ROLES AND RESPONSIBILITIES

3.1 Key Roles and Responsibilities for Management Plan Implementation

Principal roles and responsibilities for the implementation of this plan are outlined below.

Table 1: Key Roles and Responsibilities

Role	Responsibilities
BGC General Director	Ensuring Project compliance with the Project Standards and other requirements set out in this Plan. Approval of this Plan and resources required for implementation.
BGC Director Environment	Overall responsibility for Plan scope and implementation. Development, monitoring and revision of this Plan.
Environment Superintendent	Timely implementation of this Plan, including coordination with implementing organisations and other stakeholders. Plan implementation.
Contractors	Ensuring all assets under their control comply with BGC policies and procedures. Supplying certification and/or license in accordance with statutory requirements.

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Role	Responsibilities
	Complying with BGC's requirements for environmental management. Reporting of all actual and potential environmental impacts to relevant supervisor or managing body.
Employees	Minimise the impact of their activities on the environment wherever practical and reasonable. Complying with the obligations outlined in this Management Plan, as well as any other relevant BGC HSEMS policies and procedures. Reporting of all actual and potential environmental impacts to relevant supervisor or managing body.

3.2 Key Interfaces

Key interfaces in the implementation of this Management Plan (i.e. roles with responsibility for delivering elements of this Management Plan) include:

- General Manager Operations, particularly in relation to mine planning, mine reclamation and closure planning, and provision of resources for the effective implementation of the HSEMS;
- Geology Manager in regards to the ongoing geochemical characterisation of the Gatsuurt ore body and the provision of inputs to the mine waste model;
- Mine Manager for implementation of surface water diversion, water treatment, mine plan and mine reclamation and closure plan; and
- Mine laboratory manager to ensure availability of accurate validation data during operations.

4 PROJECT STANDARDS

Applicable Standards must be complied with for all Project activities (the "Project Standards").

4.1 Applicable Mongolian Legislation

Applicable Mongolian Legislation related to this SWMP include:

- Law on Environmental Protection (1995);
- Law on Environmental Impact Assessment (2012);
- Law on Water (2012);
- Law on Water Resource Pollution Fee (2012);
- Law on Natural Resource Use Fee (2012);
- Law on Water Pollution Fee (2012);
- Law on Toxic and Hazardous Chemicals (2006).

4.2 Applicable Mongolian National Standards

Applicable Mongolian National Standards (MNS) related to this Plan include:

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- MNS 3342 - 1982 Environmental protection. Hydrosphere. General requirement for protection of groundwater from pollution;
- MNS 4586 - 1998 Water Quality. General requirements;
- Drinking water standard and its requirements (MNS900:2005).

4.3 DEIA requirements

Mongolian Detailed Environmental Impact Assessments (DEIAs) have been undertaken for this Project and outline required environmental management and monitoring requirements. Commitments made in the following DEIAs are applicable to this MP:

- BIOX® Plant DEIA (Nature Friendly LLC, 2010);
- Gatsuurt Mining DEIA (Nature Friendly LLC, 2009) ;
- Gatsuurt Haul Road DEIA (Gazar Eco, 2006); and
- Boroo Gold Min DEIA Addendum 2015 (Nature Capital 2015).

4.4 Environmental Impact Assessment

Centerra has undertaken an Environmental Impact Assessment (EIA) for the Gatsuurt Mine to assess and manage the environmental impacts associated with the mining operations proposed in the approved Gatsuurt Project feasibility Study. The Gatsuurt mine EIA was completed in 2015 for internal management purposes and is not a statutory approved report.

4.5 Applicable International Standards and Guidelines

- The International Finance Corporation;
 - Performance Standard 1(2012) - Assessment and Management of Environmental and Social Risks and Impacts;
 - Performance Standard 3 (2012) - Resource Efficiency and Pollution Prevention;
 - Performance Standard 6 (2012) - Biodiversity Conservation and Sustainable Management of Living Natural Resources;
 - IFC General EHS Guidelines (2007);
 - Guideline 1.3 – Wastewater and Ambient Water Quality;
 - Guideline 1.4 – Water Conservation.
 - IFC EHS Guidelines for Mining (2007)
- The European Bank for Reconstruction & Development:
 - EBRD Performance Requirements (2014) (particularly Performance Requirement 1: *Assessment and Management of Environmental and Social Impacts and Issues* and Performance Requirement 3: *Resource Efficiency and Pollution Prevention and Control*).

4.6 Applicable Centerra Standards

This Management Plan is developed within the Centerra corporate policies that include policies for worker health and safety, environmental protection and sustainable development.

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4.7 Summary of Applicable Project Standards

The Gatsuurt Project will comply with the more stringent of national standards and applicable international standards, with the more stringent standards representing the Project Standards.

Applicable Project Standards are summarised below and include the standard that will apply based on the Mongolian National Standard (MNS:4586:98) or the IFC EHS Guidelines for Mining and EU Directive values where these values are more stringent than the Mongolian National Standard.

Standard	Scope
Mongolian National Standards (MNS 4586:98) for General Water Quality (applies to discharges to land and water)	Discharged treated water from collected mine impacted water sources
pH 6.5 – 8.5	
Dissolved Oxygen	O ₂ 6 – 4 mg/L
Biochemical Oxygen Demand (5 day)	BOD ₅ 3 mg/L
Arsenic	As 0.01 mg/L
Cadmium mg/L	Cd 0.05
Ammonium mg/L	NH ₄ -N 0.5
Nitrite mg/L	NO ₂ - N 0.02
Nitrate mg/L	NO ₃ -N 9.0
Phosphorous mg/L	PO ₄ - P 0.1
Chloride	Cl 300 mg/L
Fluoride	F 1.5 mg/L
Sulphate mg/L	SO ₄ 100
Manganese	Mn 0.1 mg/L
Nickel	Ni 0.01 mg/L
Copper	Cu 0.01 mg/L
Molybdenum	Mo 0.25 mg/L
Cadmium	Cd 0.005 mg/L
Cobalt	Co 0.01 mg/L
Lead	Pb 0.01 mg/L
Arsenic	As 0.01 mg/L
Total Chromium	Cr 0.05 mg/L
Hexavalent Chromium	Cr ⁺⁶ 0.01 mg/L

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Standard	Scope
Zinc Zn 0.01 mg/L	
IFC EHS Guidelines for Mining (2007), Discharge Water Quality Guidelines. Total Suspended Solids (TSS) 50 mg/L Oil and Grease 10 mg/L Mercury Hg 0.001 mg/L Iron (total) Fe 2.0 mg/L	Discharged treated water from collected mine impacted water sources
EU Directive 2008/106/EC Cadmium (Cd) 0.0015 mg/L	Discharge water quality limits for substances of high concern.

5 MITIGATION MEASURES AND MANAGEMENT CONTROLS

5.1 Summary

This document outlines Centerra's commitment and approach to mitigating surface water risks that may arise as a direct or indirect result of the Gatsuurt project. The water management controls described in this report are focussed on mine water management at the Gatsuurt Mine. The Boroo treatment facility does not have a direct discharge to the environment as all water is treated and contained within the Boroo Gold Mine tailings management facility and is managed through the existing Boroo Gold Mine manuals and procedures.

The water management program at the Gatsuurt Mine will include diversion, containment and routing to off-site discharge/disposal locations of non-impacted surface water and the treatment of mine impacted water, using several passive and active water treatment options.

Three discrete types of water streams will be separated and discharged in accordance with level and type of impact:

1. Extracted, non-impacted groundwater – groundwater abstraction from dewatering bores will be necessary to prevent groundwater inflow to the operational mine. Extracted water is not impacted from mining activities and shall be discharged directly into the Gatsuurt River downstream of the Project;
2. Non-impacted incoming surface water – Surface water from upstream is captured and routed around the property. This water is not impacted by the Gatsuurt mine. As non-impacted water, this water would be diverted to a point where it can be discharged offsite without the requirement for further treatment;
3. Mine impacted water from open pits and run-off from mining areas – this water is potentially impacted by mine activities and may require treatment to remove suspended sediments and reduce concentration of elevated metals. All mine impacted surface water from mining areas, waste rock landforms, ore stockpiles and other mine disturbed areas will be collected for treatment and released to the Gatsuurt River downstream of the mine once Project water quality standards are achieved. Treatment options include passive systems (rapid infiltration basins, land application, mixing zones, forced evaporation, deep infiltration – all with intensive monitoring systems) and if necessary, active systems (constructed water treatment plant).

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5.1.1 Existing Conditions

Natural background water conditions upstream from the Project area have historically been impacted by illegal miners who have disturbed the character of the natural stream course and increased concentrations of chemicals including TDS/EC, Arsenic, Iron, Aluminium, Zinc and Cadmium. These parameters are increased further during their course through the Gatsuurt property where the water comes in contact with the products of past mining activities. These activities have resulted in the increase in all of these elements along with some elements that have been introduced as a result of mining.

Surface Water

The Gatsuurt River flows through the mine site area with a catchment area of about 36km² at the confluence with the Balj River, which in turn empties into the Kharaa River 5.5km distant. The Gatsuurt River originates from a point approximately 4.4km upstream of the proposed Central Zone Pit, which is also the approximate location where the existing disturbed area, begins. All rivers and freshwater lakes freeze in the winter, and smaller streams commonly freeze to the bottom.

The Gatsuurt River near the upstream project boundary encounters the rough alluvial material that was left behind by the alluvial miners. The surface water flows under this alluvium through most of the valley. Only in low spots in this alluvium is the river water exposed. During more major runoff events the exposure of this subsurface water is increased and the appearance of a surface water feature appears. However, these exposures only represent the water that is exposed by elevation rather than a natural river course.

Groundwater

The unconfined shallow groundwater flow in the Gatsuurt river valley is interconnected with the surface water, with flows typically close to the surface and following topography. Groundwater levels may vary significantly depending on rainfall.

The most important program that must be undertaken before mining commences is the groundwater characterization program. This program will identify more accurately what volume of water, quality of water and at what depth each is encountered during the scheduled mine program. When these groundwater characteristics are known, the design needs and permitting requirements will be clarified, and most importantly any active water treatment programs that may be required can be planned and put into a cost program that insures that the program will be properly funded and enacted.

5.1.2 Impacts

Water disposal, ore storage, transport, and waste generation have potential to impact water quality. The general objectives of water management are to maintain the quality and hydrological function of the water systems within and surrounding the Project area.

Potential impacts to water resources during and post mining include:

- Interruption to existing surface water flow patterns;
- Reduction of surface water runoff volume and quality, and hence impacts to vegetation and water courses downstream of the mine area;
- Potential for Acid Rock Drainage;
- Surface water contamination from an unintentional release of non-treated mine impacted surface water.

5.1.3 Water Management

Surface Water

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Mine surface water management is a major consideration of the Gatsuurt Project due to potential for elevated concentrations of arsenic, suspended sediments and other contaminants in diverted surface flows and run-off water from mine landforms.

The Project proposes a surface water management strategy that diverts surface flows from the Gatsuurt River and northern tributaries around waste rock, open pits and ore stockpiles. This strategy is aimed at minimising the potential surface water contamination due to the influence of ARD and metalloid leachate from waste, ore and exposed mining surfaces.

A detailed surface water assessment for the Project has been undertaken which summarises the options for management of surface water flows. Currently, BGC is progressing a water management scenario involving the diversion of surface water flows upstream of the mine operation through a diversion pipeline located on a mine pit bench within the Central Pit Zone.

The diversion pipeline will capture upstream water prior to it contacting the mine infrastructure and divert it through the pipeline to downstream of the Project location. This water is unaffected by mining activities and as such does not require treatment prior to discharge. The water quality criteria applied to the diverted surface water will be based on the upstream water quality that inflows to the Gatsuurt Mine such that the diversion of water does not result in any reduction of diverted water quality.

Ground Water Abstracted from Mine Dewater Bores

Where groundwater is abstracted from dedicated in-pit bores to reduce the inflow of groundwater to the open pits, this water will be considered to be non-impacted from mine activities and discharged downstream of the mine area to the Gatsuurt River.

Water Collected in Open Pits

Groundwater seepage, rainfall and surface run-off will be collected in the mine pits using collection sumps. It is expected that all water removed from the pit (whether from groundwater / surface water flows or rainfall) will contain elevated levels of suspended solids / sediment, and potentially elevated arsenic concentrations. Levels of ammonia and nitrate from the use of explosives during mining may also be elevated due to mining operations. Therefore all water collected within the open pits is determined to be dirty water and will be treated prior to discharge as per the discussion below.

Water treatment programs will be designed to be passive rather than active, and return water to the original watershed rather than direct the treated water offsite. Focusing on these type of programs insures that the water treatment program less costly, more manageable, less labour intensive and generally more sustainable,

Dirty Water

Collected runoff from mine waste rock, stockpiles and water collected from open pits will be stored and treated to meet the discharge standards dictated by Mongolian National Standards (10µg/L arsenic - based on World Health Organisation (WHO) and EU drinking water limit (Directive 98/83/EC)) A series of steps may be used to treat the dirty water stream. However water that is classified as "dirty" may not require pre-treatment but rather may be discharged directly into one or more of the passive treatment structures.

Treated water shall only be discharged after monitoring data provides confirmation that all required parameters are below applicable discharge criteria.

Water Quality Monitoring Data Summary

Groundwater quality monitoring has been undertaken since 2005 and is ongoing at 6 groundwater monitoring locations including geotechnical holes and over 20 surface water monitoring locations. Groundwater quality results show the water to be within Mongolian Water Standards for most analytes tested; however for geotechnical holes water analysis of Arsenic and nitrate limits were shown to have occasionally exceeded the Mongolian Water Standards.

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Surface water monitoring data indicates that concentrations of a number of analytes, including arsenic, have exceeded the Relevant Mongolian water standards. These water quality results for surface and groundwater suggest that the two water sources are on close communication with each other and that both reflect the chemical character of the arsenopyrite ore body that hosts this deposit. The exceedances that have been noted are generally within one order of magnitude of the criteria and would therefore not be difficult in relative terms to treat and bring into compliance. Mixing with a suitably large clean water source would likely effect the required treatment.

5.1.4 Incident Response

Incidents (Dirty water release to the environment) resulting in potential impacts to surface or ground waters during the Project lifecycle will be recorded and reported in accordance with the BGC HSEMS. Incidents will include events where monitoring data demonstrates a breach of Project Standards . As a minimum the report will include the following details:

- The date, time and nature of the event;
- Identification of the likely cause of the event;
- Description of the immediate actions undertaken;
- Description of follow up actions where required.

Incident investigations will be undertaken for all water management incidents that may result in significant impacts to water quality or impede off-mine water flows. The outcomes of such investigations will be recorded and implemented.

5.1.5 Corrective Actions

Corrective actions will be identified for all incidents where water management Project Standards have been breached. Corrective actions will be identified and recorded as an outcome of the incident reporting and investigation process described above. Corrective actions will be assigned to specific responsible personnel for completion. The expected completion period will also be defined for all corrective actions.

5.1.6 Emergency Preparedness and Response

An Emergency Response and Preparedness Plan (has been developed to suit the requirements of the Project. The purpose of this plan (ERP) is to define the organisational responsibilities, actions, reporting requirements, and resources available both internally and externally, to affect a coordinated and timely response to an emergency situation (e.g. dirty water discharge) associated with the Project and environment. This plan provides coordinated and effective response to an emergency by:

- Documenting the overall emergency response process and interfaces;
- Identifying all potential emergency scenarios that could occur;
- Identifying the procedures which apply to emergency events;
- Defining the roles and responsibilities of personnel including Subcontractors in an emergency event;
- Emergency notification and reporting.

Emergency scenarios for mine water management that will trigger Emergency Response measures include:

- Major loss of containment of mine water management features resulting in uncontrolled downstream discharge of untreated mine water to the Gatsuurt River;

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- Failure of mine surface water diversion resulting in flooding of mine areas or overflow of mine water storage and collection systems;
- Failure of mine water treatment systems resulting in release of significant volumes of untreated mine water downstream to the Gatsuurt River.

5.2 Plan Goals and Objectives

The overarching goals of the Gatsuurt approach to surface water management are to:

- Undertake mining at Gatsuurt with no reduction in surface water quality;
- Maintain sufficient surface flow regimes such that the downstream water users, including the environment, are not adversely impacted;
- Ensure mine closure planning and design allows for protection of water quality and maintenance of natural downstream flow regimes following cessation of mining;
- Minimise the generation of “dirty” and “contaminated” water and to maintain effective measures for their control and isolation;
- Ensure that any groundwater extraction, “clean” surface water use and surface water discharges comply with all relevant legislation and statutory approved Environmental Management Plans for the Gatsuurt Project

5.3 Management Controls

Based upon the identified impacts and opportunities presented above, the following control measures will be put in place prior to commencement of mining at Gatsuurt. These control measures will be implemented during operations and following mine closure through this Plan and the Mine Closure Plan.

Table 2 Key Management Controls

ID	Topic/ Aspect	Applicability / Activity	Control Description	Responsible Parties	Means of verification
SWM01	Surface water management	Mining/ Mine Closure	Surface and groundwater flows from outside the operational mine area shall be diverted around mining infrastructure to prevent contamination and to maintain downstream water resources.	Operations	Surface water diversion infrastructure in place Internal Audit Visual Inspections Flow monitoring of diversion.
SWM02	Surface water management	Mining /Mine Closure	All water contacting mine features including the open pits, stockpiles and WRLs shall be captured and diverted to the Project water management system	Operations	Internal Audit Visual Inspections Water quality monitoring

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ID	Topic/ Aspect	Applicability / Activity	Control Description	Responsible Parties	Means of verification
SWM03	Erosion and sediment control	Mining/ Mine Closure	All containment/erosion control measures are installed and in proper working order and damage is quickly corrected.	Operations	Internal Audit Visual Inspections Water quality monitoring
SWM04	Contamination	Mining	Maintain a surface water quality monitoring network to provide early warning of breach of Project Standards.	Operations	Internal Audit
SWM05	Contamination	Mining	Retain dirty water within the mine project area and only release when testing confirms adherence to the Project Standards.	Operations	Internal Audit Water Quality Monitoring
SWM06	Reclamation and closure landform design	Mine closure	Design and implement mine reclamation and drainage to achieve a self sustaining and non polluting post closure landform.	Reclamation	Closure Inspection/audit Water Quality Monitoring

6 IMPLEMENTATION SCHEDULE

6.1 Review and Revision of this Management Plan

This Management Plan will be reviewed on an annual basis and any necessary revisions made to reflect the changing circumstances or operational needs of Gatsuurt. Revision of this Management Plan will be the responsibility of the Director of Environment, who is custodian of this Plan.

If material changes to operating procedures are required (as identified through the BGC change management procedure contained within the BGC HSEMS, this Management Plan may be updated on an "as required" basis.

7 MONITORING

7.1 Overview of Monitoring Requirements

Monitoring measures implemented during the construction, operational and closure phases at Gatsuurt will extend the monitoring that has been undertaken for surface water at Gatsuurt Project areas since 2005. The monitoring implemented during the operations phase will assess compliance with Project Standards (see *Section 4: Project Standards*) and are described in the section.

In the event that monitoring identified non-conformance with Project Standards, these will be investigated and appropriate corrective actions identified.

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7.2 Key Performance Indicators

The table below summarises the key performance indicators and associated key monitoring actions that can be used to assess the progress and effectiveness of proposed mitigation strategies.

Table 3: Key Performance Indicators and monitoring actions – Surface Water

ID	KPI	Target
C-KPI 01	Ensure that discharges do not adversely affect environmental values.	Zero planned release of untreated 'mine impacted water' downstream from the Project Unplanned release of mine-impacted water does not exceed 5% of annual discharge volumes.
C-KPI 02	Establish trigger levels that require some level of response for elevated concentrations of TDS/EC, As, Zn, Cd, Sulphates and Nitrates	Zero exceedances of parameter trigger levels for TDS/EC, As, Zn, Cd, Sulphates and Nitrates.
C-KPI-03	Monitoring from surface water treatment/polishing pond prior to discharge	All treated mine water will be analysed prior to discharge
C-KPI 04	Establish time trend graphs for each parameter of concern and a reporting procedure for each report.	Prior to mine start-up
C-KPI 05	Establish reasonable contingency options for each water management program and implement the permitting and field framework for these plans	Prior to use of initial water management option.

7.3 Key Monitoring Activities

Key monitoring activities will focus on key water quality parameters including pH, TDS/EC, As, Zn, Cd, sulphates and nitrates to enable assessment of whether project activities and influx are having negative impacts on surface water resources. Data will be collected and analysed by an authorized National Laboratory (currently Central Geologic Labs in Ulaanbaatar). An independent accredited analytical laboratory facility may be used to verify results as necessary. In the event that any monitoring results identify a non-conformance with the Project Standards, these will be recorded as incidents, investigated and corrective actions identified. Results will be verified using the independent laboratory. Response measures will be implemented based on the results that are received and whether a trigger level has been exceeded and/or a parameter is trending toward an exceedance and timely action is required to avoid an actual exceedance.

Centerra currently monitors the environmental performance of the project through the requirements of their Environmental Monitoring Plan (as outlined through the national DEIA process). Ongoing water and air quality monitoring has been conducted at the Gatsuurt mine site and Boroo mine site for a number of years and a comprehensive dataset is maintained.

Surface water quality monitoring shall be conducted as described within the Company Environmental Monitoring Plan/Environmental Management Plan following completion of DEIA approvals for the Gatsuurt Mine. Those plans shall be based on this framework management plan and include any additional statutory approval requirements. The final detailed Environmental Management Plan and Environmental Monitoring Plan will define the monitoring locations, the parameters to be collected and analysed, the frequency of monitoring and the standards to be applied for collection, analysis and interpretation of results.

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As a minimum the water monitoring during operations will include:

- Monthly monitoring of upstream surface water for key parameters pH, TDS/EC, TSS, As, Zn, Cd, sulphates and nitrates
- Monthly monitoring of downstream water quality for key parameters pH, TDS/EC, TSS, As, Zn, Cd, sulphates and nitrates
- Daily field analysis (pH, TDS/EC, TSS) of collected mine water
- Daily field analysis (pH, TDS/EC, TSS) of diverted “non-mine water; and
- Monitoring of treated mine water prior to each discharge event for key parameters pH, TDS/EC, TSS, As, Zn, Cd, sulphates and nitrates

8 TRAINING

All employees of Gatsuurt and Contractors to Gatsuurt are provided with basic training on surface water management. Additional specialist training is to be provided to the Environment Department undertaking water sampling and field analysis.

9 AUDIT AND REPORTING

9.1 Internal Auditing

Daily inspections will be carried out by operational area by the site Environment Officer, Environment Technician and relevant Mining Department personnel to undertake a visual check of all mine water management diversion, treatment and containment facilities. Any incidents identified during these inspections will be reported to the HSEMS incident management system.

Conformance will be monitored via an annual internal audit program and on review of all monitoring data. This will be undertaken to assess broad compliance with requirements of the HSEMS, including specific permitting requirements.

All incidents and non-conformances identified during these inspections, audits or data reviews will be reported as per the requirements of the BGC HSEMS.

9.2 Record Keeping

Records of audits, inspections and incidents will be managed in accordance with Gatsuurt procedures.