Public Disclosure Regarding Enåsen Tailings Facility

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BOLIDEN

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INTRODUCTION

Boliden has committed to apply the Global Industry Standard on Tailings Management (GISTM), adopted by the International Council for Mining and Metals (ICMM) in 2020, setting a precedent for the safe management of tailings facilities, towards the goal of zero harm (the "Standard" or "GISTM").

The Standard contains 77 specific requirements that need to be fulfilled to be in conformance with the Standard. The Standard also requires that adhering members annually issue a status report on their implementation of and conformance with the requirements to support public accountability. In accordance herewith, Boliden as the operator of its tailings facilities is to publish and regularly update information on its commitment to safe tailings facility management, implementation of its tailings governance framework, its organization-wide policies, standards and approaches to the design, construction, monitoring and closure of its tailings facilities.

A separate document available via Boliden web, named Public Disclosure Regarding Boliden´s Tailings Management Framework, provides a general description concerning Boliden's tailings and dam safety management for all sites, in which much of the information within requirement 15.1 is met.

This document provides additional information specifically related to the Enåsen tailings facility to fully disclose the required information. In addition, the final chapter of this document presents the status of implementation of GISTM for the Enåsen tailings facility.

All heights presented in this document refer to the Swedish system RH2000.

1. Description of the tailings facility

The tailings storage facility (TSF) is located in Enåsen in the northwestern part of Gävleborg County within Ljusdal municipality. The nearest permanent settlements are in Ramsjö located about 20 km southeast of Enåsen TSF. The nearest major town is Ånge, which is about 31 km northeast of the TSF, see Figure 1. The coordinates (latitude, longitude) of the site are 62°16'36.8"N 15°23'3.8"E.

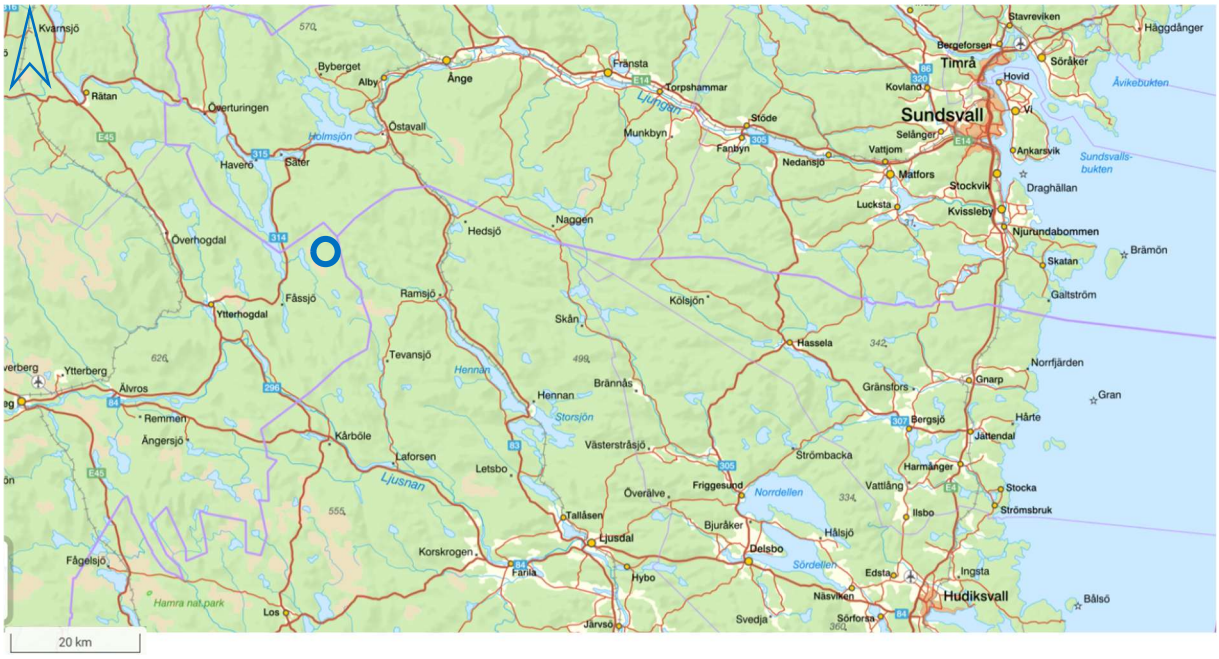

Figure 1 Geographic location of the Enåsen mine site, marked with a blue circle (© Lantmäteriet)

The tailings (1,77 Mton) managed in the tailings facility originated from the sulphide ore at Enåsen where gold and silver was mined during 1984-1991. Initially the ore was mined in an open-pit mine and from 1989 underground mining was conducted until 1991. In 1994 remediation measures was carried out, including (i) dry covering of the tailings in the northern area (above water) with 0,8-1,2 m moraine, (ii) reconstructing and strengthening of the landfill slope (Spärrdammen) adjacent to the clarification pond, (iii) dredging of tailings in the northern part of the clarification pond to ensure sufficient water cover (>1 m), and (iv) constructing a new open spillway to ensure sufficient discharge and to passively maintain a relatively constant water level in the clarification pond. Today, vegetation is well established on and around the tailings facility, and the current operational activities consist of water treatment via liming of the clarification pond, maintenance, and surveillance.

An overview of the tailings facility is shown on the cover of this document and in Figure 2. The tailings facility consists of the tailings pond (0,12 km^2) and the clarification pond (0,26 km^2), being separated by the dam "Spärrdammen". The tailings pond is separated by Dam A to the waste rock storage facility in the north, and the clarification pond is contained by Dam B, C-B and C to the south. While Spärrdammen is an upstream construction with maximum height ca 8 m the Dam B, C-B and C are all homogenous moraine dams with maximum height ca 4 m. Further information regarding the dam constructions is presented in Chapter 5.

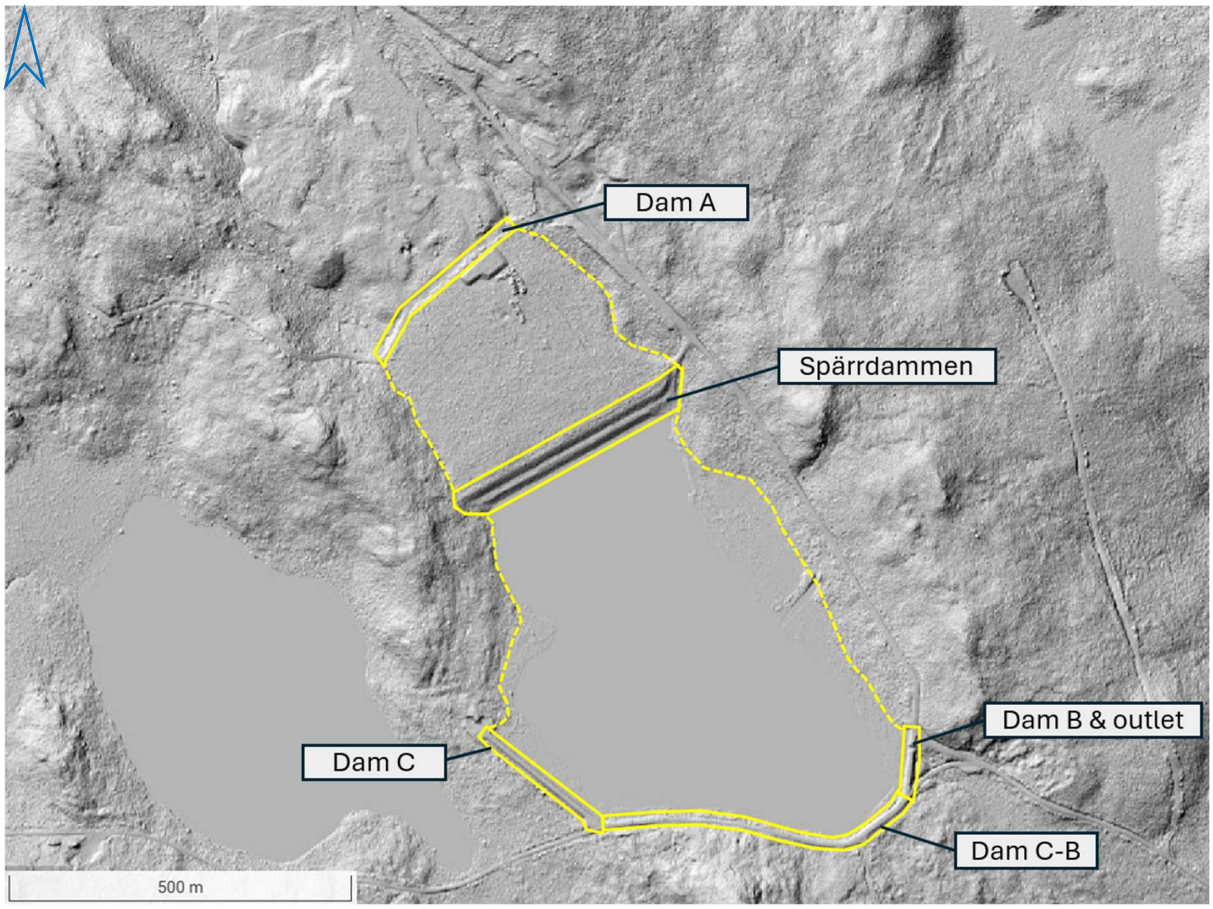

Figure 2 An overview of the Enåsen tailings facility.

2. Consequence classification

Boliden has, together with external experts, evaluated potential site-specific consequences in the event of a dam breach. Aligned with the results of this assessment, Boliden has classified the Enåsen tailings facility as ´Low´ according to GISTM and as dam safety class ´Dammsäkerhetsklass C´ according to Swedish legislation (Miljöbalken).

In Chapter 4, Table 1, the rationale for classification is presented.

3. Risk assessment

The risks related to the Enåsen tailings facility have been assessed by a team of multidisciplinary specialists, in a manner consistent with Boliden's risk management instruction. The risks related to a potential dam breach have been evaluated regarding potential consequences related to a range of aspects, including health and safety, environment, infrastructure, social aspects and local communities.

The risk assessment has been based on the current understanding of the facility and its surroundings. The risk assessment has identified some uncertainties related to the characteristics of the Spärrdammen,

triggering additional targeted site investigations to ensure better qualified geotechnical parameters can be carried forward in the stability analysis for this construction. Also, the risk analysis has identified uncertainties related to old bottom outlet and spillway located in Dam B. To reduce this risk to As Low as Reasonably Practicably (ALARP) Boliden plans to strengthen the embankment and redirect the spillway.

Since the work on compiling the knowledge base for the facility is ongoing, the risk assessment will be continuously updated going forward to reflect the increased understanding of the tailings facility.

The identified events which can potentially lead to dam breach, are used as input for the Trigger Action Response Plan (TARP) and the Emergency Preparedness Response Plan (EPRP).

4. Impact assessment

Potential impacts in the event of a dam breach have been assessed for the Enåsen tailings facility in 2021. The evaluated impacts are summarized in Table 1, based on the criteria provided in GISTM dam failure Consequence Classification Matrix.

The impact assessment is reviewed in the event of any major changes to the facility or local surrounding, or as part of the next Dam Safety Review at the latest.

Table 1 Summary of the Enåsen tailings facility impact assessment related to the GISTM dam failure Consequence Classification Matrix

Consequence Criteria	Classification GISTM	Impact assessment
Potential Population at Risk	Low	No risk for personal harm
Potential Loss of Life	Low	No expected loss of life
Environment	Low	Most of the tailings are expected to stay in the tailings facility. Water quality in affected areas is already affected by the mining activity. Therefore, the expected environmental consequences are not significant. Reclamation of the affected areas is estimated to be possible within a year.
Health, Social and Cultural	Low	Affects usage of downstream lakes, for example recreation and fishing.
Infrastructure and Economics	Low	One road might be flooded and in need of repair in case of dam failure in dam B. However, affected roads are not considered significant infrastructure. No big loss for business is expected. The economical loss is estimated to be below USD 1 million.

5. Description of the design of the tailings facility

In Chapter 2 an overview description of the tailings facility is presented. The facility was remediated in 1994 according to acceptable standards at the time. Currently, work is ongoing to evaluate the

performance of the remediated tailings facility, and to develop a safe closure design for the entire mine site.

The tailings were deposited from the south side of Dam A, which was constructed only to separate the tailings pond from the waste rock storage facility. The tailings were deposited as a slurry and settled in the northern part of lake Norra Grundvattsjön while the southern part of the lake was used as the clarification pond. A wall was constructed in 1990 to limit additional areal expansion of the tailings pond surface towards the south. As part of the remediation activities a support buttress was later added to this section (Spärrdammen) to strengthen the slope and provide erosion protection against wave/ice loads. In order to raise the water level in the clarification pond the dams B, C-B and C were originally constructed in the southern part of the clarification pond. An actively managed bottom outlet was originally located in the highest section of the Dam B, which was later replaced by a passively managed open spillway as part of the remediation activities in 1994. The spillway discharge capacity widely exceeds the design flood criteria annual exceedance probability of 1/200 years, for the current phase (closure with active care). To ensure sufficient water cover (>1 m) of the tailings stored south of the Spärrdammen the tailings was dredged to approximately 1,5 m depth relative to todays mean water level.

See Table 2 for a description of the design of the main dams.

Table 2 Description of the design for the dams in the Enåsen tailings facility

Dam	Description
Dam A	Ca 300 m long, centerline construction founded on till, crest width 5 m. The dam A was incorporated in waste rock on the northern side and tailings on the southern side.
Spärrdammen	320 m long, upstream construction founded on tailings, moraine and filter zones and erosion protection of rockfill towards the clarification pond, max height 8 m, crest level at ca +405.
Dam B	215 m long, centerline construction founded on till, earth fill dam with core and support fill of moraine, upstream erosion protection, maximum 3,8 m high, crest width ca 5 m, crest level at +400,0. Ca 20 m from the left abutment the open spillway is located, with the 1 m wide bottom threshold at +398,4 with bottom and flat slopes covered with erosion protection. Ca 10 SW of the spillway an old bottom outlet is located which was plugged 1994 with concrete in the intake tower and strengthened with boulders in the downstream toe.
Dam C-B	360 m long, centerline construction founded on till, earth fill dam with core and support fill of moraine, upstream erosion protection, maximum 1,5 m high, crest width ca 5 m, crest level at +400,0.
Dam C	225 m long, centerline construction founded on till, earth fill dam with core and support fill of moraine, upstream erosion protection, maximum 4,2 m high, crest width ca 5 m, crest level at +400,1.

6. Annual Performance Review

In conformance with GISTM and Boliden´s framework for tailings management an annual performance review has been conducted for the Enåsen tailings facility.

The following key activities to inform the annual performance review were performed in 2024:

- Updated Operation, Maintenance and Surveillance (OMS) manual implemented.
- Continuous dam safety monitoring activities, and dam safety inspections (spring, autumn), and dam safety performance reporting to authorities, all conducted as planned.
- Continuous environmental monitoring activities, and annual site inspection, and environmental performance reporting to authorities, all conducted as planned.
- Further development of site characterization; seismic hazard, hydrology, geology, climate.
- Further development of the tailings facility characterization; environmental sampling and analysis, geotechnical field investigations and analysis, geochemical analysis of tailings, and development of as-constructed documentation.
- Site organisation aligned with Boliden´s Tailings Management Framework, with documented appointments of key personnel and established succession plans.
- Safe closure design process initiated.
- Risk analysis performed and risk register in place (see Chapter 3).
- Emergency Preparedness and Response Plan in place, and training conducted (see Chapter 8).

The overall assessment of the performance was deemed to be either ´full conformance´ or ´substantial conformance´ for all reviewed aspects other than ´Design and construction´ (see Chapter 3).

7. Environmental and social monitoring program

An environmental and social impact assessment (ESIA) was carried out in 2025. A report summarizing the material findings is publicly disclosed via Boliden´s external web.

To allow for meaningful engagement with identified stakeholders, such as local residents and authorities, a stakeholder engagement plan has been developed.

The environmental performance of the Enåsen tailings facility is monitored according to an established environmental monitoring program. The result from the environmental monitoring is submitted in a written report to the supervising authority annually.

The Boliden portal for stakeholder feedback, available online, is used for the site and Boliden uses a specifically developed system to track and save stakeholder communications, including potential grievances.

8. Emergency Preparedness and Response Plan (EPRP)

The Emergency Preparedness and Response Plan (EPRP) is triggered by a failure or a near failure. The triggers of the EPRP are defined in the Trigger Action Response Plan (TARP) provided in the OMS manual.

The EPRP is common for all of Boliden's Closed Mines, supported by local appendices specific to each site and its credible flow failure scenarios. The structure of the dam safety emergency group is similar to the dam safety organization in normal operation. Emergency response simulations are held every year for at least one of the Boliden Closed Mine sites. The EPRP is reviewed yearly after every simulation and updated when necessary.

9. Independent review

A senior technical Independent Reviewer (IR) was appointed to review the Enåsen tailings facility during 2024. A new IR is being engaged during 2025.

A Dam Safety Review (DSR) was conducted in 2020 by Norconsult. The DSR are scheduled every ten years as required based on the consequence classification.

10. Reclamation securities & other financial safeguards

The financing of operation and reclamation work costs at Boliden legacy sites is budgeted according to an annually updated work plan. Based on the updated long-term plan for closed mines, annual provisions are made to cover future costs. This long-term plan is reviewed with the responsible controller ahead of each budget process.

11. Implementation of the GISTM

Even though the tailings facility at the Enåsen legacy mine site was originally closed according to relevant standards and legislation at the time, it was deemed by Boliden that the remediated facility does not fully meet *´safe closure´* as defined in GISTM. For the Enåsen tailings facility this has initiated a comprehensive work to characterize the site and to update the closure design.

A self-assessment of the conformance to GISTM, based on the guidance in the ICMM Conformance Protocols, has been conducted. The results show that Enåsen are in partial conformance with the Standard. While significant progress has been made towards conformance, there are still several actions that need to be taken for the tailings facility to be in full conformance with all requirements. These actions have been summarized in a corrective action plan that has been submitted and approved by the mine management team, with the expectation to meet all GISTM requirements during 2026.