



GISTM Principle 15 – August 2023 Public Disclosure

Turquoise Ridge Complex
Juniper TSF

5 August 2023

PRINCIPLE 15

Publicly disclose and provide access to information about the tailings facility to support public accountability.

REQUIREMENT 15.1

A. For new tailings facilities for which the regulatory authorisation process has commenced, or that are otherwise approved by the Operator, the Operator shall publish and update, in accordance with Principle 21 of the UNGP, the following information:

Requirement 15.1A is not applicable as this is an existing facility.

B. For each existing tailings facility and in accordance with Principle 21 of the UNGP, the Operator shall publish and update at least on an annual basis, the following information:

1. A description of the tailings facility (information may be obtained from the output of Requirements 5.5 and 6.4)

Nevada Gold Mines LLC (NGM), a joint venture between Barrick Gold Corporation (Barrick) and Newmont Corporation (Newmont), owns and operates the Juniper Tailings Storage Facility at the Turquoise Ridge Complex located approximately 35 miles northeast of Golconda, Nevada, USA. The intent of this document is to provide clear, concise information about the design, permitting, construction, operation, and ultimate closure of Juniper TSF to meet the requirements outlined in the GISTM Principle 15. Principle 15 requires TSF Owners and Operators to “publicly disclose and provide access to information about the tailings facility to support public accountability (Global Tailings Review, 2020).”

Principle 15, Requirement 1 (15.1) requires the Operator to publish and regularly update information on their commitment to safe TSF management, tailings governance framework implementation, and its organization-wide policies, standards, or approaches to TSF design, construction, monitoring, and closure. The following sections provide the information requested in the Standard.

The Juniper TSF is described by the following details:

- **Facility Operational Status:** Active
- **Location:** Turquoise Ridge Operations, Twin Creeks Mine, 35 miles north of Golconda, Nevada.
- **Expansion Methods:** Centerline
- **Embankment Type:** Run of mine rockfill waste rockfill, ring dam facility, geomembrane or soil lined starter dams, granular drainage blankets on upstream slope of centerline raises.
- **Basin:** Soil and geomembrane-lined
- **Deposition Start and Expected end (year):** 1987- 2029
- **Tailings Storage Capacity:** ~158 M tonnes, 120 M tonnes currently stored
- **Stages:** 12 total through Stage XII

- **Current Permitted Impoundment:** Dam is constructed and permitted through Stage XI
- **Current Maximum Embankment Height:** 65 m
- **Ultimate Stage XII Maximum Embankment Height:** 69 m to elevation 1562.4 m
- **Historic Average Deposition Rate:** 12,300 tonnes per day.
- **Supernatant Pool Configuration:** Center pool with pumped water returned to mill for reuse.
- **Long-term closure plan:** Side slopes of Juniper TSF will be sloped, covered, and seeded to their final closure configuration. After tailings deposition has ceased and sufficient drain down has occurred, the facility will be capped, covered, and seeded to form a stable landform. Once the cover is complete a spillway will be developed to route meteoric water off the facility.

2. The Consequence Classification (Requirement 4.1)

The Juniper TSF was assigned an initial DFCC of “Very High” by NGM and Juniper TSF Engineer of Record (EoR), based on the results of an initial Failure Modes and Effects Analysis (FMEA) completed in 2020.

Facility Consequence Classification

Current Classification	Classification used for Design
Very High (GISTM 2020)	Extreme (GISTM 2020)

3. A summary of risk assessment findings relevant to the tailings facility (Information may be obtained from the output of Requirement 10.1)

The Juniper TSF Risk Assessment was updated in July 2023 and the risk drivers identified are shown on the table below along with additional controls to be implemented for the facility ensure the risk level is as low as reasonably practicable (ALARP).

Summary of risk assessment findings

Reference	Risk Driver PFM ¹	Existing Controls	Additional Controls to Meet ALARP
2023 RA ²	Break Tank Section, Seismic instability of the embankment	None	Engineering evaluation and site characterization underway. A preliminary buttress design has been developed.

¹ Risk Driver Potential Failure Mode (PFM) are:

- derived from ongoing TSF Risk Assessment work. List the risks that contribute the most to the total risk;
- list PFMs that are above the tolerable risk limit guidelines with controls in place before additional mitigation measures to meet ALARP

² RA: Risk Assessment

2023 RA	South Leg, Seismic instability of the embankment.	None	Engineering evaluation and site characterization underway. A preliminary buttress design under development.
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4. A summary of impact assessments and of human exposure and vulnerability to tailings facility credible flow failure scenarios (Information may be obtained from the output of Requirements 2.4 and 3.3)

The most recent TSF Risk Assessment identified two key risk drivers and the updated dam breach and inundation study for those credible scenarios are under evaluation. The assessment of human exposure and vulnerability was completed utilizing information from previous dam breach and inundation studies and Emergency Action Plans (EAP). The downstream impacts identified from a worst-case hypothetical failure mode which results in a highly unlikely catastrophic dam breach are summarized below.

Summary of Potentially Material Impacts

Aspects	Impact description	Mitigation Measure(s)
Environmental	There are no known critical habitats or rare and endangered species within the potential inundation area. However, tailings may have acid generation potential and there is a potential to impact groundwater due to the breach flood retained within Vista Pit.	None
Public Infrastructure	Losses to recreational facilities and infrequently used transportation routes within the potential inundation area would be temporary.	In the event of a dam safety emergency, the Emergency Preparedness and Response Plan will be initiated. This will address the immediate needs of communities and environment. Further, this will be supported by developing and implementing recovery and rehabilitation plan.
Health, Social, & Cultural	Within the potential inundation area, there are no known community welfare or assets, or known heritage site and cultural resources.	None
Economic	Losses to recreational facilities and infrequently used transportation routes within the potential inundation area are assumed to be temporary.	In the event of a dam safety emergency, the Emergency Preparedness and Response Plan will be initiated. This will address the immediate needs of communities and environment.

Aspects	Impact description	Mitigation Measure(s)
		Further, this will be supported by developing and implementing recovery and rehabilitation plan.

5. A description of the design for all phases of the tailings facility lifecycle including the current and final height (Information may be obtained from the output of Requirement 5.5)

The Juniper TSF was originally designed as a side hill, run-of-mine rockfill dam that was converted to a ring dam configuration upon elevated raises. The facility was designed to be constructed in a total of 12 primary stages using a centerline configuration. Each stage of the tailing facility has been engineered and the design and construction of the facility was overseen by a qualified engineer and the appointed Engineer of Record.

The Juniper TSF basin and perimeter starter embankments are continuously lined with variable lining systems ranging from low permeability soil to geosynthetics with a continuous drainage blanket to drain the tailings mass. The embankment utilizes a relatively free-draining coarse-grained rockfill and a perimeter upstream face drain system to capture and manage lateral tailings drainage.

The Juniper TSF site is situated on a Quaternary alluvial fan with upland alluvial deposits of various thicknesses that are underlain and bounded by Paleozoic sedimentary and Cenozoic volcanic rocks. The facility is founded on an alluvial fan extending southward at a slope of approximately 3%.

The Juniper TSF is a zero-discharge facility with no constructed spillway. An upstream diversion channel conveys stormwater around the facility. Flood storage capacity in excess of the probable maximum flood currently exists in the facility.

The construction history of the facility is summarized in the table below.

Stage	Cell	Construction Completion Year	Crest Elevation (m)	Stage Notes
I	A/B	1987	1512	Initial starter dam and reclaim system
II	A/B	1990	1518	Upstream raise
III	A/B	1992	1523	Upstream raise
IV	1	1996	1527	Downstream raise Cells A/B form Cell 1

	2	1997	1527	Cell 2 starter embankment
V	1	1998	1536	Downstream and centerline raise
	2	1998	1536	Cell 2 geomembrane lined starter embankment / centerline raise
1	3	2007	1513	Cell 3 starter embankment/lining of Center Divider Embankment (previously Cell 1-2 south embankment)
2	3	2007	1521	Cell 3 starter embankment and centerline raise/lining of Center Divider Embankment
3	3	2009	1529	Centerline raise/lining of Center Divider Embankment
4/5	3	2011	1536	Centerline raise
6	1-2-3	2013	1542	Centerline raise
7/8	1-2-3	2014	1550	Centerline raise
IX	1-2-3	2016	1551	Centerline raise
X	1-2-3	2019	1555	Centerline raise
XI	1-2-3	2021	1559	Centerline raise

6. A summary of material³ findings of annual performance reviews and dam safety review (DSR), including implementation of mitigation measures to reduce risk to ALARP (Information may be obtained from output of Requirements 10.4 and 10.5);

The Juniper TSF is inspected annually by the EoR and recommendations from the annual inspection are provided in the annual DSI report. A Dam Safety Review (DSR) is conducted every five years by an independent engineer; with the last DSR conducted in 2022. NGM maintains a database to track findings, recommendations, and actions arising from each of these reviews as well as progress toward addressing the findings. There are no outstanding material findings for this facility from annual performance reviews, Dam Safety Inspections (DSI) or Dam Safety Reviews (DSR).

³ Material findings are findings that have a high probability of becoming or actual dam safety issues that require immediate attention and are considered immediately dangerous to life, health or the environment, a significant regulatory enforcement.

7. A summary of material⁴ findings of the environmental and social monitoring programme including implementation of mitigation measures (Requirement 7.5)

No material Environmental and Social Incidents have been reported for this facility over for the period 2022 to date of publication.

8. A summary version of the tailings facility EPRP for facilities that have a credible failure mode(s) that could lead to a flow failure event that:

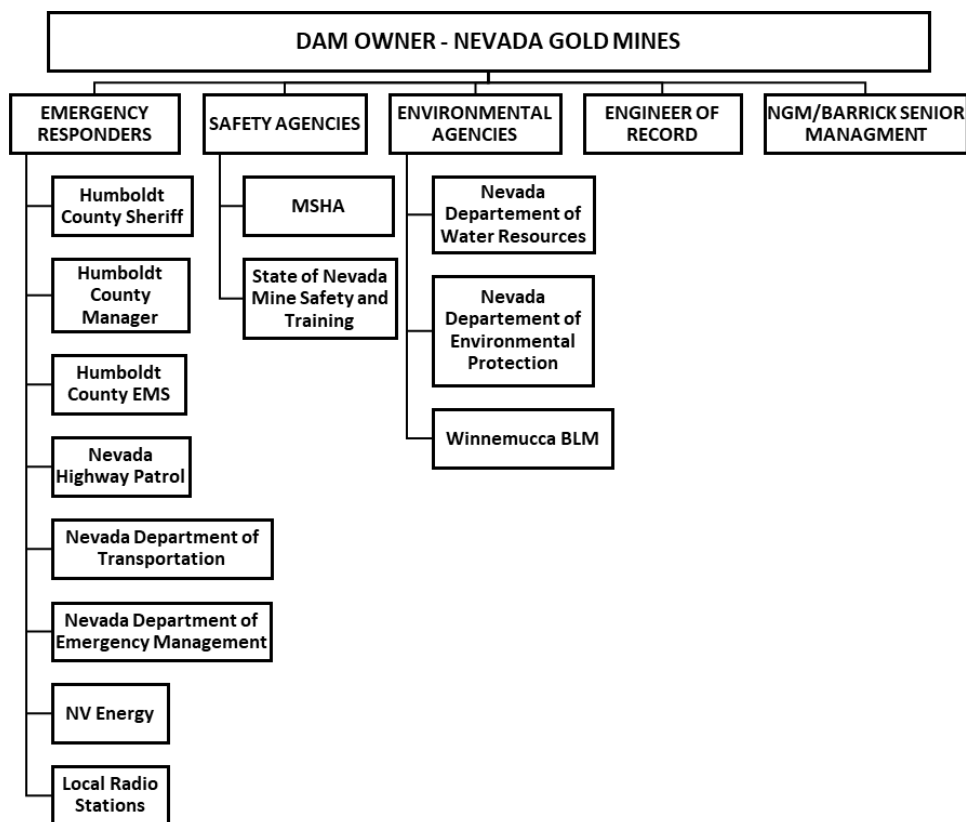
- Informed by credible flow failure scenarios from the tailings facility breach analysis;
- Includes emergency response measures that apply to project affected people as identified through the tailings facility breach analysis and involve cooperation with public sector agencies; and
- Excludes details of emergency preparedness measures that apply to the Operator's assets, or confidential information (Requirements 13.1 and 13.2).

An Emergency Action Plan (EAP) has been developed specifically for the Juniper TSF to meet regulatory requirements. The EAP describes procedures for reporting and responding to a wide range of potential adverse events at the Juniper TSF and includes a notification flowchart to ensure stakeholders and responders are informed promptly and engaged in event response. The EAP is a subset of an overall, site-wide Emergency Preparedness and Response Plan (EPRP) developed and maintained for the Turquoise Ridge Complex. The EAP and EPRP are both reviewed annually and updated as necessary to reflect changes in site conditions by Turquoise Ridge's responsible personnel, available resources, and contractors who may be engaged in an emergency response.

⁴ An incident is considered material if it:

- a) Causes significant negative impact on human health or the environment;
- b) Extends onto publicly accessible land and has the potential to cause significant adverse impact to surrounding communities, livestock or wildlife;
- c) Results in a breach of license conditions, the convention between the mine and government, or a violation of environmental regulations and standards or constitute releases above Reportable Quantities (RQs) any of which is immediately reportable to the government by law or other statute; or
- d) Results in a release of cyanide (above 0.5 mg/l of WAD cyanide, confirmed by a certified third-party laboratory as above detection limit) to any surface water that leaves the site boundaries or any groundwater aquifer (whether on or off-site).

EMERGENCY NOTIFICATION FLOWCHART



9. Dates of most recent and next independent reviews (Requirement 10.5)

NGM has an IGRB in place to regularly review the Operator's and EoR's work with regard to design, construction, operation, and closure of the NBTDF. The discussions held between the ITRB, NGM, and the EoR and the IGRB's recommendations from each review meeting are summarized in a report or memorandum issued by the IGRB to NGM.

NGM engages an independent engineering firm to complete a DSR for the NBTDF every five years as per the Barrick Tailings Management Standard. The most recent DSR was completed in 2021. The next DSR will be completed in 2026.

Review Type	Latest Review	Previous Review
IGRB	September 2021	None
DSR	December 2021	July 2021

10. Annual confirmation that the Operator has adequate financial capacity (including insurance to the extent commercially reasonable) to cover estimated costs of planned closure, early closure, reclamation, and post-closure of the tailings facility and its appurtenant structures (Requirement 10.7)

NGM has adequate financial capacity to cover estimated costs of the TSF's and appurtenant structures' planned closure, early closure, reclamation, and post-closure monitoring and maintenance. Demonstration of financial assurance is required by regulatory authorities, including the Bureau of Land Management (BLM), Nevada Division of Environmental Protection (NDEP), and Nevada Division of Water Resources (NDWR). Closure cost estimates are reviewed on a regular basis to ensure all costs are properly accounted for and adjusted for inflation.

Triennially, the reclamation bond is required to be updated for any changes made to the mine or reclamation plan of the facility. NGM and Barrick confirm that NGM has adequate financial capacity to reclaim and close the NBTDF at any point in the facility's life cycle to achieve the long-term passive closure requirements defined by GISTM and regulatory requirements with the State of Nevada.

For additional information refer to Barrick Annual Report 'Financial Position and Liquidity' (page 111) and 'Contractual Obligations and Commitments' table (page 113).

[Barrick Annual Report 2022](#)

C. Provide local authorities and emergency services with sufficient information derived from the breach analysis to enable effective disaster management planning (Information may be obtained from the output of Requirement 2.3)

An EAP has been developed for Juniper TSF to meet permitting requirements through the Nevada Division of Water Resources. The EAP outlines emergency response procedures to be implemented during various identified emergencies and has been shared with local authorities. The EAP is reviewed and updated annually.

Local Authority or Emergency Services	Document
Bureau of Land Management	EPRP (EAP) – Provided annually
Nevada Division of Water Resources	EPRP (EAP) – Provided annually
Nevada Division of Environmental Protection	EPRP (EAP) – Provided annually
Nevada Department of Emergency Management	EPRP (EAP) – Provided annually
Nevada Department of Transportation	EPRP (EAP) – Provided annually
National Weather Service	EPRP (EAP) – Provided annually

Humboldt County (Golconda and Winnemucca)	EPRP (EAP) – Provided annually
Humboldt County Sheriff	EPRP (EAP) – Provided annually
Humboldt County EMS	EPRP (EAP) – Provided annually
NV Energy	EPRP (EAP) – Provided annually

REQUIREMENT 15.2

- A. Respond in a systematic and timely manner to requests from interested and affected *stakeholders* for additional information *material* to the public safety and integrity of a *tailings facility*. When the request for information is denied, provide an explanation to the requesting *stakeholder*.**

Barrick is committed to the timely response to requests for additional information material to the public safety and integrity of their TSFs from interested and affected stakeholders. In the event that specific information cannot be shared with the requesting stakeholder, an explanation will be provided. Information on Barrick's Tailings Management policy and our Social Performance Policy can be found at the following links:

[Tailings Management Policy](#)

[Social Performance Policy](#)

REQUIREMENT 15.3

- A. Commit to cooperate in credible global transparency initiatives to create standardised, independent, industry-wide, and publicly accessible databases, inventories or other information repositories about the safety and integrity of *tailings facilities*.**

Barrick is committed to global transparency around the public safety and integrity of our TSFs. A link to Barrick's Tailings Management Policy can be found here.

[Tailings Management Policy](#)

CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION [TR JUNIPER TSF]

Certain information contained in Barrick's Global Industry Standard on Tailings Management ("GISTM") tailings disclosure ("GISTM Disclosure"), including any information as to the design and operation of Barrick's tailings facilities and Barrick's sustainability strategy and vision, projects, plans or future technical, or operating performance constitutes "forward-looking statements". All statements, other than statements of historical fact, are forward-looking statements. The words "target", "plan", "project", "develop", "estimate", "potential", "may", "will", "likely", "unlikely", "can", "could", "would" and similar expressions identify forward-looking statements. In particular, this GISTM Disclosure contains forward-looking statements including, without limitation, with respect to: the results of Barrick's annual performance and dam safety reviews and related mitigation measures for the Turquoise Ridge Complex's Juniper Tailings Storage Facility ("Juniper TSF"), which is operated by Nevada Gold Mines ("NGM"), a joint venture between Barrick and Newmont Corporation; the design, storage capacity and lifecycle of the Juniper TSF; the potential environmental and social impacts of the Juniper TSF and related monitoring and risk assessments; the results of Barrick's tailings facility breach analysis and inundation studies including human exposure and vulnerability to flow failure scenarios, disaster management planning and emergency preparedness; and estimated costs associated with the Juniper TSF.

Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the company as at the date of this Response in light of management's experience and perception of current conditions and expected developments, are inherently subject to significant 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 statements and undue reliance should not be placed on such statements and information. Such factors include, but are not limited to: operating or technical difficulties in connection with mining or development activities, including geotechnical challenges, tailings dam and storage facilities failures; physical and transition risks related to climate change, including extreme weather events and resource shortages; risk of loss due to acts of war, terrorism, sabotage and civil disturbances; changes in national and local government legislation, taxation, controls or regulations and/or changes in the administration of laws, policies and practice; political or economic development in Nevada, the United States, or other states and countries in which Barrick does or may carry on business in the future; timing of receipt of, or failure to comply with, necessary permits and approvals; our ability to maintain relationships with public sector agencies and the communities surrounding the Juniper TSF; contests over access to water, power and other required infrastructure; risks associated with working with partners in jointly controlled assets; and disruptions in the maintenance or provision of required infrastructure and information technology systems. In addition, there are risks and hazards associated with the business of mineral exploration, development, and mining, including environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding. Many of these uncertainties and contingencies can affect our actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, Barrick. Readers are cautioned that forward-looking statements are not guarantees of future performance.

All of the forward-looking statements made in this GISTM Disclosure are qualified by these cautionary statements. Specific reference is made to the most recent Form 40-F/Annual Information Form on file with the SEC and Canadian provincial securities regulatory authorities for a discussion of some of the factors underlying forward-looking statements and the risks that may affect Barrick's ability to achieve the expectations set forth in the forward-looking statements contained in this Response.

Barrick disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.