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Lewis Gulch Tailings Storage Facility Plain Language Summary

Sibanye-Stillwater has committed to manage and operate the Lewis Gulch Tailings Storage Facility (TSF) and our other TSFs, to the highest standards according to both our internal policies and our commitment to the Global Industry Standard on Tailings Management (2020) (GISTM). The GISTM is a new industry standard that promotes dam safety, the protection of human lives and the environment, and transparency through increased communication between mining companies and all local stakeholders. The GISTM lays out a number of requirements to help with communication; Requirement 15.1 outlines a plain language summary needed for new TSFs. The summary includes details of the basis of the design, site selection, alternatives analysis, impact assessments, and mitigation plans.

The Lewis Gulch TSF is a planned TSF designed to provide Sibanye-Stillwater's East Boulder Mine with future tailings storage containment capacity and process water storage. The East Boulder Mine is an underground mine that extracts platinum and palladium ore from the Beartooth Mountains in south-central Montana and has been in operation for twenty-two years. A number of alternatives were evaluated for the new TSF and the Lewis Gulch TSF site was chosen based on stable ground conditions and proximity to the mine site. Public safety and minimizing environmental impact are the most important factors in the design of the Lewis Gulch TSF.

At the East Boulder Mine the TSF is built with a combination of earthen or rock embankments and natural topography. Lewis Gulch TSF's north, west, and south sides will be a combination of excavated and constructed embankments; the east side will be fully excavated into the natural ground. The TSF will store a slurry of fine particles (mostly silt sized) of ground rock and water produced as part of the milling process. The Lewis Gulch TSF is designed as a conventional, slurry storage, facility. TSFs are regulated by the Montana Department of Environmental Quality; specifically, the Montana Code Annotated (MCA, Title 82, Chapter 4, Part 3: Metal Mine Reclamation Act (MMRA)). In addition, the mine site is under the jurisdiction Custer-Gallatin National Forest and associated federal laws.

Alternatives to the proposed Lewis Gulch TSF that were investigated include: a filtered tailings facility, a centerline raise of the existing TSF, a co-mingled tailings and waste rock facility, and a conventional TSF located in the upper Dry Fork Creek drainage. These alternatives were found to not be feasible due to various technological challenges. For example, our mining operation requires 50% of our tailings (the coarse, sandy fraction) to backfill the underground openings, resulting in only the finest portion the tailings reaching the TSF. There is no proven industrial-scale technology that is capable of dewatering these fine tailings such that we can stack layers of the filtered tailings.

The proposed TSF will be constructed as a lined paddock-style downstream construction method dam. This means that: the dam will be built to its full height in a single construction phase; the dam is self-standing, not relying on anything else to provide strength for the dam, and that the



internal storage area will be lined with a high-density polyethylene liner. Construction of the dam is scheduled to begin in 2028 and be completed by 2030. The TSF is planned to be operational by 2030 until reaching capacity in approximately 2043.

Knight Piesold LLC designed the Lewis Gulch TSF, they are also the firm of our Engineer of Record for TSFs at East Boulder and Stillwater Mine sites. Under MMRA, the Engineer of Record is an individual professional engineer licensed within the State of Montana who is responsible for producing a TSF design that is stable and for regular inspections of the facility through its life-cycle. Knight Piesold designed the TSF to withstand several catastrophic events including earthquakes and floods. The TSF is designed to withstand an earthquake greater than a magnitude 7.5 (the maximum earthquake possible based to United States Geological Survey guideline). The TSF was also designed to contain an enormous rain on snow event, where in 24 hours the mine site could receive up to 29 inches of rain on top of 18 inches of snow melt water.

Several layers of professional engineering and public oversight we're included as part of the TSF design work. Over the last few years, Sibanye-Stillwater has engaged an Independent Review Panel, as described in the MMRA, comprised of senior geotechnical and geological experts who report to the State and Sibanye-Stillwater. This panel conducted an external 3rd party review and approved the design and additional support work. Since 2000 we have worked with the Northern Plains Resource Council, Cottonwood Resource Council, and Stillwater Protective Association as part of the Good Neighbor Agreement (GNA). The agreement outlines the process where the GNA members take part in the planning, design, and permitting of tailings and waste rock facilities. As a result, GNA technical representatives have participated in the Lewis Gulch TSF design since the beginning.

Sibanye-Stillwater personnel, GNA representatives, the Engineer of Record, and the Independent Review Panel have worked together to improve the Lewis Gulch TSF. This includes multi-criteria/option analysis; risk analysis; a study of the best available technologies and practices; planning around hazards, impacts, and mitigations; and a consequence classification for the facility. We established that the Lewis Gulch TSF will be a Very High Consequence facility according to the GISTM consequence classifications, and a Low-Risk facility according to the formal risk assessment. We routinely look to innovate, and while not every idea results in change, we have and are continuing to research ways to improve. Currently we are conducting testing on filtered tailings, implementing new digital monitoring tools, and utilizing automated instruments to monitor our TSFs. Mitigation planning is very important to us and we have a great deal of experience gathered over the last 20+ years from a diverse group. Working together we have created plans around prevention, emergency response, and longer-term recovery.

Together, the Engineer of Record, GNA representative, and site personnel developed a Tailings Operation, Maintenance, and Surveillance (TOMS) Manual and Emergency Preparedness Plan for the new facility. The TOMS Manual outlines how the TSF will be operated, maintained, inspected, and monitored. This includes topics such as how to manage water on the TSF, how we handle changes around the TSF, who will conduct inspections and how often, as well as what instrumentation will be needed. The Emergency Preparedness Plan outlines response procedures to various emergencies (from failures to forest fires) including internal and external communication and notification procedures.

The Lewis Gulch TSF's design looks at the facility's whole life cycle from concept to safe closure. To plan for the closure stage Sibanye-Stillwater is incorporating the Lewis Gulch TSF reclamation



plan into broader site's reclamation plan; documented in the East Boulder Consolidated Operations and Reclamation Plan. The objectives of the holistic site plan are to: control erosion; provide a vegetative cover; maintain future land use; ensure long-term public safety; protect air, surface water, and groundwater resources; landscape and contour the TSF as it is built; and to have ongoing monitoring (including inspections) and maintenance, as required, during the closure period.

The Lewis Gulch TSF design and supporting studies are currently being evaluated in an Environment Impact Statement (EIS) that is jointly directed by the Montana Department of Environmental Quality and the Custer-Gallatin National Forest. Previous Environment Impact Statements were completed for East Boulder Mine in 1992 and 2012. Information regarding the EIS can be found at <https://deq.mt.gov/mining/Programs/hardrock> and information on future opportunities to comment on the Draft EIS can be found at <https://deq.mt.gov/Public/hardrock-public>.