



WATER QUALITY

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When the DEIS was released by the U.S. Forest Service in August of 2020, our company was called Midas Gold. Since then, we have changed our name to better reflect our values and our project. Today, we are proud to be Perpetua Resources.

THE ONLY PLAN TO RESTORE THE SITE

- After years of scientific data collection, review and analysis the U.S. Forest Service states in the Draft Environmental Impact Statement (DEIS) that removing legacy materials will improve water quality.
 - Removing legacy tailings and managing water quality provides long-term reduction in metal loading in ground and surface water; (U.S. Forest Service Draft Environmental Impact Statement (DEIS); Ch. 4 Section 4.9)
 - Removing legacy tailings and waste lowers concentrations of antimony and arsenic in the East Fork of the South Fork of the Salmon River; (DEIS; Ch 4, Section 4.9-70)
 - Removing legacy tailings and waste improves water quality in Meadow Creek Valley. (DEIS; Ch. 4, 4.12 pg. 103-104)

CONDITIONS TODAY

- There are over three million tons of tailings from the World War II era laying unconstrained in the Meadow Creek valley (a tributary of the EFSFSR), along with over seven million tons of spent heap leach ore, in addition to numerous other open pits and waste rock dumps across the site, and the East Fork of the South Fork of the Salmon River currently flows into an abandoned mine pit.
- As proposed, the Stibnite Gold Project would remedy most of these historical impacts.
 - Large quantities of sediment enter the river system each year from Blowout Creek, where an earthen dam failed in 1965;
 - Elevated sediment levels can clog fish gills, make it hard for them to see their food and reduce their ability to fight diseases;
 - Excessive sediment also chokes off the oxygen supply to the gravel beds, reducing productivity of the salmon spawning habitat;



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- Midas Gold will address the river sedimentation problem (even though Blowout Creek sits outside the project footprint) by initially installing a rock drain below the site of the failed dam and rebuilding the stream channel to prevent excessive sediment from entering the river, while raising the water level in the wetlands above to restore full functional value.
- Currently, Meadow Creek, one of the tributaries to the East Fork of the South Fork of the Salmon River, passes by 10.5 million tons of spent ore and tailings left behind by past miners;
 - Midas Gold believes the tailings are leaching metals into the groundwater and surface water.
 - During the first years of operations, Midas Gold will reprocess and properly store the historical tailings in an engineered and state-of-the-art lined facility to prevent any more metals leaching from these tailings;
 - The 7.5 million tons of spent ore to be reused will be placed underneath the tailings facility liner system, and above groundwater, permanently isolating it from interaction with water.

THE PLAN TO RESTORE THE SITE

- After years of scientific data collection, review and analysis the U.S. Forest Service states in the Draft Environmental Impact Statement (DEIS) that removing legacy materials will improve water quality.
- Midas Gold designed the Stibnite Gold Project to improve water quality and fix the long-standing environmental issues facing the site and protect water quality throughout the mining and restoration process.
- The proposed project would fix Blowout Creek, the largest source of sediment in the watershed, improving water and habitat quality downstream. (*Midas Gold Idaho, Plan of Restoration and Operations (PRO); Section 5.1.1*)
- The project would pick up and reprocess 10.5 million tons of unlined legacy waste rock and tailings, removing a potential source of water degradation from the valley. (*PRO; Table 5-1*)
- In Alternative 2 of the Draft Environmental Impact Statement, Midas Gold made several important updates to its development rock storage facilities to reduce impacts to salmon



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habitat, increase safeguards around subeconomic mineralized development rock storage, and manage and treat water to improve conditions:

- Removing a proposed development rock storage facility and reducing new project disturbance by 72 acres;
- Backfilling the Midnight mine pit and partially backfilling the Hangar Flats mine pit to reduce the future pit lake to a depth of 140 feet, from original depth of 600 feet. (DEIS; Table 2.2-1)
- Adding geosynthetic covers to development rock storage facilities to limit infiltration and protect water quality;
- Surface water management modifications to maintain surface water flows, reduce stream temperature and improve surface water and groundwater quality;
- According to a Stream Functional Assessment (SFA) of the current conditions in the historic Stibnite Mining District versus conditions proposed after mining and restoration, the proposed project would result in a roughly 7% long-term uplift of the stream functional conditions. (*SFA Report; pg. 30*)
- Under the Midas Gold Plan of Restoration and Operations, the company will enhance and/or restore approximately 12 miles of perennial streams, which, in conjunction with improved fish access, will result in roughly 6 miles of additional stream habitat compared to existing conditions for migratory fish, including Chinook salmon, steelhead and bull trout. (*DEIS; Appendix D and J-3*)

ACID ROCK DRAINAGE?

- Acid rock drainage is not a concern for the Stibnite Gold Project:
 - The geochemical composition of the substantial majority of rocks the company will mine at site makes it highly improbable;
 - While the rocks at site contain some sulfides, which can generate acid, they also have high concentrations of calcite and other minerals that neutralize any acid generation;
 - In the 100-plus-year mining history of the site, acid rock drainage has never been detected from old mine workings, pits and waste rock piles and it was not detected through any of Midas Gold's geochemical characterization testing, modeling or water quality monitoring.



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100 YEAR LEGACY

- Water quality in the historical Stibnite Mining District has been impacted by naturally elevated levels of certain metals and by more than a century of mining activity, most of which took place before modern environmental regulations existed.
 - The most serious impacts on water quality happened in the 1930s-1950s, when the district was the foremost supplier of antimony and tungsten for the U.S. war efforts.
 - The U.S. Government was actively engaged in fostering and funding the exploration, development and operation of the site during that period.
- Midas Gold has been monitoring the water quality of the site for the last decade.
 - Water quality sampling undertaken by the company as part of its characterization of the site shows very high arsenic and antimony levels in certain areas, far beyond what is considered acceptable for drinking water or aquatic life standards.
 - One monitoring well measured arsenic at more than 700 times higher than the drinking water standard.
- Midas Gold has never conducted any mining operations or created the impacts to the site that are degrading water quality.
 - The company's actions have been limited to studying current conditions, evaluating the optimal and permanent solutions for mining, remediation, and restoration and presenting those solutions to the regulators responsible for permitting the site.
 - For several years, Midas Gold Idaho has been providing regulators with water quality data collected by us and our consultants.
- In the early 2000s, a series of three CERCLA decrees were signed between past operators and federal agencies that release past operators from future liability and oblige the EPA to not sue federal agencies for their prior actions at site.
 - This means, that without a private party solution, the problems at Stibnite will remain unaddressed.
- In Sept. 2016, Midas Gold submitted our Plan of Restoration and Operations (PRO) with specific plans to address the majority of the legacy contamination at Stibnite and thereby significantly improve water quality.
- In June 2017, Midas Gold approached the EPA to address areas outside of the PRO and



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obtain permission to address water quality concerns in those areas through an Administrative Order on Consent mechanism.

- In 2019, The Nez Perce Tribe filed a Clean Water Act lawsuit against Midas Gold for unauthorized discharges of contaminated waters for areas impacted by prior operators.
 - Nevertheless, Midas Gold continues to pursue both the Stibnite Gold Project permitting and an Administrative Order on Consent as the means to provide measurable and meaningful benefits to water quality on site.