Perpetua Resources

August 2021

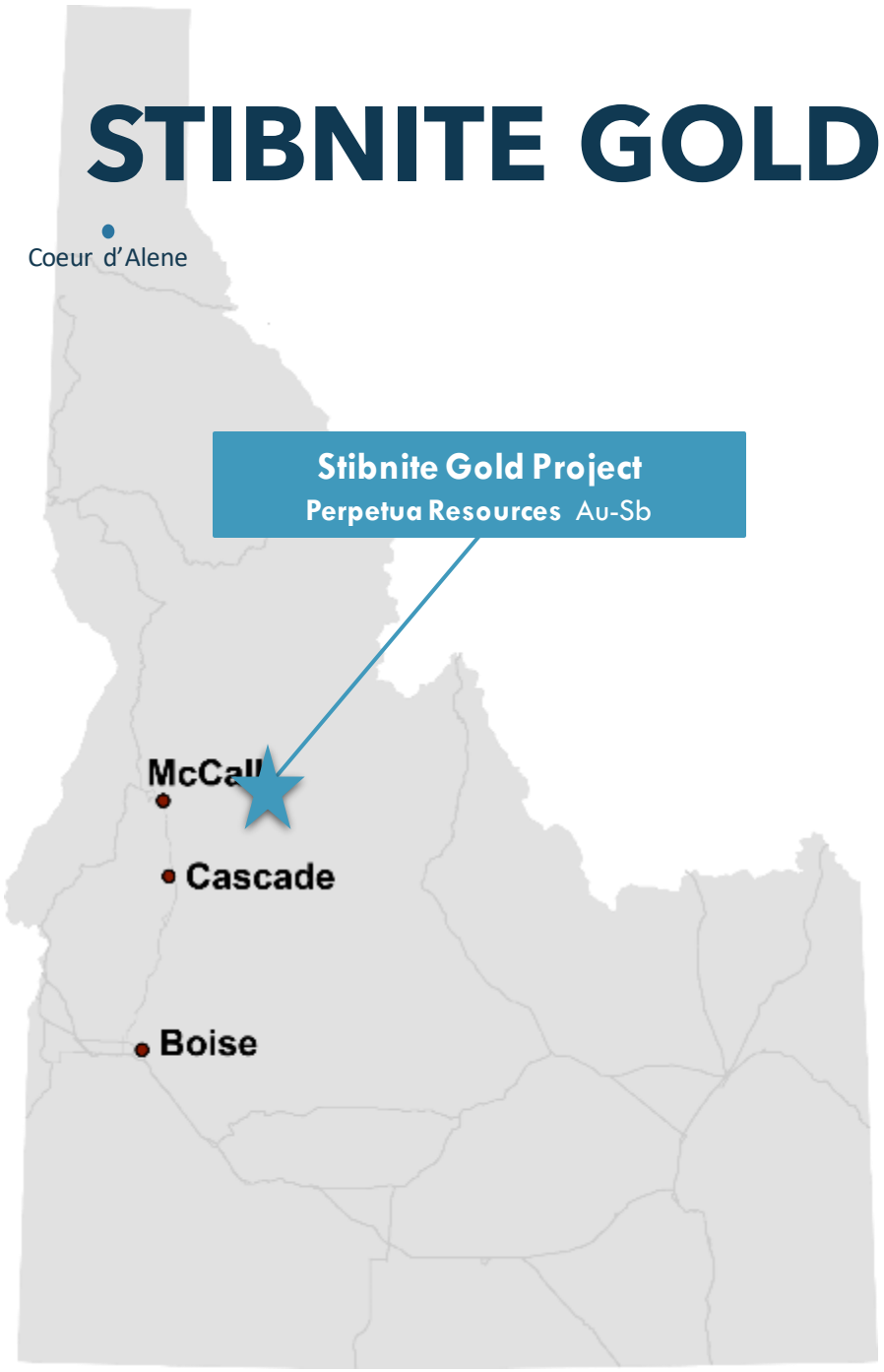
TSX:PPTA
NASDAQ:PPTA

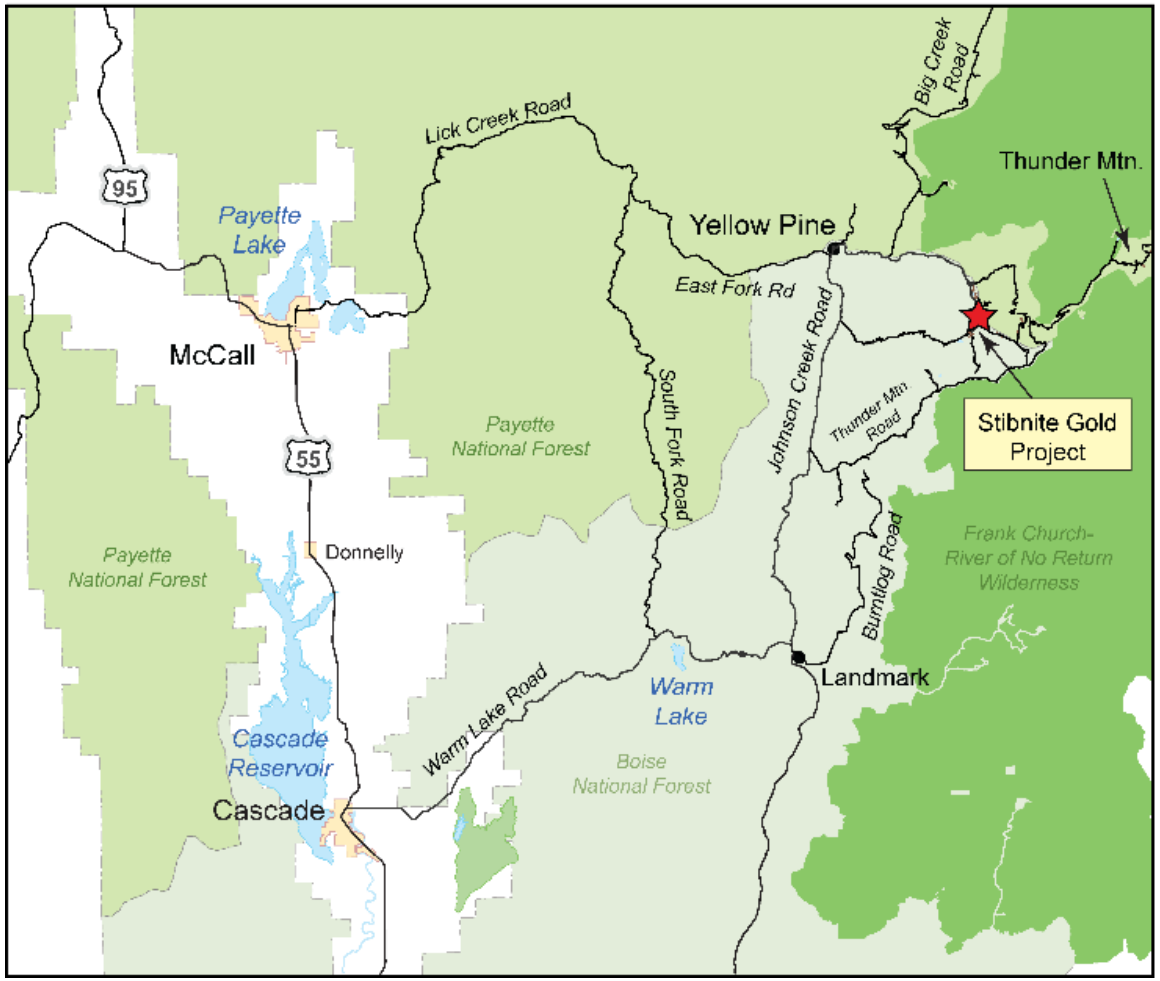
PERPETUA RESOURCES

Responsible Mining. Critical Resources. Clean Future.

www.perpetuaresources.com

STIBNITE GOLD PROJECT





THE STIBNITE GOLD PROJECT

We can take an area abandoned after 100 years of mining activity and use a sustainable approach to restore the environment and develop a modern mining project that can help power a lower carbon future through critical mineral production

THE PERPETUA WAY

RESPONSIBLE. RESTORATIVE. CRITICAL.

We are driven by the understanding that building a strong and successful business starts with doing business the right way.

We know that economic success and environmental success are inseparable.

We designed our project to restore the environment, create opportunity and benefit communities.

NEW PERSPECTIVES

ENVIRONMENT SOCIAL RESPONSIBILITY GOVERNANCE (ESG)

Perpetua Resources is changing the face of mining.

- ✓ Adopted ESG policy in 2019
- ✓ Community Agreement in 2018
- ✓ Annual Sustainability Reporting
- ✓ 60k+ Trees Planted
- ✓ 104+ Months No Reportable Spills
- ✓ Dark Skies commitments
- ✓ Citizen's water monitoring
- ✓ Installed solar panels at Stibnite
- ✓ Published carbon inventory

2021 ESG Commitments

- ✓ Company aims to publish sustainability roadmap

Note: Numbers reflect Perpetua Resources Idaho, Inc. staff and board members as of February 2021

WORKING TOGETHER

Community Agreement

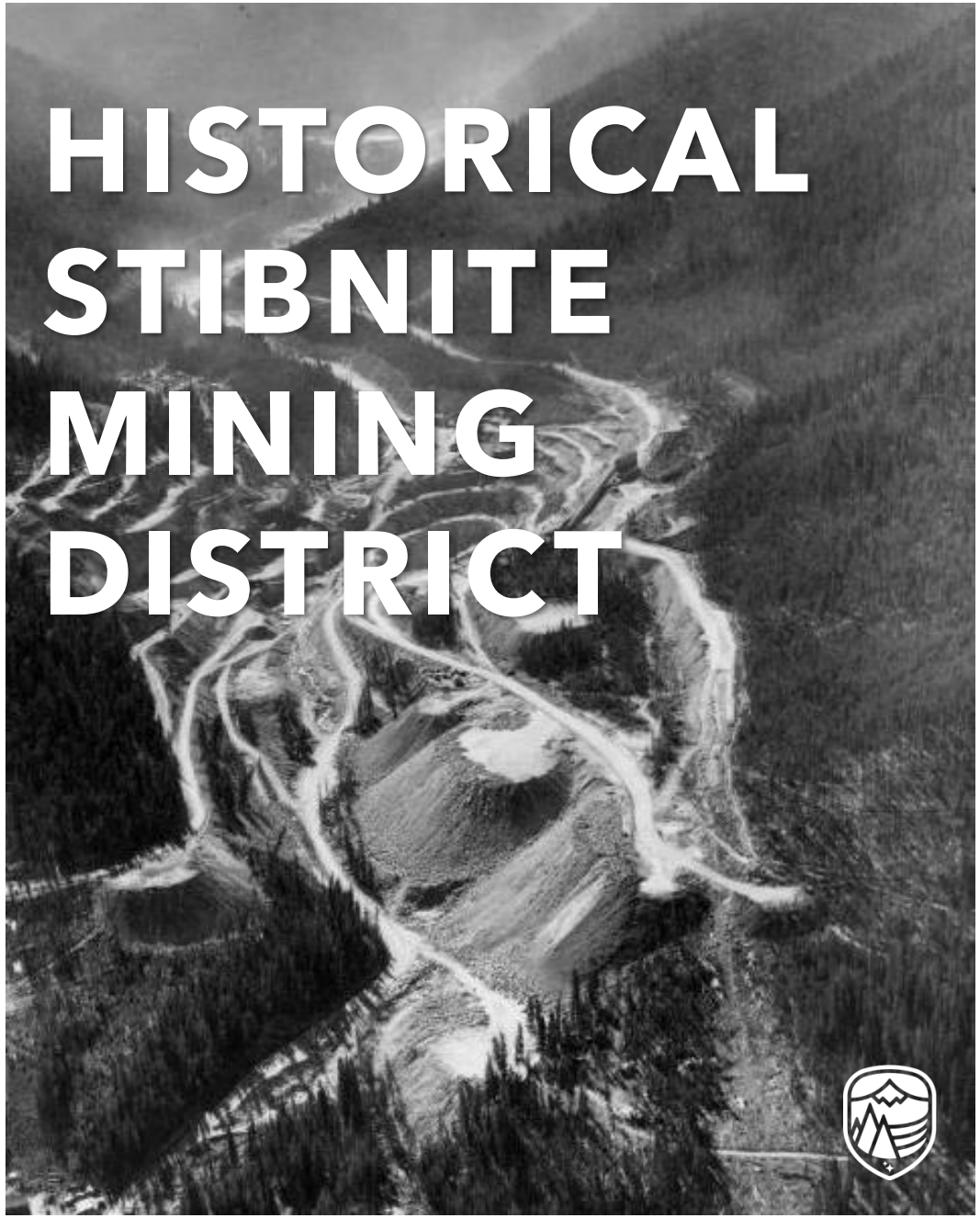
Through a community agreement signed in 2018, the **Stibnite Advisory Council** brings together communities across central Idaho to discuss the challenges and opportunities presented by the Stibnite Gold Project.

- ✓ Direct access to leadership
- ✓ Monthly meetings
- ✓ Identify opportunities and solutions
- ✓ Address questions or concerns
- ✓ Citizen's Water Monitoring Initiative (2021)

VILLAGE OF YELLOW PINE + CASCADE + DONNELLY + NEW MEADOWS + RIGGINS + COUNCIL + ADAMS COUNTY + IDAHO COUNTY

RESTORE AN ABANDONED SITE

HISTORICAL STIBNITE MINING DISTRICT



1890s
The Thunder Mountain gold rush brings mining to the area

1900-1930
The town of Stibnite is established

1938
Mining at Yellow Pine pit stops salmon migration upstream

1941-1950
The town of Stibnite booms when antimony & tungsten were declared critical & strategic minerals

1953-1960
With WWII & the Korean War over, mining slowed and Stibnite slowly faded

1960s
Earthen dam failure resulting in hundreds of tons of sediment eroding into surrounding streams & rivers, continues to this day

1970s-1990s
Periodic mining by multiple owners and operators

1990s – 2000s
All mining stopped, U.S. Gov't conducts some limited clean-up

2009-2011
Midas Gold (*now Perpetua Resources*) consolidated land ownership & began evaluating the geology & environment within the Stibnite Gold Project area

neutral by the Americas.

It was Germany's use of high-velocity, armor-piercing projectiles with the tungsten carbide core that almost made the north African campaign a successful one.

Tungsten production in China began in 1914, and it has been the largest

"In the opinion of the Munitions Board, the discovery of that tungsten mine at Stibnite, Idaho in 1942 shortened World War II by at least 1 year and saved the lives of a million American soldiers."

The US Senate Congressional Record, 1956

plorations we

the Yellow Pine

Idaho.

The Government invested millions to build access roads and open up this mine. The Yellow Pine deposit was a lifesaver for this country, but it was geologically

HISTORICAL LEGACY

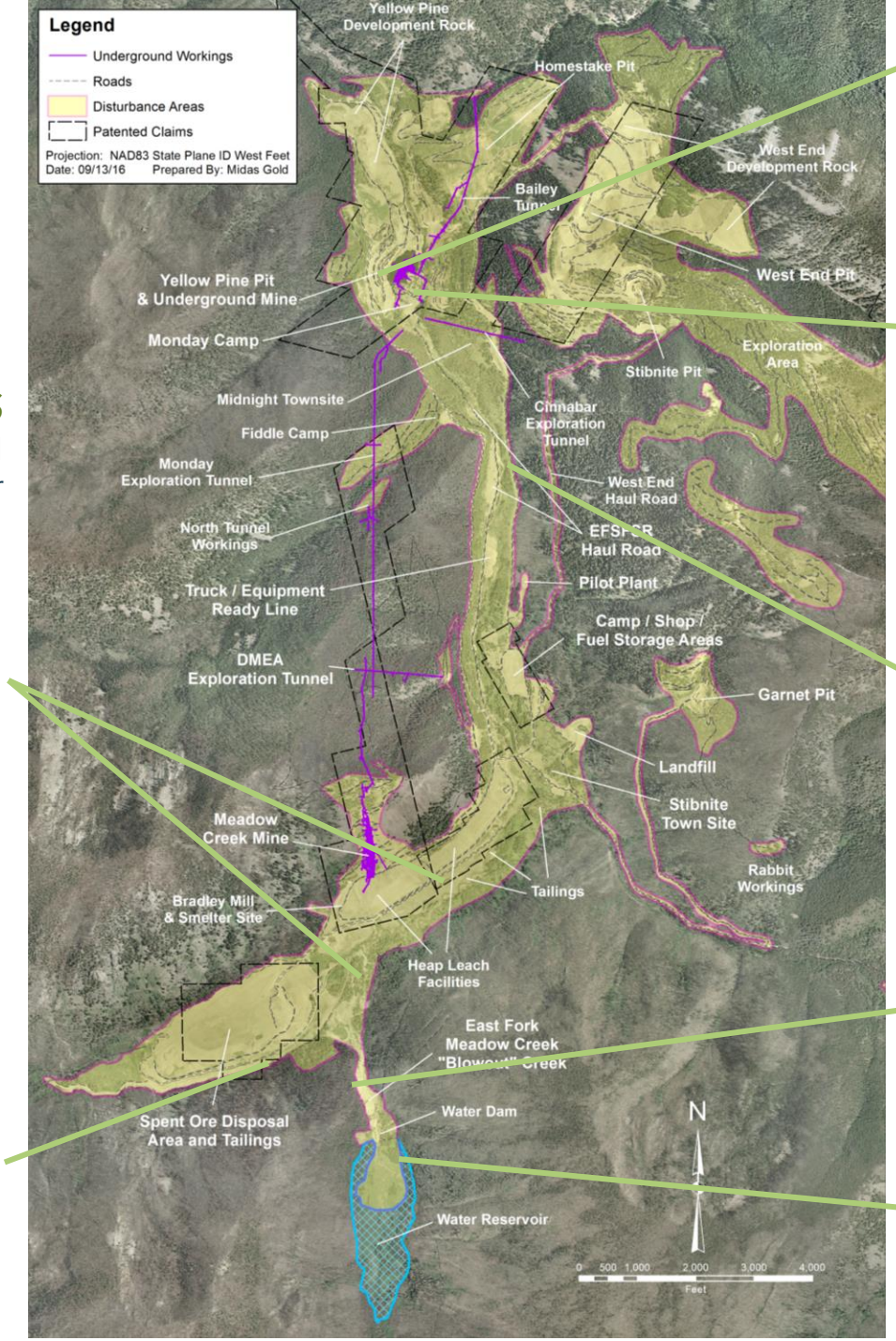
After 100+ years of mining activity, many environmental legacies remain.

TAILINGS

10.5 million tons of legacy spent ore and unlined tailings interact with ground and surface water

MEADOW CREEK

4,900 ft rock lined ditch with limited habitat function



YELLOW PINE PIT

The East Fork of the South Fork dumps into a legacy mine pit. Currently, ~80 feet of sediment has collected at the bottom

FISH PASSAGE

Fish migration is blocked by the Yellow Pine pit

HABITAT

13,000+ ft poor habitat quality

BLOWOUT CREEK

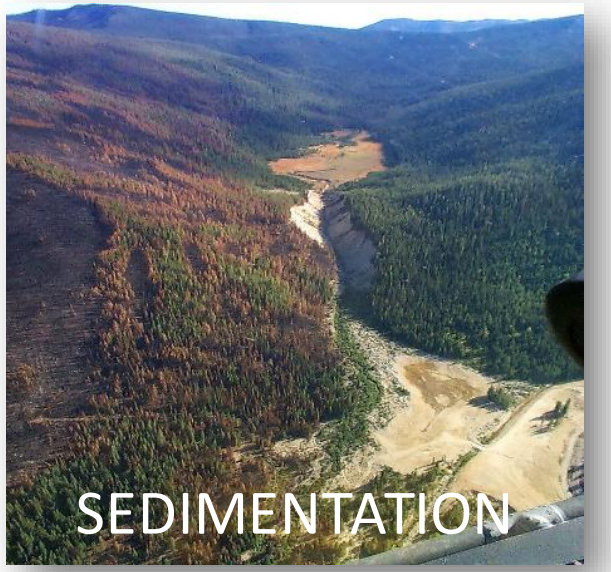
Largest source of sedimentation in the watershed

BLOWOUT CREEK VALLEY

14-foot drop in water table, loss of wetlands function

RESTORATION OF BROWNFIELDS SITE

SOLUTIONS FOR THE ENVIRONMENT



Early repair of the largest source of sedimentation

Pick up, reprocess, reuse and safely store 10.5M tons of tailings and spent ore

Re-establish fish migration and provide permanent river restoration

LEGACY

During the World War II era, the East Fork of the South Fork of the Salmon River (EFSFSR) was diverted to facilitate mining of the Yellow Pine pit, cutting off fish passage.

TODAY

The East Fork of the South Fork of the Salmon River flows directly into the Yellow Pine pit, blocking fish passage.

CURRENT CONDITIONS

Existing Yellow Pine pit

East Fork South Fork Salmon River (EFSFSR) dumps into the Yellow Pine pit.

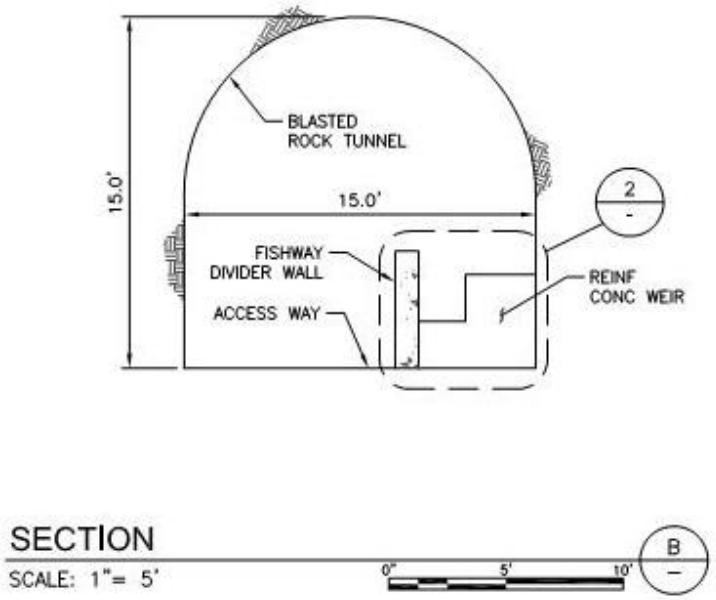
Fish passage blocked for over 80 years.

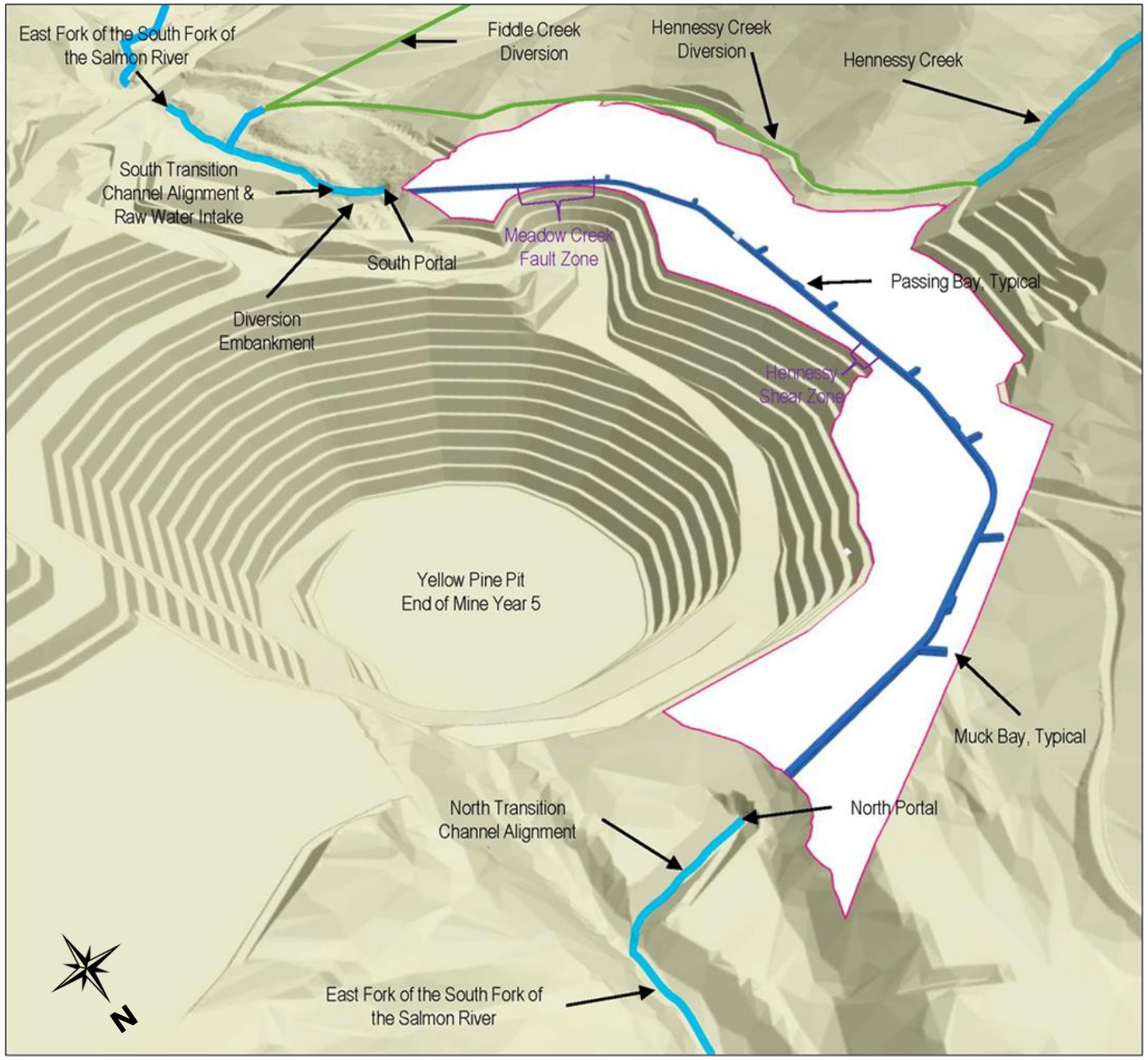
Sediment from Blowout Creek settles in Yellow Pine pit

DURING MINING

EFSFSR Tunnel Passage

- Immediate fish passage for approximately 15 years.
- Proven technologies for passage, monitoring and restoration.
- Passage for all 3 key species – chinook salmon, bull trout and steelhead.





EFSFSR: East Fork South Fork Salmon River

River and Fish Passage Restored

PERMANENT FISH ACCESS restored for the first time in 80 years.

HABITAT RESTORATION built into project beginning in year 7.

LEGACY

Water reservoir failed in 1965.

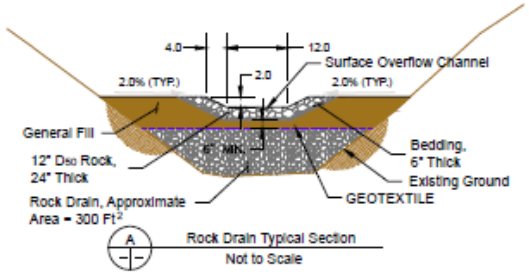
TODAY

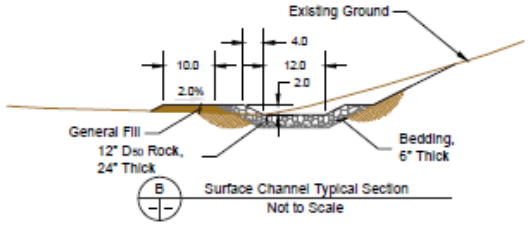
The failed reservoir is the most significant source of sediment in the watershed. It degrades water quality and fish habitat and diminishes wetland functionality.

BLOWOUT CREEK RESTORATION

CURRENT

INTERMEDIATE





RESTORATION

LONG TERM SOLUTION to improve water quality, stabilize the water table and re-establish wetlands habitat.

LEGACY

Tailings (beige) were covered with spent heap leach ore (brown) after being deposited, unlined, in the Meadow Creek Valley.

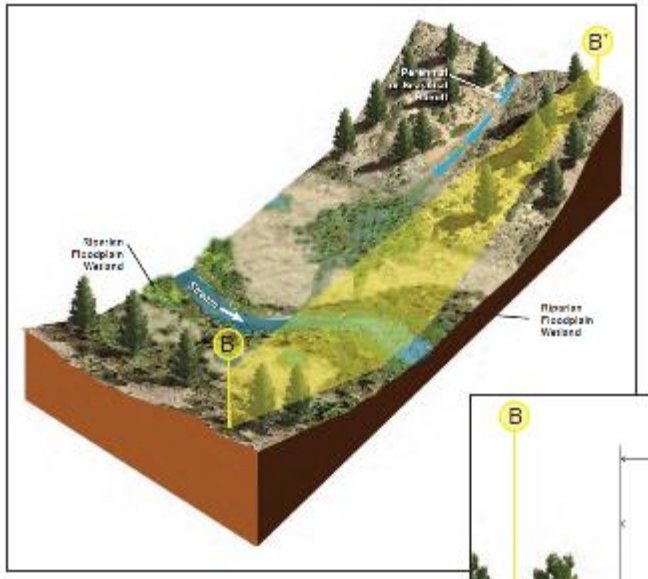
TODAY

Revegetation attempts have been made; however, legacy materials continue to degrade water quality and leach metals into the surface water and groundwater.

REMOVE & REPROCESS LEGACY TAILINGS

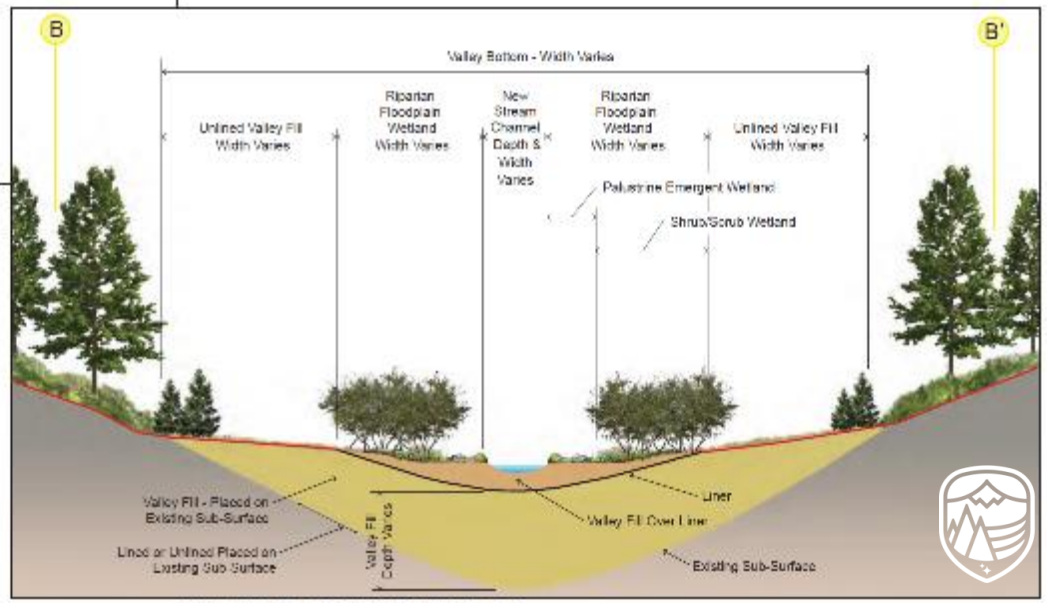
CURRENT

RESTORATION



Reprocess 3 million tons of historical tailings & **repurpose** the 7.5 million tons of spent heap leach ore, removing an existing potential source of water degradation.

Restoration follows construction and operation of TSF and Hangar Flats DRSF within portions of the SODA footprint.



RIPARIAN FLOOD PLAIN WETLAND B-B'

TSF: Tailings Storage Facility | **DRSF**: Development Rock Storage Facility | **SODA**: Spent Ore Disposal Area

INDUSTRY AND THE ENVIRONMENT CAN **WORK TOGETHER**

ECONOMY + ENVIRONMENT

Invest $1 billion in Idaho

Provide well-paid jobs to Idahoans

Grow economic opportunity with an estimated $43 million in direct annual payroll during operations & $86 million in local and state taxes*

Reprocess historical tailings

Restore fish passage

Repair historically impacted waterways

Remediate areas contributing to water degradation

Rehabilitate habitat and natural vegetation

Reuse materials on site

*Based on the 2014 Pre-Feasibility Study

IDAHO JOBS

IN IDAHO, ~2 INDIRECT JOBS CREATED FOR EVERY DIRECT JOB IN MINING.

~ 2-3-year construction period*

Approx. **600-700 direct jobs in Idaho**

Average wage**: $70,000**

Average annual **payroll ~ $34 million**

~ 12-15-year operating life*

Approx. **500-600 direct jobs in Idaho***

Average wage**: $80,000***

Average annual **payroll ~$42 million**

** (Life of mine average)*

~ 3-5-year final reclamation and closure*

Approx. **50-200 direct jobs in Idaho**

Average wage: **$60,000**

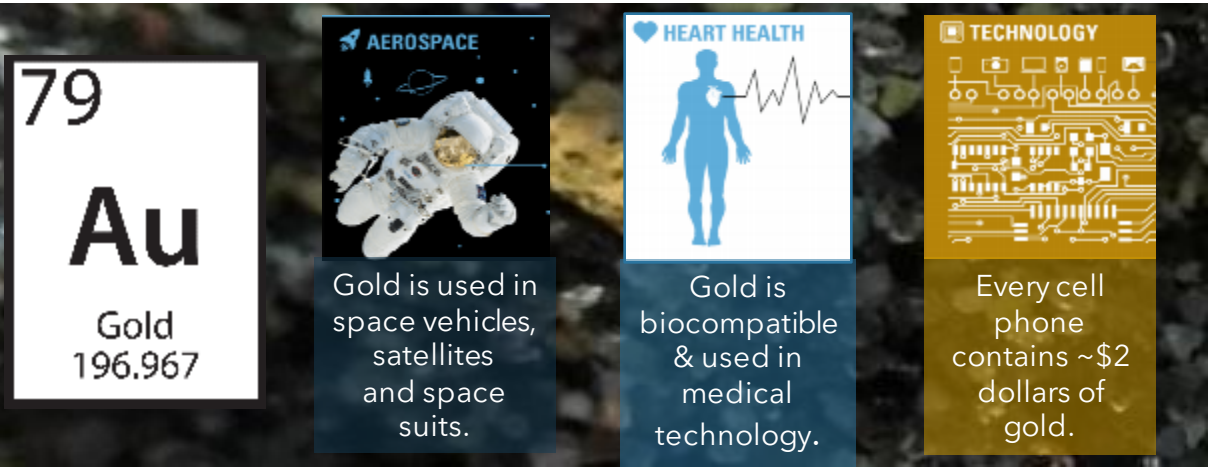
NOTE: Based on the 2014 PFS, which is intended to be read as a whole and sections should not be read or relied upon out of context. The information in this presentation is subject to the assumptions, exclusions and qualifications contained in the PFS and FS. See "Regulatory Information" at the end of this presentation.

CRITICAL RESOURCES

GOLD

4.8 MILLION OUNCES OF GOLD (Reserve)

Total resource ~6 million ounces.



The **Stibnite Gold Project** would be the 4th largest US gold operation by grade and likely produce between ~4-5 million ounces of gold. *

Half of all gold is used for jewelry. Other uses include currency and industrial purposes, in aerospace, technology and medical equipment.

ANTIMONY

148 MILLION POUNDS OF ANTIMONY (Reserve)

Total resource ~206 million pounds

The **Stibnite Gold Project** would be the only domestic source of antimony mined in the U.S.

Critical for the defense and technology sectors, the United States uses **44 million pounds** of antimony each year, but we are **heavily dependent on China** to supply this strategic mineral.

* Based on the 2020 Feasibility Study (FS), which is intended to be read as a whole and sections should not be read or relied upon out of context. The information in this presentation is subject to the assumptions, exclusions and qualifications contained in the FS. See "Regulatory Information" at the end of this presentation.

CRITICAL FOR THE AMERICAN FUTURE

ANTIMONY (Sb): A "critical mineral" that is vital to U.S. national security and will support the transition to a green economy

Night Vision Goggles

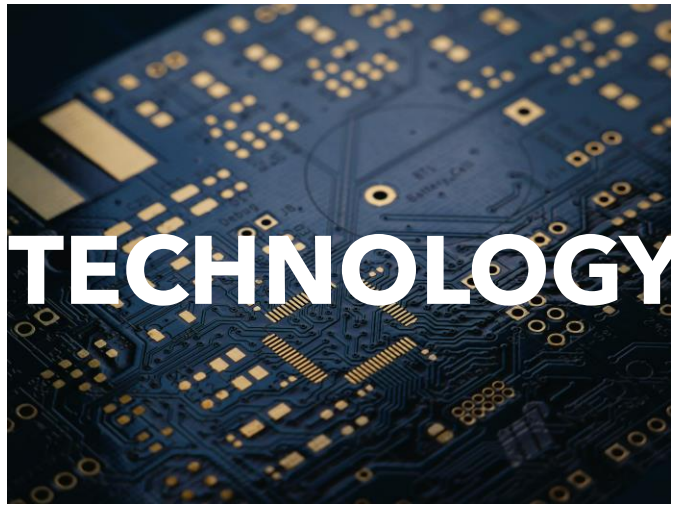
Military Clothing

Infrared Sensors

Hardening Lead: Bullets & Shrapnel

Armor Piercing Projectiles

Ammunition Primers



Circuit boards

Semi-conductors

Electrical switches

Fluorescent lighting

High-quality clear glass

Copper wiring insulation

Lead-acid batteries

Liquid-metal batteries

Solar panels

Wind turbines

PERPETUA TO POWER AMBRI'S LOW-COST BATTERY

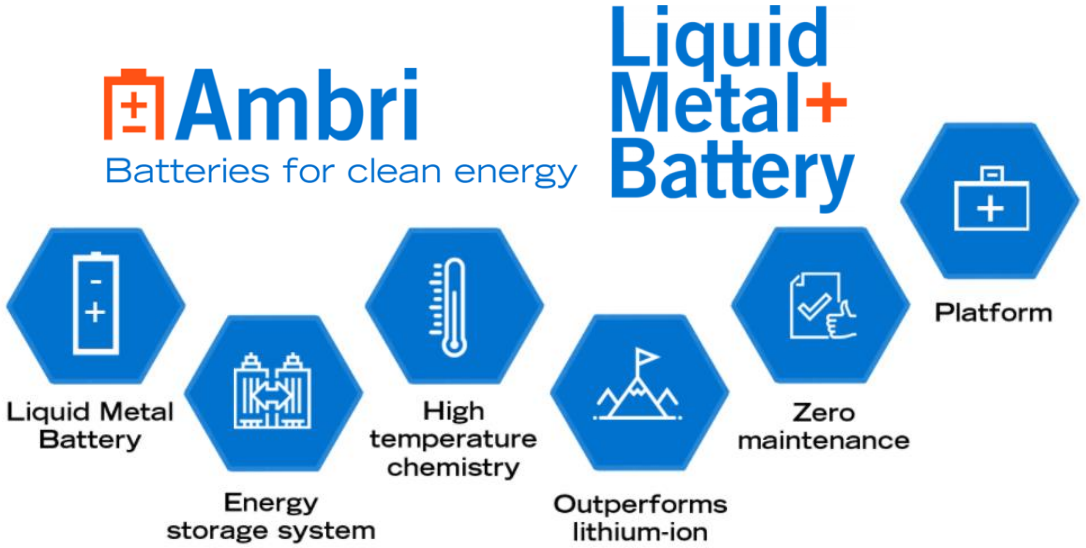
A GREEN ENERGY PARTNERSHIP

Antimony from the Stibnite Gold Project will be used to produce high-capacity, long-term reliable and safe clean energy storage batteries.

LIQUID METAL BATTERY

The liquid metal battery fundamentally changes the way power grids operate and enables the transition to carbon-free power grids.

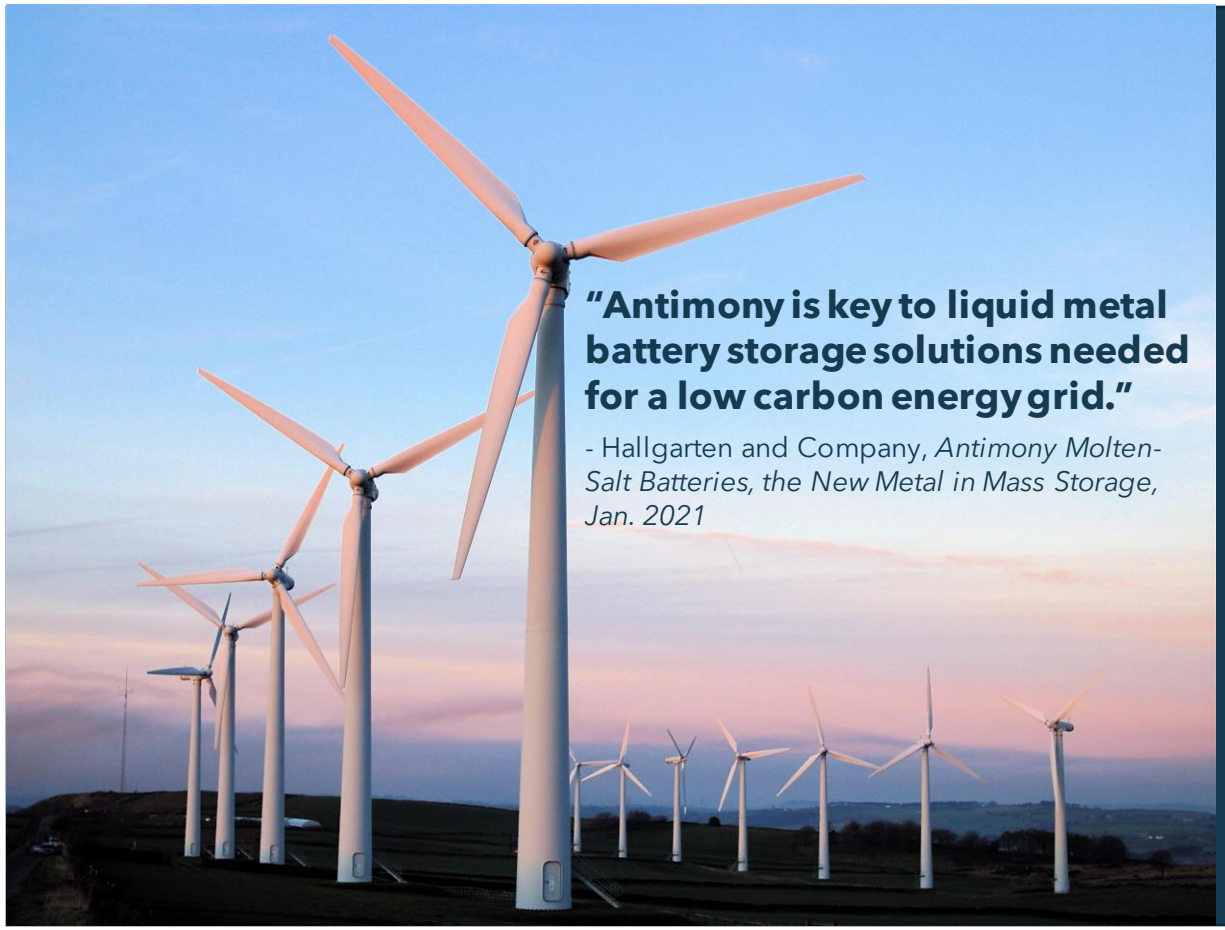
- The liquid metal battery technology relies on antimony.
- Perpetua has committed to supply a portion of the antimony from the Stibnite Gold Project to Ambri, the liquid metal battery company.
- **The current commitment of antimony from the Project can power over 13 Gigawatt hours of energy storage, nearly 3 times the project's energy consumption over the 15 years of operations.**
- Perpetua and Ambri will also partner to identify opportunities to reduce carbon emissions through renewable energy generation combined with battery storage during operations



Source: Ambri

ANTIMONY for the CLEAN ENERGY FUTURE

The partnership between Perpetua Resources and American battery maker Ambri, redefines how modern mining companies can be part of climate change solutions.



"Antimony is key to liquid metal battery storage solutions needed for a low carbon energy grid."

- Hallgarten and Company, *Antimony Molten-Salt Batteries, the New Metal in Mass Storage, Jan. 2021*

Ambri's antimony-based, liquid metal battery is the large-capacity, low-cost, reliable, responsible energy storage for the future.

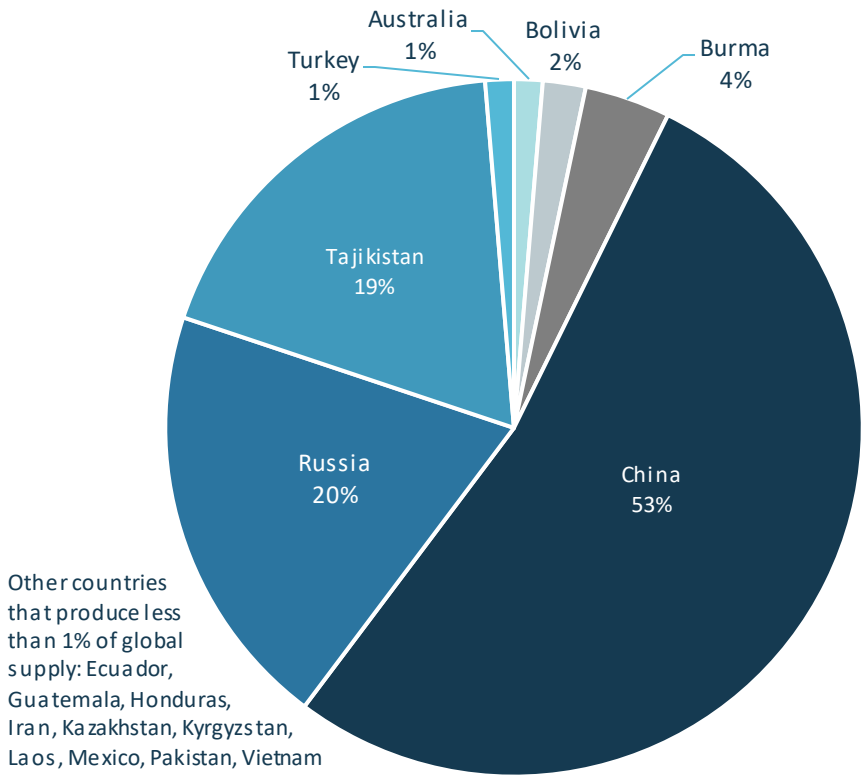
Perpetua Resources and Ambri, an American battery company, are partnering to use antimony from the Stibnite Gold Project to create the high-capacity clean energy storage needed for a low carbon future.

US CRITICAL MINERAL SUPPLY CHAIN RISK.

Critical Minerals are metals and non-metals essential to economic and national security and are vulnerable to supply chain disruptions

- Antimony is one of 35 federally listed critical minerals
- China & Russia dominate the world antimony supply (>70%)
- U.S. has no domestic antimony production
- Perpetua Resources could re-establish domestic antimony production and protect America's future
- 2021 Executive Order on Critical Supply Chains and subsequent report, signals need to evaluate supply chains for critical minerals, semiconductors and battery storage technology.

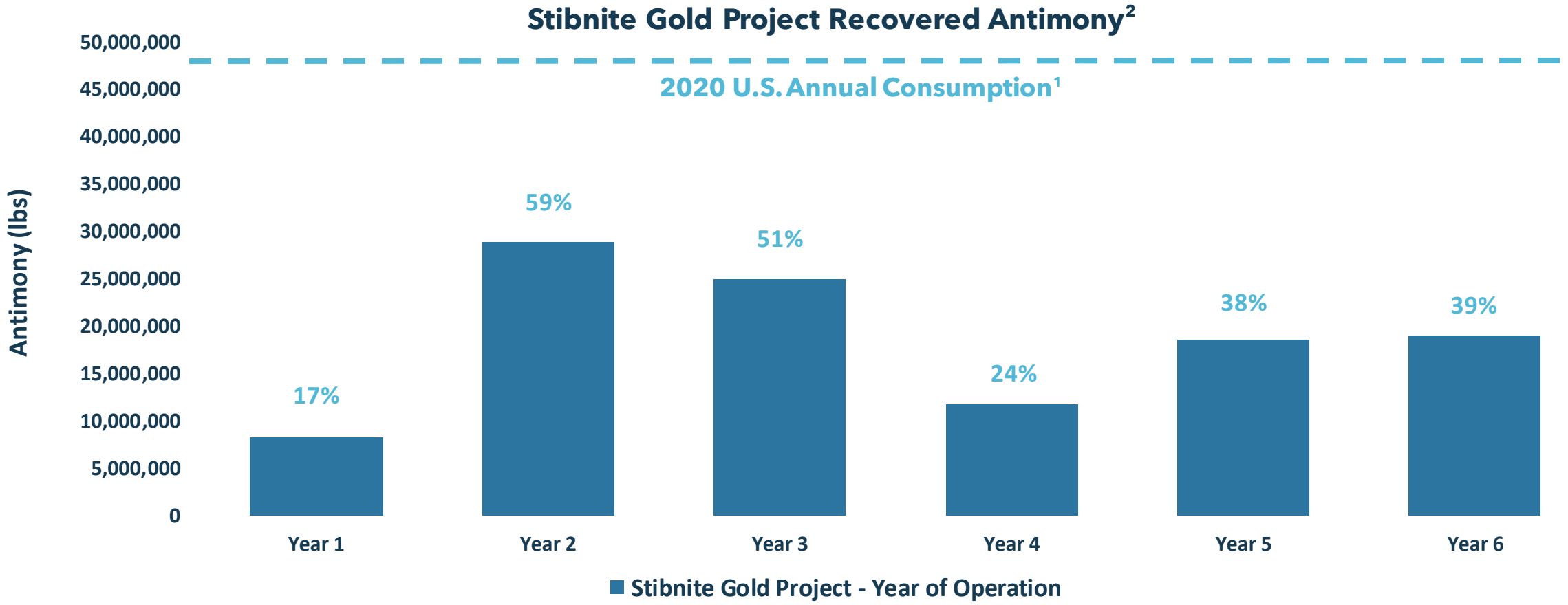
2020 World Antimony Production
(USGS)



Perpetua Resources is estimated to produce >35% of U.S. annual demand[1]

1. *Based on the first 6 years of the 2020 Feasibility Study (FS) which is intended to be read as a whole and sections should not be read or relied upon out of context. The information in this presentation is subject to the assumptions, exclusions and qualifications contained in the FS. See "Regulatory Information" at the end of this presentation.*

PERPETUA EXPECTED TO SUPPLY ~35% OF U.S. DEMAND[1]



Perpetua Resources could re-establish domestic antimony production, protecting America's future

1. *Source: 2021 USGS Antimony commodity summary; all numbers are approximate and may not add due to rounding*
2. *Based on the 2020 Feasibility Study (FS) which is intended to be read as a whole and sections should not be read or relied upon out of context. The information in this presentation is subject to the assumptions, exclusions and qualifications contained in the FS. See "Regulatory Information" at the end of this presentation.*

INFRASTRUCTURE

STIBNITE GOLD LOGISTICS FACILITIES

Administrative and Transportation Facility

IN-TOWN JOBS

Human Resources

Purchasing & Accounting

Administration & Management

Warehousing & Storage

Laboratory

REDUCE TRAFFIC

Use as point of transportation for staff and site load consolidation

Reduces dust and sediment generated by vehicles

Reduces risk of accidents along route

Reduce greenhouse gas emissions

SITE ACCESS

Prioritize safety, avoid water ways

CURRENT ROUTE

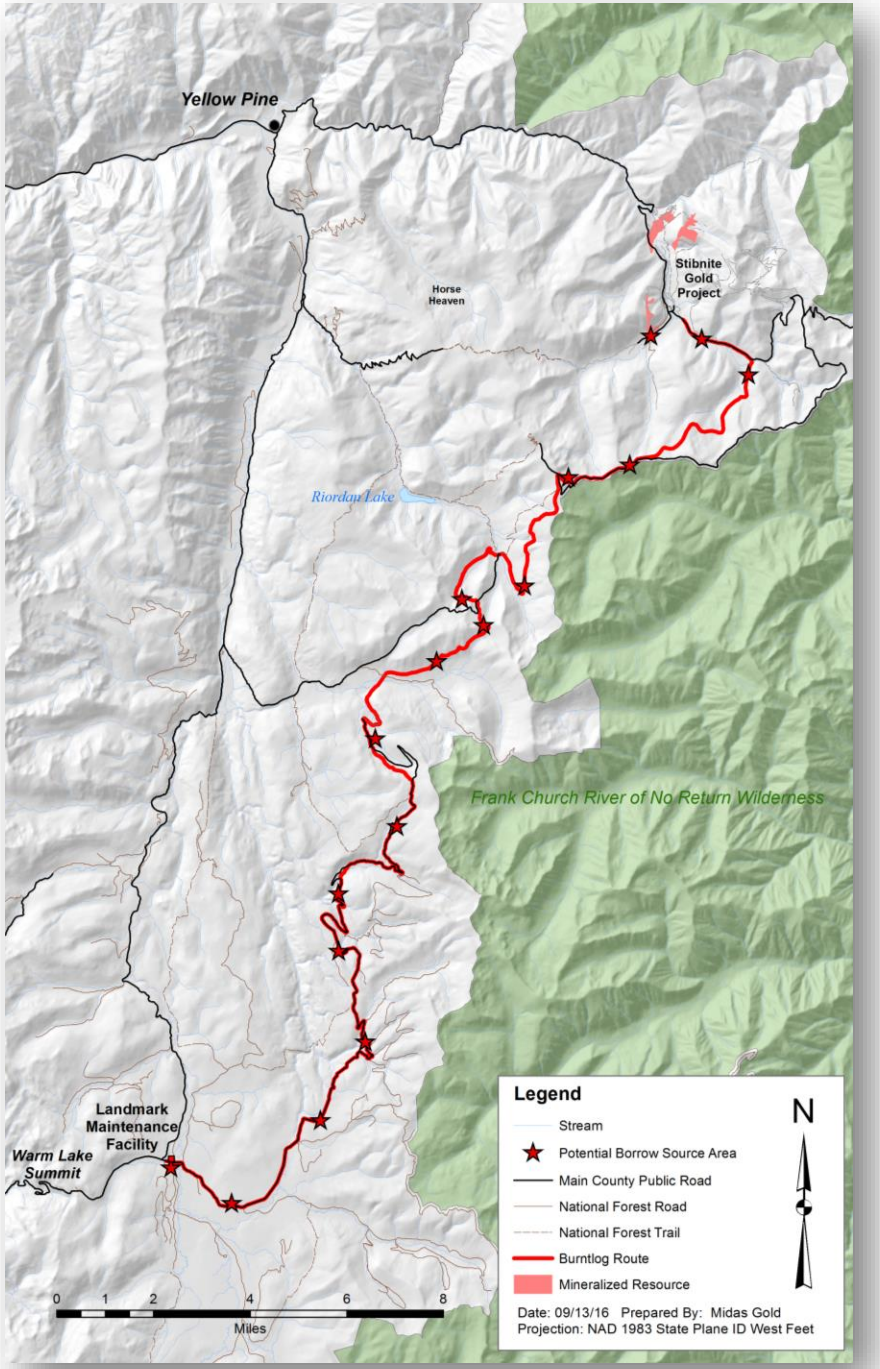
Travel adjacent to larger waterways via Johnson Creek or South Fork Road to Yellow Pine and Stibnite.

STUDIES EVALUATED

- Proximity to fish-bearing waterways
- Impact on residents and recreationalists
- Safety risks to employees
- Cost to upgrade
- Design of vehicles

NEW BURNTLOG ROUTE PROMOTES SAFETY

- 18 miles improving existing Burntlog Road (FS 447)
- 17 miles of new pioneered road
- 2 miles improving existing Thunder Mountain Road (FS 375)
- Avoids travel along waterways.
- Provides year-round access.

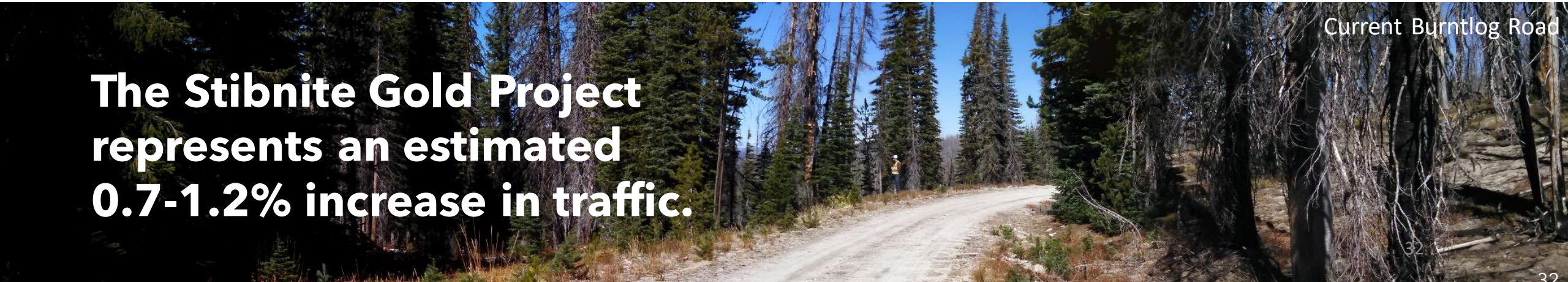


TRANSPORTATION PLAN

- Concentrate traffic 6am-8pm Mon-Fri
- Bus workforce from Cascade to project site
  (Estimate 90% of workforce)
- Approximately 50 round trips per day
- Pilot vehicles will accompany fuel & sensitive loads
- Bypass downtown McCall
- Perpetua Resources will address upgrades at HWY 55 at Warm Lake, Boydston and Dienhard

BENEFITS:

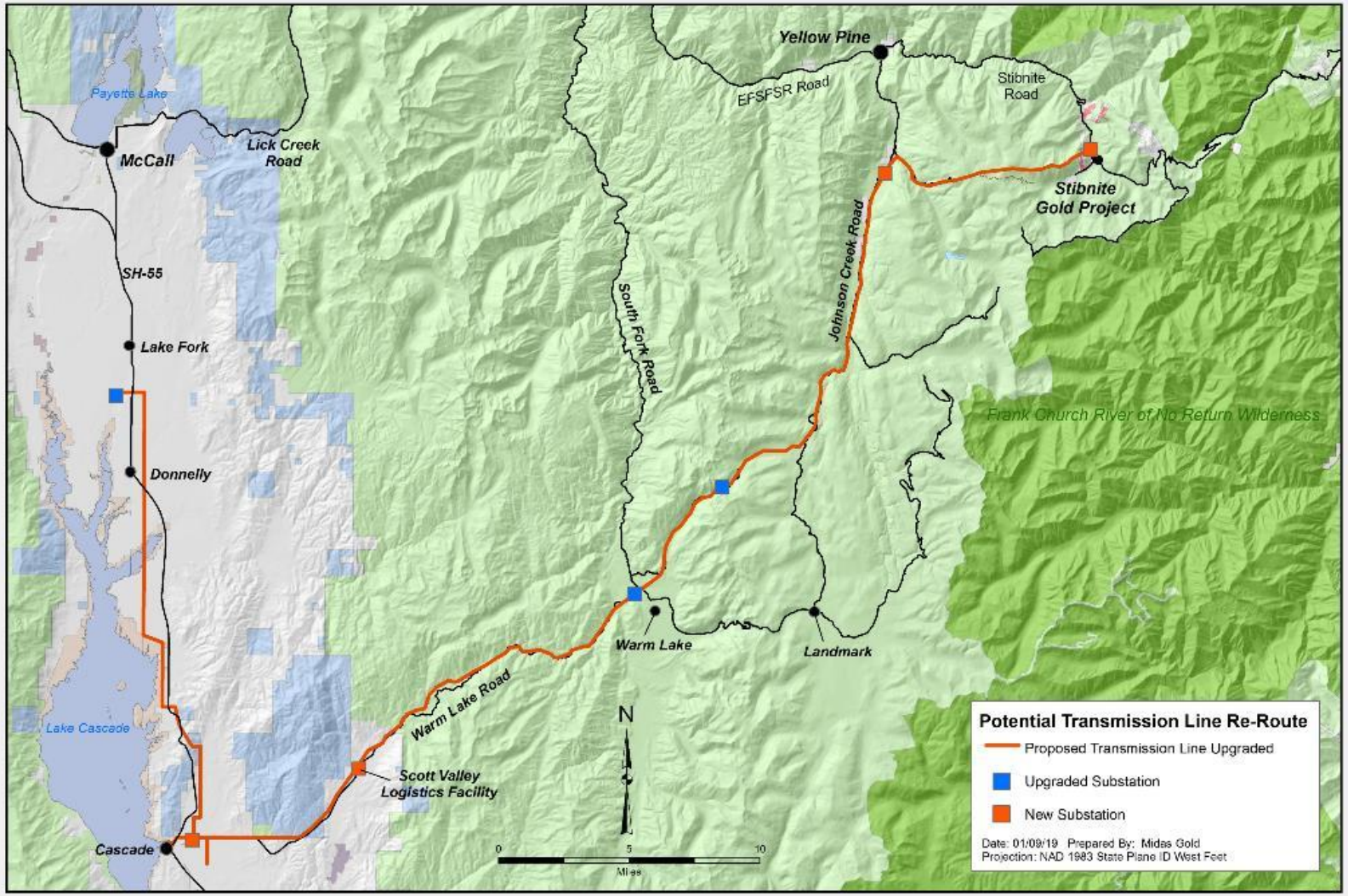
Less traffic
Less dust
Lower accident risk
Lower spill risk
Less noise

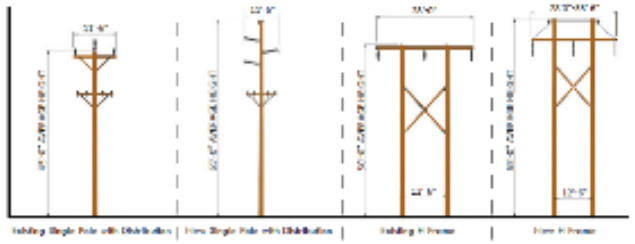


The Stibnite Gold Project represents an estimated 0.7-1.2% increase in traffic.

TRANSMISSION LINE UPGRADE

Project will upgrade 73 miles of transmission line at company's expense



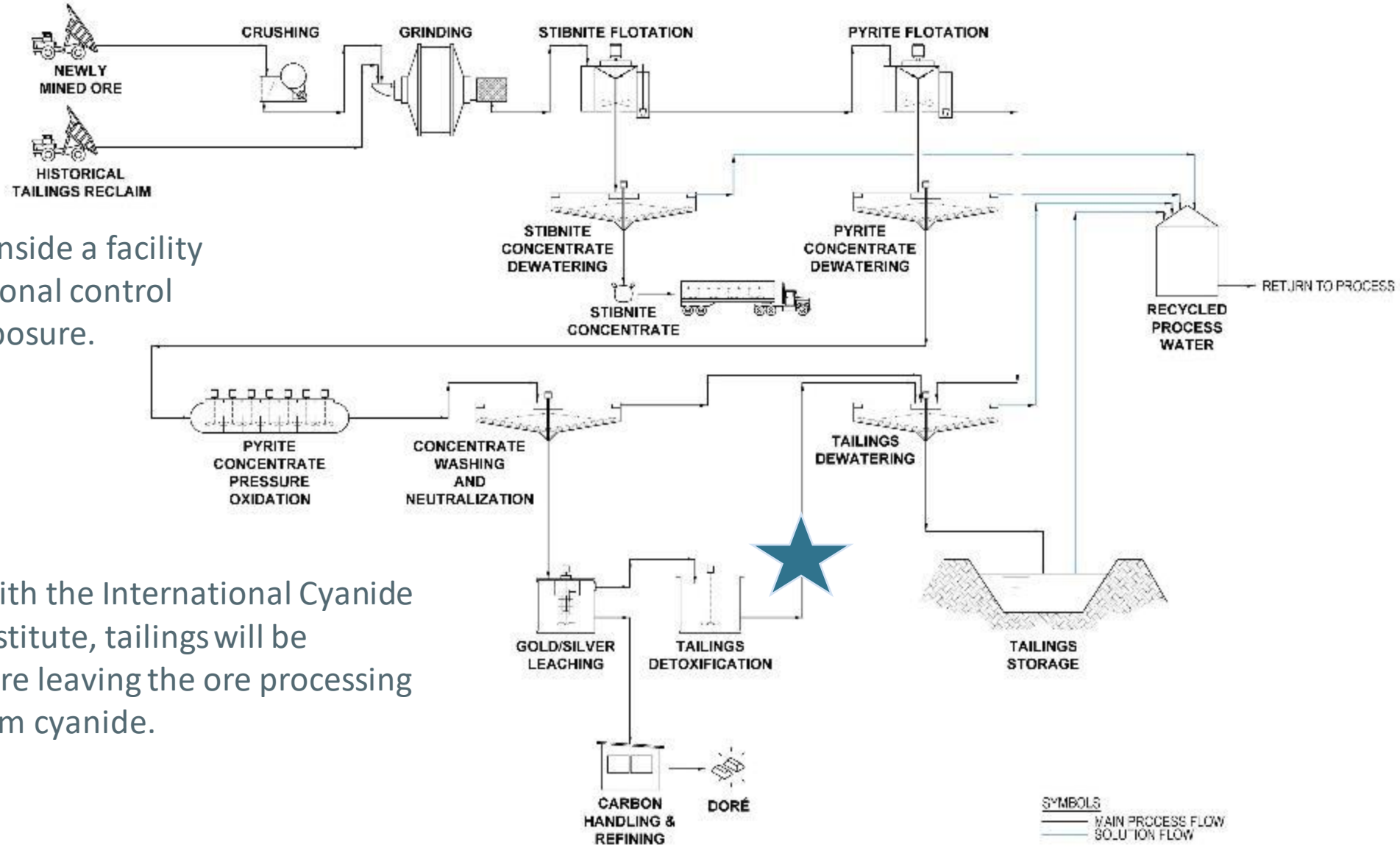


INCREASED POWER AND RELIABILITY

- Upgrade current 69-kV to 138-kV
- New and upgraded substations
- Costs will be incurred by Company, not Idaho Power rate payers.
- We proposed changes to the route to reduce environmental impact and improve location for local residents.

ORE PROCESSING

- ✓ Ore processing inside a facility allows for additional control and reduced exposure.
- ✓ In accordance with the International Cyanide Management Institute, tailings will be neutralized before leaving the ore processing facility to ~10ppm cyanide.



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TAILINGS SAFETY 101

THE STIBNITE GOLD PROJECT TAILINGS STORAGE FACILITY WILL BE:

Best Practice For Tailings Facility Design

- ✓ Downstream constructed
- ✓ Made with compacted rockfill
- ✓ Fully lined

No known failures for facilities with these design characteristics

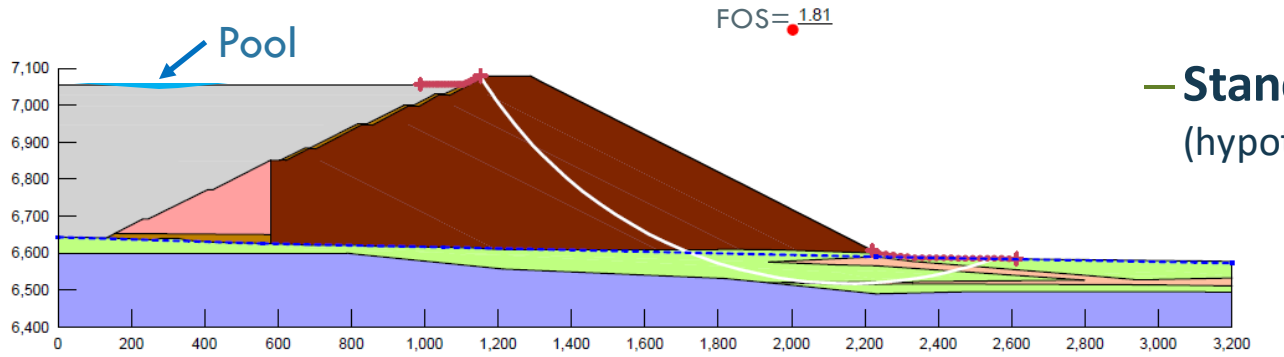
- ✓ Reviewed by an independent expert
- ✓ Buttressed to double the factor of safety

Added benefits

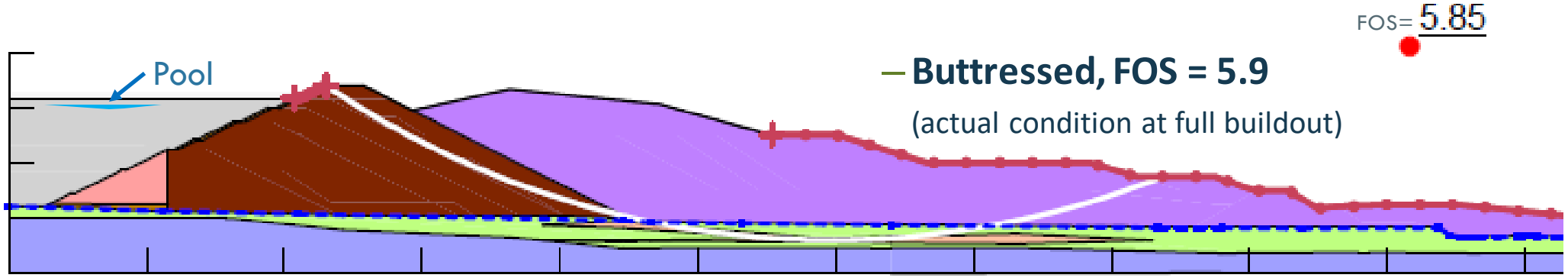
- ✓ Designed and regulated in the U.S.
- ✓ 90% contained by mountains

SGP TAILINGS FACILITY DESIGN

Improved Proposed Action Design



– **Standalone Dam, FOS = 1.8**
(hypothetical only)



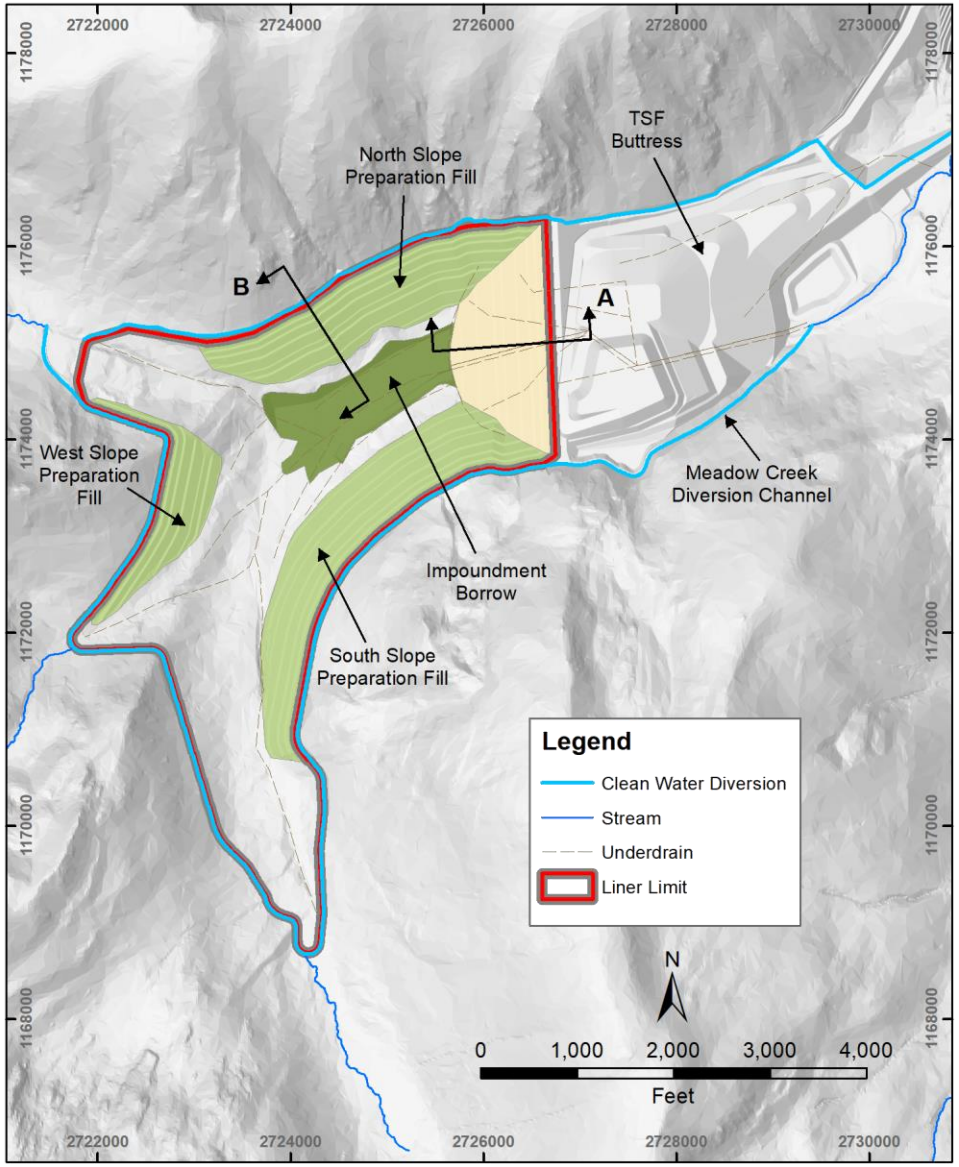
– **Buttressed, FOS = 5.9**
(actual condition at full buildout)

Meets or Exceeds Regulatory Standards
(Static FOS 1.5)

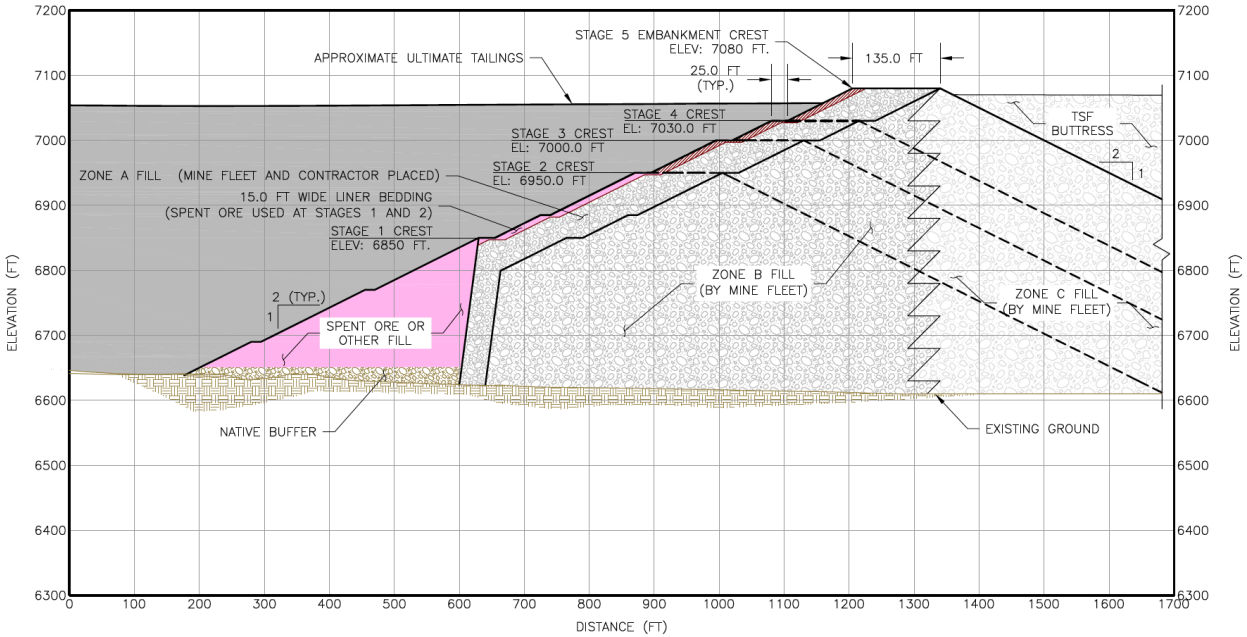
Rock Buttress At Least Doubles Req'd FOS
(at all stages)

FOS: Factor of Safety

TSF/BUTTRESS DESIGN CONFIGURATION



- ✓ Rockfill with downstream raises to maintain freeboard
- ✓ Composite-lined
- ✓ Surface water diverted
- ✓ Underdrains
- ✓ Over-liner drainage/pore pressure relief



TSF: Tailings Storage Facility

REGULATORY PROCESS

The Plan of Restoration & Operations (PRO)

6 YEARS of Study and Engineering

5+ YEARS of Regulatory Review under NEPA (National Environmental Policy Act)

75-DAY Public Comment Period for the Draft Environmental Impact Statement (DEIS)

PLAN DESIGNED TO:

- Provide natural resource restoration via private investment
- Restore salmon migration into upper EFSFSR
- Over 500 direct well-paid jobs for Idahoans
- Provide antimony, a mineral of critical national significance

EFSFSR: East Fork South Fork Salmon River

DEIS CONCLUSIONS

23% Increase in Stream Functional Units
(Appendix D, Table 8-1)

40% Increase in Wetland Functional Units
(Appendix D, CMP Table 8-2).

Increased Fish Population through removing migration barriers *(Ch 4.12 Fish Resources – 4.12-33)*

Water Quality Improvement through removing legacy tailings *(Ch. 4 Section 4.9)*

Net 7-30 miles of ADDITIONAL stream habitat (Chinook = net 12 miles, Bull trout = net 7 miles and up to 30 miles for smolts and juveniles)

DEIS: Draft Environmental Impact Statement

Removing historical barriers to fish migration will assist the population.
(Ch 4.12 Fish Resources – 4.12-33)

Removing legacy materials will improve water quality.
(Ch. 4 Section 4.9)

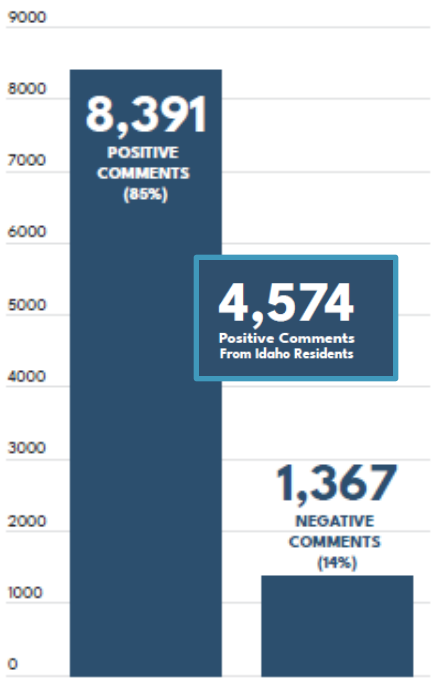
Concurrent Restoration reduces risks.
(Ch. 4 Section 4.9)

Mitigation and Restoration will address impacts.
(Appendix D, Table 8-1, 8-2) (Appendix D, Table 8-1) ((Ch4 Sections 4.11.2.3.1.1 and 4.11.2.3.1.2; Tables 4.11-7 and 4.11-8; p. 4.11-24 and 4.11-26.)

NEPA AT WORK: PUBLIC FEEDBACK AND REFINEMENT CREATE THE BEST PLAN

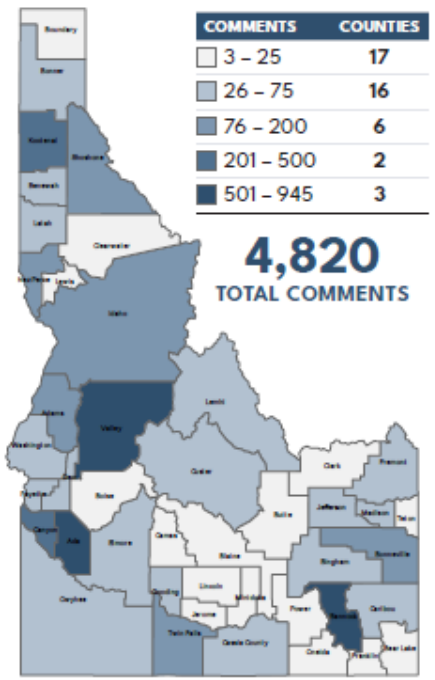
TRANSPARENCY: 75-Day Public Comment Period

Positive vs. Negative Comments



*Numbers are based on individually submitted comments to the U.S. Forest Service.

Comments Submitted from Idaho



*Numbers are based on address provided by commenters. Not all commenters provided address information.

REFINEMENT: Agencies Responding to the Public

Next Steps in NEPA Include:

- Agencies to review all comments and respond to the public
- Publish Supplemental DEIS and Comment Period
- Incorporate feedback into their final analysis
- Identify the Selected Plan based on scientific analysis, public feedback and state and federal requirements.
- Publish a Final Environmental Impact Statement
- Issue a Draft Record of Decision
- Conduct Objection Resolution
- Issue a Final Record of Decision

NEPA: National Environmental Policy Act
DEIS: Draft Environmental Impact Statement

WHAT WE HEARD

- **Reduce the project footprint**
- **Improve water quality**
- **Reduce water temperature**

Based on public and agency feedback on the Draft EIS, Perpetua submitted project refinements to the USFS in December of 2020. The improvements create better environmental outcomes and are responsive to public input. The agency has decided to advance the improved project design forward for additional public review.

PROJECT IMPROVEMENTS

10% reduction in total volume mined (44 million tons)

70% reduction in Hangar Flats pit size (the pit can be completely backfilled)

7% reduction in disturbance from open pits (37 acres)

168-acre reduction in disturbance without Fiddle DRSF

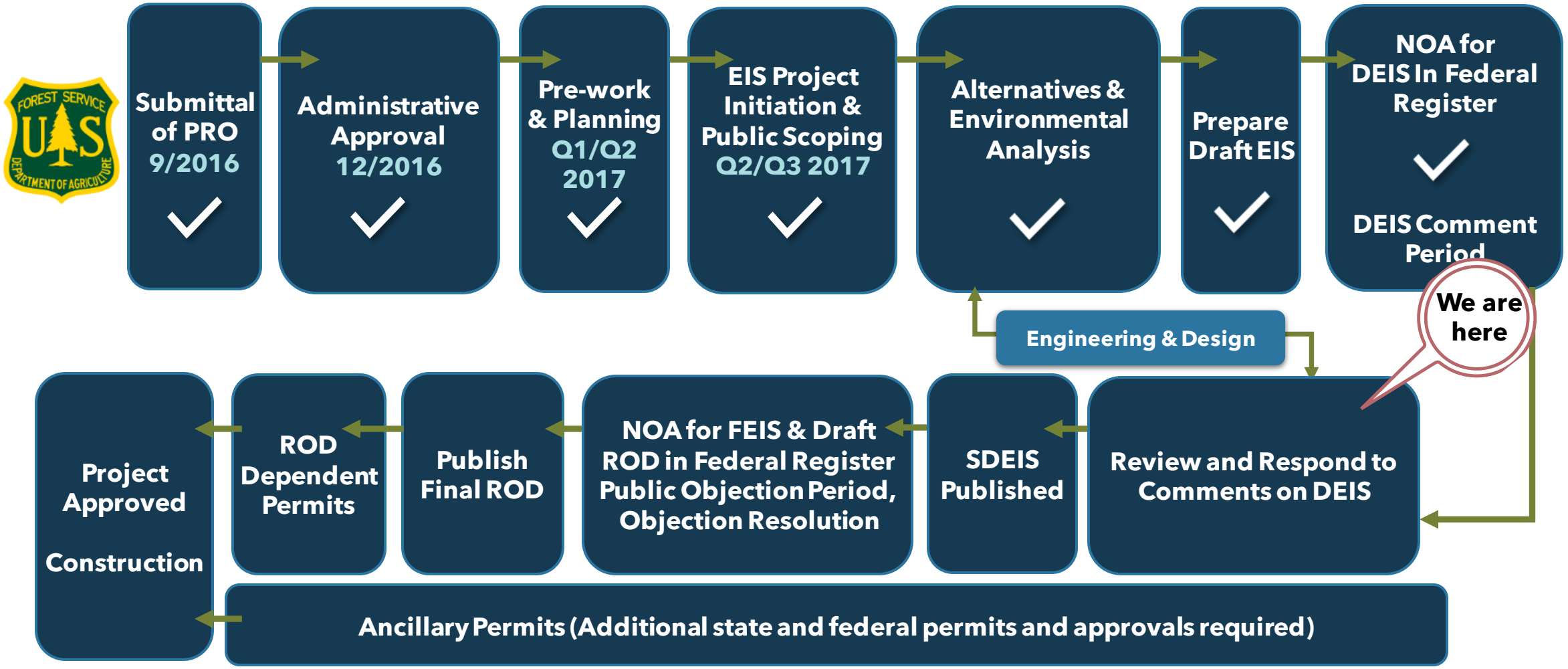
Improved Water Quality through elimination of Fiddle DRSF, long term water treatment no longer needed.

Improved Water Temperature to reach levels closer to baseline.

DRSF: Development Rock Storage Facility

PERMITTING – NEXT STEPS

EIS: Environmental Impact Statement
DEIS: Draft Environmental Impact Statement
FEIS: Final Environmental Impact Statement
NOA: Notice of Availability
PRO: Plan of Restoration and Operations
ROD: Record of Decision



GAINING MOMENTUM WITH NEAR-TERM CATALYSTS

Perpetua Resources

Recent Accomplishments:

- ✓ Draft Environmental Impact Statement (Aug 2020)
- ✓ Successful comment period (Aug-Oct 2020)
- ✓ Feasibility Study released (Dec 2020)
- ✓ Signed agreement to begin legacy waste cleanup (Jan 2021)
- ✓ Announced name change (Feb 2021)
- ✓ US listing on NASDAQ approved (Feb 2021)
- ✓ Included in the Russell 2000® Index (June 2021)
- ✓ Signed Antimony supply agreement for Ambri battery (Aug 2021)

Upcoming Milestones:

- ❑ Inclusion in multiple indices due to Nasdaq listing (2021/22)
- ❑ Supplemental Draft Environmental Impact Statement (Q1 2022)*
- ❑ Final Environmental Impact Statement & Draft Record of Decision (ROD) (Q4 2022)*
- ❑ Final ROD (H1 2023)*
- ❑ Ancillary permits & financing (H2 2023)
- ❑ Construction, begin legacy restoration (2024)
- ❑ Commercial operations, ongoing restoration (2027)

**Indicative permitting schedule based on latest published USFS schedule on July 1, 2021*

PERPETUA RESOURCES

RESPONSIBLE. RESTORATIVE. CRITICAL.

Responsible Approach

Abandoned Mine Restoration

Critical Mineral Production

Clean Energy Battery Storage

THANK YOU.

Perpetua Resources

www.perpetuaresources.com

FORWARD LOOKING STATEMENTS

Information and statement contained in this presentation that are not historical facts are "forward-looking information" or "forward-looking statements" (collectively, "Forward-Looking Information") within the meaning of applicable Canadian securities legislation and the United States Private Securities Litigation Refom Act of 1995. Forward Looking Information includes, but is not limited to, information concerning the Company's business including but not limited to statements with respect to results of the FS (as defined below);disclosure regarding possible events, conditions or financial performance that is based on assumptions about future economic conditions and courses of action; the timing and impact of future activities on the Project, including but not limited to the ability to address legacy features left by previous operators; the anticipated economic, environmental and other benefits of the Project; the viability of the Project; development and operating costs in the event that a production decision is made; success of exploration, development and environmental protection, closure and remediation activities; permitting time lines and requirements; requirements for additional capital; requirements for additional water rights and the potential effect of proposed notices of environmental conditions relating to mineral claims; risks and opportunities associated with the Project; planned exploration and development of properties and the results thereof; planned expenditures, production schedules and budgets and the execution thereof. Statements concerning mineral resource and mineral reserve estimates may also constitute Forward-Looking Information to the extent that they involve estimates of the mineralization that may be encountered if the Stibnite Gold Project is developed. In preparing the Forward-Looking Information herein, the Company has applied several material assumptions, including, but not limited to, that any additional financing needed will be available on reasonable terms; the exchange rates for the U.S. and Canadian currencies will be consistent with the Company's expectations; that the current exploration, development, environmental and other objectives concerning the Stibnite Gold Project can be achieved and that its other corporate activities will proceed as expected; that the current price and demand for gold and antimony will be sustained or will improve; that general business and economic conditions will not change in a materially adverse manner and that all necessary governmental approvals for planned activities on the Stibnite Gold Project will be obtained in a timely manner and on acceptable terms; the continuity of the price of gold and other metals, economic and political conditions and operations; that the circumstances surrounding the COVID-19 pandemic, although evolving, will stabilize or at least not worsen; and the assumptions set out in the FS. Forward-Looking Information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the Forward-Looking Information. Such risks and other factors include, among others, the industry-wide risks and project-specific risks identified in the FS; risks related to the availability of financing; operations and contractual obligations; changes in exploration programs based upon results of exploration; changes in estimated mineral reserves or mineral resources; future prices of metals and minerals; availability of personnel and equipment equipment; equipment failure; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry; environmental risks, including environmental matters under US federal and Idaho rules and regulations; impact of environmental remediation requirements and the terms of existing and potential consent decrees on the Company's planned exploration and development activities on the Project; certainty of mineral title; community relations; delays in obtaining governmental approvals or financing; the Company's dependence on one mineral project; the nature of mineral exploration and mining and the uncertain commercial viability; the Company's lack of operating revenues; governmental regulations and the ability to obtain necessary licenses and permits; risks related to prior unregistered agreements, transfers or claims and other defects in title to mineral projects; currency fluctuations; changes in environmental laws and regulations and changes in the application of standards pursuant to existing laws and regulations; risks related to dependence on key personnel; COVID-19 risks to employee health and safety and a slowdown or temporary suspension of operations in geographic locations impacted by an outbreak; and estimates used in budgeting and financial statements proving to be incorrect; as well as those factors discussed in the Company's public disclosure record. Although the Company has attempted to identify important factors that could affect the Company and may cause actual actions, events or results to differ materially from those described in Forward-Looking Information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that Forward-Looking Information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on Forward-Looking Information. Except as required by law, the Company expressly disclaims any obligation to update the Forward-Looking Information herein.

Cautionary Note and Technical Disclosure

The presentation has been prepared by Perpetua Resources management and does not represent a recommendation to buy or sell these securities. Investors should always consult their investment advisors prior to making any investment decisions.

All references to "dollars" or "$" shall mean United States dollars unless otherwise specified.

The material scientific and technical information in respect of the Stibnite Gold Project in this presentation, unless otherwise indicated, is based upon information contained in the technical report titled "Stibnite Gold Project, Feasibility Study Technical Report, Valley County, Idaho" dated effective December 22, 2020 and issued January 27, 2021 (the "FS" or "2020 Feasibility Study"). Readers are encouraged to read the FS, which is available under the Company's profile on SEDAR, for detailed information concerning the Project. See also "Regulatory Information" at the end of this presentation.

Cautionary Note to U.S. Investors

This presentation includes Mineral Reserves and Mineral Resources classification terms that comply with reporting standards in Canada and the Mineral Reserves and the Mineral Resources estimates are made in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. These standards differ significantly from the requirements of the SEC set the SEC's rules that are applicable to domestic United States reporting companies. Consequently, Mineral Reserves and Mineral Resources information included in this news release is not comparable to similar information that would generally be disclosed by domestic U.S. reporting companies subject to the reporting and disclosure requirements of the SEC. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

REGULATORY INFORMATION

The FS was compiled by M3 Engineering & Technology Corporation ("M3") in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") under the direction of independent qualified persons (as defined in NI 43-101) ("Independent QPs"). Independent QPs for the FS include: Richard Zimmerman, SME-RM (onsite and offsite infrastructure, cost estimating and financial modeling) and Art Ibrado, P.E. (mineral processing) with M3; Garth Kirkham, P.Geo. (mineral resources) with Kirkham Geosystems Ltd.; Christopher Martin, C.Eng. (metallurgy) with Blue Coast Metallurgy Ltd.; Grenvil Dunn, C.Eng. (hydrometallurgy) with Hydromet WA (Pty) Ltd.; Chris Roos, P.E. (mineral reserves) and Scott Rosenthal P.E. (mine planning) with Value Consulting, Inc.; and Peter Kowalewski, P.E. (tailings storage facility and closure) with Tierra Group International, Ltd.

The material scientific and technical information in respect of the Project in this presentation, unless otherwise indicated, is based upon information contained in the FS. Readers are encouraged to read the FS, which is available under the Company's profile on SEDAR, for detailed information concerning the Project. All disclosure contained in this presentation regarding the mineral reserves and mineral resource estimates and economic analysis on the property is fully qualified by the full disclosure contained in the FS.

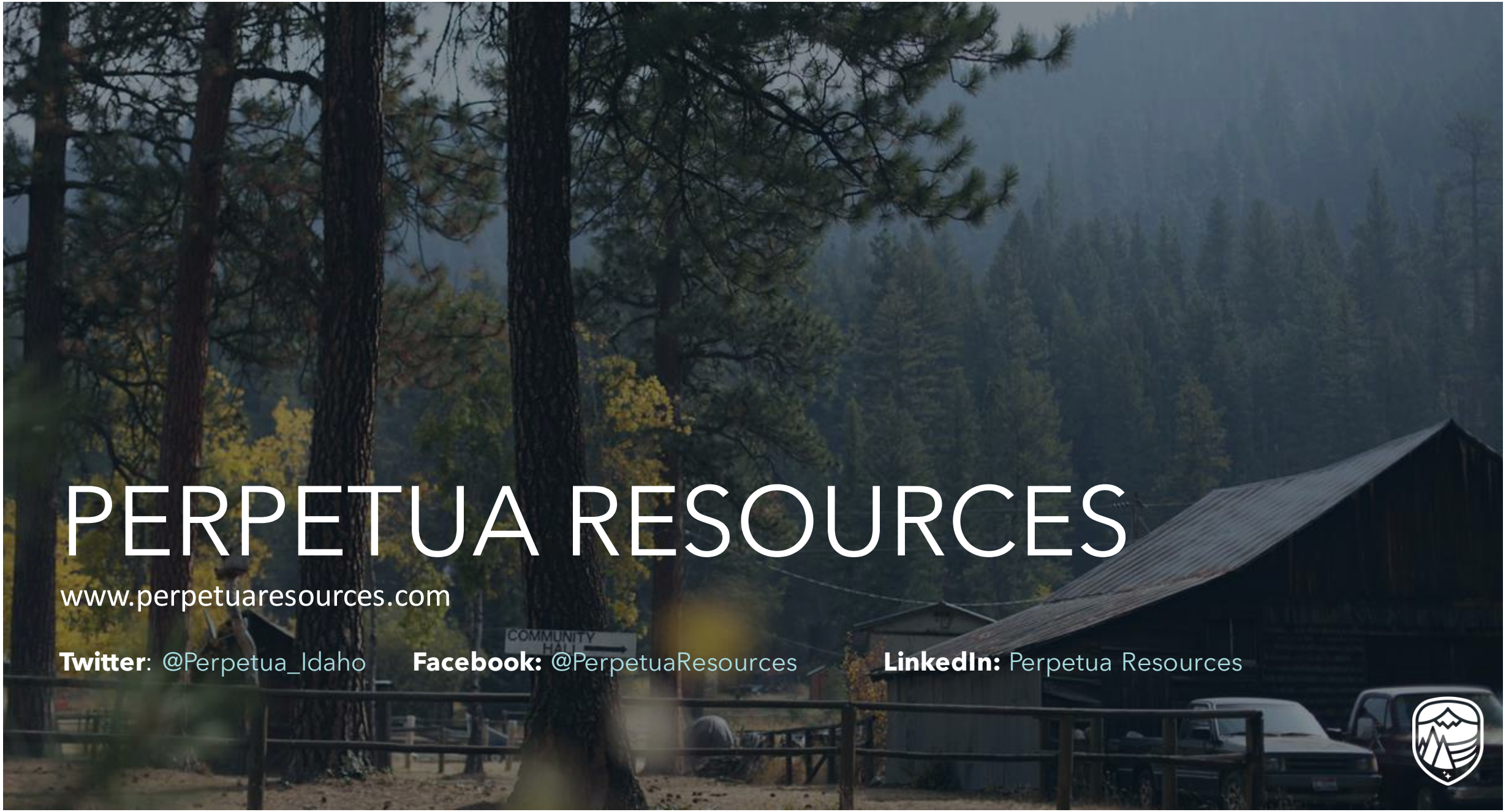
Information of a scientific or technical nature in this presentation has been approved by Austin Zinsser, SME-RM, Sr. Resource Geologist for Perpetua Resources Idaho, Inc. and a qualified person (as defined in Ni 43-101).

All mineral resources have been estimated in accordance with CIM definitions. Mineral resources are reported in relation to a conceptual pit shell to demonstrate potential for economic viability, as required under NI 43-101; mineralization lying outside of these pit shells is not reported as a mineral resource. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mineral resource estimates include inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources.

The mineral resources and mineral reserves at the Stibnite Gold Project are contained within areas that have seen historic disturbance resulting from prior mining activities. In order for the Company to advance its interests at the Stibnite Gold Project, the Project will be subject to a number of federal, state and local laws and regulations and will require permits to conduct its activities.

NON-IFRS REPORTING MEASURES

"Cash Costs", "All-in Sustaining Costs" and "Total costs" are not performance measures reported in accordance with International Financial Reporting Standards ("IFRS"). These performance measures are included because the statistics are key performance measures that management uses to monitor performance. Management uses these statistics to assess how the Project ranks against its peer projects and to assess the overall effectiveness and efficiency of the contemplated mining operations. These performance measures do not have a meaning within IFRS and, therefore, amounts presented may not be comparable to similar data presented by other mining companies. These performance measures should not be considered in isolation as a substitute for measures of performance reported in accordance with IFRS.



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