



# Perpetua Resources

Responsible Mining.  
Critical Resources.  
Clean Future.



# FORWARD-LOOKING STATEMENTS

Information and statements 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 Reform Act of 1995. We use words such as “may,” “would,” “could,” “should,” “will,” “likely,” “expect,” “anticipate,” “believe,” “intend,” “plan,” “forecast,” “outlook,” “project,” “estimate” and similar expressions suggesting future outcomes or events to identify forward-looking statements or forward-looking information. Forward-Looking Information includes, but is not limited to, information concerning the business of Perpetua Resources Corp. (the “Company”), the Stibnite Gold Project (the “Project”), 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; our and Ambri, Inc.’s (“Ambri”) ability to perform under the supply agreement described in this presentation, which agreement is subject to certain conditions, including completion of the permitting process for the Project, commencement of commercial production of antimony, identification of one or more refiners to transform our antimony concentrate into antimony metal, and mutual agreement on certain material terms, including volume and pricing; 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 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 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 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 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. Because it is not possible to predict or identify all such factors, this list cannot be considered a complete set of all potential risks or uncertainties. Accordingly, readers should not place undue reliance on Forward-Looking Information. For further information on these and other risks and uncertainties that may affect the Company’s business, see the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of the Company’s filings with the SEC, are available at [www.sec.gov](http://www.sec.gov) and with the Canadian securities regulators, which are available at [www.sedar.com](http://www.sedar.com). Except as required by law, the Company expressly disclaims any obligation to update the Forward-Looking Information herein.



# CAUTIONARY NOTE & 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”). The 2020 Feasibility Study was prepared 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 from the mining property disclosure rules specified in Subpart 1300 of Regulation S-K under the United States Securities Act of 1933 (“Subpart 1300”) promulgated by the SEC. Accordingly, information concerning mineral deposits from the 2020 Feasibility Study set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.*

*The Company has issued its inaugural Technical Report Summary (the “TRS”), dated as of December 31, 2021, and amended as of June 6, 2022, developed for the Stibnite Gold Project in accordance with the mining property disclosure rules specified in Subpart 1300 promulgated by the SEC. The TRS summarizes, in accordance with the mining property disclosure rules specified in Subpart 1300, the FS, which was completed under NI 43-101, with the following notable differences between the FS and the TRS:*

- The TRS Mineral Resource estimates were developed based on a gold price of \$1,500/oz versus the \$1,250/oz gold price assumed for the FS. The change in gold price results from higher trailing average gold prices at the date of preparation for the respective reports.*
- The Measured Mineral Resources in the FS were reclassified to Indicated Mineral Resources in the TRS due to differences in Subpart 1300 versus NI 43-101 Mineral Resources classification guidelines.*
- The Proven Mineral Reserves from the FS were reclassified as Probable Mineral Reserves for the TRS resulting from the reclassification of the Measured Mineral Resources to Indicated Mineral Resources due to differences in Subpart 1300 versus NI 43-101 Mineral Resources classification guidelines.*
- The TRS is classified as a Preliminary Feasibility level study whereas the FS was classified as a Feasibility level study. This change was driven by the Subpart 1300 requirement that a compliant Feasibility level TRS include a capital cost contingency allowance no greater than 10%, whereas the initial capital cost estimate for the FS included a more conservative allowance at approximately 15%.*

*All other technical analyses, design information, capital and operating cost information, economic analyses, permitting and legal assumptions, conclusions and recommendations are consistent between the TRS and the FS. Readers are encouraged to read the TRS and the Company’s Current Report on Form 8-K filed with the SEC on January 3, 2021, as amended by the Company’s Current Report on Form 8-K/A filed with the SEC on June 8, 2022, which are available under the Company’s profile on EDGAR. Readers are also encouraged to read the FS, which is available on the Company’s website and under the Company’s profile on SEDAR, for detailed information concerning the Project. See also “Regulatory Information” at the end of this presentation.*



# WHY PERPETUA RESOURCES?



- ✓ Redeveloping one of **largest, highest grade** and **lowest cost** gold projects in the U.S.\*
- ✓ **Superior project economics** with ~15 year reserve life and <3 year payback period\*
- ✓ Providing a **U.S critical mineral** to power batteries enabling the **low-carbon energy transition** and for national security
- ✓ Located in **stable mining jurisdiction** with **Idaho community** and **political support**
- ✓ **Sustainable approach** to restoring the environment, improving a legacy, and creating value for all stakeholders
- ✓ **Attractive valuation** with **significant near-term catalysts** and solid cash position

*\*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. For a summary of differences between the FS and TRS, see "Cautionary Note and Technical Disclosure" at the beginning of this presentation.*

# THE STIBNITE GOLD PROJECT

Our goal is to 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 helping power a lower carbon future through critical mineral production.



# OUR APPROACH

*Responsible mining is essential to a more sustainable future*

- **Restore** and develop abandoned brownfield site
- Leave the area **better than we found it**
- **Create a legacy** of economic benefits for the region
- **Provide critical minerals** needed for secure supply chains
- Be transparent, listen and **continuously improve**
- Establish controls to **mitigate risk** and **preserve value**
- **Share our vision** with all stakeholders



Safety



Environmental Responsibility



Community Involvement



Transparency



Accountability

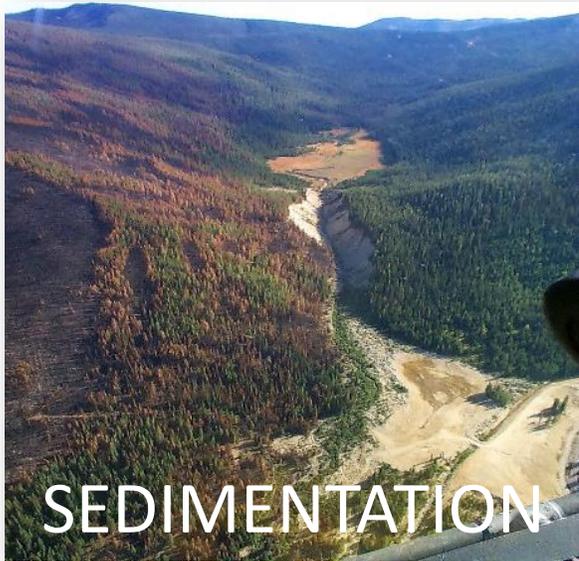


Integrity & Performance



# RESTORING AN ABANDONED BROWNFIELDS SITE

## ENVIRONMENTAL SOLUTIONS FUNDED THROUGH MINE DEVELOPMENT



Early repair of the largest source of sedimentation



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

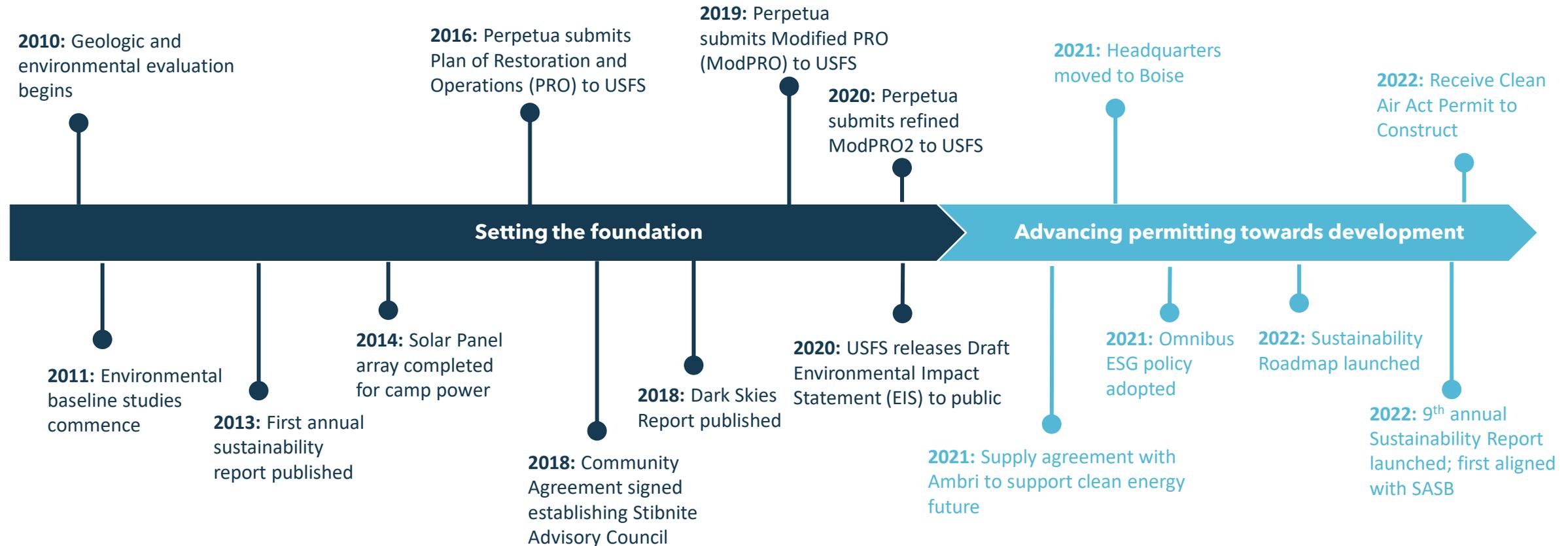


Re-establish fish migration and provide temporary and permanent river restoration



# PROJECT BUILT WITH SOLUTIONS IN MIND

*Restoring the environment and driving towards a more sustainable future*



# DELIVERING RESULTS AND RAISING THE BAR



## 2021 Performance:

- ✓ Adopted integrated Environmental, Occupational Health and Safety Management System
- ✓ Delivered improvements to project design currently under regulatory review
- ✓ 67% female executive team
- ✓ No lost time incidents or fatalities
- ✓ Signed agreement to improve water quality
- ✓ Focused on Idaho – relocated headquarters to Boise
- ✓ Established omnibus ESG policy

## 2022 Targets:

- ✓ Further strengthen Board diversity and experience
- ✓ Launch Sustainability Roadmap
- ✓ Stibnite Advisory Council reviews first data collected from Independent Water Quality Monitoring program
- ✓ Publish annual sustainability report aligned to SASB framework
- Begin early action legacy cleanup
- Public review of improved plan with SDEIS



# 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.



# STRONG STAKEHOLDER SUPPORT

*Doing the right thing is good for our business, our stakeholders and our future.*

## Accountability. Trust. Partnership

**Communicating our  
vision, values and plans.**

+

**Listening to feedback &  
identifying solutions.**

### ***Our Stakeholders***

Business Partners, Vendors & Suppliers

Community Members

Employees

Municipalities and Local Organizations

Non-Governmental Entities (NGOs)

Regulators & Government Entities

Shareholders

Tribal / Indigenous Communities

**Building and  
maintaining trust and  
partnerships.**

# MOVING FORWARD WITH IDAHO



<https://www.youtube.com/watch?v=oSn9yw9GnBI>



# WORKING TOGETHER

## *Community Agreement*

### TRANSPARENCY + ACCOUNTABILITY

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 company 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



# STIBNITE ADVISORY COUNCIL

*Independent Water Quality Monitoring program*

## CITIZEN ACTION FOR WATER

In 2021, the **Stibnite Advisory Council** and Perpetua Resources partnered to start a citizen's independent water monitoring program. The program is designed to provide the public with awareness and access to information regarding water quality today and through the life of the project.

**"Having access to clean water and pristine rivers is a value all Idahoans share, and it is one the Stibnite Advisory Council feels a strong obligation to protect."**

- Bob Crump,  
RIGGINS STIBNITE ADVISORY COUNCIL  
MEMBER



# STIBNITE FOUNDATION

*Sustained Economic Benefits for the Region*

## ENDOWMENT FOR THE FUTURE

The 2018 Community Agreement established the **Stibnite Foundation**, a charitable organization built on the idea that the Stibnite Gold Project should provide direct and sustained economic benefits to the local communities. Now, the foundation is funded on milestone payments and will be funded through profit sharing with the mine once it is in production.

- \$100,000 + shares** after the formation of the foundation in 2018
- \$100,000** first quarter of 2019
- \$100,000** first quarter of 2020
- \$100,000** upon Record of Decision for Stibnite Gold Project
- \$100,000** plus shares upon receipt of permits to commence construction
- \$250,000** upon commencement of construction and each year until the Project goes into production.
- \$500,000** upon commencement of commercial production.
- Each year of Production - a minimum of \$500,000** or 1% of total comprehensive income less debt repayments
- \$1,000,000** at commencement of final reclamation

# COMMUNITY ENGAGEMENT

*Actively strive to serve the community*

## 2021 ENGAGEMENT EVENTS



*Perpetua Resources hosts joint safety training with Valley County fire departments*

**187**

HOURS OF  
EDUCATION  
OUTREACH

**1,200+**

VOLUNTEER  
HOURS

**205**

WARM CLOTHING  
ITEMS DONATED  
TO LOCAL  
STUDENTS

**\$50,000+**

IN DIRECT CHARITABLE  
GIVING

**\$12,000**

IN SCHOLARSHIPS TO  
LOCAL STUDENTS

**\$38,000**

IN STEM AND EDUCATION  
SUPPORT



# 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*



## DEFENSE

Night Vision Goggles

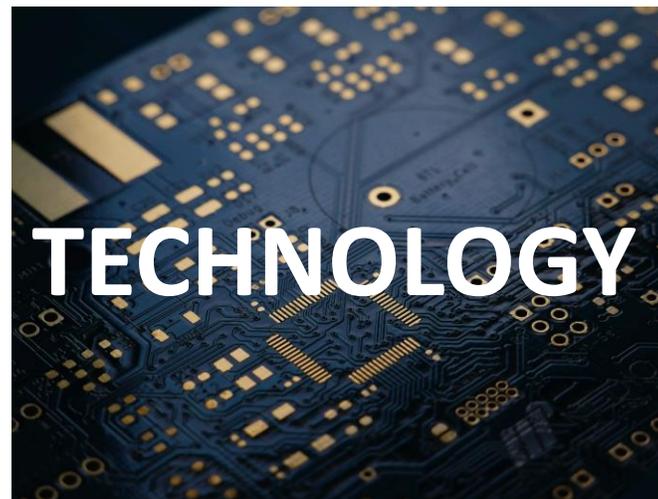
Military Clothing

Infrared Sensors

Hardening Lead: Bullets & Shrapnel

Armor Piercing Projectiles

Ammunition Primers



## TECHNOLOGY

Circuit boards

Semi-conductors

Electrical switches

Fluorescent lighting

High-quality clear glass



## ENERGY

Copper wiring insulation

Lead-acid batteries

Liquid-metal batteries

Solar panels

Wind turbines



# AMERICAN INNOVATION AND MINERALS

## LIQUID METAL BATTERY

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

## MISSING PIECE FOR NET ZERO GRID

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

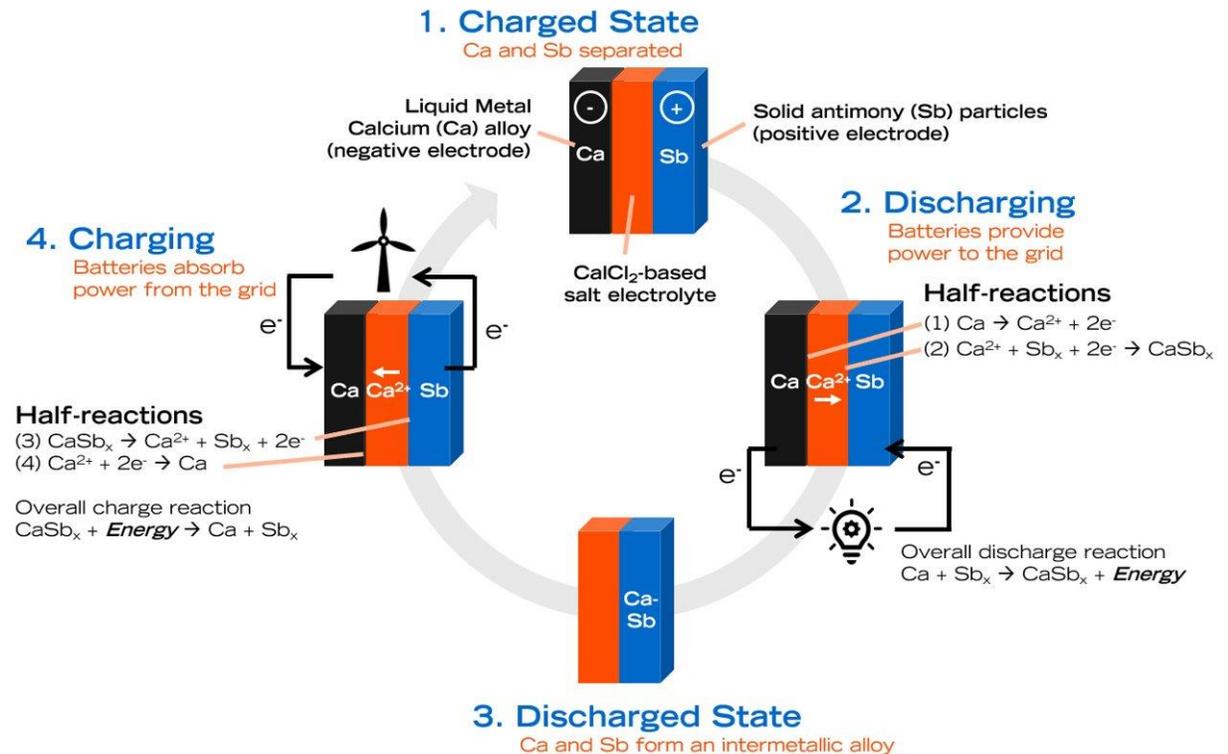
**ANTIMONY AND CALCIUM:** Developed by a team from MIT, the liquid metal battery technology relies on a calcium alloy anode, molten salt electrolyte and a cathode of solid antimony.

**HIGH-CAPACITY:** Grid scale, daily cycle, modular to meet gigawatt deployment.

**LONG-LIFE:** 20+ year useful life.

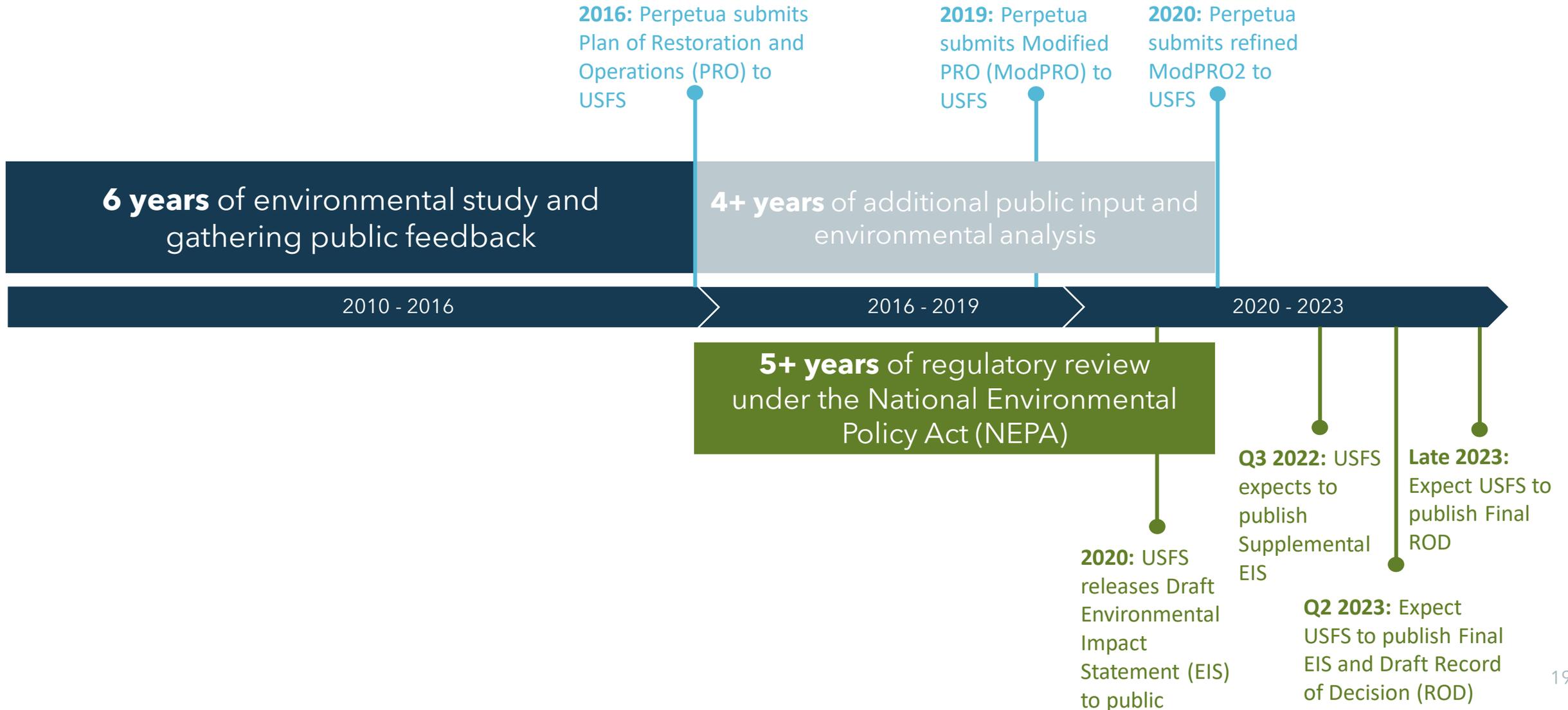
**LOWER COST:** 30-50% below equivalent lithium-ion (2020-2030).

**IMMEDIATE:** <500 millisecond response time.





# EXTENSIVE STAKEHOLDER ENGAGEMENT



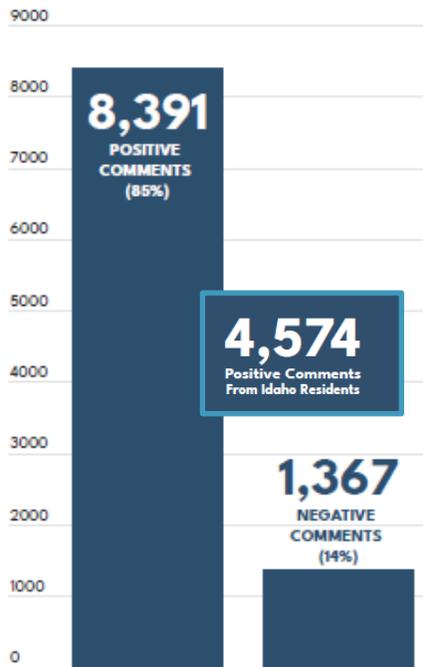


# NEPA AT WORK

*Public feedback and refinement create the best plan*

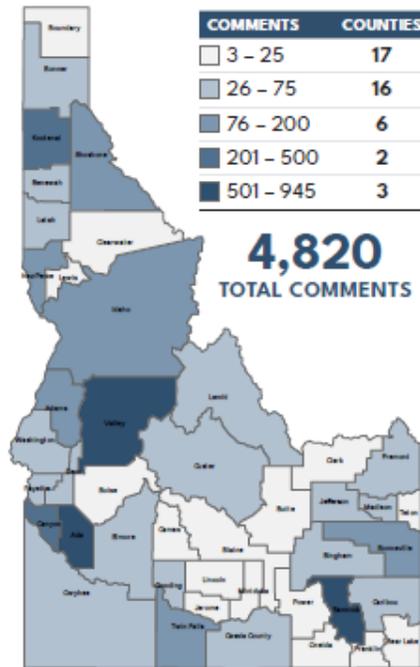
**TRANSPARENCY:** Results of the 2020 75-Day EIS Public Comment Period

## 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

The U.S. Forest Service & cooperating agencies will:

- Review all comments
- Respond to the public
- 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



# PERPETUA'S REFINED PROPOSED ACTION

## 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 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)

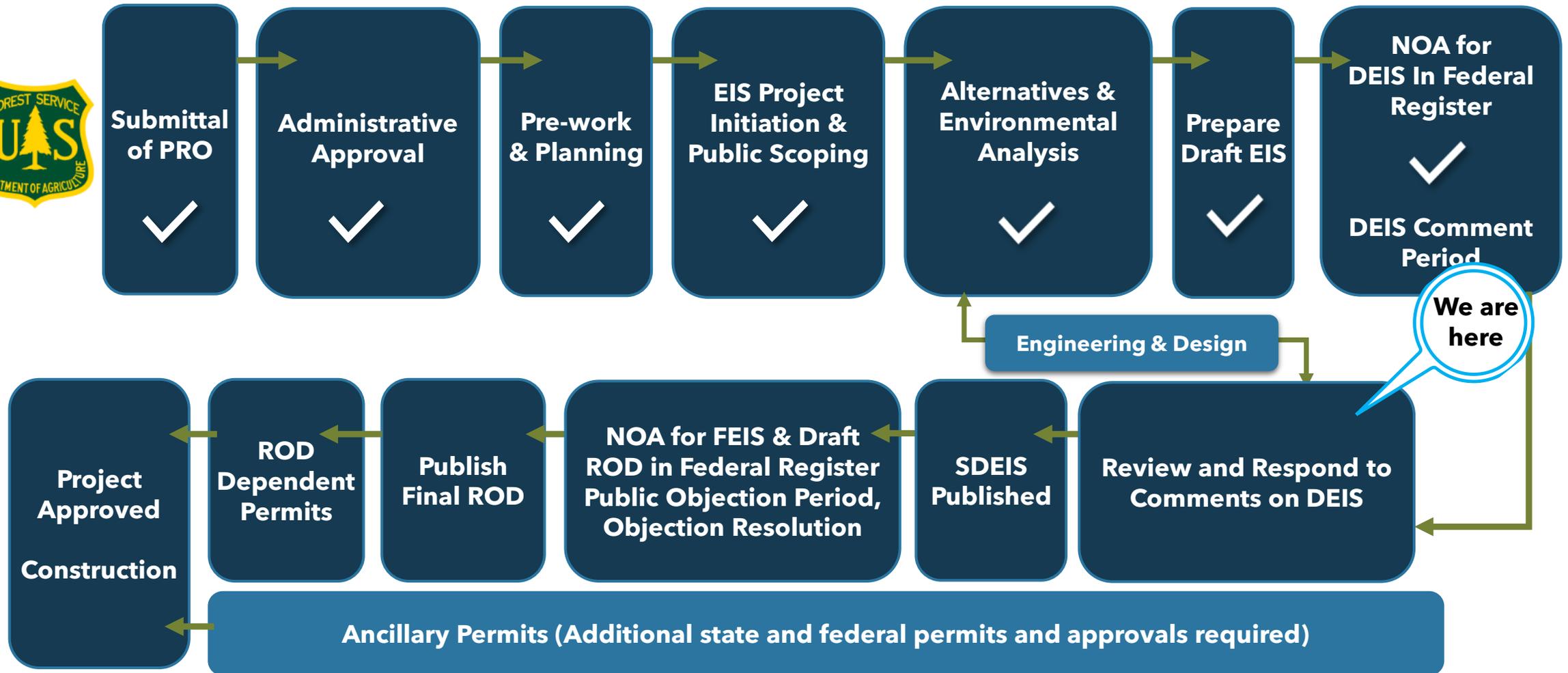
**168-acre reduction** in disturbance without Fiddle Development Rock Storage Facility

**Improved Water Quality** through elimination of Fiddle Development Rock Storage Facility

**Improved Water Temperature** to reach levels closer to baseline.



# 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



# COMMITTED TO STRONG CORPORATE GOVERNANCE

## CORPORATE GOVERNANCE

- Supports transparency and accountability
- Approach designed to mitigate risk
- Dedicated to highest of standards

## FULL BOARD OVERSIGHT OF ESG TOPICS

Stakeholder engagement
Enterprise risk management
Cyber security
Sustainability policies
Government relations
Emergency planning & response
Committee reports on ESG topics

## COMMITTEE OVERSIGHT OF ESG TOPICS

<b>AUDIT</b> <ul style="list-style-type: none"> <li>• Compliance</li> <li>• Whistleblower Policy</li> <li>• Code of Conduct &amp; Ethics</li> <li>• Cyber Security</li> <li>• Political Contributions</li> </ul>	<b>COMPENSATION</b> <ul style="list-style-type: none"> <li>• Executive Compensation</li> <li>• Fair Labor Practices</li> <li>• Employee Benefits</li> </ul>
<b>CORPORATE GOVERNANCE &amp; NOMINATING</b> <ul style="list-style-type: none"> <li>• Diversity, Equity &amp; Inclusion</li> <li>• Board Governance</li> <li>• Anti-Bribery and Anti-Corruption</li> <li>• Political Contributions</li> </ul>	<b>TECHNICAL</b> <ul style="list-style-type: none"> <li>• Safety &amp; Health Policies and Performance</li> <li>• Environmental Policies and Performance</li> </ul>



# ADVANCING BEST ESG PRACTICES

## MATERIALITY ASSESSMENT

- SASB reporting framework for metals & mining
- Guiding principles outlined in Perpetua's ESG Policy
- Industry peer assessment
- Review with management and board of directors

## 2021 MATERIAL TOPICS

Environment	Social	Governance
GHG Emissions Air Quality Energy Management Water Management Waste & Hazardous Materials Management Biodiversity Impacts Tailings Storage Facilities Management	Workforce Health & Safety Workforce Engagement Labor Relations Community Relations Security Human Rights Rights of Indigenous Peoples	Business Ethics Transparency Diversity & Inclusion



The purpose is to leave the Project site better than the Company found it and to leave a lasting legacy of economic benefits in the community.



Doing the right thing is good for business. Responsible corporate behavior, with respect to environmental, social and governance factors, can generally have a positive influence on long-term financial performance.



Disclosure is the key that allows stakeholders and other interested parties to better understand, evaluate and assess potential risk and return, including the potential impact of environmental, social and governance factors on Perpetua Resources' performance.



Investment analysis should incorporate environment, social and governance factors to the extent that they affect risk and return.



Division of authority and responsibilities among shareholders, directors and managers are key to corporate governance.



# DIVERSE, EXPERIENCED LEADERSHIP TEAM

## EXECUTIVE TEAM



**Laurel Sayer**  
Board Director & CEO



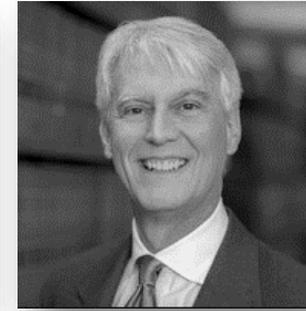
**Jessica Largent**  
Chief Financial Officer



**Mckinsey Lyon**  
VP, External Affairs



**Alan Haslam**  
VP, Permitting



**Michael Bogert**  
General Counsel



**Tanya Nelson**  
VP, Human Resources

## CORPORATE BOARD



**Marcelo Kim**  
Chairman  
Paulson & Co



**Bob Dean**  
Director  
Former Allen & Company



**David Deisley**  
Director  
Former NovaGold, Goldcorp & Barrick



**Jeff Malmen**  
Director  
Idaho Power, Former Chief of Staff Governor Otter



**Chris Papagianis**  
Director  
Paulson & Co



**Chris Robison**  
Director  
Former Newmont, Rio Tinto Minerals & Kennecott Utah Copper



**Alex Sternhell**  
Director  
Sternhell Group, Democrat Dpty. Staff Director US Senate Cm. Banking

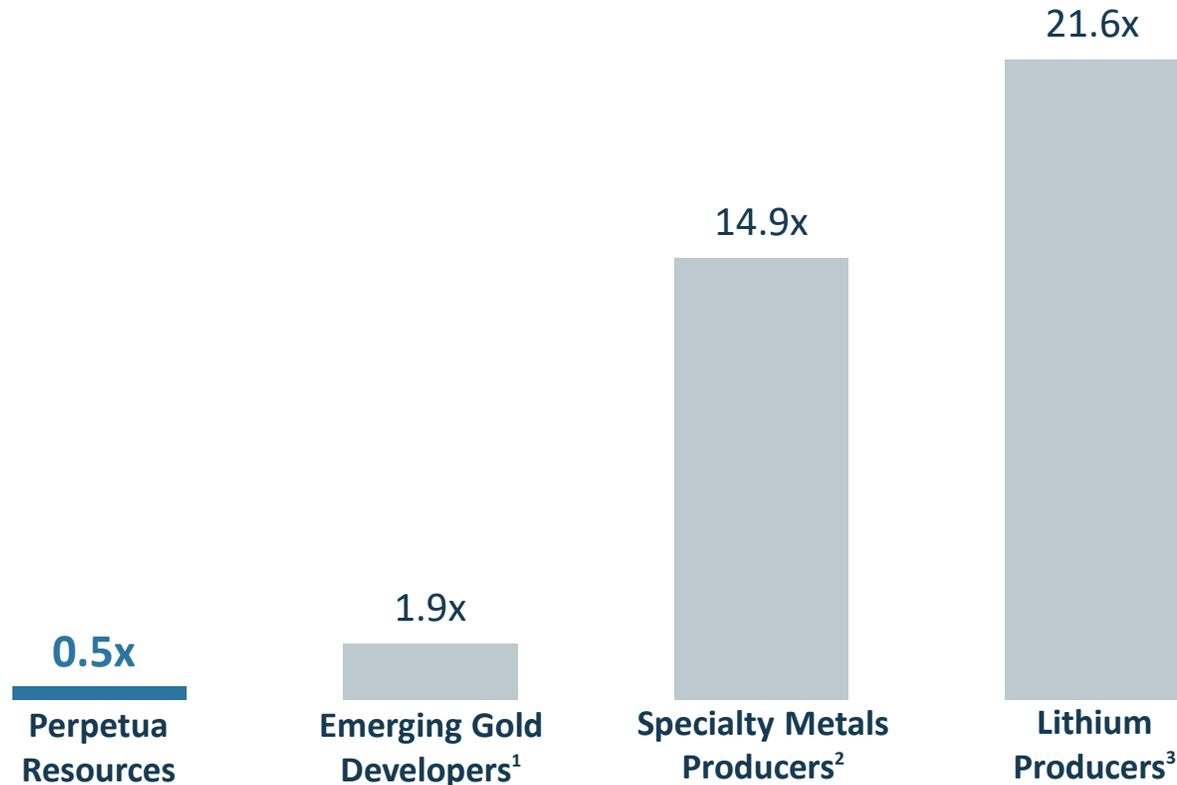


**Laura Dove**  
Director  
Former Ford Motor Company, Secretary for the Majority of the U.S. Senate



# VALUATION UPSIDE THROUGH ESG PREMIUM

## TRADING COMPARABLES – EV / EBITDA



## PERPETUA'S VALUE PROPOSITION:

- Strategic partnership with Ambri significantly increases strategic and long-term value
- Antimony by-product to power batteries for long duration, daily cycling energy storage
- Developing a modern mining project to help power a low carbon future
- Restoring an abandoned brownfields site
- Project will be powered by lowest carbon emissions grid in the nation
- Sustainable approach with Environmental, Social and Governance principles built into plans

Source: B. Riley estimates and latest available company materials as of May 13, 2022

1) Emerging Gold Comps: NovaGold, Marathon Gold, Skeena Resources, Gold Standard Ventures, Integra Resources

2) Specialty Metals Comps: MP Materials, Piedmont Lithium, Lithium Americas, Largo Resources, Nouveau Monde Graphite, Minerals Technologies, Lynas Rare Earths, Iluka Resources, Neo Performance Materials

3) Lithium Comps: Ganfeng Lithium, Tianqi Lithium Industries, Albemarle Corporation, Sociedad Quimica Y Minera De Chile, Minerals Resources Ltd, Livent, Allkem, Piedmont Lithium, Lithium Americas Corp.

# A UNIQUE AMERICAN OPPORTUNITY



- ✓ Redeveloping one of **largest, highest grade** and **lowest cost** gold projects in the U.S.\*
- ✓ **Superior project economics** with ~15 year reserve life and <3 year payback period\*
- ✓ Providing a **U.S critical mineral** to power batteries enabling the **low-carbon energy transition** and for national security
- ✓ Located in **stable mining jurisdiction** with **Idaho community** and **political support**
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THANK  
YOU.



**Perpetua  
Resources**

[www.perpetuaresources.com](http://www.perpetuaresources.com)