# Examining Risk Frameworks in the Stibnite Gold Project:

# A Public Discourse Analysis of Four Key Actors

by

Khampha Stempel

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Graduate Supervisory Committee:

Craig Calhoun, Chair
Pamela Carralero
Sonja Klinsky
Melissa Nelson

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# ABSTRACT

Contemporary renewable energy transitions require the extraction of critical minerals necessary to produce new green technologies. The Stibnite Gold Project located in Valley County, Idaho, is one of many proposed mine sites to supply raw materials for renewable energy infrastructure. A variety of actors including the mine operator, Perpetua Resources, use varying approaches to risk to measure the impacts of potential mine operations. A formal permitting process facilitated by US regulatory bodies assess these risks and proposals for their mitigation. This study examines the permitting process for the proposed mine, the Stibnite Gold Project, in Idaho in order to better understand what risks are considered and how they are conceptualized. Specifically, it examines public discourse from the mine operator Perpetua Resources, key regulators, key NGOs, and the Nez Perce tribal community. A critical discourse analysis reveals the development of distinct risk, economic, restorative, and decision authority narratives among each actor. These narratives shape approaches to risk. However, they also reveal settler colonialism and other intersecting systems of oppression are reinstated and/or resisted in each actors approach to risk. Drawing on existing literature as well as new empirical data from the discourse analysis, this study shows limits to prevailing approaches to risk that need to be addressed so that future efforts to advance sustainability-driven renewable energy transitions do not impose unjust costs on Indigenous peoples.

# ACKNOWLEDGMENTS

Before entering into a study of sustainability and justice in the Stibnite Gold Project it's important to discuss land and labor relationships that I have directly benefited from as a human, scholar, activist, and practitioner. First, I engage with a land acknowledgement by Arizona State University and labor acknowledgement written by Terah "TJ" Stewart, an Assistant Professor of Higher Education and Student Affairs at Iowa State University.

*Land Acknowledgement*

*"Arizona State University's four campuses are located in the Salt River Valley on ancestral territories of Indigenous peoples, including the Akimel O'odham (Pima) and Pee Posh (Maricopa) Indian Communities, whose care and keeping of these lands allows us to be here today."* (Arizona State University)

*Labor Acknowledgement*

*"We must acknowledge that much of what we know of this country today, including its culture, economic growth, and development throughout history and across time, has been made possible by the labor of enslaved Africans and their ascendants who suffered the horror of the transatlantic trafficking of their people, chattel slavery, and Jim Crow. We are indebted to their labor and their sacrifice, and we must acknowledge the tremors of*

*that violence throughout the generations and the resulting impact that can still be felt and witnessed today"* (Stewart, 2023)

These acknowledgments are not meant to erase the colonial and racist histories. Although, it is necessary to also recognize the possible erasure that results from disembodied land and labor acknowledgments. My research process, which has taken place at Arizona State University, has directly benefited from the privileges I have as a settler to Akimel O'odham and Pee Posh land. This project is an effort to not just understand how settler colonialism is reinstated/resisted in the Stibnite Gold Project, but also is an exploration of my ongoing implicit and explicit complicity in settler colonialism as an individual, scholar, activist, and practitioner. I hope that learning and developing research on anticoloniality and decoloniality provides both theoretical and practical insight to directly address settler colonialism.

I have also benefited from economic structures that have enslaved and exploited laborers, especially Black laborers, over the past few centuries in the United States. The labor acknowledgment I am engaging with above is written by a Black scholar and carries different social power dynamics than the official land acknowledgment of Arizona State University. Universities in the United States have maintained social and political power over Indigenous communities through colonial actions such as land grants and unethical/non-consensual research. The United States education system has also exploited, extracted from, and oppressed Blackness. Sustainability scholarship and practices striving to be antiracist must acknowledge complicity in the racialized economic systems while also actively disrupting patterns of racism.

*A thank you to my communities*

I first want to mention that how I address the communities in this section may appear to compartmentalize you as "just" a teacher, activist, family, or friend identity. However, I want you all to know that many of you have taken on more than one identity significant to me. I would not be in the activist, scholarly, and practitioner spaces I'm in were it not for the communities supporting me in different times and spaces. For anyone reading this who has supported my work and personal life, thank you for taking the time and energy to connect with my quirky, independent self.

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is not a message to sulk in my complicity in settler colonialism, but is a call to strategically think and act on what it means to engage possibilities of anticolonial and decolonial action. The field of sustainability in its current state has restricted itself and is restricted by settler colonialism. This small effort analyzing the Stibnite Gold Project examines how sustainability pathways addressing settler colonialism might sustain a public good that is inclusive of the colonized rather than a public good that sustains settler colonialism. This leads me to a message of why I write this with you. I write this with you (activists) because I am so fucking tired. I am learning from you all on how to rest amid efforts to resist and fight to flip oppressive systems on their head. In addition to feeling inspired and empowered in my work with you I also feel challenged and frustrated by ongoing unaddressed socio-political power imbalances and injustice. I write this message to you (activists) both as an invitation and personal search for what it means to rest as a form of resistance while also fighting for liberation in solidarity together.

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justice efforts can carry intentions and actions grounded in love and community. However, I challenge the notion that a vague universality drives these intentions and actions. Synthesizing the words of a few scholar activists I look up to… I, you, have *been in the struggle* (Shands Stoltzfus & Miller Shearer, 2021), and it is our complex *incommensurability* (Tuck & Yang, 2012) that connects us to fight for justice in the name of *love* (hooks, 2000).

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# CHAPTER 1

# INTRODUCTION

In March 2023 the IPCC (Intergovernmental Panel on Climate Change) published its annual report offering a global reminder of the real and impending pressures of climate change. Like past reports, 2023's report highlights renewable energy technologies as current and future risk mitigation measures vital to addressing climate change. Rising interests in the development of renewable energy technologies have increased demands for critical minerals. Increased demand for critical minerals has led to an expansion of the number of mines meeting the raw material needs for green technologies. However, these mines are often on or adjacent to Indigenous lands which put treaty rights in question. Actors including Indigenous communities carry different values, interests, and sovereign powers that inform their respective position on the permitting process of these mines. Actors use understandings of risk to measure the impacts of mining projects to inform their position on potential mine permitting decisions.

Risk management has increasingly become of interest to corporations and regulators both nationally and globally. For instance, SASB (the Sustainability Accounting Standards Board) and GRI (the Global Reporting Initiative) have created standards for corporations to measure and report ESG (environmental, social, and governance) risks for shareholders and stakeholders. The development of risk management strategies amid realities of climate change and social inequities is not unexpected to scholars like Ulrich Beck who argued global interests in modernity and industrialization have taken on a *risk society* identity. Beck defines risk society as "an

inescapable structural condition of advanced industrialization," suggesting "[modern society] is increasingly occupied with debating, preventing and managing risks that it itself has produced" (Beck, 1992, 2006). Actors involved in mine permitting processes adopt varying understandings of risk to manage risks that they themselves have often produced.

The US SEC's (Securities and Exchange Commission) and the Nez Perce tribal community's definitions are relevant to this study's examination of risk. The US SEC offers a straightforward definition of financial risk, stating it is "the degree of uncertainty about the rate of return on an asset and the potential harm that could arise when financial returns are not what the investor expected" (US Securities and Exchange Commission). In contrast, the Nez Perce language articulates risk as *aiiz* defined as "peril, damage" (A Missionary of the Society of Jesus, p. 195). Risk frameworks such as those adopted by corporations and regulators require that they include diverse understandings of risk to fully encompass the possible risks imposed on *all* stakeholders. This study of the Stibnite Gold Project takes on Beck's interpretation of modern society's relationship to risk by looking at four narratives of risk from four key actors including Perpetua Resources, the Nez Perce, key regulators, and key local organizations. Analyzing risk frameworks relevant to mining projects generates knowledge not only about the permitting process of mine projects, but approaches specific to sustainability and justice. This knowledge helps clarify what and who is included in sustainability and justice initiatives that intend to achieve goals grounded in the public good.

This case study of the Stibnite Gold Project presents contrasting perspectives informing different positions on the upcoming permitting decision of the mine. As of

April 2023, Perpetua Resources is seeking a permit from the USFS to mine land under public legal authority for antimony, gold, and silver. Perpetua Resources has ties to fulfill increasing renewable energy demands for mined minerals. On August 9, 2021 Perpetua announced their partnership with Ambri Battery Production to supply antimony for solar liquid metal storage batteries (Largent & Lyon, 2021). Actors such as local organizations and the Nez Perce have the opportunity to participate in the permitting process formally through public comments and informally through the formation of public discourse. Public positions of four key actors relevant to this project on the permitting decision are grounded in diverse values and interests. As mentioned previously, actors significant to this study include Perpetua Resources (public mine operator of the Stibnite Gold Project), key regulators, key local organizations and NGOs, and the Nez Perce. The permitting process is grounded in policies articulated in the 1970 US NEPA (National Environmental Policy Act). Federal regulators facilitating the permitting process intend to preserve and ensure the public good, but there is disagreement among actors about what and who is included in the public good.

In studying the permitting process for the Stibnite Gold Project, the object of this study is not to predict the outcome, but to understand the different outlooks and evaluative frameworks that inform the public discourse and decision. Accordingly, it asks three questions: 1) What values and interests are driving conceptualizations of risk in the Stibnite Gold Project? 2) What key characteristics shape the risk strategies of four key actors that inform how and which sustainability goals are achieved? 3) How does settler colonialism shape risk management? It will thus analyze not only particular differences

over the Stibnite Gold Project, but the adequacy of risk management as a framework for reconciling competing interests and conceptions of the public good.

The central argument of this thesis is that settler colonialism is reinstated - and in some cases resisted - in the different risk frameworks guiding assessments of benefits and costs of the Stibnite Gold Project. To study resistance to and reinstatements of settler colonialism the research included a review of relevant sustainability, settler colonialism, and justice literature on systems and institutions, which guided what research questions are asked and informed the analytical framework used to study empirical findings, methods used to study risk, empirical findings derived from a critical discourse analysis, and an analytical framework applied to the empirical findings. Surveys of sustainability, justice, and settler colonialism literature articulate scholarly understandings of risk within systemic and institutional frameworks relevant to manifestations of settler colonialism in the permitting process of mines.

More broadly, the thesis addresses why risk management processes in mine permitting processes are best studied through a critical discourse analysis. Four thematic narratives including risk, economy, restoration, and decision-authority were derived from the critical discourse analysis. Lastly, an analysis of the empirical evidence builds onto Beck's articulation of risk society further arguing that preoccupations to self-imposed risks distracts key actors in the Stibnite Gold Project from being attentive to substantive sustainability and justice concerns.

# CHAPTER 2

## CONFLICTING INTERESTS AND VALUES IN THE MINE PERMITTING PROCESS

Increasing climate pressures and social inequalities have resulted in calls for the implementation of green energy technologies on large scales. Rising interests in green technologies come with demands for critical minerals. As a result of increasing demands for critical minerals, the number and size of mines are expanding to aid in the development and manufacturing of green technologies. Mine operators in the United States are required to go through extensive permitting processes facilitated by federal regulators. Both formal public discourse via USFS facilitated public comment periods and informal public discourse via public discussion (i.e. a regional socioeconomic impact report, news articles) influence the permitting process of the mine through public pressure. Positions on the mine are guided by specific actor values and interests in addition to understandings of risk. Risk is often measured as the exposure to benefits and costs of the mine that either decrease or increase uncertainty about specific economic, social, and environmental concerns. Many actors have highlighted how mines are on or adjacent to Indigenous lands both in scholarly (Redniss, 2020; Voyles 2015) and public discourse (Healy & Baker, 2021; Rannard, 2022). Often, risks are disproportionately imposed on Indigenous communities, understandings of risk fail to include Indigenous notions of risk, and Indigenous voices are inadequately included in risk frameworks relevant to public discourse. For instance, popular corporate risk mitigation frameworks like those created by the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI) fail to consider perspectives on risk beyond the shareholder. Indigenous peoples might be *counted* and *included*, but fail to consider what

culturally- and spiritually- grounded land relationships might mean for risk. Evaluating the conceptualizations and applications of risk offers insight into both the permitting processes of current and upcoming mines and approaches toward sustainability and justice.

Efforts to mine critical minerals and raw materials have become synonymous with renewable energy transitions. Many understandings and operationalizations of risk in the Stibnite Gold Project rely on sustainability assumptions that loosely imply the achievement of a larger public good. However, what and who is included in the public good is unknown. Perpetua Resources and regulators have made it clear that the public good includes supplying raw materials for increasing renewable energy demands addressing global climate change urgencies. However, this notion of the public good fails to encompass and clearly define who and what is/is not being sustained in the process to make energy systems "sustainable". Settler colonial and Indigenous justice literature challenge assumptions of what and who is included in major risk frameworks relevant to the larger public good. Studying risk in the Stibnite Gold Project draws from specific scholarly literature to inform the methods and analysis of empirical findings. The following section examines key strategies of settler colonialism relevant to this study's conversation on risk.

*Settler Colonialism*

Settler colonial scholarship offers insight into how colonial mechanisms operate. Theoretical interpretations of who takes on settler and Indigenous identities serve as the

foundation of settler colonial literature. Scholars articulate specific action and behaviors settlers take on such as logics of elimination (Wolfe, 2006) and settler moves to innocence (Tuck & Yang, 2012). Operationalizing settler colonial actions and behaviors of the Stibnite Gold Project helps determine how settler colonialism is being resisted and/or reinstated across space and time. Additionally, a range of case studies analyzing settler colonialism in relationships among Indigenous communities, corporations, and regulators bridge theoretical insight and material impacts of colonially oppressive systems (Estes & Dhillon, 2019; Norgaard, 2019; Redniss 2020; Voyles 2015). Case studies offer contextual insight into theorized understandings of settler colonialism. Theorizing systems of oppression expands the capacity for further knowledge to be generated while developing an understanding of the material impacts offers clear evidence of the ongoing existence of settler colonialism. Broadly, insights on settler colonialism expand notions of risk grounded in traditional ideas of sustainability.

Making the distinction between settler and Indigenous identities clear grounds settler colonial theoretical insights. Tuck and Yang (2012) highlight that the relationship between who is the settler and who is Indigenous is "irreconcilable" under settler colonial regimes (p. 4). By emphasizing that decolonization is not a metaphor, they seek to "unsettle innocence" and "recognize incommensurability" (p. 4). Unsettling settler innocence in risk frameworks that intend to center sustainability values requires that actors participating in the Stibnite Gold Project, many of whom are settlers, also acknowledge their complicity in settler colonialism. Acknowledging complicity in settler colonialism also centers incommensurable differences between those who are settler colonizers and colonized. Empowering anticolonial action toward justice requires

informed complicity to evoke change. Wolfe further examines the settlers by identifying them as those who "come to stay: invasion is a structure not an event" (p. 388). Wolfe expands the temporality of settler colonialism to encompass not just colonial histories, but the present momentum of settler colonialism. Settler colonialism is not just a description of events, but implies nonmaterial and material impacts for the colonizers and the colonized. Liboiron (2021) builds onto existing literatures examining mechanisms of settler colonialism by identifying how anticolonial efforts can take place within a settler colonial system while decolonization cannot. Anticolonial intentions and actions cannot fully eradicate the dichotomous relationship between the settler and Indigenous identity. Anticolonialism adopts reformative characteristics while decolonization seeks to transform settler colonial relationships.

Those who take on settler identities perpetuate settler colonialism through a variety of values, beliefs, and behaviors often manifested as material actions. Tuck and Yang (2012) identify settler moves to innocence as actions that seek reconciliation with who is Indigenous through actions of justice to fulfill decolonial prophecies despite their incommensurability. Six moves to innocence are identified: settler nativism, fantasizing adoption, colonial equivocation, conscientization, at risk-ing / asterisk-ing Indigenous peoples, and re-occupation and urban homesteading. Settler nativism highlights the settler's claim to ancestral Indigenous heritage to erase the blame from the ongoing eradication of who is Indigenous while fantasizing adoption describes the settler's "desire to *become without becoming [Indian]*" (p. 14). Colonial equivocation includes actions that equivocate all types of colonialism without fully engaging land relationships "as the basis of wealth, power, law in settler nation-states" (p. 19). Conscientization assumes that

decolonizing the mind will also decolonize land relationships. However, Tuck and Yang mark this assumption as a falsehood to decolonial agendas. Asterisk-ing peoples examines how Indigenous peoples are deemed *at risk* and *asterisk peoples* by settlers. Treating Indigenous peoples as *at risk* describes an academic narrative highlighting "engaged or soon-to-be engaged in self-destructive behaviors" that will lead to Indigenous extinction while *asterisk* peoples marks the absence of Indigenous data in large crucial datasets informing public policy (p.22). Ultimately, settler identifications of Indigenous peoples as *at risk* and *asterisk* challenges how Indigenous peoples "are counted, codified, represented, and included/disincluded" in research (p. 22). Locating actions settler colonialism requires a deep understanding of ongoing challenges that have been imposed on Indigenous communities. Increasing colonial pressures have reinforced unhealthy coping mechanisms such as substance abuse. However, to address settler colonialism it is not the behaviors of Indigenous people, but the systems and institutions such as those linked to education that have appropriated, assimilated, and even eliminated who and what is Indigenous. Lastly, re-occupation and urban homesteading highlight the settler assumption to equivocate the reoccupation of lands by economically marginalized people with decolonization despite their incommensurability. Tuck and Yang's settler moves to innocence offer a framework to identify the operation of settler colonialism in actions articulated in public discourse relevant to the Stibnite Gold Project.

Settler moves to innocence builds on Wolfe's (2006) *logics of elimination*. Wolfe examines both the theoretical underpinnings of the eliminative capacity of settler colonialism and the material elimination of Indigenous peoples and lifeways. Wolfe notes that settler colonialism is "foundational to modernity" and the industrial revolution (p.

394). Colonial land and labor relationships produced the raw materials required for industry. Logics of elimination also seek more land - agriculture is given as an example of settlers' insatiable appetite for land (p. 395). Wolfe also identifies the transition from crude techniques of elimination such as genocide and physical removal to assimilative techniques to eliminate Indigenous lifeways and indoctrinate who is Indigenous into Euroamerican society (p. 399). Assimilation serves as a more palatable logic of elimination relative to genocidal notions of colonialism. Like Tuck and Yang's settler moves to innocence, operationalizing Wolfe's logics of elimination in the Stibnite Gold Project helps to identify how settler colonialism is being reinstated and/or resisted.

Scholars have articulated how theoretical notions of settler colonialism manifest in case studies of corporate and regulator relationships with Indigenous communities. Whyte (2019) highlights the importance of coordinated action between governments, corporations, and Indigenous communities grounded in relational characteristics like reciprocity, trust, and accountability. Coordinated action is especially important considering the temporal realities of climate change, but Whyte acknowledges that good relations require time contrary to the urgency behind addressing ecological tipping points. Several case studies identify that relationships between corporations, regulators, and Indigenous communities fail to resist settler colonialism. Voyles (2015) examines the theoretical underpinnings of settler colonialism and material impacts of uranium mining and the dumping of highly toxic mine waste on Navajo lands in the mid-1940s. Voyles' expansion of Kuletz's (1998) notion of wastelanding expands understandings of settler colonialism and takes on two primary forms: 1) the assumption that non-white lands are valueless except for the value that can be extracted from the lands 2) the destruction of

local environments due to polluting industries (p. 10). Liboiron and Lepawsky (2022) develop similar ideas to wastelanding by offering a foundation for the field of discard studies that examine why certain people, places, and things are discarded. Norgaard (2019) studies how Karuk relationships to the land enabled ecological abundance required for capitalist development. Simultaneously, regulators like the USFS have interrupted good land relationships by enacting fire suppression policies that not only eliminate cultural practices, but led to declines in ecosystem health. Contextualized case studies affirm that reinstatements of settler colonialism are common in relationships between corporations, governments, and Indigenous communities in many different spaces and places. These case studies not only provide evidence for settler colonialism to be studied further, but offer diverse strategies for how other scholars identified settler colonialism in contextually specific environments.

Examining Tuck and Yang's (2012) concept of settler moves to innocence and Wolfe's (2006) logics of elimination offer theoretical underpinnings of how settler colonialism operates. Theoretical notions of settler colonialism are further developed and applied to this study's critical discourse analysis. A brief summary of case studies articulates how other scholars identified manifestations of settler colonialism in relationships between corporations, regulators, and Indigenous communities especially related to extractive processes. Applying this knowledge on settler colonialism to traditional sustainability literature expands understandings and applications of risk.

While operationalizing mechanisms of settler colonialism in this case study's analysis of the Stibnite Gold Project, it's important to consider how settler colonialism literature adds to traditional understandings of social and environmental justice.

Schlosberg (2004), who drew on scholars like Nancy Fraser (2000), expanded environmental justice to include not only distributional impacts, but also implications of recognition and procedural notions of justice. Other scholars such as Jarratt-Snider and Nielsen (2020) make it clear that Indigenous environmental justice must be differentiated from traditional notions of environmental justice. For instance, legal complexities rooted in treaty rights highlight key differences between what justice looks like for Indigenous communities rather than those marginalized who are not Indigenous.

Conceptualizing distributional, recognition, and procedural forms of justice in complex environmental dilemmas is crucial to consider not just in the results of sustainability practice, but during the process to become sustainable and just. For instance, as a result of sustainability goals, such as those outlined by the United Nations, energy transitions have heightened demand for the mining of raw materials for renewable energy technologies. However, the United Nations has also made it clear that human rights violations are inappropriate to meet global development needs such as sustainability. In addition to the SDGs (Sustainable Development Goals) established in 2015, the United Nations previously published the UNDRIP (*United Nations Declaration on the Rights of Indigenous Peoples*) in 2007. Throughout the declaration's 46 articles free, prior, and informed consent in development processes is a necessary action to sustain Indigenous rights. Organizations, corporations, and national governments aligning practices with the United Nations SDGs demonstrate public trust and belief in the intergovernmental organization that declares Indigenous rights as central to international cooperation.

Jarratt-Snider and Nielsen make it clear that the spiritual significance of land differentiates what just action means for Indigenous communities compared to other communities marginalized by environmentally invasive action. Knowing how mechanisms of settler colonialism operate and what justice might mean for those experiencing the impacts of colonial harm informs the relationships between Perpetua Resources, regulators, local organizations, and the Nez Perce. Other scholars like Taylor (2016) examine how environmentalism has sustained injustice in the United States. Critically determining who is included in the public good in morally grounded sustainability and environmental interests is vital to fully engage meanings of (in)justice. Clearly identifying how settler colonialism is being resisted/reinstated by using this knowledge provides pathways to identify what justice might mean for the Nez Perce and others marginalized in the permitting process of the Stibnite Gold Project.

*Justifications for the Mine*

As articulated in the introduction, it's clear that there is an increasing demand for raw materials to support renewable energy interests. The Stibnite Gold Project is not a unique mine considering these widespread scholarly and public interests in renewable energy technologies. Widespread interest in systemic change for energy systems is one of many complex adaptive systems that must be addressed in national and global energy transitions. Managing resilient and adaptive capacities in addition to internal and external vulnerabilities are crucial to the sustainability of systems and institutions. Institutional rules and norms around the mine project are facilitated by two processes: 1) The local

and national regulatory procedures defining and measuring the benefits and costs of the mine site; 2) Corporate policies and norms to disclose key financial, environmental, social, and governance risks. It is crucial to address the scholarly and public justifications for the mine to understand how settler colonial scholarship might change or transform justifications to mine raw materials for renewable energy technologies.

Regional ecosystems impacted by mining, contemporary energy systems, and globalized economies have become highly relevant systems to the Stibnite Gold Project. These systems that also include interconnected institutional structures suggest that sustainability can be achieved through engagement with resilience, adaptation, and vulnerability. Mining for renewable energy is often pointed to as a solution to achieve sufficient resilient and adaptive systemic capacities. However, justifying that renewable energy transitions take place in the name of resilience, adaptability, and vulnerability ignores crucial complexities of sustainability and justice. Scholars have studied how systems and institutions foster resilient characteristics amid rising climate uncertainty (Meerow et al., 2016). Recent resilience scholarship builds onto Holling's (1973) conceptualization of resilience and further developments of this definition (Walker et al., 2004) as related to four key characteristics: latitude, resistance, precariousness, and panarchy. Latitude explains the maximum amount of systemic change that can take place before a system loses the ability to bounce back while resistance explains the spectrum of ease or difficulty for systemic change to take place (p. 4). Precariousness explains the distance a current state of a system is to meeting a threshold while panarchy examines the impacts of cross-scale entanglements influences a system at a specific scale (p. 5). Meerow and colleagues (2016) offer a revised understanding of resilience that critically

consider questions such as *resilience for whom and what*. They offer a new conceptualization of resilience highlighting the ability of social, ecological, and technical networks across spatial and temporal scales to maintain or return to a desired state, adapt to change, and transform systems amid realities that jeopardize future adaptive capacities. Operationalizing resilience in systems relevant to the Stibnite Gold Project offers greater insight into how risk frameworks can be developed for systemic change.

Adaptive capacity is central to address ongoing change, but scholars like Marino (2018) note that adaptation is influenced by socio-political power imbalances not addressed by historical and contemporary systematic and institutional functions. Socio-political power imbalances have direct implications for who is exposed to risk and how procedural capacities are structured to manage risk. Marino offers the notion of *adaptation privilege* in relationship to a US federal adaptation policy, voluntary buyouts, that seek to address climate pressures and social inequities of sea level rise for coastal communities. However, Marino cites that "notions of the market, property, and individualism" are "ideological assumptions" that fail to support coastal tribal communities as they are forced to relocate because of sea level rise (p. 10). Mindsets influencing approaches to address risk through traditional adaptive measures are challenged as supporting the public good.

In addition to resilience and adaptation, managing vulnerability is vital for the sustainability of systems and institutions. Eakin and Luers (2006) study the diverse meaning of vulnerability coming from risk-hazard, political economy and ecology, and ecological resilience literature. It is suggested that linking these diverse notions of vulnerability will address challenges in vulnerability analyses such as addressing

intersecting stressors, socioeconomic and biophysical uncertainty, cross-scalar outcomes, and equity and justice concerns (Eakin & Luers, 2006). Engaging risks in human-environment relationships requires understanding how systemic exposure to both social and environmental vulnerabilities influences the sustainability and justice of a system.

Sustainability conversations of resilient, adaptive, and vulnerable characteristics often take place within larger conversations of the Anthropocene. Engaging anthropocentric contexts is crucial to understand the socio-political complexities influencing understandings of risk and risk frameworks. Roots of conceptualizing the Anthropocene in the geological sciences posited that humans were and are at the center of sustainability challenges (Steffen et al., 2015; Zalasiewicz et al., 2017; Ruddiman, 2018). These notions of the Anthropocene put all humans at the center of large-scale sustainability challenges like climate change and social inequity. However, basic notions and assumptions fail to engage which humans are at the roots of systemic and institutional sustainability challenges. Scholarship coming from the social sciences and environmental humanities expand the conversation of the Anthropocene to include how social, political, economic, and cultural factors influence who is at the center of global environmental change. For instance, Moore (2016) argues that capitalism as a near-autonomous system is central to large-scale sustainability challenges. Yusoff (2018) engages the Anthropocene as a white concept noting that markers of the human era came from the energy of the Black enslaved human body creating a color blindness to racialized stratigraphy. Identifying roots of global environmental change requires critical precision in defining which actors must make behavioral changes to climate pressures. The expansion in the number and size of mines for critical minerals is an adaptive

measure by humans to solve problems that specific humans caused in the first place. In mine sites like the Stibnite Gold Project, leaders and experts must critically consider who is being centered as problem creators and problem-solvers.

Justifications for mining relevant to the renewable energy transitions are made clear in resilience, adaptation, vulnerability, and Anthropocene sustainability literature. To establish resilient and adaptive capacities while managing vulnerability in energy systems, the shift from non-renewable to renewable technologies must be made. Humans have taken on the responsibility to slow anthropocentric global climate change to solve a self-inflicted problem. However, questions posed by settler colonial and justice literatures further problematizes who is at the roots of unsustainability, the process to become sustainable, and sustainability outcomes that sustain (in)justice. Scholars such as Meerow (2016) and Marino (2018) critically examine the resilient and adaptive capacities of systems by asking questions of what/who gets to benefit from resiliency and adaptation. Managing internal and external vulnerabilities must include managing operations of settler colonialism that pervade energy systems in addition to causing external systemic pressure. Resilience, adaptation, and vulnerability have become relevant concepts to driving systemic change in complex energy systems in the context of the Anthropocene. The scholarly argument to initiate large-scale transitions toward renewable systems must further be questioned to consider the systemic oppression (i.e. settler colonialism) and social power dynamics.

# CHAPTER 3

## THE STIBNITE GOLD PROJECT: A CASE STUDY

In December 2021 Healy and Baker published a New York Times article, *As Miners Chase Clean-Energy Minerals, Tribes Fear a Repeat of the Past,* which investigated a common conflict with the domestic mining of critical minerals, violations of tribal treaty rights (Healy & Baker, 2021). The article gives special attention to Nez Perce perspectives on the permitting process and upcoming permitting decision; the article also analyzes other key actors connected to the project such as the mine operator Perpetua Resources, local community members, and federal governing bodies. Several months prior to the New York Times article Perpetua announced an antimony supply agreement with Ambri Battery Production (Largent and Lyon, 2021). This partnership is one example of how mines like the Stibnite Gold Project will meet the demands for critical minerals to develop green technologies like solar storage batteries. However, renewable energy is not the only intended purpose for the critical minerals mined in the Stibnite Gold Project. The USFS cites that roughly "4.238 million ounces of gold, 1.710 million ounces of silver, and 115.342 million pounds of antimony" will be extracted for varying purposes including renewable energy and national defense (USFS, 2022, p. ES-8). Actors articulate public positions on the permitting process and permitting decision of the Stibnite Gold Project by using risk frameworks to measure socio-environmental uncertainties and costs.

The permitting process and decision of the mine rely on environmental policies established in the 1970 NEPA (National Environmental Policy Act). Actions deemed as environmentally invasive to federal lands are required to be evaluated. Perpetua

Resources, formerly Midas Gold, began scoping the mine site in 2009 identifying the area as having geological potential. The USFS became heavily involved in the permitting process in 2016 following the publication of Perpetua's Planning and Operations report. Both the DEIS (draft environmental impact statement) published in August 2020 and the SEIS (supplemental environmental impact statement) in October 2022 are significant documents to this study. The DEIS received around 10,000 public comments and the SEIS received around 15,000 public comments in the months following the publication dates. In addition to public documents, other public texts were studied such as sustainability reports, a socioeconomic impact report, and relevant newspaper articles relevant to the larger public discourse.

*Methods*

To study the Stibnite Gold Project I hoped to codesign a project with the Nez Perce. In Atalay and McCleary's, *Complexities and Triumphs of Conducting CBPR The Community-Based PhD*, (2022) a collection of works examine CBPR (community-based participatory research) emphasizing the power and complexity behind collaborative academic research. I hoped to integrate CBPR throughout the study of the Stibnite Gold Project in processes such as project co-design, development of research questions, procedural guidelines, analysis of empirical data, and concluding summarized points. However, as articulated in Atalay and McCleary's text socio-political power dynamics between who/what is the researcher and who/what is being researched influence institutional expectations, the diversity of voice, relationship building, and research

leadership in the community. CBPR aims to bridge the researcher and the researched. Histories of western research on/with Indigenous communities have not only illuminated lineages of material harm imposed on the oppressed, but the ongoing nature of settler colonialism. CBPR rooted in anticolonial practice aims to engage the complexity of settler colonialism. Liboiron (2021) illuminates key foundations of anticolonial research with communities that aim to address colonial land relationships. Carrying the intention to complete CBPR through an anticolonial framework does not erase my settler identity nor does it erase the Indigenous identity of the Nez Perce. However, engaging colonial land relationships while studying the reinstatement/resistance to settler colonialism in the Stibnite Gold Project's permitting process problematizes settler colonialism in the research and the development of discourse around the Stibnite Gold Project. CBPR informed by anticolonial methodological frameworks also intends to acknowledge and integrate diverse knowledge systems.

Codesigning a project using practices of CBPR also opens the possibility for knowledge coproduction to take place. In order to address diverse knowledge systems and applications of knowledge to inform sustainability decisions sustainability science scholars have called for actions of knowledge coproduction (Clark & Harley, 2020). As evidenced by this study of the Stibnite Gold Project, knowledge coproduction is complex and challenging, especially on the two-year master's thesis timeline. Coproduction is not impossible as sustainability scholars have articulated recent instances of knowledge coproduction (Hill et al., 2020; Huaman & Swentzell, 2021). Additionally, engaging with the plurality of knowledge is not new to many Indigenous ways of knowing that aim to sustain (Nelson 2008; Nelson & Schilling 2018). Indigenous scholars such as Kimmerer

(2015) and Liboiron (2021) illuminate key relationships between Indigenous knowledges and western scientific knowledge. As part of the Citizen Powatami nation, Kimmerer examines Indigenous wisdom - specifically drawing upon connections to the ceremonial plant sweetgrass. Kimmerer also highlights that traditional Indigenous knowledge carry intellectual capacities to be used in addition to Western scientific knowledges and methodologies. Liboiron makes clear that land relationships must be at the center of anticolonial Western scientific methodologies. While knowledge coproduction can be a strategy to achieve sustainability it can also be limiting as a method considering the incommensurable differences in what is colonial and Indigenous (Tuck & Yang, 2012). As demonstrated by this study of the Stibnite Gold Project, carrying out knowledge coproduction effectively while adequately addressing colonial relationships is hard to carry out.

Fieldwork might have included activities such as interviews with tribal community members and leadership and spatial mapping of potential social and environmental impacts of the mine site. However, after consistent email and phone communications in the spring and summer of 2022, I was not able to get a response of interest in project codesign. This response was not unexpected considering that I am an outsider to the Nez Perce community, the Nez Perce already have ongoing efforts to address past, current, and potential impacts from mining operations, and colonial, western education relationships with Indigenous communities more broadly might carry skepticism. I am also a settler to both Akimel O'odham and Piipaash (Tempe, Arizona) where the critical discourse analysis was carried out, and Nez Perce lands (Yellow Pine, Idaho) where the Stibnite Gold Project is taking place. It is also important to consider

other logistical factors like timing that contributed to fieldwork not fully coming to fruition. Carrying out a critical discourse analysis provided a legitimate and meritable methodological alternative to study mechanisms of settler colonialism in the Stibnite Gold Project.

Scholars like Nelson, Kimmerer, Liboiron, Tuck, and Yang illuminate pathways for this project to engage colonial land relationships despite being unable to pursue a knowledge coproduction process. Anticolonial methods guided the critical discourse analysis of the Stibnite Gold Project. Carrying out a literature review, developing a conceptual framework, uncovering empirical findings via a critical discourse analysis, and analyzing the empirical evidence using settler colonial and justice literatures still required adequate thought of my relationships to the land and what these relationships mean for the knowledge generated from this study. For instance, following the lead of Liboiron (2021) - carefully examining the colonial roots of environmental thresholds used by corporations and regulators that define what levels of pollution are safe as a result of Stibnite Gold Project operations requires an understanding of colonial and Indigenous land relationships.

Applying an anticolonial framing to this study requires that key concepts like (in)justice, (un)sustainability, and the Anthropocene are contextualized and problematized for this study. Placing these concepts in a settler colonial context change how they are operationalized. (In)justice becomes a conversation that extends beyond EDJI (equity, diversity, justice, and inclusion | pronounced “edgey”) initiatives and examines the systemic roots of oppressive systems. (Un)sustainability requires conceptualizations of traditional sustainability to be problematized. For instance, Whyte’s

(2019) conceptualization of relational tipping points extends traditional sustainability applications of the term (Scheffer et al., 2009, 2012) to address systems and institutions that operate in a settler colonial context. Relational tipping points not only engages who and what is to be sustained, but addresses the material harms of ongoing colonial action such as the destruction of tribal sacred lands and physical and mental harm experienced by Indigenous bodies. Applying the Anthropocene to settler colonial contexts requires that traditional assumptions of the geological era dominated by human behavior be challenged. The colonial and Indigenous relationships to global environmental change must be made clear. Centuries of colonization have empowered destructive systems driven by capital and social power to eradicate who/what is Indigenous. Challenging traditional assumptions about the Anthropocene contextualizes how colonizers are driving treacherous climate changes and names that many Indigenous peoples hold centuries of knowledge of what makes good land relationships *good*.

Operationalizing sustainability, justice, the Anthropocene, and subconcepts (i.e. resilience, adaptation, and vulnerability are important to larger conversations of sustainability) in settler colonial contexts and critically thinking about land relationships guided my selection process of which actors and public discourse would be included and analyzed in this study. Case studies involving Indigenous communities and environmental action regularly give attention to actors such as corporations, regulators, and local communities. Povinelli (2016) examines manifestations of settler power in a lawsuit involving Australian-based corporation OM Maganese Ltd. In Norgaard's (2019) collaborations with Ron Reed and the Karuk tribal community, she gives attention to the USFS as regulators who led fire suppression policies that not only eliminated culturally

and spiritually relevant practices to the Karuk, but caused further harm to local ecosystems. In both of these cases understanding who and what makes up local and regional communities is central to understanding the empirical findings of each study. After consulting similar case studies to the Stibnite Gold Project four actors were identified as the people whose understanding of risk and risk frameworks would be analyzed. These four actors include corporations (i.e. Perpetua Resources, Ambri Battery Production), regulators (i.e. USFS, USACE), local communities and special interest groups (i.e. Idaho Headwaters Economic Study Group, Idaho Rivers United), and the Nez Perce.

Since a codesigned project could not be carried out, public documents connected to the four key actors provided data for this study's discourse analysis on each actor's approach to risk that help define political positions on the upcoming decision of the Stibnite Gold Project. Narrowing the actors of study to four categorized groups also offered greater specificity to what public discourse was analyzed. However, the breadth of public discourse coming from the four actors is still extensive. Selecting the public discourse required thoughtful selection of documents that communicated approaches to risk. Categories of public discourse included annual sustainability/ESG reports, USFS EISs (environmental impact statements, public comments on EISs, a socioeconomic impact report, and other relevant media such as newspaper articles.

Over the past decades, corporations have begun aligning their sustainability goals with ESG (environmental, social, governance) risk standards. Groups like SASB (the Sustainability Accounting Standards Board) and GRI (the Global Reporting Initiative) have become leaders in creating risk disclosure standards for corporations. Some annual

corporate sustainability reports have been renamed as ESG reports. Considering contemporary corporate interests in ESG risks and risk management processes analyzing mine operator, Perpetua Resources, annual sustainability reports offer insight into corporate articulations of risk and applications of risk management. For instance, in Perpetua's 2022 Sustainability Roadmap, they announced their alignment with SASB ESG standards. Since Perpetua's first public sustainability report in 2013, nine sustainability reports have been published. Perpetua Resources has been working closely with regulators like the USFS to receive permission to begin mining. The USFS is the regulator facilitating the NEPA permitting process across all regulatory bodies. Two environmental impact statements, a draft and a supplemental, are published each followed by a public comment period equivalent of a few months. The DEIS (draft environmental impact statement) and SEIS (supplemental environmental impact statement) include information about what is perceived as a risk to federal regulator bodies and how risk might be managed after a permitting decision is made. In response to the DEIS published in August 2020, the Nez Perce issued a public comment in October 2020. The Nez Perce 125-page October 2022 public comment offered the greatest insight into the tribal communities' engagement with the Stibnite Gold Project. Other resources such as Indigenous Environmental Network grant awardee grant lists and occasional newspaper articles offered supplementary insight to the tribe's public comment. Analyzing Perpetua Resource's annual sustainability reports, the USFS environmental impact statements, and the Nez Perce public comment to the USFS DEIS guided which discourse from local communities and organizations would be analyzed.

Incorporating additional local perspectives in the critical discourse analysis was another challenge. Acknowledging and addressing the different perspectives throughout the study is essential, but I again had to prioritize public materials that articulated approaches to risk. Over fifty local businesses and special interest groups created the Idaho Headwaters Economic Study Group to measure the socioeconomic impacts and risk the mine will impose on the socioeconomic status of the regional community. This group hired Power Consulting Inc. to create, *An Evaluation of the Potential Socio-Economic Impacts of The Proposed Stibnite Mine on Valley County, Idaho*, published in December 2022. This public document signed off by over fifty local businesses and special interest groups offered an aggregation of local interests articulating how they engage risk. The Idaho Headwaters Economic Study Group also published a brochure summarizing the information from the socioeconomic impact report. In summary, Perpetua Resources' annual sustainability reports, the USFS environmental impact statements, the Nez Perce public comment on the USFS DEIS, the Idaho Headwaters Economic Study Group's socioeconomic report and brochure, and other supplementary public materials served as the main public documents studied in the critical discourse analysis.

# CHAPTER 4

## MECHANISMS INFLUENCED BY SETTLER COLONIALISM

This section articulates empirical findings organized by four thematic narratives that help answer the three research questions guiding this project: 1) What values and interests are driving conceptualizations of risk in the Stibnite Gold Project? 2) What key characteristics shape the risk strategies of four key actors that inform how and which sustainability goals are achieved? 3) How do settler colonialism and risk management shape each other? Empirical findings are analyzed using scholarly understandings of risk, sustainability, and settler colonialism.

As a result of the critical discourse analysis, public discourse was organized into four thematic narratives: risk, economy, restoration, and decision-authority. This section presents these thematic narratives based on each actor in the order of Perpetua Resources, regulators, local organizations, and the Nez Perce. Organizing discourse into four themes provided a clear structure to answer the research questions guiding this study. This study is centered around how risk frameworks resist/reinstate settler colonialism in the permitting process of the Stibnite Gold Project. Economy, restoration, and decision-authority narratives prevalent in the public discourse support specific conversations of risk. Economic discussions of scale and progress offer insight into the economic tradeoffs confronting the Stibnite Gold Project permitting process. For instance, expanding the global capacity for renewable energy infrastructure by supplying raw materials addresses aims to slow the effects of climate change. However, supplying raw materials has little influence over global energy overconsumption. Similarly, restoration narratives speak of moralistic and resourceful efforts to restore the impacts of legacy and upcoming mining

operations. For example, Perpetua argues restoration efforts such as the replanting deforested parts and educating local public schools about mining supports a moral argument to permit the mine. The last thematic narrative, decision-authority, references the social, political, and legal power people, places, and things have over a specific decision. For instance, sacred Nez Perce fishery sites don't receive the same social and political authority as does the identification of the same lands as USFS lands. USFS lands have the opportunity to be extracted from, left behind, and remain USFS lands while sacred meaning carries different social and political weight for the Nez Perce.

In summary, the critical discourse analysis revealed four thematic narratives, risk, economy, restoration, and decision-authority narratives. These thematic narratives revealed how mechanisms of settler colonialism manifest in approaches to risk in the Stibnite Gold Project. Manifestations of settler colonialism narrow understandings of the public good articulated in sustainability discourse. In the following sections, I present findings from the four thematic narratives organized by public discourse from each actor in the order of Perpetua Resources, regulators, local organizations, and the Nez Perce.

*Perpetua Resources*

Perpetua Resources as the mine operator is responsible for articulating an argument as to why the Stibnite Gold Project should receive a permit to mine. It is obvious that public materials issued by Perpetua take on an optimistic tone toward the permitting decision. However, Perpetua is still required to address how they intend to address tradeoffs as a result of the mine project. Perpetua publishes annual sustainability

reports to update stakeholders on how tradeoffs of the mine are being addressed. Annual sustainability reports reveal conceptualizations of risk, how risk is measured, and the meanings of risk for stakeholders.

Though annual sustainability reports are first and foremost part of the information corporations provide for shareholders, public pressures grounded in issues like climate change and social inequity have pushed corporations to address how company operations affect a broader category of stakeholders. Risk management has been put at forefront of Perpetua's agenda through their alignment with "the Mining Association of Canada (MAC) [who] developed the industry-leading and internationally recognized Towards Sustainable Mining (TSM) initiative for reporting" (Midas Gold, 2014, p. 6) in 2014 and "the Sustainability Accounting Standards Board (SASB) reporting framework" (Perpetua Resources, 2022, p. 3). Aligning mining practices with MAC and SASB are key observations in how Perpetua's definition of risk is outsourced to external actors. Today, MAC defends mining operation interests through actions of public policy advocacy operations in three principles: advocacy, stewardship, and collaboration (MAC, *Our Focus*, 2023). SASB is a major organization shaping new reporting standards to accompany standard financial reporting for shareholders (SASB, *SASB About*, 2023*)*. Theoretically, MAC and SASB aim to create value beyond the shareholder. Framing ideas around risk from external sources also highlights a generalized adoption of corporate approaches to risk.

Adopting mining industry and corporate sustainability standards is carried out through a variety of actions. Stakeholder engagement has been placed at the front of Perpetua's risk management agenda. Stakeholder engagement practices include a range

of company policies, tangible actions, and community engagement. themes of relationship, listening, transparency, and accountability appear throughout Perpetua's annual sustainability reports. In efforts to address to dust accumulation from the mine operations Perpetua cites "we value out relationship with our communities. In the dry, dusty days of summer we apply an environmentally friendly dust abatement product… support[ing] our "good neighbor" policy by improving air quality and safety" (Midas Gold, 2013, p. 9). Perpetua attempts to not just address the short-term environmental costs of the mine, but the long-term too. In 2020, Perpetua Resources titled their entire sustainability report *We Are Listening*. The report includes a message from the President and CEO of Perpetua Resources, Laurel Sayer, who cites "listening to our closest communities and environmental groups over the last decade, we have shaped a unique vision for the Stibnite Gold Project - we are showing modern, responsible mining can be used to restore an abandoned mine site and that the industry can be a partner in sustainable practices and community development" (Midas Gold, 2020, p. 3). In addition to facilitating stakeholder engagement processes a large portion of the 2020 report is dedicated to articulating Perpetua's active participation in the USFS permitting process. For instance, large infographics citing support for the mine, quotes from public comments, and a narrative of a company led by moral values guide the narrative of the 2020 sustainability report. Perpetua cites that 8,390 (~85%) of letters expressed support of the mine, while this statistic includes public comments that are brief and even careless.

Throughout Perpetua's annual sustainability reports, they highlight their contributions to what they identify as the modern and green economy. Conceiving of the

economy as modern and green relies on a notion that shareholders are not the only one's receiving economic benefit, but stakeholders too. Perpetua seeks to move beyond shareholder value by conceiving of broader stakeholder value-creation citing in 2013 that their operations are "exploring for gold, antimony and other minerals critical to our modern economy" (Midas Gold, 2013, p. 2). Carrying out these operations "[provide] value to [their] shareholders, and long-lasting economic and social benefits to our communities" (Midas Gold, 2013, p. 4). These values and interests were expanded on in the most recent Perpetua document, the 2022 Sustainability Roadmap. Perpetua specified they are contributing to a modern green economy by "[entering] into an agreement to supply a portion of the antimony we produce at Stibnite to Ambri Inc. for the development of grid-scale liquid metal storage batteries to help facilitate the decarbonization of energy grids in the U.S. and around the world" (Perpetua Resources, 2022, p. 19). Perpetua makes an argument that mining is justified for their role in mining critical minerals for renewable energy transitions.

In addition to contributing to the national and global economy, Perpetua highlights positive economic benefits the company's operations bring to the local economy. Commitment to strengthening local communities spans from the birth of their sustainability reports in 2013 to the most recently available 2022 reports. Local communities are said to receive "tangible benefits to the environment, Idaho's economy and local communities" (Midas Gold, 2015, p. 4). One of these benefits comes from corporate philanthropic action as "Perpetua recognizes the need to share economic benefits from the Project, directly with local communities. In addition to our commitment to hire and train locally wherever possible. Perpetua entered into a profit-sharing

agreement to fund the Stibnite Foundation" (Perpetua Resources, 2022, p. 7). The Stibnite Foundation is a partnership between eight local communities and Perpetua Resources. It is unclear if these are the same eight communities that are represented on the company's Stibnite Advisory Council. However, this type of philanthropy is a smaller representation of a larger notion that those with large sums of capital get to direct who gets to benefit from philanthropic funding.

To challenge traditional mining practices Perpetua Resources has marketed that they are not just extracting critical minerals for solar storage batteries, but restore legacy and upcoming mining impacts. Perpetua claims that the critical "minerals we need for a more secure future and leaving the site better than it is today" demonstrates interest in local and global impact (Perpetua Resources, 2021, p. 3). By taking on restorative values and attitudes of practicality Perpetua validates their operations that serve a broader public good. Pairing interests in restoration and practicality articulating the "company finds practical solutions to manage growth, while protecting and enhancing the natural environment" is an attempt further prove the validity of their operation (Perpetua Resources, 2021, p. 6). However, Perpetua says little about restoring land relationships and colonial relationships with Indigenous communities like the Nez Perce.

Perpetua Resources has also made it clear that they want to be a law-abiding and trustworthy business operation. Throughout the past decade of sustainability reports, Perpetua has highlighted their procedural process with the USFS in addition to practicing stakeholder engagement. In 2014, Perpetua Resources credits "the Mining Association of Canada (MAC) [who] developed the industry-leading and internationally recognized Towards Sustainable Mining (TSM) initiative for reporting" that guided initial

transparency and accountability company practices (Midas Gold, 2014, p. 6). More recently, Perpetua highlighted their adoption of ESG policies in 2019 and ESG reporting alignment with "the SASB reporting framework beginning with its 2021 sustainability report" (Perpetua Resources, 2022, p. 8). As mentioned previously, Perpetua also applied stakeholder engagement processes.

Balancing trust in organizations that attend to specific interests and public input is vital to create a trustworthy public image for Perpetua. They commit to knowing "the value of public and stakeholder feedback" (Perpetua Resources, 2022, p. 7). Further saying "[w]e are committed to continually working with our neighbors to listen and assess potential opportunities to further improve environmental outcomes and will continue to work closely with regulators to ensure the best project moves forward" (Perpetua Resources, 2022, p. 7). Public discourse from local organizations and the Nez Perce do not align with these claims Perpetua Resources makes.

As evidenced by Perpetua's annual sustainability reports, Perpetua Resource's shows how their risk frameworks predominantly reinstate settler colonialism while showing little evidence of resisting settler colonialism. Perpetua has demonstrated intention and effort to include Nez Perce and other stakeholder voices, but primarily perpetuate settler colonialism. For instance, Perpetua's values and interest alignment with stakeholder capitalism such as their recent alignment with SASB ESG risk standards fail to adequately address settler colonialism. This claim is not meant to disregard Perpetua's stakeholder engagement practices, but challenge their efficacy to achieve sustainability and justice goals.

Stakeholder identification is meant to broaden how a company views impacts of operations on people beyond shareholders. Many understandings of stakeholders include "entities or individuals whose rights under law or international conventions provide them with legitimate claims" (GRI, 2016, p. 8). However, identifying rightsholders, such as the Nez Perce, as stakeholders is clearly not achieving the intentions of stakeholder engagement. For the Nez Perce recognition of treaty law is about their "ability to preserve [their] culture… linked to the reserved rights" (Wheeler, 2020, p. 2). Perpetua has failed to recognize these rights and the significance of Indigenous land relationships by undermining the Nez Perce's contribution to regional and global economies, restorative efforts on lands impacted by legacy mines, and the federal authority treaty rights hold for sovereign Native nations. Perpetuating settler colonialism is *risky business* for both Perpetua and the Nez Perce. Perpetua has adopted the basic characteristics of Wolfe's *logics of elimination*. For instance, Wolfe cites how colonial land relationships are crucial to the foundations of modernity and the industrial revolution (p. 394). Perpetua has made it clear that they are a mining company that is a progressive, forward-looking operation relative to the rest of the mining industry. Perpetua's insatiable appetite for more land is reflective of the larger interests of other mining companies, industries, and regulating bodies interest for newly mined raw materials to sustain business-as-usual energy practices.

In summary, Perpetua articulates a risk narrative that is aligned with stakeholder capitalism, economy and restoration narratives that market "new" actions grounded in economic development and morally grounded restorative action while ignoring existing efforts, and a decision-authority narrative that cites authority in corporate governance,

industry standards, and regulatory bodies while undermining the legal grounds of treaty rights and tribal sovereignty. Perpetua's inclusion of Nez Perce voices in their sustainability reports could be considered an act of resistance to settler colonialism, but it's clear Indigenous voices are not centered. Perpetua cites that around 85 percent of public comments to the USFS DEIS were in support of permitting the mine (Midas Gold, 2020). However, they fail to acknowledge the legal and rhetorical legitimacy of many public comments supporting the mine. Ultimately, Perpetua Resources reinstates Wolfe's logics of elimination to not only replace what is Indigenous with "progressive" understandings of sustainability, but eliminate tribal treaty rights held by the Nez Perce.

*Regulators*

A variety of regulators are crucial to the US mine permitting process. Regulators include the United States Department of Agriculture (USDA), United States Forest Service (USFS), United States Army Corps of Engineers (USACE), Idaho Department of Lands (IDL), Idaho Office of Energy and Mineral Resources (ID OEMR), Environmental Protection Agency (EPA), among others. Many of the impact assessments facilitated by each of these regulators are included in the draft environmental impact statement (DEIS) and supplemental environmental impact statement (SEIS) published by the USDA's USFS. Attention to empirical evidence by regulators is primarily given to EIS's facilitated by the USFS, but are representative of other regulator involvements in the permitting process.

In scoping the potential impacts of the Stibnite Gold Project, the USFS has also assessed the project using a variety of measures of risk. Initial measures of risk take into account the potential amount of extractable minerals available for Perpetua to mine. Locating and identifying an approximate amount of critical minerals is found in the most recent USFS environmental impact statement. In reference to available ore resources the USFS states, "geologic studies by Perpetua have reported approximately 132.3 million tons of measured and indicated ore resource (including historical tailings) for the SGP property with another 36.2 million tons of inferred ore" (USFS, 2022, p. ES-6). Additionally, they state "the contained metal content in the 2021 proven and probable mineral reserve of the property is approximately 4.819 million ounces of gold, 6.431 million ounces of silver, and 148.686 million pounds of antimony. From the total ore currently planned to be mined the SGP is estimated to recover, over 15 years of mill production, 4.238 million ounces of gold, 1.710 million ounces of silver, and 115.342 million pounds of antimony" (USFS, 2022, p. ES-8). This observation centers the number of extractable materials as a benefit that exceeds other costs manifested from risks of opening the mine.

In addition to the number of extractable minerals, regulators have relied on environmental thresholds to guide what amounts of pollution are supposedly environmentally and socially safe. In reference to air quality, Perpetua highlights how dispersion modeling based on EPA standards deemed impacts to air quality as safe by saying, "dispersion modeling based on a representative mine operating scenario and the year with highest estimated aggregated air emissions, demonstrated that pollutant concentrations at the Operations Area Boundary would not exceed the National Ambient

Air Quality Standards (NAAQS)" (USFS, 2022, p. ES-9). Environmental thresholds like the National Ambient Air Quality Standards set by the EPA limits possibilities of stakeholder engagement. Perpetua Resources and even the USFS articulate interests in stakeholder engagement yet key boundaries shaping the permitting decision are restricted to the precedent of US public policy.

Regulator's insights on economic impacts are less comprehensive than those articulated by other actors. The USFS confirms that the "construction and operation of the SGP would provide jobs and income for both individuals directly employed for the SGP" (USFS SEIS, ES-29). However, unlike the local organizations like the Idaho Headwaters Economic Study Group they articulate concerns about unemployment stating "given the local area's population and current low unemployment conditions, the SGP would result in an in-migration of up to 200 individuals and another 230 dependents for SGP-related employment opportunities." (USFS SEIS, ES-29). This claim on employment numbers does not align with those articulated by the Idaho Headwaters Economic Study Group which are comprised of around fifty local businesses and NGOs.

Additionally, the USFS articulates that pollutants from emissions are unquestionably defined by federal standards. The USFS cites "emissions of HAPs [(Hazardous Air Pollutants)], including mercury, were quantified for the worst-case LOM Year. Additionally, hydrogen cyanide (HCN), sulfuric acid, Hg, and organic HAPs from fuel combustion, were found to be well below federal major source thresholds" (USFS, 2022, p. ES-10). Risks imposed on natural resources identified by federal regulators like water and air become a problem when levels exceed federal limits. However, it is clear

that environmental damage using these federal thresholds have also caused immeasurable harm to Indigenous communities.

The regulatory permitting process for the Stibnite Gold Project is intended to uphold the public good. Ongoing settler colonial processes make sustaining intentions, behaviors, and actions for the public good more complex. During the permitting process recognizing the legal legitimacy of treaty rights and Indigenous land relationships is vital for regulators to effectively address settler colonialism. The USFS and other collaborating regulatory agencies often apply environmental thresholds as defined by federal law to measure the potential risks an environmentally invasive project might impose on the public. Liboiron (2021) puts environmental thresholds to question considering their anticolonial and environmental efficacy. Liboiron's challenge to environmental thresholds begins by explaining that the roots of pollution are not merely an externality of modern capitalist economic function, but is rooted in colonial land relationships. For instance, the assumption of access to Indigenous lands in the name of environmentalism fails to slow or stop ongoing colonial processes (p. 11). In the case of the Stibnite Gold Project, regulators hold decision-making power on whether or not Perpetua Resources is allowed to invade Indigenous lands. To make this decision the USFS service applies federally defined environmental thresholds to levels of pollution and land changes resulting from potential mine operations. Regulatory management of land has historically furthered marginalization and perpetuated colonialism onto those who are Indigenous while la Paperson (2017) and Liboiron (2021) also make it clear that you do not have to be Indigenous to experience the impacts of anti-Indian technologies such as natural resource accumulation and related externalizations of costs.

Overall, the USFS risk frameworks center environmental thresholds defined by federal law to determine social and environmental health. Thresholds are limiting to including cultural and spiritual interests in evaluations of the risks. In reference to economy and restoration narratives, the EISs are dedicated to articulating primarily benefits of the mine site giving little attention to costs and tradeoffs. Legal authority is centralized in United States federal law while undermining legally bounded treaty agreements between the Nez Perce and the United States. Perpetua has demonstrated they aim to lawfully receive a permit to open the Stibnite Gold Project while actors such as those represented in the Idaho Headwaters Economic Study Group and the Nez Perce tribal community have argued that the USFS is not comprehensively considering all risks the mine exacerbates.

*Local Organizations*

A group of around fifty local businesses and NGOs created the group Idaho Headwaters Economic Study Group (IHESG) to understand the long-term socioeconomic impacts of the Stibnite Gold Project. The economic study group hired economic consultants who created A*n Evaluation of the Potential Socio-Economic Impacts of the Proposed Stibnite Mine on Valley County, Idaho* (Powers Consulting Inc., 2022). Using this report the economic study group created a brochure summarizing information included in the socioeconomic impact report titled *Valley County's Growing Economy* (Idaho Headwaters Economic Study Group, 2022). Sharing similar environmental concerns to the Nez Perce the brochure articulates the failure of

technology that intends to encourage the adaptive capacity of the environment. In reference to tailing storage facilities that intend to divert waste and pollutants from surface water and groundwater the brochure cites that "advances in TSF design and safety have not kept up with advances in mining, resulting in greater environmental risk associated with more recent TSF construction. The rate of TSF failure is increasing, and not decreasing as one would expect with technological advances over time" (Idaho Headwaters Economic Study Group, 2022, p. 5). This quote is representative of a larger fear that the mine will cause more harm than good to the local economy.

Uniquely, local businesses, NGOs, and the Nez Perce also use economic rhetoric to display major costs of the project. In the December 2022 digital brochure, *Valley County's Growing Economy*, the Idaho Headwaters Economy Study Group uses information from the socioeconomic impact of the Stibnite Gold Project report by Powers Consulting Inc. to highlight how a strong local economy already exists and that financial costs of the mine outweigh the benefits. Most notably, the economic study group highlights how "[n]atural amenities attract economic vitality. The local economy has strengthened and supported long-run economic growth, as it ultimately has attracted people who want to move to the area" (Idaho Headwaters Economic Study Group, 2022, p. 1). The group makes it clear that an economy already exists and few are seeking jobs. Maintaining recreational areas has resulted in the local economy "thriving and the reason is because of its natural amenities: forests, lakes, rivers, fish and wildlife, and access to recreational opportunities and public lands" (Idaho Headwaters Economic Study Group, 2022, p. 1). Mining impacts imposed on local ecosystems would result in both degraded environments and economies.

Perpetua markets economic narratives arguing that growth and expansion that will benefit the surrounding communities, but the economic study group refutes this claim by stating "[t]he benefits of mine spending to Valley County are overstated. It is quite likely that the local economic benefits of the mine will be muted. The reason is there are fewer economic links between mines in remote settings and the local towns that might otherwise supply the mine with the things that it needs to run. Valley County is the physical location of the mine, but it will not retain much of the wealth being created" (Idaho Headwaters Economic Study Group, 2022, p. 4). The Nez Perce have also articulated concern how costs may exceed costs to the tribal community. They have repaired fish biodiversity and habitats while relying on fisheries to sustain their economy. Past extractive processes have resulted in "the decimation of fisheries [that] has seriously impacted the tribal economy" (Wheeler, 2020, p. 3). As opposed to the economic study group and the Nez Perce, Perpetua and regulators have articulated mainly positive impacts the Stibnite Gold Project will have on the local economy.

Local organizations hold a unique role in the permitting process since they are not seeking a permit nor are they regulating the permitting process. The category of local organizations is not intended to argue that all organizations participating in the political permitting process of the mine represent a singular stance on whether the mine should be permitted or not. However, it aims to challenge the notion that sustainability efforts are synonymous with the public good (Midas Gold, 2020). The Idaho Headwaters Economic Study Group is one challenge to this assumption. Local businesses, NGOs, and other types of organizations comprise about 50 organizations represented in this study group. This group hired Powers Consulting to carry out a socioeconomic analysis to understand

local and regional impacts the mining project would have on the community. The analysis emphasizes that the regional economy is rooted in natural amenities that rely on industries such as hospitality and recreation. An environmentally invasive project might cause ruin to local economic activity.

In the economic study group, local organizations articulate a primarily extractive land relationship by suggesting mining will cause damage to the natural amenities the regional environmental landscape offers for local economies. In Taylor's (2016), *The American Conservation Movement: Power, Privilege, and Environmental Protection*, she examines social relationships stemming from conservationist practice. For instance, the regular practice of violently removing Indigenous peoples from their homelands and relocating (eradicating many) for American conservation purposes changed how and who had access to relationships with the natural environment. In the case of local organizations expressing opinion about the Stibnite Gold Project permitting process, settler colonialism is reinstated by suggesting colonial control over lands is maintained. However, many local organizations also express resistance to settler colonialism. NGO, Idaho Rivers United, has expressed allyship with local tribal communities including the Nez Perce.

*Nez Perce*

The Nez Perce demonstrated careful review of the potential risks of the Stibnite Gold Project. For instance, they submitted a comprehensive public comment on the USFS DEIS and received Indigenous Environmental Network grant funding in October 2017 and February 2019 to hire mining environmental consultant, Jim Kuipers, to fully understand how the mine site might expose the Nez Perce community to risks (Indigenous Environmental Network, *Past Mini Grant Recipients - Overview of Projects Funded*, October 2017 and February 2019).

The Nez Perce were among around 10,000 public comments offering insights into the first environmental impact statement published in August 2020. The Nez Perce Tribal Executive Committee's, led by Shannon Wheeler, 121-page public comment was one of the most comprehensive. In the comment, the Nez Perce articulate a variety of risks the community is exposed to. First, ties to historical harm imposed on their community are articulated as risks to the community. These harms include the failure of federal governing bodies to recognize treaty rights, destruction of human-environment relationships, and abuses to human health. Opening their public comment the Nez Perce are cited saying, "the Tribe has endured immeasurable harm over the last two centuries as a result of misguided federal policies, exploitative resource extraction and land management practices, and broken treaty promises that have ignored our culture and threatened our way of life. Gold mining has played a particularly egregious and lasting role in this ignominious history of hardship and loss" (Wheeler, 2020, p. 2). Fear of experiencing repeated histories of colonial harm is articulated as a central concern of the tribal community. The Nez Perce return to the treaty rights articulating how these past

extractive actions have broken the law, “shortly after the 1855 Treaty was ratified, gold was discovered within the Tribe's homeland. Multitudes of prospectors, ignoring our treaty rights, illegally flooded our lands, stealing vast quantities of gold and other resources and befouling our pristine waters and sacred places. The United States, unwilling to enforce its treaty obligations and expel the gold-seeking trespassers, instead forced the Tribe to enter into a new treaty ("1863 Trcaty"). While the 1863 Treaty retains our fishing, hunting, gathering, pasturing, and travel rights, our Reservation was substantially reduced-opening to non-Indian settlement lands from which gold and other resources had been illegally taken” (Wheeler, 2020, p. 2). The Nez Perce are forced to consistently relive colonial harms. Regarding this specific study, Perpetua Resources and the USFS make it clear Indigenous rights have yet to move to the forefront of their agendas.

The Nez Perce have also articulated concern about how costs may exceed benefits to the tribal community. They have repaired fish biodiversity and habitats while also relying in fisheries to sustain their economy. Past extractive processes have resulted in “the decimation of fisheries [that] has seriously impacted the tribal economy” (Wheeler, 2020, p. 3). In addition to the Idaho Headwaters Economic Study Group and the Nez Perce, regulators have commented on impacts on the local economy.

Not only are the Nez Perce historically known for their environmentally and socially connected lifeways with the land, especially with salmon and waterways, but they have committed resources including large sums of financial resources to restoring the impacts of legacy mines. The Tribal Executive Committee articulates that “[t]he Tribe's DFRM spends conservatively $2.5 million annually restoring Chinook salmon

runs in the EFSFSR and SFSR. The Tribe's DFRM restoration activities include hatchery supplementation, fishery research, and watershed restoration" (Wheeler, 2020, 2nd p. 4). However, the Nez Perce have not just recently initiated relationships with the land stating "as the original inhabitants and stewards of this land, we are widely recognized for our commitment to restoring salmon, steelhead, and lamprey, and as a comanager and partner, for our active implementation of habitat restoration and hatchery actions in the Snake and Salmon river basins. Honoring our relationship to the fish, and all animals and plants inhabiting our cherished lands and waters, is fundamental to our identity and survival as Nimipuu-and will always remain our sacred and privileged duty" (Wheeler, 2020, p. 2). Land relationships initiated by Perpetua Resources and regulators that supposedly introduce *new* restoration practices to regional ecosystems fail to recognize the histories of good land relationships maintained by the Nez Perce. Nez Perce land relationships are a sacred commitment that extends beyond values and interests that drive detached well-intentioned sustainability and justice efforts facilitated by corporations and federal regulators.

Decision authority surrounding the Stibnite Gold Project leaves little room for entities to contribute toward the governance of the permitting process and even less room to address social systems of oppression. Despite holding the legal authority behind treaty rights, the Nez Perce have been given little space to contribute toward the formulation and application of risk frameworks: "Yet, as evident throughout the DEIS, the Forest's and Corps' analysis reflects an outrageous and deeply erroneous presumption that the Tribe's treaty-reserved rights must yield to Midas Gold's Project, even if the Project results in substantial, irreparable, and lasting harm to the Tribe's treaty rights and

resources for decades and perhaps longer. These unacceptable harms to our people are undisputed. The Forest arrived at these determinations in its own analysis for each action alternative in the DEIS" (Wheeler, 2020, p. 3).

Nez Perce thematic narratives on risk, economy, restoration, and decision authority provide deeper insight into how Perpetua Resources, regulators, and local organizations reinstate/resist settler colonialism through their respective risk frameworks. As discussed in the introduction, the Nez Perce conceptualize risk as *peril and damages*. Prolonged histories of legacy mines and ongoing colonial action have caused great peril to Nez Perce lifeways grounded in sacred, cultural, and spiritual connections to the land, which have been damaged. It is evident that the Nez Perce are proactive in addressing past and potential perils and damages. The Nez Perce have spent a high number of internal resources to mitigate the impacts of mining. They have also been forced to participate in settler colonial contexts by hiring an external consultant to provide "credible" evidence proving that impacts of the mine will harm the tribe and conflict with treaty rights. Four thematic narratives risk, economy, restoration, and decision-authority, present in the four actor's public discourse have deeper meaning for large-scale sustainability challenges like mining for renewable energy transitions, risk frameworks guiding sustainability processes, and sustainability and justice as fields of scholarship and practice.

# CHAPTER 5

## MEANINGS OF SETTLER COLONIALISM FOR SUSTAINABILITY

The results in this paper include empirical insights organized in four thematic narratives that were generated from a critical analysis of public discourse from Perpetua Resources, regulators (primarily the USFS), local organizations (primarily the Idaho Headwaters Economic Study Group), and the Nez Perce. Each section was concluded by an analysis of empirical evidence using settler colonial literature. Mechanisms of settler colonialism understood through settler moves to innocence (Tuck & Yang, 2012), logics of elimination (Wolfe, 2006), ecocide (Eichler, 2020), anticolonial land relationships (Liboiron, 2021), and recipient of impacts of anti-Indigenous technologies (la Paperson, 2017) guided the analysis of empirical evidence. Operationalizing these mechanisms of settler colonialism in the Stibnite Gold Project provided insights to how settler colonialism is being resisted and reinstated in the permitting process of the mine. Ultimately, Perpetua Resources and regulators facilitating the permitting process reinstated settler colonialism by erasing economic and restorative efforts that addressed legacy mine harms led by the Nez Perce, excluding risks to sacred, cultural, and spiritual connections to the land in risk frameworks, and undermining the legal authority of treaty rights with the Nez Perce. Actions led by local organizations, such as those carried out by the Idaho Headwaters Economic Study group, have often matched those of the Nez Perce. For instance, the Idaho Headwaters Economic Study group highlights the negative socioeconomic impacts on natural amenities that drive the regional economy which matches overarching Nez Perce interests to maintain local environmental health to sustain relationships with fish and their water habitats. Simultaneously, it is important to

recognize how local organization relationships with the land perpetuate colonial land relations. Proposing that lands are meant to provide for the regional economies highlights an intention to extract the economic opportunity it provides as opposed to building a long-term relationship with the land. Nez Perce efforts to resist settler colonialism have existed for centuries amid Western colonial efforts to eliminate Indigenous land relationships through actions of genocide, stealing land, and oppressive colonial policy. Considering colonial histories the Nez Perce have been forced to participate in settler colonial contexts to survive and accommodate settler colonial desires. These empirical and analytical insights have a deeper meaning in mining efforts for renewable energy transitions.

It's evident that the Stibnite Gold Project is not the only mine site in conflict with Indigenous land relationships as evidenced both by scholarly (Voyles, 2015) and public discourse (Rannard, 2022; Redniss, 2020; Simpson, 2022). Rising tensions behind the urgencies of climate change and social inequity highlight historical, ongoing, and upcoming realities for Indigenous communities. Whyte (2019) argues it might be too late to achieve justice for Indigenous communities considering the urgency behind globalized climate efforts and the lack of urgency to address colonial relationships with Indigenous communities. Conflicts for raw materials to meet the demands of the renewable energy transition will continue to be confronted with the needs of Indigenous communities being continually unmet if Indigenous and colonizer relationships are not addressed.

As evidenced by the public discourse on risk in the Stibnite Gold Project, current corporate and regulatory risk frameworks are not enough to engage Indigenous interests. Stakeholder engagement is a strategy articulated by corporate interests, regulators, and

scholarship as a way to incorporate diverse interests into the impacts of corporate operation, regulatory processes, and scholarly insight. However, according to the public documents by representatives of the Nez Perce relationships with Perpetua Resources and the USFS are not grounded in relational characteristics of active listening, transparency, and reciprocity. For risk frameworks to achieve the fundamental characteristics of sustainability and justice what and who is sustained through the understandings and measures of risk must be made clear. For example, SASB and GRI ESG frameworks aim to create corporate risk standards to expand shareholder risk analyses beyond financial measures. To do this, these ESG risk standards often seek to not only create shareholder value, but stakeholder value. Creating stakeholder value requires that extractive companies like Perpetua recognize tribal treaty rights and learn from decades to centuries of Indigenous land relationships. Sustaining patterns of energy consumption and production have and will continue to require the breaching of tribal sovereignty in the United States and other cases globally. Regulators applying environmental thresholds to determine if the mine stays below healthy levels of pollution ignore the political primacy of treaty law and international conventions (i.e. the UNDRIP).

Stakeholder engagement processes must move beyond current practices that define Indigenous communities, the Nez Perce, as "another" stakeholder. Indigenous communities in the United States and globally hold distinct treaty rights and sovereign powers different from other stakeholders. ESG standards such as those articulated by GRI document the relevance of "entities or individuals whose rights under law or international conventions provide them with legitimate claims" (GRI, 2016, p. 8). Yet, contemporary stakeholder engagement practices fail to honor the merit of Indigenous

rightsholders who hold federally and internationally defined rights. Stakeholders are assumed to encompass shareholders, employees, local communities, rightsholders, and other relevant societal individuals and groups. However, it's clear that current identifications of stakeholders don't adequately delineate the differences rightsholders have from other types of stakeholders. This paragraph uses the word stakeholder eight times. Like this paragraph, corporations and regulators frequently use the term. However, little awareness of the practice's diverse meaning reduces the complexity behind the broad concepts 'stakeholder' (nine times now…) and 'engagement'.

Reinstatements of settler colonialism evident in the Stibnite Gold Project sustains injustice while promoting an idea of sustainability that requires a supply of antimony for solar storage batteries vital for the renewable energy transition. Findings from this study of public discourse on the permitting process of the Stibnite Gold Project elaborates on larger sustainability questions considering the possible co-existence and/or synergistic relationship between sustainability and justice. It's worth questioning the efficacy of *sustain*ability outcomes that also *sustain* injustice. Perhaps, the assumption that mining "4.238 million ounces of gold, 1.710 million ounces of silver, and 115.342 million pounds of antimony" will make the a world a better place, *a more sustainable place*, at the cost of injustice must be challenged. (USFS, 2022, p. ES-8)

CHAPTER 6

# CONCLUSION

Demands for critical minerals required to build green technologies such as solar storage batteries are increasing. Green technologies are considered significant risk mitigation tools in addressing climate change. Mines in the United States require federal regulatory oversight of the permitting process. Actors influencing the mine-permitting process carry different values and interests that guide their position on whether or not the mine should be permitted. Actors, including federal regulators, use varying understandings and applications of risk to measure impacts of potential mining projects. Increasingly, risks associated with mining critical minerals have disproportionately been placed on Indigenous communities. Studying mining projects central to demands for green technologies offers knowledge both about notions of risk associated with mining projects for critical minerals and generalizable insight into approaches toward sustainability and justice. This case study of the Stibnite Gold Project was guided by three research questions: 1) What values and interests are driving conceptualizations of risk in the Stibnite Gold Project? 2) What key characteristics shape the risk strategies of four key actors that inform how and which sustainability goals are achieved? 3) How do settler colonialism and risk management shape each other?

A case study of the Stibnite Gold Project attends to the mine's permitting process and presents different perspectives surrounding the upcoming mine permitting decision grounded in Perpetua Resources, key regulator (i.e. the USFS), key local organizations (i.e. Idaho Headwaters Economic Study Group), and Nez Perce values and interests. The text highlighted key histories of the Stibnite Gold Project and the permitting process

guiding the decision as to whether or not Perpetua Resources can mine antimony, gold, and silver. By facilitating the permitting process of the mine using risk frameworks federal regulators intend to preserve and ensure mine actions achieve the public good. However, there is disagreement around who and what is included in the public good. Public discourse on the Stibnite Gold Project provided evidence for which values and interests shaped approaches to risk, what characteristics shape risk frameworks specific to each actor, and how settler colonialism manifests in understandings of risk providing data to carry out a critical discourse analysis.

Empirical findings from the analysis of key public discourse on the Stibnite Gold Project generated insights that the mine permitting process facilitated by the USFS embodied actions to reinscribe and reinstate settler colonialism. Following a review of literature on settler colonialism, the analysis highlighted how reliance on experts and government officials undermine Indigenous voices and financial/economic thinking drives understandings of risk limiting who and what is included in the public good. For instance, approaches to risk driven by settler colonialism are limiting to certainties of some kinds of damage. Rhetoric by Perpetua Resources and regulators downgrade tribal rights to mere interests. Positions on the permitting decision derived from understandings of risk imply that everything is open to trade-offs. Foregrounding ecological values more than relational/spiritual reproduce known settler colonial actions and behaviors such as settler moves to innocence and logics of elimination.

Empirical and analytical findings from public discourse on the Stibnite Gold Project have specific implications for mine-permitting processes and approaches to sustainability and justice more broadly. Conceptualizing (in)justice requires a

fundamental understanding of how patterns of settler colonialism manifest. Settler colonial mechanisms distort views of the public good. However, further opportunities for resistance to settler colonialism exist in corporate and regulatory approaches to stakeholder engagement, current US SEC conversations about ESG policymaking, and how Indigenous values and interests are included in risk frameworks. Findings suggest that clearer delineations made between rightsholders and other stakeholders, ensuring Indigenous values and interests are included in definitions of risk, and exploring which reformative and transformative contemporary risk management strategies are possible, increases the possibility of settler colonialism being resisted.

Critically engaging contemporary conceptualizations of risk pushes for a rethinking of what and who is being sustained. Recent pushes for renewable energy and other sustainability transitions carry intentions to not only *sustain*, but consider (in)justice. However, contemporary understandings and applications of risk in the Stibnite Gold Project fail to critically consider and integrate justice. Perpetua Resources, the USFS, and other key corporations and regulators connected to the potential permitting of the Stibnite Gold Project are *sustaining* injustice via settler colonial mechanisms. This study offers evidence that contemporary risk strategies are unsustainable and unjust, falling short of the public good. Empirical and analytical insights highlight Beck's notion of *risk society* that engages societies ongoing and perpetual relationship to risks that are self-imposed (Beck, 1992, 1996). Contemporary notions of risk offer limited perspectives to sustainability and justice. If risk frameworks cannot become more comprehensive to consider risks driven by settler colonialism and other intersecting systems of oppression,

perhaps strategies grounded in traditional notions of risk are not going to achieve a sustainable and just public good.

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