



The Pebble Mine Dialogue: A case study in public engagement and the social license to operate



Elizabeth A. Holley^{a,*}, Carl Mitcham^b

^a Department of Mining Engineering, Colorado School of Mines, 1600 Illinois Street, Golden, CO 80401, United States

^b Division of Liberal Arts and International Studies, Colorado School of Mines, 1005, 14th Street, Golden, CO 80401, United States

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ABSTRACT

The Pebble gold–copper–molybdenum deposit is a controversial mining project in the headwaters of the Bristol Bay salmon fishery, Alaska. As a member of the Pebble Limited Partnership, the mining company Anglo American sponsored a public engagement exercise to help stakeholders decide whether and how the deposit should be mined. The independent Keystone Policy Center facilitated the dialogue, which positioned science as a means of enhancing public rationality. Stakeholders for and against the mine reviewed the mining partnership's environmental baseline study data but did not reach consensus on whether risks posed to the salmon fishery were too great. Anglo American left the partnership, and the Pebble Dialogue was not completed. The final planned phase of the dialogue involved collaborative community–company mine planning in what would have been a high-impact mechanism of CSR, but negotiations of the risks and benefits to stakeholders did not take place. The mining project has not achieved social license, although the Pebble Dialogue offers some components that should be considered in future public engagement exercises.

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1. Introduction

The Pebble deposit is one of the largest known accumulations of gold and copper in the world. Pebble is located in the Bristol Bay region of Alaska, in the headwaters of a salmon fishery known for subsistence, commercial and sport fishing. Because of its location, there is major controversy about whether the deposit should be mined. Southwest Alaska is a seismically active area, and the chief environmental concern is that earthquakes could potentially cause leakage of acidic and metal-rich waters from the mine with ensuing damage to the downstream salmon habitat. Opponents to the mine have framed the debate as a choice between salmon and mining; a popular anti-Pebble slogan depicts a mining haul truck driving over a large fish. In a video on its website, the mining company counters, "...we don't have to choose between fishing and mining. Here in Alaska, we can have both" (PLP, 2011).

The Pebble deposit is under consideration for development by the Pebble Limited Partnership (PLP), which formerly comprised the mining companies Northern Dynasty Minerals Limited and Anglo American PLC. In 2007, Anglo American initiated a stakeholder engagement exercise on behalf of the PLP to discuss whether the Pebble deposit should be mined, and if so, under what conditions. Shortly

thereafter, Anglo American CEO Cynthia Carroll stated that the company would not build the mine without support from a majority in the community (Warner, 2008). The present contribution focuses on the controversy that surrounds the Pebble mining project and the architecture of the public engagement exercise. The efficacy of that exercise is evaluated in the context of the social license to operate, corporate social responsibility, and science–society engagement in pursuit of the public good.

1.1. Social license to operate and corporate social responsibility

This analysis frames the question of whether stakeholders support development of the Pebble deposit as an issue of *social license*, and discussion of how the mine could be constructed to meet community approval as a matter of *corporate social responsibility*. In the mining industry, the social license to operate refers to community consent on the mining operation. Modern use of the term originated in 1997 at a World Bank meeting, when a former mining executive described the ability of communities to stop mining projects (Boutilier, 2014). Joyce and Thomson (2000, 2002) used the term to refer to situations in which a mining company has "the broad acceptance of society to conduct its activities." This is distinct from regulatory approval, for which the criteria may or may not be aligned with stakeholder or community interests. Discussion of whether regulatory authorities should legally permit the mine is outside the scope of this paper.

* Corresponding author.

E-mail address: eholley@mines.edu (E.A. Holley).

In one sense, obtaining social license is a voluntary practice in the United States. However, examples exist in which the views of the local community played a strong role in regulatory response (e.g. Campbell and Roberts, 2010). For comparison, in Finland and Sweden, public participation is required in the environmental impact assessment stage of the permitting process (Söderholm et al., 2015), and Craynon et al. (2013) advocate that public involvement should be a meaningful part of the permitting process in the United States. Regardless of whether public approval influences the legal process, operating without public or local support can be very difficult and expensive, and numerous examples point to the business case for social license as a method of managing social risk (e.g. Joyce and Thomson, 2000; Boutilier et al., 2012; Prno, 2013).

Boutilier et al. (2012) describe three critical elements of corporate strategy to achieve social license: stakeholder concerns, shared goals, and support for the role of the mining operation in community prosperity. Corporate social responsibility (CSR) is a framework in which companies may conduct such strategic actions in pursuit of social license (Prno and Slocumbe, 2012). Corporate social responsibility is broadly defined as activities by which companies aim to do well by doing good, for either the purposes of profit maximization or benefits to society (Blowfield and Frynas, 2005). Strategies in CSR have historically focused on calculated philanthropic activities that raise the environmental or social profile of the company but are distinct from its core practices (Auld et al., 2008; Kemp and Owen, 2013). However, recent trends in CSR center on internalizing negative externalities by adherence to more stringent environmental and social standards within the firm's given industry (Auld et al., 2008). The key distinction is that such activities are integral to and require reformation of core business practices (Auld et al., 2008). The mining and oil and gas sectors have been particularly progressive in the development of "new CSR" practices worldwide, largely owing to the degree of public criticism faced by extractive industries during expansion into the developing world (Hilson, 2012; Rolston, in press). The Pebble Dialogue merits examination as an example of a mining company initiative to obtain social license and identify CSR activities, via the mechanism of a stakeholder engagement exercise.

1.2. Public engagement with science

Tensions have long existed between the democratically defined public good and the market-based exploitation of natural resources identified by science. The twentieth century, especially in its second half, witnessed the rise of concern about how best to claim the expected benefits and avoid the unintended negative consequences, intellectual and social, of science. Nuclear and other weapons threatened mass destruction; environmental pollution created unintended health risks for humans and the biosphere; biomedicine gave rise to dilemmas about the quality of life and the meaning of death; computers and information technology raised questions about communication and privacy. More generally, scientific research, engineering practice, and market development often appeared to undermine the informed consent of democratic publics to the technological consequences of science. New and emerging sciences and technologies such as genetic engineering and nano-scale materials research and design destabilized socio-cultural traditions of regulation and control. What early social scientists and philosophers had initially identified as the somewhat neutral challenge of "cultural lag" (Ogburn, 1922) became the question of how justly to distribute risks from these pursuits instead of benefits (Ulrich, 1986; Giddens, 1990). In response, there emerged a variety of movements to increase public intelligence through engagements in decision making related to science and technology.

Early in the twentieth century, pragmatist John Dewey argued for the social adoption of a model of inquiry that would re-appropriate science for general social benefit. From this perspective,

humanistic interest is the proper basis for focusing scientific investigations of nature; the knowledge of nature thus produced is properly used to support distinctly human ends (e.g., Dewey, 1916, Sections 21, 1). Dewey himself sought to address the problem primarily through educational reforms that would both ground research experience in the pursuit of social goods and extend scientific understanding throughout society. The goal was ultimately to enhance public intelligence and rationality in both the selection of means and the reformation of ends. Dewey further promoted whenever appropriate the development of social movements to engage publics with science.

The Pebble Dialogue is a case study in public engagement with science. The exercise was designed with two goals: to help stakeholders decide whether to award social license, and if so, to determine how the mine could be designed to facilitate mitigation of community risk and capture of community benefits. Throughout the dialogue process, science was framed as the arbitrator of the public good. However, the planned community-company negotiation of risks and benefits did not take place, which severely limited the efficacy of the public engagement exercise.

The following sections introduce important background information about the Pebble deposit, the mining companies involved, the other stakeholders, and the major issues in the discussion of whether or not the deposit should be mined. The practical elements of the public engagement exercise are outlined, supplemented by an overview of key recent events. Building on this background, the dialogue is contextualized in the sphere of community-company engagement, and implications for social license and corporate social responsibility are discussed.

2. Background

2.1. The Pebble deposit

The Pebble deposit is located inland of Bristol Bay, Alaska, roughly two hundred miles southwest of the city of Anchorage (Fig. 1). Pebble consists of two adjacent porphyry mineral deposits: Pebble West, which is a shallow resource amenable to open pit mining, and Pebble East, a deeper and higher grade resource that would likely require bulk tonnage underground mining methods. Exploration of the two deposits has identified a combined measured and indicated resource of 55 billion pounds of copper, 67 million ounces of gold and 3.3 billion pounds of molybdenum. An additional resource of 26 billion pounds of copper, 40 million ounces of gold and 2.3 billion pounds of molybdenum is inferred (Northern Dynasty, 2010). The initial capital cost for the entire mining project is projected to be US \$4.7 billion (Wardrop, 2011). The mineral resource is located on state land that is designated for mineral exploration and mine development. The elevation is roughly 1000 feet above sea level, and the permafrost-free terrain consists of rolling, subarctic tundra in the headwaters of Bristol Bay, which is one of the world's most productive sockeye salmon fisheries.

2.2. The mining companies

From 2007 to 2013, the Pebble Limited Partnership comprised the mining companies Northern Dynasty Minerals Limited and Anglo American PLC, operating in a 50:50 partnership with equal representation on the PLP board of directors. Anglo American is headquartered in London and publically traded on the London and Johannesburg stock exchanges, ranking fifth worldwide in mining revenue in 2013. Anglo American operates mines on five continents, specializing in coal, iron, manganese, nickel, copper, diamonds, and platinum group elements. Northern Dynasty is a

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