Chuitna Coal Mine Prospect

by Bretwood Higman, Damien Tougas, Erin McKittrick, David Coil

LAST MODIFIED: 12TH AUGUST 2019
CREATED: JAN. 19, 2018



Copyright: Creative Commons Attribution

Table of Contents

1. Summary
2. Project Area
3. Coal Potential
4. Project Infrastructure
5. Potential Environmental Impacts
6. Potential Economic Impacts
7. History
8. Current Status

A journey to Chuitna (/blog/?p=1138)

_

…We began with a mission to look for coal. And we found a little. But as soon as we stepped away from the scattered coal boulders in the Chuitna River, it disappeared - hidden deep beneath the surface.

We walked into a patchwork of grassy meadows, beaver ponds, birch savannah, and wetlands. In mining parlance, ours was a journey on the “overburden” - the stuff that sits on top of the stuff you want to mine…MORE (/blog/?p=1138)

_

Copyright: Creative Commons Attribution

News: In April 2017, this project was shelved by the developers due to a lack of investment. This page will no longer be updated but will remain here for reference.

Summary

The Chuitna coal prospect is a proposal by PacRim Coal (http://www.chuitnacoalproject.com/) to build a large strip mine (CoalMining.html) on the western side of Cook Inlet (http://en.wikipedia.org/wiki/Cook_Inlet), near the Chuitna River (http://en.wikipedia.org/wiki/Chuitna_River_%28Alaska%29) and the communities of Tyonek (http://en.wikipedia.org/wiki/Tyonek,_Alaska) and Beluga (http://en.wikipedia.org/wiki/Beluga,_Alaska). If built, the project is expected to employ around 350 people, and provide (http://www.chuitnacoalproject.com/economicbenefits.html) over hundreds of millions in tax revenue to the state of Alaska and the Kenai Peninsula Borough over 25 years. The proposal is opposed (http://peninsulaclarion.com/stories/012011/new_773556035.shtml) by many local residents and environmental groups - who are concerned about the project's local impact on fish, wildlife, and human health, and about the global impact of increased coal use.

Copyright: Creative Commons Attribution

Project Area

The Chuitna Coal mine would cover about 8 square miles of undeveloped land (5,050 acres) - a landscape of rolling hills, currently covered in a mix of birch forest and low wetlands with spindly black spruce. The southwestern edge of the mine area is less than two miles from the Chuitna River (also known as the Chuit), one of the major salmon rivers of Cook Inlet. There is currently no road access to the area. If the mine is built, access would be via an air strip and a road from the mine to a port on Cook Inlet.

The land at the proposal site is owned (http://dnr.alaska.gov/mlw/mining/largemine/chuitna/index.htm) by a number of different parties. The lease itself is on Alaska Mental Health Trust land, most of the proposed coal conveyor corridor would run through Tyonek Native Corporation Land (http://www.tyonek.com/) with possibly a portion passing through Cook Inlet Regional Corporation (http://www.ciri.com/) land. The Kenai Peninsula Borough (http://www.borough.kenai.ak.us/) owns the proposed port site at Ladd Landing. In total, PacRim leases cover about 30 square miles in the area (20,571 acres) and include two other potential mine sites beyond the current Chuitna proposal.

Copyright: Creative Commons Attribution

Coal Potential

PacRim estimates (http://www.wtcak.org/PDF/Stiles-WTCAK.pdf) coal reserves at Chuitna to be about 300 million metric tons, and expects production of up to 12 million metric tons (MT)/year, over a 25 year mine life. This rate of production would make Chuitna the fourteenth largest coal mine in the country, and the largest coal strip mine in Alaska history. Usibelli Coal Mine Inc (UsibelliCoalMine.html), the only currently active coal company in Alaska, produced 1.8 million metric tons of coal in 2009, and has estimated its reserves at 700 million metric tons. The coal at both Usibelli and the proposed Chuitna mine is low-grade subbituminous coal that is low in sulfur, like much of Alaska's coal (/Issues/AlaskaCoal/TypesOfCoal.html). Although it has less energy per ton than higher-grade coal, the low sulfur makes it desirable for power plants looking to reduce their sulfur dioxide (acid-rain producing) emissions.

Ground Truth at the Chuitna Prospect

READ ARTICLE (/Journeys/WildCoast/ChuitnaExcerpt.html)

_

Copyright: Creative Commons Attribution

…Ten miles from Beluga, we switchbacked on our skinless skis to the top of a small and rounded hill, covered with twisted birch. All around us similar hills popped up from a rumpled landscape of frozen wetlands, meadows, and ponds. It could all become a strip mine….

…Only a few small clues hinted at this land's potential future: orange survey stakes, a weather station, the landing tracks of a helicopter surrounded by snowshoe prints from biologists checking a fish-trap, stray bits of bright pink flagging tape. It was hard to imagine what it might become….

–

The Chuitna proposal calls for a surface (open pit) mine (CoalMining.html), which would involve dewatering the area, plowing up the vegetation, and removing the topsoil and rock layers that cover the coal. Therefore all original ecosystems, streams, and lakes within that 8 square miles would be destroyed, including salmon spawning habitat in several tributaries of the Chuitna River. One salmon spawning stream runs for approximately 13.7 miles through and alongside the mining pit. To date, no permit allowing mining directly through a salmon stream has ever been issued by the Alaska Department of Natural Resources (http://dnr.alaska.gov/). Such a permit would be precedent-setting.

Alaska currently obtains (/Issues/AlaskaCoal/AlaskaCoalPower.html) only a small fraction (less than 10%) of its energy from coal, using less than a million metric tons of

Copyright: Creative Commons Attribution

coal per year. All of this coal is supplied by the Usibelli coal mine, which also exports nearly half of the coal it produces (AlaskaCoalExports.html), mainly to Asian markets. Therefore, if no new coal-burning facilities are built in state, Chuitna coal would also be exported. However, if proposals such as the Beluga coal-to-liquids plant (BelugaCTL.html) or the Tyonek coal-to-liquids plant (/Issues/AlaskaCoal/TyonekCTL.html) are developed, in-state demand for coal could consume nearly all the coal supplied by Usibelli and Chuitna.

Project Infrastructure

In addition to the mine pit, the Chuitna Mine would include an airstrip, worker housing facilities, and coal crushing facilities. From the mine, the coal would run along a 8-mile long conveyor belt to a storage facility at Ladd Landing on the shore of Cook Inlet. The storage facility could hold up to 500,000 tons of coal. From there, it would be loaded onto ships from a proposed 2 mile long dock protruding into the inlet. The project would require (http://www.legis.state.ak.us/basis/get_documents.asp?session=26&docid=8601) 10-20 MW of power (/Issues/MetalsMining/Powering-Large-Mines-In-Alaska.html) which would come from the nearby grid via a new six-mile long line.

Copyright: Creative Commons Attribution

Potential Environmental Impacts

Local Impacts

In addition to the destruction of the ecosystems immediately within the 8 square mile mining area and supporting facilities, there is the potential for impacts to the surrounding areas and their subsistence lifestyles (/Issues/OtherIssues/Subsistence.html). According to PacRim's permit applications the Chuitna Mine would discharge an average of over 7 million gallons of mine runoff per day into several tributaries of the Chuitna River. This waste water will contain a number of pollutants, including organic carbon, assorted suspended solids, ammonia, nitrates, oil and grease, and metals including aluminum, iron, and manganese.

(/PhotoGroups/Chuitna-Coal-Journeys/?image_id=3041)

Visit our slideshow of photos from the Chuitna area

In an effort to keep pollutants and sediment out of downstream waters, mine runoff will be routed through settling ponds. Water warmed in these ponds could reach temperatures too high to support salmon in downstream waterways. Additional impacts to salmon in the Chuitna and its tributaries could come from the large changes to the hydrological balance of the river, and from any escaped pollutants.

Copyright: Creative Commons Attribution

The Chuitna is an important salmon river in the region. In 2009, the Chuitna River was the only river on the west side of Cook Inlet open to king salmon fishing, due to low returns elsewhere. Based on the threat of the proposed mine, American Rivers placed the Chuitna on its most endangered rivers list (http://www.americanrivers.org/newsroom/resources/americas-most-endangered-rivers-report-2007-edition/) in 2007.

Coal dust could be blown across the landscape from the 8-mile long coal conveyor belt, and from the coal storage facility at Ladd Landing. In the 1990 EIS (http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/Chuitna+Coal) for Chuitna, it was estimated that over 200 tons of dust would blow from the storage facility each year. Under the current plan, the conveyor belt would only be covered on the top and along one side (additionally covered on the bottom over stream crossings), and the coal storage stockyard would contain hundreds of thousands of tons of uncovered coal. There have been numerous problems with this method of coal storage at the far-smaller coal stockyard in Seward (/Issues/AlaskaCoal/SewardCoalPort.html). This dust could cause health problems for local human residents, as well as wildlife. Additionally, the structures and traffic at the landing facility could impact the endangered beluga whales, migrating salmon, or other marine life in the inlet.

Coal mines are required to reclaim the land after mining (CoalMineReclamation.html), which generally includes (http://dnr.alaska.gov/mlw/mining/coal/index.htm) regrading to approximate the original surface contour, and establishing plant

Copyright: Creative Commons Attribution

cover. Ecosystem standards such as salmon habitat and wetland characteristics are not necessarily included, so the post-mining land may not have the same habitat values as the current land. Based on this, a group of Chuitna opponents applied to have the land designated as “Unsuitable Lands” for mining (http://dnr.alaska.gov/mlw/mining/coal/chuit/) by the Alaska Department of Natural Resources. The application was denied (http://www.petroleumnews.com/pntruncate/133495000.shtml) then reconsidered, then rejected in 2011 (http://dnr.alaska.gov/mlw/mining/coal/chuit/72613_Commissioner_Decision_on_Request_for_Reconsideration_Chuitna_LU

Burning coal creates a number of toxic byproducts, including solid waste such as fly ash (CoalCombustionWastes.html), and atmospheric pollutants such as nitrogen oxides and mercury (CoalMercury.html). The coal from Chuitna will create additional pollution that may impact waterways, wildlife, or human health wherever it is burned.

Global Impacts

Wherever the coal from Chuitna is used, emissions from coal burning will be released into the atmosphere. A number of these pollutants have a global reach, including the project’s mercury (CoalMercury.html) and thecarbon dioxide (CO 2). (/Issues/AlaskaCoal/potential-co2-emissions-of-the-susitna-beluga-coalfield.html)

(/PhotoGroups/Chuitna-Coal-Journeys/?image_id=3022)

Copyright: Creative Commons Attribution

The Chuitna Coal Mine prospect sits on a complex ecosystem of forests, meadows, and wetlands - “overburden” above the coal. Click to visit slideshow.

Potential Economic Impacts

PacRim estimates (http://www.wtcak.org/PDF/Stiles-WTCAK.pdf) that mine construction would require 300 workers, and around 350 would be employed to operate the mine. It also estimates that over $350 million in royalties could be paid to the state of Alaska over the estimated 25 year life of the mine.

In addition to the jobs and tax revenue, the economic impact of development at Chuitna includes its costs to other industries, and costs that are incurred through taxes and health care expenses. The sum of these costs and benefits is the project’s “true cost.” (/Issues/OtherIssues/TrueCost.html)

Some commercial fishermen who operate set-net fisheries (/Issues/Fisheries.html) in the area of the proposed landing and dock would be directly displaced by the development. The loss of aesthetic quality and possible pollution in the area has the potential to cause job loss for other commercial fishermen and tourism operators in the immediate area and in Cook Inlet as a whole. All mines are required to post a bond for cleanup of a mine site in case of environmental damages that occur after the mine is abandoned, or when a company is bankrupt. If these funds prove inadequate, taxpayers pay the expense (such as

Copyright: Creative Commons Attribution

through the Superfund cleanup program). Taxpayers also pay the hidden economic costs (/Issues/OtherIssues/TrueCost.html) associated with many of the environmental and health impacts.

While the project would bring some economic benefits to the region, a study (http://inletkeeper.org/resources/contents/net-public-benefits-of-the-chuitna-coal-project/view) released in October 2011 calculated that the potential "true cost" (/Issues/OtherIssues/TrueCost.html) of the project could be up to six times as much as the direct benefits.

(/PhotoGroups/Chuitna-Coal-Journeys/?image_id=3069/)

Many local residents, like the Heilmans, are strongly opposed to the Chuitna Coal Mine. Click on photo to visit slideshow

History

Interest in exploiting the resources in the Beluga Coal Fields has waxed and waned over the decades since the late 1960s, with the lease passing through a succession of corporate hands. A previous project design was evaluated in an Environmental Impact Statement (EIS) and permitted by most of the applicable state and federal regulatory programs in the early 1990s, but was abandoned due to a fall in coal prices In 2006, PacRim Coal submitted a new permit application to the EPA for water discharges from the proposed mine. The permit was approved, then invalidated in court. The EPA required PacRim to submit a Supplemental EIS for the Chuitna project. Scoping for the SEIS

Copyright: Creative Commons Attribution

was completed in August 2006, but the final SEIS has not yet been produced, and the complete set of permit applications has not been filed.

In March 2010, Tyonek Native Corporation granted access easements (http://www.chuitnacoalproject.com/localagreements.html)across their lands to PacRim. During 2010 and 2011, PacRim completed a number of the baseline environmental studies required by permitting agencies and was in the process of preparing the SEIS and information required by the Alaska Surface Mining Control and Reclamation Act (ASMCRA) (http://touchngo.com/lglcntr/akstats/STATUTES/Title27/Chapter21.htm). In August 2010, PacRim applied for a 2-year extension to their existing exploration permits in the area. Beginning in October 2010, the USACE (http://www.usace.army.mil/) assumed the role of lead agency for preparation of the SEIS required for the proposed project. As of late 2012 PacRim had yet to submit a complete permit application package for the Chuitna Coal Project to DNR. The Draft SEIS is projected to be released in 2013.

Current Status

This project was shelved in April 2017 *[CO

```
2
]: carbon dioxide
```

Copyright: Creative Commons Attribution

Further Reading

> Chuitna Coal Project Supplemental Environmental Impact Statement (SEIS) page (http://www.chuitnaseis.com/)

> Cook Inletkeeper page on the Chuitna Coal Mine (http://inletkeeper.org/energy-and-alaska/coal/chuitna-coal-strip-mine)

> "Net Public Benefits of the Chuitna Coal Project" (2011) prepared by the Center for Sustainable Economy. (http://sustainable-economy.org/wp-content/uploads/Final-Report-9-30.pdf)

> Chuitna page at Alaska DNR (http://dnr.alaska.gov/mlw/mining/largemine/chuitna/index.htm)

> Wikipedia page on the Chuitna project (http://en.wikipedia.org/wiki/Chuitna_Coal_Project)

> Chuitna Citizens Coalition (http://www.chuitna.org/)

> "Chuitna Coal Project website by PacRim Coal (http://www.chuitnacoalproject.com/)

Copyright: Creative Commons Attribution