Cultural Impact Assessment

Of

Escarpment Mine Project

31 July 2010

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Photo 1 (coverpage) The Danniston Plateau

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Ngai Tahu have a long association and involvement with the catchments of Te Tai Poutini. The Crown initially recognised this significance in the nineteenth century with the granting of a number of reserves and more recently with the enactment of the Te Runanga o Ngai Tahu Act 1996 and the Ngai Tahu Claims Settlement Act 1998. As manawhenua, the papatipu runanga, Te Runanga o Ngati Waewae, believes that it has a responsibility to assess how any activity impacts upon their cultural values.

L&M Coal Limited (L&M) is applying for an Access Arrangement to mine coal from the Escarpment Mine Project (the EMP).
The EMP is located on the southern edge of the Denniston Plateau, and is approximately 13km to the east of Westport and approximately 4km to the south of Denniston .
L&M owns Exploration Permit 40628 which covers the area (and a much larger area) and has applied for a Mining Permit. The application has been lodged and is being processed by Crown Minerals under the reference number 51279 .
The land required for the EMP area is classified as Conservation Area which is for conservation purposes as set out under the s62 of the Conservation Act. The land unit is termed Conservation Area - Mount Rochfort and is defined as being a Stewardship Area under s25 of the Conservation Act.

Traditional management was founded on a set of cultural values that arose from the Poutini Ngai Tahu worldview. These cultural values include a set of principles upon which the relationship between people and the environment must be based in order to sustain balance between the needs and demands of humans and the health of the natural world that sustains them. The principles described in this CIA are significant elements of the Poutini Ngai Tahu worldview which, when understood together, approximate the non-Maori concept of “sustainable management”.

Te Ao Maori - the Maori world - emphasises the principle holism (Crengle, 2002) which requires consideration of the environment as a whole – and not as component parts. Many documents produced by or on behalf of Ngai Tahu explain how Ngai Tahu existed in harmony with Papatuanuku (Mother Earth), understanding the cycle of life. Holism in the context of freshwater ecosystems requires a consideration of the catchment. To Poutini Ngai Tahu, however, an entire catchment is greater than the sum of the parts. Surface waters, groundwaters and wetlands all need to be considered within an integrated management framework.

Ngati Waewae, as Tangata Tiaki, are responsible for ensuring that taonga are passed on in as good a state, or indeed better, to the generations that follow. This means that when considering the effects of mine development Ngati Waewae will consider the impact on the long-term health of the waterways and the needs of future generations. They are likely to seek monitoring of environmental health to ensure adverse impacts, no matter, how minor, are not experienced.

Numerous sites of significance are found across Te Tai Poutini and this legacy, left by the region’s original inhabitants hundreds of years ago, remains of spiritual and cultural importance. According to Ngati Waewae the lands, waters, ecosystems, and Ngati Waewae whanau whanui

are interrelated with bonds that should not be broken. In both their whakapapa and their physical presence on the landscape, maunga, the vegetation and the rivers invoke a sense of awe.

Historical events however have shaped and changed Ngati Waewae cultural and spiritual values. As Ngati Waewae became integrated into European society, then the New Zealand economy, changes occurred. The original "economy of trade" overtime became a set of cultural beliefs fashioned by reactions to the economic and assimilative forces that became increasingly powerful in their lives as they witnessed developments that modified resources, sites of significance including valued landscapes. Because of their place in the whakapapa of Kai Tahu, maunga, the whenua and the waters of Te Tai Poutini are highly valued. This is the spirit with which many Ngati Waewae view Te Tai Poutini today. While it may not be possible to avoid remedy or mitigate all the impacts of the proposed mine development on the values of Poutini Ngai Tahu, discussions with Te Runanga o Ngati Waewae, as the papatipu Runanga, needs to continue.

Priorities of Ngai Tahu include the following:

- Protecting the headwater streams that flow from maunga.
- Protecting the many small aquatic resources including streams, wetlands and springs.
- Rehabilitating degraded lands and waters
- Negotiating an Accidental Discovery Protocol;
- Protecting the opportunity to enhance mahinga kai habitats; and
- Protecting indigenous biodiversity, in particular taonga species.

Ngati Waewae are committed to:

- supporting abundant mahinga kai resources, particularly in important wetlands, backwaters, and tributaries;
- protecting the quality of the waters of Te Tai Poutini;
- protecting wahi tapu / wahi taonga;
- protecting cultural landscapes;
- ensuring variability in West Coast river levels;
- providing a sufficient buffer, or safety margin, to mitigate against the adverse effects of changing land uses on the waters of Te Tai Poutini;
- enhancing access throughout the catchment;
- addressing issues relating to changing land uses in catchments.

When assessing the impact associated with the Escarpment Mine Project Ngati Waewae want to see the following adverse effects avoided:

- Any deterioration to the quality of water – monitoring needs to confirm improvement;
- Unnatural changes to the sediment flow and patterns of deposition – monitoring needs to confirm no adverse impacts. Monitoring of the catchment and streams is particularly important;
- Any encroachment of adjacent land uses onto, river margins and streambeds;
- Any dewatering or loss of small aquatic resources including streams, and springs, throughout the catchment – hydrological monitoring is required;
- Any loss of access to sites of significance, especially remaining mahinga kai sites;
- Any loss of mahinga kai habitats and mahinga kai species;
- Any loss of wahi tapu and wahi taonga.

Ngati Waewae wishes to be advised of:

- Initiatives to avoid, remedy or mitigate the adverse effects of new mine infrastructure on the values identified in this report. .
- Initiatives to avoid, remedy or mitigate the adverse effects of existing mining infrastructure on the values identified by stakeholders.

It is expected that the issues raised in this CIA will become the focus of discussions between Ngati Waewae and L&M Coal.

1.0 INTRODUCTION

Ngai Tahu have a long association and involvement with the catchments of Te Tai Poutini. The Crown initially recognised this significance in the nineteenth century with the granting of a number of reserves and more recently with the enactment of the Te Runanga o Ngai Tahu Act 1996 and the Ngai Tahu Claims Settlement Act 1998. As manawhenua, the papatipu runanga, Te Runanga o Ngati Waewae, believes that it has a responsibility to assess how any activity impacts upon their cultural values.

L&M Coal acknowledges the responsibilities of Ngäti Waewae and recognises Ngati Waewae as its Treaty Partner in its activities in Te Tai Poutinu.

1.1. PROJECT OBJECTIVES

The objectives of this report are:

To provide information on the nature and extent of cultural interests, in the areas where the Escarpment Mine Project will occur, that are protected by the provisions of the Resource Management Act 1991, in particular sections 6(e), 7(a) and 8;

To identify the impacts associated with the proposed development that are of concern to Te Runanga o Ngati Waewae (hereinafter called Ngati Waewae);

To consider how the mitigation proposed in the AEE reponds to the impacts identified; and

To suggest how that other impacts resulting from the Escarpment Mine project could be addressed.

1.2 FORMAT OF THE REPORT

This report has been divided into a number of chapters:

Chapter 1 sets out the objectives and scope of the report.

Chapter 2 describes L&M Coal Limited (hereinafter simply called L&M Coal) Escarpment Mine Project

Chapter 3 provides the statutory, planning and policy framework within which the cultural impacts will be assessed.

Chapter 4 discusses the cultural environment, both traditional and current.

Chapter 5 provides a general discussion of the issues of concern to Ngati Waewae that are specific to the project.

Chapter 6 concludes the report, highlighting the key issues that from the perspective of Ngati Waewae need to be addressed.

1.3 THE AREAS CONSIDERED IN THIS REPORT

This section describes Ngati Waewae customary associations with the Kawatiri (Buller) district. As with other areas of Te Tai Poutini, the coastal hills and plateau areas north of the Kawatiri (Buller) River are part of the larger network of trails, trading routes, pa and kainga sites, mahinga kai, and other areas of cultural significance. Customary associations with this area are maintained today by Ngati Waewae.

Poutini Ngai Tahu held mana whenua, or customary title, over the Kawatiri (Buller) territory through maintaining occupational status. For example, tangata whenua from Arahura maintained potato gardens on the southern banks of the Kawatiri (Buller) River (Brailsford 1996). At the Whareatea River a small pa was located on one bank, with a guest whare on the other to accommodate travelers from other iwi (Mitchell 1948). Customary title over the area is further evidenced by the wahi ingoa, or place names, that mark the landscape.

The extensive knowledge, use of, and relationship of Poutini Ngati Tahu to this area was evident to early Europeans such as Heaphy and Brunner, who were taught by tangata whenua how to live off what the land and sea could provide. On his journey down the Poutini Coast trail to the Kawatiri (Buller) River, Heaphy's party was fed at the Ngakawau River by travellers from Arahura.

Coastal areas provided tangata whenua with shellfish, the rivers primarily provided eels, whitebait and fish, and the river mouths were good places for cultivations. Bird-snaring parties regularly travelled along the inland rivers. Hunting parties from the Nelson area were known to travel down the Orikaka (Mackley) River, where the honey and seeds of the kowhai, rata, and miro on the river's banks attracted large numbers of kaka, tui, bellbird, pigeons and robins.

Tangata whenua also came from Hokitika to the Orikaka River to hunt birds. These parties were known to secure large numbers of birds during such trips; enough for their winter supply (Mitchell 1948). The abundance of mahinga kai in this area is evidenced by the names of waterways in the vicinity of the Waimangaroa valley, including Weka Creek, Kiwi Creek, and Keruru Stream. Specific cultural values relevant to this assessment are discussed in subsequent sections.

1.4 UNDERSTANDING THE CULTURAL CONTEXT

The discussion of the cultural values of Ngati Waewae that is included in section 4 of this report is not meant as an exhaustive treatment of the subject. Rather, it seeks to provide a conceptual framework for the Impact Assessment, which follows in Chapter 5. It is an attempt to explain Ngai Tahu's perspective on the environment into terms more readily understood by the wider public, recognizing that a Ngati Waewae perspective is fundamentally different in its treatment of human/nature interactions. This framework, we believe, is essential to understanding the depth and complexity of Ngati Waewae relationship with Te Tai Poutini, and the impacts of mine development on this relationship.

1.5 TERMINOLOGY USED IN THIS REPORT

1.5.1 Ngati Waewae

In this document, the use of the term 'Ngai Tahu' should be considered to include the constituent indigenous iwi, being Kai Tahu, Kati Mamoe, Waitaha. The term 'iwi' (tribe) is used in the same context.

Ngai Tahu residing on Te Tai Poutini were called 'Poutini Ngai Tahu', so as to distinguish from their relations living on the east coast.

The hapu of Ngati Waewae descends from the rangatira Tuhuru. Their takiwa as stated in the Te Runanga o Ngai Tahu Act 1996 is centered on Arahura, Hokitika, and Mawhera (Greymouth), extending from the north banks of the Poerua River to Kahurangi Point and inland to the main divide, with areas of shared interest with the other hapu of Te Tai Poutini.

Ngai Tahu occupation of Te Tai Poutini was assured once they recognized the opportunities afforded by the presence of the highly prized pounamu. By as early as the seventeenth century, Ngai Tahu were establishing mana whenua of the west coast of the Te Waipounamu. Tuhuru of the Ngati Waewae hapu was the leading Poutini Ngai Tahu rangatira / chief, establishing the mana whenua and mana moana of Ngati Waewae by defeating the original occupiers, Ngati Wairangi.

1.6 LIMITATION OF THIS REPORT

This CIA represents best endeavours by the papatipu runanga to identify cultural effects of concern. They reserve the right, however, to oppose the consent or pursue avoidance or mitigation of any subsequent impacts that are identified as a result of site visits or discussions with L&M Coal.

1.7 CONSULTATION WITH NGATI WAEWAE

Pursuant to section 6 of the Te Runanga o Ngai Tahu Act 1996, Te Runanga o Ngai Tahu (TRONT) is the tribal representative body of Ngai Tahu Whanui (the tribal collective), and is a body corporate duly established on 24 April 1996. Contained in Section 5 of that Act is a detailed description of the takiwa (area) of Ngai Tahu Whanui, which confirms that the proposal is within the takiwa.

Section 15(1) of the Act states:

> *Te Runanga o Ngai Tahu shall be recognised for all purposes as the representative of Ngai Tahu Whanui.*

Section 15(2) of the Act states:

> *Where any enactment requires consultation with any iwi or with any iwi authority, that consultation shall, with respect to matters affecting Ngai Tahu Whanui, be held with Te Runanga o Ngai Tahu.*

Section 15(3) of the Act states

> *Te Runanga o Ngai Tahu in carrying out consultation under subsection 2 of this section shall seek the views of such papatipu runanga of Ngai Tahu whanui and such hapu as in the opinion of Te Runanga o Ngai Tahu may have views that they wish to express in relation to the matter …*

The Act therefore confirms TRONT's status as the legal representative of the tangata whenua within the Ngati Waewae Takiwa.

The First Schedule of the Act lists the eighteen Papatipu Runanga that represent the members of Te Runanga o Ngai Tahu. Te Runanga o Ngati Waewae is identified as one of those constituent Papatipu Runanga and is therefore recognised by TRONT as the kaitiaki Papatipu Runanga for the area affected by L&M Coal's proposal. It is common practice today for the interests of Ngai Tahu whanui to be represented by both TRONT and the Kaitiaki Runanga of the area involved. The Kaitiaki Runanga, in this case Te Runanga o Ngati Waewae, is the representative of those members of Ngai Tahu whanui who have specific rights and interests in the area.

1.8 THE RELATIONSHIP BETWEEN THIS AND PREVIOUS CIAS PREPARED FOR THE PROJECT AREA

Various organisations when applying for resource consents necessary to enable their continued operation have commissioned TRONT or papatipu runanga to prepare Cultural Impact Assessments. CIAs previously prepared that were specific to Te Tai Poutini and / or mine devlopments have been accessed to ensure consistency in the information that is being supplied. This information is particularly relevant to the cultural values discussed in chapters 3 and 4 of this CIA.

2. THE PROPOSAL[1]

Following consultation, L&M Coal provided Ngati Waewae with an Assessment of Environmental Effects that comprehensively describes the proposal and investigations undertaken to assess and avoid, mitigate or remedy the identified effects. Ngati Waewae did not have input to any of the technical reports that informed the AEE so the approach has been to identify issues of concern in order for L&M Coal to explain how the concerns raised will be addressed.

The footprint of the EMP area is approximately 178ha and is estimated to contain approximately 6 .5 million tonnes of recoverable coal. It is proposed to extract up to 1,300,000 tonnes of coal per year and accordingly the life of the mine is estimated as being 5 years.

The intent is to extract the full reserve of approximately 6 .5Mt of coal, at an extraction rate of 1 .3 Mtpa . This is from an indicated resource of 5 .001 Mt of unmined coal and coal within first workings, and a further 1 .485Mt of recoverable coal remaining in pillared areas. This schedule would require stripping a total of 56 .8 Mbcm of overburden at a strip ratio of 8 .8:1 (bcm:tonnes) . The indicative schedule is shown in Table 1.

Table 1 Indicative Mining Schedule

	2010	2011	2012	2013	2014	2015	Total
Pre-Stripping (BCM)	2,500,000						
Overburden (BCM)	2,500,000	10,368,400	10,368,400	10,368,400	10,368,400	10,368,400	56,842,000
Coal (tonnes)	140,000	1,287,000	1,287,000	1,287,000	1,290,500	1,184,000	6,475,500

The Company seeks flexibility to operate over a 12 year term should there be delays in getting consents or delays in commencement of mining or delays within the mining operations. Open cut mining is most likely for the majority of the deposit. The deposit is well suited to open pit methods as the coal seam varies from 1m to 10m thick, and overburden averages approximately 50m up to 75 .6m . Underground methods could be used to extract part of the resource particularly in the area of the Bra%ils Dam. This option will be assessed as part of any detailed design, but should be allowed for in the consent and access arrangement process.

The existing road network will be used to access the site and to haul coal to a preparation plant.

Mining will be by conventional open cut strip methods. The first cut will be to expose the coal (the pre-strip), with a Starter Dump to hold the waste. Mining will then progress towards the west, with fill placed in the excavated void. Drill and blast methods will be used with loading by hydraulic excavator to mine haul trucks. A haul road will be established on the north side of the

pit. Coal will be trucked to a coal preparation stockpile, and waste to the in-pit waste dump. It is envisaged that the mine will be operated on a 24 hour basis.

Waste dumps will be capped and rehabilitated during mining, and shaped to direct surface water flows to pre-existing streams. Rehabilitation of the dump and proper finishing is critical to the successful operation of the mine to manage the potential generation of acid water, erosion control and to restore previous water courses.

Water management is the key to the successful operation of the mine. Detailed design of surface water controls, particularly with respect to potential acid generation.

The pit footprint will be isolated using water diversion structures comprising either bunds or drainage channels. The intent is to drain surface water flows into the existing tributaries and protect against uncontrolled discharges from the pit and waste dumps;

Clean water will be separated from dirty water (from the pit wall, waste dump working area, haul roads etc) to reduce the volume of water requiring treatment).

The existing Brazils Dam will be used as a water treatment pond to actively treat water during mining prior to discharge as required. Then a water treatment system will be established.

Benefits

There are a significant number of environmental benefits associated with the project as outlined in this section. The environmental benefits include:

- Reduction of acid mine drainage;
- Enhancement of headwater habitat for maroinvertebrates;
- Avoidance of subsidence;
- Enhanced public safety;
- Eradication of pest plants;
- Enhancement of historic values;
- Offsite enhancement of flora and fauna through predator control;
- Growth driver for local economy (including tourism)

Effects

The escarpment mine project area will have a significant effect on the values associated with the flora within the mine area. However, these effects can be mitigated. Also over time the values will return through site remediation.

Nearly all the potential environmental effects of this proposal result from the removal of diverse vegetation as well as water divertion. Much of this land is sandstone pavement (rock) and the amount of habitat to be removed is not sufficient to place any of the species in this area at risk of becoming rare and no species will lose its viability in the area as a result of this proposal. Species of conservation interest include bryophytes and aquatic invertebrates.

Summary

The Escarpment Mine Project area covers approximately 178 hectares and is entirely within the Mining Permit application area which covers approximately 190 hectares. The Mining Permit area boundary includes all of the Escarpment Mine Project area and additional land. It abuts all permits and licences. Some of the areas within the Mining Permit area will not be mined and will form environmental buffers

3. STATUTORY PLANNING AND POLICY FRAMEWORK

3.1 TE TIRITI O WAITANGI

In 1840, Te Tiriti o Waitangi (Treaty of Waitangi) was signed between the Chiefs of Aotearoa and Her Majesty the Queen of England formalising an agreement to allow British subjects to settle in areas such as Te Wai Pounamu, under formal British colonial rule, and which guaranteed to Maori the protection of their taonga (possessions) for so long as they wished. Such taonga included their waters[2], lands, fisheries and mahinga kai.

Te Tiriti o Waitangi reaffirmed these rights thus:-

> *Maori Text:*
> *"Ko te Kuini o Ingarani ka whakarite ka whakaae ki nga Rangatira, ki nga Hapu, ki nga tangata katoa o Nu Tirani, te tino rangatiratanga o o ratou whenua o ratou kainga me o ratou taonga katoa. Otiia ko nga Rangatira o te Whakaminenga me nga Rangatira katoa atu, ka tuku ki te Kuini te hokonga o era wahi whenua e pai ai te tangata nona te whenua, ki te ritenga o te utu e whakarite ai e ratou ko te kai hoko e meatia nei i te Kuini hei kai hoko mona".*
>
> *English Text:*
>
> *"Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands and Estates, Forests, Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession…."*.

The words "their lands and estates, forests, fisheries…" in the Treaty of Waitangi encapsulates the right to mahinga kai, to places where the resources are harvested, the activity and business of gathering kai and includes the type of resources that were caught or gathered. It was upheld by the Waitangi Tribunal that Maori fishing rights have endured to the present day. Ngati Waewae believe that a Treaty that promises a fishing right implicitly promises enough water of sufficient quality to sustain a fishery.

[2] The Waitangi Tribunal has defined taonga value as including the value of the water itself, the resources living in the water and the resources sustained by the water.

3.2 NGATI WAEWAE CULTURAL AND TRADITIONAL PRINCIPLES FOR SUSTAINABLE MANAGEMENT[3]

Traditional management was founded on a set of cultural values that arose from the Poutini Ngai Tahu worldview. These cultural values include a set of principles upon which the relationship between people and the environment must be based in order to sustain balance between the needs and demands of humans and the health of the natural world that sustains them. The following principles are significant elements of the Poutini Ngai Tahu worldview which, when understood together, approximate the non-Maori concept of "sustainable management".

Te Ao Maori: The principle of holism: Sustainable management must consider the environment and its component parts as a whole and assess effects from actions across all dimensions, spiritual, mental, biophysical, and social [te taha wairua, te taha hinekaro, the taha tinana, te taha whanau].

Whanaungatanga: The principle of kinship, connectedness, and inter-dependence between all things within the natural world including people: Sustainable management must be based on ethics of Whanaungatanga reflecting and giving life to the inter-relationship between all things. Sustainable management should seek to sustain the health, wealth and well-being of the natural environment while sustaining the communities of people dependent upon them.

Whakapapa: The principle of cause and effect, descent and transmission: Sustainable management must be predicated on an understanding that all actions cause effects which in turn cause other effects. Eventually the cycle of effects returns in kind to the original actor. Sustainable management decisions must consider all immediate and downstream effects in the present and, as far as possible, into the future.

Taonga Tuku Iho: The principle of generational continuity and responsibility: Present generations are one with those who have gone before us and those yet to be born. This applies to people and to generations or successive cycles of other species or natural phenomenon. Present generations have an overriding obligation to control the effects of their actions so as to ensure that resources are passed on to future generations in at least as healthy and productive a condition as they were inherited from the ancestors.

Under the Poutini Ngai Tahu conception, all elements within the world are linked by mutual descent from the atua (dieties) and the primeval parents, Rakinui and Papatuanuku. Thus all parts of the environment are related to one another and exist within a mutually inter-dependent whole.[4] People and their communities rely upon the other children of Papatuanuku and Rakinui for

[3] This section draws on the work of Hana Crengle (2002) in Tipa et al (2002). Crengle has written extensively about cultural values, Treaty values and the Resource Management Act 1991.

[4] "Maori developed a system of resource management in which people were no more than another living part of the whole ecosystem, capable of a care-taking role alongside other creatures…People lived within and as a part of a whole to which they were intimately and genealogically related." Love (1992)

sustenance and, in return, owe the natural ecology and its components obligations akin to those owed to a family member.[5]

Explanation of how cultural values are impacted by the escarpment mine project is covered elsewhere in this assessment. Instead, the section that follows summarises key cultural values via a series of concise descriptions of relevant elements of those values as understood and approved by Poutini Ngai Tahu. These descriptions form the basis of the structure of the impact assessment in Chapter 5.

Whakapapa incorporating:

(a) Traditional Ngati Waewae knowledge and scientific classification of relationships between parts of the ecology (e.g. the relationship between water and fisheries, or between individual ecological functions); and
(b) Ancestral descent rights that define authority as between individuals and groups of people to control, manage and act as kaitiaki guardians, for the benefit of present and future generations;[6] and
(c) Approval from the Gods and non-human kaitiaki guardians conferred on certain individuals, whanau, and hapu who are designated by mana Atua expressed through whakapapa ancestral right and obligation, to be the rightful people entitled to benefit from the resources and to carry the associated mandate to protect the environment and to speak on its behalf.

Whanaungatanga incorporating:
(a) Inter-relationship between all parts of the ecology;
(b) Inter-relationship between the ecology and the well-being of mana whenua; and
(c) Obligations on decision-makers to ensure that all parts of the ecosystem including people and their communities are cared for.

Mana (Rangatiratanga) incorporating:
(a) Tribal areas of land and waters which are the exclusive territories of Kai Tahu, the holders of exclusive rights of authority over those areas as against other tribes.
(b) Chiefly authority conferring and defining rights to control and manage and the activities of people affecting the environment; and
(c) The Article II guarantee of the Treaty of Waitangi.

Mana Whenua incorporating:

[5] "Papatuanuku is our mother and deserves our love and respect. She is a living organism with her own biological systems and functions creating and supplying a web of support systems for all her children, whether man or woman, animal, bird, tree or grass, insects or microbes." Rev Maori Marsden The Holistic World View of the Maori (1992)

[6] "In addition to the interconnection between all things, whakapapa defines ancestral rights as between people. Rights flowing from whakapapa include rank and status in society, mana to belong to a specific group or a number of hapu or whanau kinship groups, and authority to exercise rakatirataka or chieftainship." Lifeforms Focus Group, Ministry of Commerce Maori and the Patenting of Lifeform Inventions (1999)

(a) Spiritual power and authority that creates rights and obligations flowing from the lands that sustain and are cared for by an iwi, hapu, or whanau
(b) The people holding traditional rights of exclusive authority as Tangata whenua of their tribal territories
(c) The concept of allocation of use and management rights to the "right" people on the basis of ancestry i.e. whakapapa descent.

Taonga incorporating:
(a) All things prized, tangible and intangible, animate and inanimate
(b) The concept of a resource, its utility, and notions of sustainability, the wise use of resources, and the obligation to maintain the mauri
(c) Respect for the past and the obligation to preserve resources and cultural wealth and well-being for future generations
(d) Intrinsic values
(e) Cultural use, heritage, and amenity values

Kaitiaki incorporating:
(a) Guardian spirits who communicate with the living world to warn of danger and herald the times and limits of harvest seasons, sometimes manifested through guardian animals, birds, fish, or taniwha;[7]
(b) Intergenerational responsibilities as resource caretakers (i.e. responsibilities to protect the interests of future generations including the ecology, species, and people);
(c) The obligation to guard, foster, and protect resources and people, including the obligation to consent to or refuse access to resources to protect sustainability;
(d) The power to assess effects and to allocate responsibility or liability for actions that harm the environment;[8] and
(e) Tohunga and whanau kaitiaki people with the matauraka (training and knowledge) to interpret signs in the environment (such as environmental indicator species or natural events) that were utilized to understand the changing ecology, who act as monitors of resource health and well-being.

Mauri incorporating:
(a) The life force[9]; and
(b) The "Environmental Benchmark" by which Ngati Waewae measure the present health of the environment, the inter-linked well-being of mana whenua, and the actual and likely effects, positive or adverse, of the proposed mine development.

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[7] "Kaitiaki or guardian spirits are left behind by deceased ancestors to watch over their descendants and to protect sacred places. Kaitiaki are also messengers and a means of communication between the spirit realm and the human world. There are many representations of guardian spirits, but the most common are animals, birds, insects, and fish." Cleve Barlow Tikaka Whakaaro: Key Concepts in Maori Culture

[8] "Kaitiaki may be friendly to the 'client' and/or destructive to the 'non-client', eg a kaitiaki may appear in different shapes and forms to warn of impending danger. Conversely, they may punish or disapprove of someone who has transgressed or been disrespectful to the resource protected by the kaitiaki." Mana Cracknell of Rongomaiwahine, quoted in Solomon and Schofield The Resource Management Act and the Treaty of Waitangi: A Starting Point and Framework (1992)

[9] "Mauri is the life-force which generates, regenerates, and upholds creation. It is the bonding element that knits all the diverse elements within the Universal Process giving creation its unity in diversity. It is the bonding element that holds the fabric of the universe together". Rev Maori Marsden The Holistic World View of the Maori (1992)

Wahi Tapu and Wahi Taonga incorporating[10]:
(a) Sites that are or have been made tapu in nature to protect their intrinsic values and/or because of their association with the Gods, the tupuna, or important historic and cultural events and activities; and
(b) Other sites particularly valued for their utilitarian significance as places from which resources are customarily sourced, that are ecologically significant (for e.g. as breeding or migratory habitats) or that were particularly significant species or taonga resources are located.

Mahinga kai incorporating:
(a) The bounty given by Papatuanuku to its people
(b) Places and resources (e.g. species) important for sustaining the cultural, social, and economic well-being of mana whenua; and
(c) The activities associated with gathering and use of the resources, including cultural harvest, whanau experience and knowledge, and transmission of cultural values and tikaka practices between generations.

Tikanga incorporating:
(a) Rules and regulations controlling the actions of people and the practices associated with these rules and regulations;
(b) Ngati Waewae sustainable management kawa (protocols, use controls, and culturally-sound techniques) designed to ensure the results of human action are consistent with the Ngati Waewae cultural values and desired environmental, social, and economic outcomes;
(c) Environmental standards for measuring the effects of people's behaviour on the environment; and
(d) Traditional biophysical and cultural indicators that are used to monitor ecological states and effects from human activity.

3.3 RESOURCE MANAGEMENT ACT 1991 (RMA)

The Resource Management Act 1991 is the principal legislation under which the natural and physical resources of New Zealand are to be sustainably managed.

Section 5. Purpose –

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, "sustainable management" means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their

[10] "All the lands of Papatuanuku are sacred. Any time you want to disturb the surface of that land and do something with it, certain protocols and procedures need to be carried out in order to make it noa (non-sacred). This would usually involve a tapu lifting ceremony and karakia to appease the essence of the earth."
Huirangi Waikerepuru of Taranaki, quoted in Solomon and Schofield The Resource Management Act and the Treaty of Waitangi: A Starting Point and Framework (1992)

social, economic and cultural well being and for their health and safety while -

(a) Sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations;

(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

The duties and the obligations that Part 2 of the RMA imposes for all people who exercise functions or powers under the Act in relation to the use of natural resources are detailed below.

Section 6 sets out the matters that are of national importance

Matters of national importance – In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

….

(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites waahi tapu, and other taonga.

Section 7 sets out other matters that regard is to be had to

Other matters - In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to –

(a) Kaitiakitanga

Section 8 states that the principles of the Treaty of Waitangi need to be taken into account.

Treaty of Waitangi - In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Court of Appeal in *Court of Appeal v Attorney General 1987 CA 54/87*:

(i) The principle of partnership.

(ii) The principle of active protection of Maori people in the use of their lands and waters to the fullest extent practicable.

(iii) The principle of utmost good faith in dealings with the other Treaty partner.

Within the RMA context a further principle, that of consultation has been found to arise under the principles of the Treaty of Waitangi. The Environment Court has noted that active protection of Maori interests requires positive action, which will at times oblige both the consenting authority and the applicant to consult, and also to initiate, facilitate, and monitor the consultation process as part of the duty to take into account the principles of active protection and partnership. Consultation must be conducted in a spirit of good will and open mindedness, and over a

reasonable span of time, and to a degree sufficient for the local authority to be informed on the matters in issue.

3.4 THE NGAI TAHU CLAIMS SETTLEMENT ACT 1998

The Ngai Tahu Claims Settlement Act ("the Settlement Act") includes a number of provisions that are relevance to the management of the freshwater resources of Te Tai Poutini, including

- Statutory adviser to Minister of Fisheries;
- Protocols and a closer working relationship with Department of Conservation;
- Identification of taonga species.

3.5 POUNAMU VESTING ACT 1997

This Act is important as its stated purpose is to give effect to certain provisions of the Deed of On Account Settlement, signed on 14 June 1996 by the Crown and Te Runanga o Ngai Tahu as representative of Ngai Tahu, by vesting, in Te Runanga o Ngai Tahu, pounamu in the Takiwa of Ngai Tahu Whanui and in those parts of the territorial sea of New Zealand that are adjacent to the Takiwa of Ngai Tahu Whanui

4. KAI TAHU'S ASSOCIATION WITH THE AFFECTED AREA

The best history by far is that provided by the people themselves. Accordingly, information for this portion of the study was obtained from the written records of Ngati Waewae and from discussions with members of Ngai Tahu whanui during a visit to Te Tai Poutini. The purpose of this chapter is to provide a general discussion of the cultural values of Ngati Waewae and articulate the legal basis for their consideration under the Resource Management Act 1991 (RMA).

Please note, as previously stated the intention is for the information to be consistent with statements provided as part of earlier CIAs that were prepared for developments on Te Tai Poutini and / or other developments including other mining proposals that could affect catchments on Te Tai Poutini.

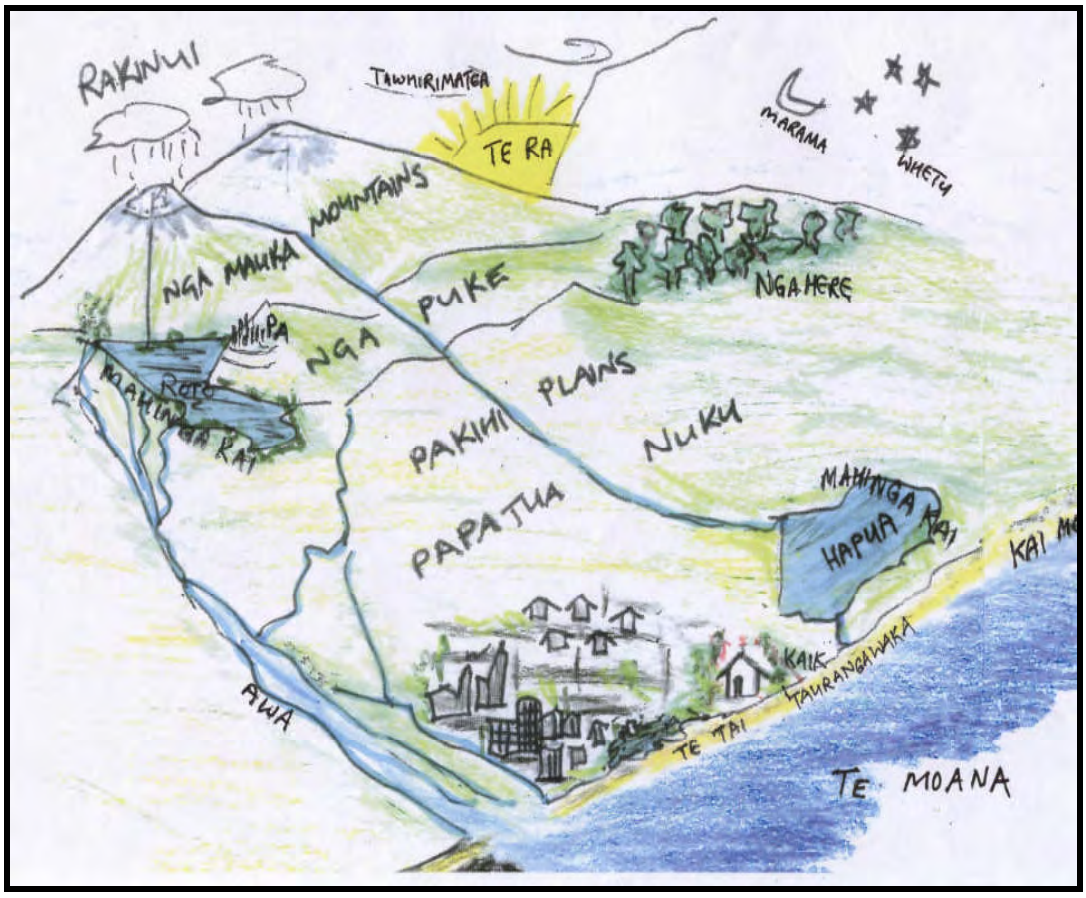
4.1 TE AO MAORI

Te Ao Maori - the Maori world - emphasises the principle holism (Crengle, 2002) which requires consideration of the environment as a whole – and not as component parts. Many documents produced by or on behalf of Ngai Tahu explain how Ngai Tahu existed in harmony with Papatuanuku (Mother Earth), understanding the cycle of life. Holism in the context of freshwater ecosystems requires a consideration of the catchment. Each river has its own catchment area with tributaries that in turn have lesser tributaries and these again yet smaller ones. To Poutini Ngai Tahu, however, an entire catchment is greater than the sum of the parts - a river is not a collection of segments that can be managed as discrete units[11]. Surface waters, groundwaters, and wetlands all need to be considered within an integrated management framework.

Holistic conceptualizations that emphasise integration, interdependencies and interrelationships are common to indigenous peoples rather than fragmenting and compartmentalizing the environment (Posey, 1999). Ngai Tahu articulated this perspective, entitled "Ki Uta Ki Tai", which they describe as "a comprehensive, culturally based 'mountains to the sea' natural resource management framework developed by and for Ngai Tahu Whanui" (Te Runanga o Ngai Tahu, 2003). Figure 3 is a conceptualization of a Ngai Tahu perspective of a catchment, showing the interconnected domains that are the responsibility of a host of atua.

[11] See Te Runanga o Ngai Tahu 1999, 2003 and Waitangi Tribunal Reports and evidence submitted by Ngai Tahu witnesses to the Tribunal.

Figure 3: An illustration of Ki uta ki tai (TRONT, 2003)



4.2 WHAKAPAPA

In many publications Ngai Tahu explain that life came into being when Maku mated with Mahoranuiatea, another form of water and begat Ranginui, the sky. Ranginui coupled with a number of wives, including Papatuanuku. From Rangi's various unions came vegetation, animals, birds, the mountains, people and a host of departmental atua. Ngai Tahu claim the same descendency from Rangi and his wives. Whakapapa then, binds Ngai Tahu to the lands, waters and the life supported by them. As stated previously, within Ngai Tahu conceptualizations, an ecosystem is not just the sum of the parts, it is the sum of the relationships – and to Ngai Tahu relationships mean whakapapa.

Whakapapa therefore describes bonds, relationships, and connections. Water is the medium flowing through a catchment that makes connections. Rivers connect the entire landscape – ki uta ki tai – from the mountains to the salty waters of the Tasman Sea. Many connections have been lost in Te Tai Poutini catchments. Wetlands have been drained or inundated while many streams and creeks are slowly degraded. Papatipu runanga will not accept any further loss or incremental degradation of streams, rivers, lakes and wetlands.

As water moves through a catchment it affects its surroundings and is also affected by them. Because of the connections, whanau know that whatever nature and humans do in a catchment, it is ultimately revealed in the river by way of streams and creaks. if the catchment is healthy the streams, creaks and river is healthy. If the catchments unhealthy, it is revealed in the river.

4. 3 A SACRED LANDSCAPE

Ngati Waewae consider mountains sacred places, each has its own whakapapa and is central to Ngati Waewae cultural identity.

Mountains are also important because they are the source of many waterways. Runoff from the mountains and ranges is carried into waterways and then continues on its journey *"ki uta ki tai"* (from the mountains to the sea). The continuity of this journey, in other words the continuity of the flow of water, is essential for ensuring the wellbeing of the mauri of the waterway. Effects of activities such as mine development that include the interception of runoff and its diversion from its natural receiving waters, impact the mauri of the waterways. Although the specifics of the association with the mountains and ranges are unable to be described in detail in this report, the protection of significant landscapes comprising mountains and ranges, together with the waters sourced from them and the lands and resources nourished by the waterways flowing from them, is without a doubt one of the most important resource management issues from the perspective of Ngati Waewae.

Ngati Waewae have previously expressed the importance of maintaining the skyline and ridgelines of maunga is a cultural value that must be upheld. The Paparoa Ranges run from south of the Mokihinui River to the Mäwhera (Grey) River. The Paparoa Ranges are ancestral mountains; holding the same cultural and spiritual significance to Te Rünanga o Ngäti Waewae as Aoraki. Mining development is not to impact skylines, ridgelines or the Paparoa Ranges.

4.4 PLACENAMES

The significance and time-depth of the relationship between the Ngati Waewae people and the landscape is perhaps best reflected in the placenames assigned to culturally important locations throughout their traditional territory. Such names take their source from the earliest people, creation traditions, incidents, mahinga kai resources, weather and tupuna. The long history of occupation and travel within Te Wai Pounamu has left many sites that are of significance. It has also enabled Ngati Waewae to accumulate an extensive amount of knowledge of the water resources of catchments and the associated mahinga kai resources. The CIA for Cypress Mine listed many of the traditional placenames associated with Te Tai Poutini.

The custom of naming places served many purposes, including delineating tribal boundaries, determining where fish could be preserved, birds could be snared, berries gathered, and crops planted (Mitchell 1948). For example, the name Orikaka is likely associated the abundance of forest birds along the waterway, in particular the kaka. A colored piece of flax fabric was waved

to and fro "ori", and when a bird came to investigate it was snared in a running noose at the end of a long stick. Waimangaroa refers to long black water, because at one time the river discharged its waters into a dark colored lagoon that ran for a ways parallel to the beach.

4.5 MAURI

Water is central to all Maori life. It is the provider and sustainer of life.

The condition of water is seen as a reflection of the health of Papatuanuku, the Earth Mother. A waterbody with an intact mauri will sustain healthy ecosystems and support mahinga kai.

> *The mauri is the life force that ensures that within a physical entity … that all species that it accommodates will have continual life … The mauri is defenceless against components that are not part of the natural environment* (Massey University, 1990).
>
> *"Mauri seems to be whatever it is in an ecosystem which conduces to the health of that ecosystem"* (Massey University, 1990).

Of concern, from the perspective of Ngati Waewae is that mauri is subject to desecration. The loss of mauri is recognised by the degraded nature of the resource and the loss of its life supporting capacity. Ngati Waewae believe that every effort should be taken to ensure that the mauri of a resource not be desecrated. From a resource management perspective it is important to realise that natural disasters cannot harm the mauri only those resulting from the actions of man. Mining has already impacted the mauri. This proposal represents a further impact.

The intangible or metaphysical aspects of mauri sometimes make it difficult to identify the practical means by which resource users and resource management agencies are to recognise and provide for the protection of mauri.

In an earlier CIA Ngati Waewae explained that maintenance of unmodified environments and areas of historical, cultural, and ecological significance is important to Ngäti Waewae; as such environments maintain traditional associations with the area. Examples include the maintenance of skylines (in maunga / mountain areas), natural flow patterns of rivers, rock formations, areas of indigenous forests and other landscapes of significance. Many such areas are already highly modified with forestry, mining development, and farming activities. For Ngäti Waewae, cultural and environmental values found in lightly or unmodified environments are priceless, and cannot be measured in terms of money.

In the context of this report, protection of the mauri of the waterways of Te Tai Poutini requires the adverse effects of the following activities to be avoided, remedied or mitigated:

- Extractions;
- Diversions;

- Damming;
- Unnatural discharges; and
- Channel modification.

4.6 RANGATIRATANGA

Rangatiratanga is a term first coined by missionaries (Williams, 1996). Its base is "rangatira" meaning chief. The addition of the suffix "tanga" abstracts this thereby denoting chiefly power, authority, prerogative or domain.

Crengle (2002) believes rangatiratanga encompasses

(d) Tribal areas of land and waters which are the exclusive territories of Ngai Tahu, the holders of exclusive rights of authority.
(e) Chiefly authority conferring and defining rights to control and manage rivers and the activities of people affecting the rivers; and
(f) The Article II guarantee of the Treaty of Waitangi.

Tino Rangatiratanga refers to Ngati Waewae having the right to make decisions concerning the resources within their recognised area. With water diversion structures comprising either of bunds or drainage channels on the north side of the pit which will drain surface water into the existing tributaries and protect against uncontrolled discharges from the pit and waste dumps the risk is that Ngati Waewae could be further distanced from the process of management. Alternatively, it could be argued (in a more positive light) that Ngati Waewae has the opportunity to develop meaningful relationships with L&M Coal.

Please note this report does not discuss the nature and extent of Ngai Tahu rights in and over freshwater. This should not be construed as meaning Ngai Tahu and Ngati Waewae accepts the current position. Ngati Waewae wishes to state explicitly that it believes issues of ownership and other property rights to freshwater remain unresolved.

4.7 WAAHI TAPU / WAAHI TAONGA

The report now turns to an examination of waahi tapu. For Ngati Waewae, the terms "waahi tapu" or "waahi taonga" refer to places that hold the respect of the people in accordance to tikanga (custom) or history. Whilst some sites are significant to the iwi some are important to the hapu and whanau who visited, lived at, or had special affiliations to that area. Some waahi tapu/ waahi taonga were only visited by *tohunga* (specialists) who performed rituals such as *waitohi* (blessings) or *karakia* (incantations). *Urupa* are a modern day example of waahi tapu, but in addition to many urupa located in Te Tai Poutini, physical resources such as the mountains and the ranges, other landforms, springs, remaining areas of indigenous vegetation are other examples of waahi taonga.

Given the potential for accidental discovery, it is therefore recommended that an Accidental Discovery Protocol be implemented should consent to develppment be granted. An example of an Accidental Discovery Protocol is attached as Appendix 2.

4.8 TAONGA SPECIES

Taonga species are native birds, plants, and animals of special cultural and spiritual importance. The Settlement between the Crown and Ngäi Tahu included recognition of the customary relationship that Ngäi Tahu have with taonga species, and included provisions for Ngäi Tahu participation in their management. For example, managers of any taonga species are required to consult with and have regard to the views of Ngäi Tahu about the management of any taonga species. A complete list of taonga species is included in Schedule 97 of the Ngäi Tahu Claims Settlement Act 1998 and is attached as Appendix 3.

4.9 KAITIAKITANGA

Ngati Waewae, as Tangata Tiaki, are responsible for ensuring that taonga are passed on in as good a state, or indeed better, to the generations that follow. This means that when considering the effects of mine development Ngati Waewae will consider the impact on the long-term health of the waterways and the needs of future generations.

Ngati Waewae recognizes however that it has the opportunity to develop meaningful relationships with L&M Coal thus explicitly recognising and enabling Ngati Waewae to exercise their responsibilities as tangata tiaki.

4.10 MAHINGA KAI

Mahinga kai is considered the heart of Ngäi Tahu culture, providing a key component of cultural identity (Tipa 2002). Te Tai Poutini was recognized as a land of abundance, a land rich in freshwater resources and a diversity of plant, fish and bird species. Within the vast inland areas, the rich freshwater and terrestrial resources were geographically dispersed and their availability varied seasonally. These seasonal cycles enabled the people to harvest available resources, store them for periods of scarcity, and to integrate these subsistence pursuits with cultural activities. Records show that plants, birds, and fish historically comprised the food sources of Poutini Ngai Tahu. Fish, where they occurred, were reliable and plentiful but seasonal. Poutini Ngai Tahu fished extensively in the wetlands, streams, creeks. The most important stretches of river to Ngai Tahu were those suitable for fishing, especially whitebait. The first tupuna claimed these prime spots and ownership of them was passed to their families.

People generally worked together in whanau groups and fishing was a social activity as well as an economic one. Enough kai was gathered to feed the immediate and extended whanau with some remaining to donate or trade. Mahinga kai meant survival – but mahinga kai was more than food. It was the basis of an economy based "principally on the giving of gifts upon which were attached the obligations of reciprocity". While whanau were able to catch all the kai they needed concepts of 'tapu' and 'noa' shaped a management system that defined and limited the scale of their gathering. An outstanding characteristic was the sequential utilisation of a great variety of natural

resources. Of the vast number of mahinga kai areas and species historically utilised, few remain accessible today. Without doubt, social and economic shifts during the last 160 years resulted in major changes in the relationship between Ngai Tahu and mahinga kai.

Resource Use

In this section, we identify some the species that are valued by Poutini Ngai Tahu. Records confirm that different plant, fish and bird species were gathered across Te Tai Poutini.

Plant Resources: Some of the valued mahinga kai plant species are identified in Table 1.

Table 1: Plant species known to be sourced from Te Tai Poutini

Ka Rakau	Plants	Taonga species
Aruhe	Fernroot	*
Tutu	Tutu	*
Raupo	Bullrush	*
Kauru	Extract from the Cabbage tree	
Harakeke	Flax	*
	Berries	
Koareare	Product from raupo	

Schedule 97 of the Ngai Tahu Claims Settlement Act 1998 identifies a number of species that are classed as taonga species. In section 288 of this Act *"The Crown acknowledges the cultural, spiritual, historical and traditional association of Ngai Tahu with the taonga species"*. Taonga species are marked in the Table 1 – 4 by the *

Freshwater Resources: A wide variety of fish, shellfish, other invertebrates, and waterfowl were utilized throughout the seasons. Some of those collected are identified in Table 2. Tuna (eels) were perhaps the most important freshwater resources to Poutini Ngai Tahu. Their abundance and the predictability of their migrations made them the cornerstone of seasonal subsistence activities.

Table 2: Fish Species known to be sourced from Te Tai Poutini

Ka Ika	Fish	Taonga Species
Patiki	Flounder	
Kokopu	Giant bully	*
Koura	Freshwater crayfish	
Kanakana	Lamprey	
Inaka	Whitebait	
Tuna	Eels	

Birds: A variety of birds also contributed to the seasonal subsistence of Poutini Ngai Tahu. Birds were hunted for food, as well as for their feathers and down. Unfortunately, birds, like the other mahinga kai resources, are not as plentiful as they once were.

Table 3: Bird Species known to be sourced from Te Tai Poutini Catchment

Ka Manu	Birds	Taonga Species
Putakitaki	Paradise ducks	*
Weka	Woodhen	*
	Range of forest birds	
	Birds eggs	
	Range of duck species	
Torea		
Karoro	Black backed gulls	

Introduced species

Table 4: Introduced species known to be sourced from Te Tai Poutini Catchment

Introduced species		
	Trout	
	Potato	
	Turnip	

The Continuing Importance of mahinga kai resources

Mine development has contributed to the loss of mahinga kai. As a consequence Poutini Ngai Tahu is especially aware of the value of their remaining land waters and resources. This awareness underpins contemporary efforts to protect remaining mahinga kai habitats and balance this against the sustainable use of resources.

Ngai Tahu contend that every effort must be taken to avoid the adverse effects of future demands of resource use and development on remaining mahinga kai sites and resources throughout the Te Tai Poutini. Further, a conscious effort is needed to ensure that steps are put in place to reverse the history of degradation of habitats within Te Tai Poutini and the alienation of Ngati Waewae from an active role in the freshwater management. Poutini Ngai Tahu maintain a continuous relationship with mahinga kai. They reflect these historical relationships in their ongoing efforts to restore mahinga kai to its position as the landmark occupying various ecological niches across Te Tai Poutini.[12]

[12] A number of runanga have restoration projects underway.

4.11 TRAILS

Te Wai Pounamu was covered with an complex system of trail and access routes. These linked Ngati Waewae settlements to the social and economic life of the tribe and tied them into networks of trade which extended well beyond the South Island.

Trails were not just routes across terrain; they had to follow food resources. While preserved food, such as dried fish, could sustain travelers in a hurry, families traveled at a slower pace, stopping for different periods of time at places where eels were plentiful, weka easily caught, or some other food obtainable. Knowledge of the route included knowledge of safe routes, camping places, safe places to cross the river, and the locations of food and other resources.

Coastal and inland trails in this area were well known to Maori and also used in later years by early European travellers and their Mäori guides. The coastal area from Pakawau Pa (Massacre Bay) south towards Mäwhera (Greymouth) is the northern section of the Poutini Coastal trail, one of the oldest pounamu trails (Brailsford 1996). The Kawatiri trails are also near by, connected to trails that used the Mäwhera (Grey), Inanagahua and Kawatiri (Buller) Rivers as an inland route from Arahura to Nelson. In addition, early Europeans reported a Mäori trail up the Orikaka (Mackley) and over the range to the Waimangaroa as an alternative to the lower Buller Gorge (DoC 1998).

Most of today's transportation routes follow old Ngai Tahu trails. Trails are an indicator of how far and where Ngai Tahu traveled, and the purpose of an often long and arduous journey. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga.

4.12 SUMMARY OF NGAI TAHU VALUES THAT COULD BE IMPACTED

The impacts of the proposed mine development on the following values will be examined more closely in the following section.

- Te Ao Maori
- Whakapapa
- Cultural Landscapes (including placenames)
- Mauri
- Rangatiratanga
- Kaitiakitanga
- Taonga species
- Waahi Tapu
- Mahinga kai

5. THE IMPACT ON CULTURAL VALUES

Based on Ngai Tahu's experience with other mine developments, this section of the report identifies environmental effects associated with mine developments that are of concern to Ngati Waewae. The section also identifies concerns specific to the escarpment mine project that are to form the basis of discussions between Ngati Waewae and L&M Coal.

It must be stressed however that this is an assessment of **cultural** impacts – the impacts of the proposed development on the cultural values important to Ngati Waewae, as assessed by Ngati Waewae. While L&M Coal may consider that the environmental impacts are minor it cannot be assumed that this equates to a minor cultural impact. The cultural values that are detailed in Chapter 4 explain why Ngati Waewae may have a perspective with respect to impact significance that differs to that of the experts contracted by L&M Coal to assess environmental impacts.

The wording of the CIA is therefore intentional. Where there is a difference of opinion, it is noted that L&M Coal has "to assure" Ngati Waewae – by way of monitoring, mitigation or through consent conditions – that the cultural concerns will be addressed.

However, it is inappropriate and wrong for cultural concerns to be left out of this CIA because an environmental assessment has assumed or identified no or minimal impact. If this approach was taken it would mean that this document is an assessment of the environmental impact (as determined by non-manawhenua) on cultural values. This is not what Ngati Waewae want considered by L&M Coal. The CIA is to advise L&M Coal of their concerns with respect to cultural impacts.

It is agreed, however, that where there is a difference is opinion as to the level of the impact that that will be acknowledged in the discussion.

5.1 SPIRITUAL RELATIONSHIP WITH TE TAI POUTINI

Numerous sites of significance are found across Te Tai Poutini and this legacy, left by the region's original inhabitants hundreds of years ago, remains of spiritual and cultural importance. This legacy must be protected. Ngati Waewae history, culture and spirituality have been essential ingredients in shaping their approach to management of the natural and physical resources of Te Tai Poutini.

According to Ngati Waewae the lands, waters, ecosystems, and Ngati Waewae whanau whanui are interrelated with bonds that should not be broken. In both their whakapapa and their physical presence on the landscape, maunga, the vegetation and the rivers invoke a sense of awe.

Historical events however have shaped and changed Ngati Waewae cultural and spiritual values. As Ngati Waewae became integrated into European society, then the New Zealand economy, changes occurred. The original "economy of trade" overtime became a set of cultural beliefs fashioned by reactions to the economic and assimilative forces that became increasingly powerful in their lives as they witnessed large scale developments that modified and in many instances destroyed sites of significance including valued mahinga kai. These beliefs became powerful values arising from the spirituality that has characterised Ngati Waewae from pre-European times to today. Because of their place in the whakapapa of Kai Tahu, maunga, the whenua and the waters of Te Tai Poutini are sacred. This is the spirit with which many Ngati Waewae view Te Tai Poutini today. While it may not be possible to avoid remedy or mitigate the impacts of the Escarpment mine project on the spiritual values of Poutini Ngai Tahu, discussions with Te Runanga o Ngati Waewae, as the papatipu Runanga, needs to continue as soon as practicable.

5.2 TE AO MAORI

Te Ao Maori emphasises holism and requires consideration of a catchment as an interconnected whole

VALUE	IMPACTS
Te Ao Maori • is recognised in "*Ki Uta Ki Tai*" a culturally based 'mountains to the sea' natural resource management framework • recognises that Ngati Waewae value and use all parts of a catchment. • Headwaters are particularly vulnerable and are to be protected. Their good health is crucial to the good health of downstream reaches.	**IMPACT 1. Waterways –** Mining is not to remove or modify waterways. **IMPACT 2. Changed patterns of flows -** Reduced stream flows are a concern. • Aquatic life in small stretches of Cascade Creek and Whareatea will be lost. The AEE notes that there are no fish present and the removal of acid flows is a positive ffect. • A number of ecological processes are triggered by high water flow events and the timing of such events may be made less frequent (see 5.4.2). Ngati Waewae needs to be assured of the means of monitoring flow variability and the mechanism for addressing any unforeseen impacts. • **IMPACT 3. Land / water interface and balance –the level and intensity of usage of land has changed** Ngati Waewae believe that the first priority is to ensure stream management serves ecosystems. Mine development can contribute to the degradation of river ecosystems by: • the flows from tributary waterways are intercepted, impounded and diverted into treatment reservoirs. • a reduction in downstream flow impacts valued species; • Mine development could enable greater resource use and development on the coast. The AEE confirms that these effects will be experienced but, again, suggest that effects will be minor. **IMPACT 4 – Visual impact –**L&M Coal are to reduce the visual impact

	of the scheme by replanting with native vegetation on disturbed areas as soon as practicable. The AEE notes that the mine is not visible. Plus the intention is to return the site to their pre-mining state. **IMPACT 5. Changes to stream shape -** The capacity and shape of a stream / river results from its flow, the stream / river bed and bank material, and the sediment carried by the flow. Reductions in low flows, mean flows and flood flows may alter the river morphology. It is unclear to runanga members how the ecosystem as a whole is to be affected by this proposal. Earthworks may be necessary. The ongoing maintenance requirements are not clear. **IMPACT 6. Passage - S**tructures constructed dosnstream of the project area act as barriers (see 5.5.1). The disruption of natural flow may restrict species dispersal creating significant spaces between populations, thus impacting species abundance and distribution. Ngati Waewae wants to be assured that there are to be no new impediments to fish passage as a result of the construction of the infrastructure. They also support the intention to modify culverts (see 5.5.2). Further it is unclear to Ngati Waewae if monitoring is proposed by way of consent conditions. This needs to be clarified. **IMPACT 7. Sediment movement through the catchment -** Sediment movements downstream can be inhibited by infrastructure developments. Ngati Waewae want to be advised of the plans to ensure sediment and sludge by-product from mining activities must not be allowed to contaminate waterways. Ngati Waewae also want to be advised of the location and operation of sediment traps and ponds (5.3.2). **IMPACT 8. Effects felt throughout the catchment -** Ngai Tahu believe that modifications to streams by mine development can lead to deterioration of downstream river reaches. Ngati Waewae know that waterways change biologically from the headwaters to the sea, just as they change physically. The AEE concludes no impact on downstream reaches but as stated previously the AEE emphasizes the landscape is already modified.

5.3 WHAKAPAPA

Whakapapa binds Ngati Waewae to the lands and waters of Te Tai Poutini and the diversity of life supported by them.

VALUE	IMPACTS
Whakapapa • Whakapapa describes bonds, relationships, and connections. • Poutini Ngai Tahu have rights and responsibilities arising from whakapapa • Connections between waters, riparian margins and terrestrial lands need to be managed as a whole living entity.	**IMPACT 9. Smaller aquatic resources neglected -** Smaller aquatic resources (small streams, lagoons) may collectively be significant sources of biological diversity. Impacts of mine development on these smaller resources may result from: • Reducing stream flows • Obstruction of migratory pathways • Destruction of old / creation of new aquatic habitats Ngati Waewae is concerned at the future health of these aquatic resources. However they note that L&M Coal believe that there will be insignificant effects of macroinvertebrates and fish fauna of the hole catchment.

5.4 IMPACT ON THE CULTURAL LANDSCAPE

The entire landscape of Te Tai Poutini is of significance to Poutini Ngai Tahu. Places did not function in isolation from one another, but were part of a wider cultural setting that included not only sites as defined by the presence of archaeological remains, but all manner of highly valued places that were named by the earliest inhabitants of the area.

VALUE	IMPACTS
Cultural Landscapes • Every part of the landscape was known and named. • Cultural landscapes encompass a range of sites valued and utilised by Poutini Ngai Tahu.	**IMPACT 10. Cumulative effect -** A special challenge for Ngati Waewae, as kaitiaki, is to assess the cumulative effects of the mine proposals of competing mine companies. Ngati Waewae are currently assessing four proposals. Many of the impacts raised in this section may be of relatively minor significance when individual consents are assessed but Ngati Waewae are concerned that the cumulative effect could be significant long term changes to many of the catchments found within their takiwa. This cumulative effect may impair the cultural association of Ngati Waewae with Te Tai Poutini. Ngati Waewae therefore want to be advised of initiatives by L&M Coal to protect, enhance, restore or rehabilitate aquatic ecosystems on Te Tai Poutini as compensatory habitats.
• Poutini Ngai Tahu rights stem from specific lands and waters – these are the places that symbolise and validate the rights of the whanau to use resources.	**IMPACT 11 - Impacts upon natural character and indigenous vegetation -** Many of the plants in the affected areas are taonga species and represent a source of cultural materials. It is noted that the loss of vegetation will be "of a lengthy but finite period). It is confirmed that native vegetation (specifically some native regrowth) will be lost through mining and road widening (5.8.l) should consents be granted. Ngati Waewae want to be advised of the compensatory planting and enhancement that is proposed in other areas. As stated earlier while this impact could be classed as minor, Ngati Waewae sees it as an incremental increased adverse effect building on other losses.

	IMPACT 12. Construction of the mine infrastructure - Ngati Waewae know that some sites could be destroyed as a result of the construction of the mine infrastructure. New mine infrastructure must avoid destroying or degrading sites of significance to Ngai Tahu. Accordingly an Accidental Discovery Protocol is to be confirmed (see Appendix 2). Further, L&M Coal needs to consider not just the direct construction effects (e.g. earthworks) but all the issues raised in this report and assess the indirect impacts on sites of significance. Construction activities generally expose soil to erosion. Following the completion of construction work, Ngati Waewae wants to see native vegetation re-established around structures so that bare soil is not exposed to erosive forces. Wherever possible opportunities should be found to re-establish and enhance riparian margins. **IMPACT 13. Maunga - R**idgelines and skylines are to remain intact. The natural landscape connection and flow from this area to the Paparoa Ranges must be maintained. .

Photo 2: an example of the indigenous vegetation found in the area

5.5 PLACENAMES

Placenames reflect the significance of the relationship between this land and the Ngati Waewae peoples.

VALUE	IMPACTS
Placenames The physical presence of our tupuna throughout the inland regions is evidenced by the place names that survive.	**IMPACT 14. Place names:** Modifications to landforms, landscapes and resources mean that many place names are "displaced". Over time the original name has been lost plus the association between the place and the name has also been lost. Ngai Tahu has initiated a number of projects to record placenames.L&M Coal should discuss with Ngati Waewae how initiatives could protect and restore traditional placenames of Te Tai Poutini.

5.6 MAURI

Mauri is a diminishable value. While the quality of many of the waterways in Te Tai Poutini remains high, the potential exists for the mauri of many waterways to be degraded.

VALUE	IMPACTS
Mauri • The primary management principle for Ngai Tahu is the protection of the mauri • Mauri describes life, energy, vitality and movement • A healthy mauri is reflected in a range of aquatic habitats supporting diverse kaiora. • Headwaters are particularly vulnerable and should be protected • High water quality of sufficient quantities is necessary to sustain the mauri of waterways.	**IMPACT 15. Water quantity** Water quantity issues continue to seriously impact the mauri of many waterways, including Te Tai Poutini catchment through: • Changes to flow regimes (i.e. high flows); • Catchment changes • Intercepting the waters of Cascade Creek and Whareatea River. **IMPACT 16- Impacts on mauri of land - Rehabilitation** Ngäti Waewae believes that L&M Coal has come a long way towards improving operational practices, through incorporating rehabilitation as an integral part of their planning. Rehabilitation and restoration plans are seen to demonstrate environmental responsibility and long-term commitment to better mining practices. It is also important to recognise that while rehabilitation may bring back aspects of the physical and ecological landscape, it may not restore the *mauri*, or life giving essence, of the land. To reiterate it is important to realise that natural disasters cannot harm the mauri only those resulting from the actions of man. Incremental modifications resulting from development / construction of infrastructure adversely impacts mauri. The Escarpment mine project should include provisions to rehabilitate landscapes. In addition, weeds and other pest species must not be allowed to establish. Allowing weeds such as gorse, and pest species such as possums or stoats to colonise areas that support indigenous flora and fauna also impacts the mauri of that land. Weed and animal pest control must be an integral part of the rehabilitation process to ensure success of efforts. Ngäti Waewae expects all precautions to be taken to ensure that pest species currently not in the area (e.g. gorse) do not establish, and any existing pest species are part of an ongoing pest control program. Ngäti Waewae notes the suggestion in the Vegetation and Flora Survey for "offiste legal protection and or management" (see page v). Such initiatives are to be discussed with Ngäti Waewae. Ngäti Waewae is to be permitted access to all rehabilitation activity. This will allow ongoing monitoring and assessment of success. In consultation with the Rünanga, yearly visits may be arranged. Ngäti Waewae supports and encourages on site nurseries to supply rehabilitation efforts. Only indigenous species are to be used in rehabilitation works, and to the largest extent possible these species must be indigenous to the area.

	IMPACT 17 - Impact on water quality of adjacent and connected waterways The AEE stated that, where applicable, stream / discharge water contaminated from mining will be treated first before entering the cascade catchment. Ngati Waewae believes that water quality monitoring must include cultural monitoring in terms of tangata whenua values (cultural, spiritual, and ecological) alongside scientific values, with results assessed against scientific and cultural criteria. Ngäti Waewae is concerned at the possible introduction of didymo. It recommends that didymo be subject to a risk management plan. **IMPACT 18 - Impact on groundwater** Groundwater systems nourish the land and waterways from below the surface. Due to the nature of the coal plateaux landscape, there is concern that waipuna (springs) and other underground water flows (e.g. caverns) that are connected to both surface and groundwater may be adversely affected. Groundwater must not be contaminated by any of the activities of L&M Coal The potential for reduced groundwater contributions to the baseflow of streams must be included in L&M Coals Environmental Management System. If L&M Coal beleave that increased contributions to base flow of streams will result, then this too should be monitored with the results available to Ngati Waewae.

RANGATIRATANGA

Tino Rangatiratanga refers to Ngati Waewae having the right to make decisions concerning the resources within their recognised area.

VALUE	IMPACTS
Rangatiratanga Rangatiratanga describes the rights of Ngati Waewae to make decisions.	**IMPACT 19 - Collaborative opportunities** Having water diversion bunds or drainage channels potentially limits the opportunities for Ngati Waewae to • Negotiate a management role • Secure recognition of its rights to freshwater. Any application to take water reinforces the perception of whanau that the priority for water managers is to make water available for out of stream users rather than caring for the rivers. Ngati Waewae needs to see how such consents also afford opportunities to enhance ecosystems.

5.8 WAHI TAPU / WAHI TAONGA

VALUE	IMPACTS
Waahi Tapu There are written records of sites being destroyed as a result of the construction of infrastructure in Te Tai Poutini.	**IMPACT 20 -Modifications to and the destruction of waahi tapu.** An accidental discovery protocol is to be agreed, given the potential for accidental disturbance of previously unrecorded sites. **IMPACT 21 – Blasting -** Use of explosives could impact wahi tapu and wahi taonga

Photo 3: Looking South to Westport

Photo 4: Another water body in the region.

5.7 TAONGA SPECIES

VALUE	IMPACTS
Taonga species are native birds, plants and animals of special cultural significance and importance to Ngäi Tahu	**IMPACT 22 - Loss of habitat for fauna (5.2.2)** The incremental loss of habitat for bird species in addition to the losses already experienced as a result of mining is a concern for Ngäti Waewae. The area is rich in birdlife, such as the great spotted kiwi, South Island kaka, western weka, kakariki, and mata (fernbird). Such species are of high cultural and conservation importance, and are also taonga species under the Ngäi Tahu Claims Settlement Act 1998. Taonga and other culturally important species present in the area include South Island kaka, Koau (black shag), Kakariki (New Zealand parakeet), Kiwi, Mata (fernbird), Western weka, Korimako (bellbird), Kakaruai (South Island robin), Kaka, Ruru koukou (morepork), Tiritiri-pounamu (South Island rifleman), Piwakawaka (fantail), and Tui For Ngäti Waewae, relocation is only seen as the second best option when this is not possible. In addition, if relocation occurs it must be done in a culturally appropriate manner. Any removal plan for kiwi must be include consultation with Ngäti Waewae so that the necessary kawa and tikanga can be observed. Pest control must be an integral part of mitigating habitat loss of taonga species. L&M Coal must adequately provide for pest control as part of the rehabilitation efforts, and in the areas where the birds are relocated, should this occur, to ensure the survival of birds.

Photo 5: Kiwi are a taonga species. Ngati Waewae note that great spotted have been seen in the area although not found as part of the recent surveys.

5.8 MAHINGA KAI

Historically diverse habitats throughout Te Tai Poutini catchment were accessed.

VALUE	IMPACTS
Mahinga kai • Rights and responsibilities governed behaviours • Access to sites has changed since settlement • Not all resources previously valued and gathered are available today. • When rights are location specific they cannot be translocated once habitats are degraded and no longer useable	**IMPACT 23 - Modifications to the waterways and the resultant loss of habitat.** Ngati Waewae believes that the mahinga kai resources of Te Tai Poutini catchments remain at risk. Fishing survey data suggests some freshwater fish species in the proposed scheme area important to Maori could be affected. Koura in the south of the reservoirs and long finned eels in the lower Whareatea catchment. We note the proposed mitigation in 5.5.2 **IMPACT 24 - Loss of opportunities** L&M Coal is to discuss with Ngati Waewae opportunities for enhancement of aquatic ecosystems.

Photo 6: Eels remain a highly valued mahina kai.

5.9 KAITIAKITANGA

Rights are accompanied by responsibilities to manage resources sustainably.

VALUE	IMPACTS
Kaitiakitanga • Poutini Ngai Tahu have a fundamental duty to protect the natural world	**IMPACT 25 - Loss of opportunity to participate** Ngati Waewae believe they have a right to participate in the management of waterways. However, they feel that their role as kaitiaki has been marginalized. The use of the catchments for mine development (and other activities such as Mine) has taken priority and dominates many of the landscapes, and the interpretation of the landscape. This has affected Ngati Waewae's relationship with the catchments of Te Tai Poutini. Restorative action is needed to create new, innovative relationships. Further a balance needs to be restored so a Ngati Waewae perspective is recognized and their involvement is provided for. L&M Coal has the opportunity to negotiate pro-active and innovative measures with Ngati Waewae.

5.10 TRAILS

In a modern day context, the issue becomes one of access.

VALUE	IMPACTS
Access Access to sites and resources of significance was and remains of vital importance.	**IMPACT 26 - Access** The infrastructure necessary for Mine development can limit access to sites, resources and waterways. Ngati Waewae are concerned that they may lose the ability to relate and make associations with trails, nohoanga and past cultural use of catchments, because many of the areas are modified. Ngati Waewae need to be assured that access is to be unimpeded and wherever possible enhanced.

Indirect Effects

This maybe one of a large number of mines already active on the Te Tai Poutini. Development could signal or open up the coast for large scale resource use and development. As history tells us, in New Zealand where there is infrastructure development, agriculture follows. In the current economic climate, agriculture usually means high intensity farming.

Ngati Waewae needs to be assured that a good working relationship with L&M Coal Limited will enable it to work proactively to minimize the impacts of future resource use and development on its cultural interests.

Possible Benefits from scheme to Maori

Potential for water quality improvements and its positive impact on freshwater species has previously been noted. As with any habitat loss from bunds and drainage channels there will be

both positive and negative effects depending on the preferences of specific species. Some species preferring more water or better quality water in a large open area may benefit.

Eradication of pest plants.

Off site enhancement of flora and fauna.

Economic delelopment.

5A. ADDENDUM – IMPACT OF THE SLURRY PIPELINE

Ngati Waewae has been supplied with a description of L&M's intention to install a slurry pipeline rather than truck the coal off site. Maps showing the route of the pipeline were provided.

IMPACTS

POTENTIAL IMPACTS

To install and operate the slurry pipeline -

- Is not to disrupt drainage of water to natural receiving waters;
- Is to be subject to the Accidental Discovery Protocol;
- Is to be screened at the point of the water take;
- Is to be subject to sediment management at each of the locations where earthworks are proposed to erect poles for the 33KV and the 11KV lines
- Is to be accompanied by an alternative route for public access alongside the mine road;
- Is preferably to be above ground;
- Is to be screened so that it is not visible; and
- Is preferably not to damage or destroy any indigenous vegetation. Where damage or loss does occur the vegetation is to be replanted.

6. RECOMMENDATIONS

This section contains summarises of four key areas:

1. It identifies the priorities of Ngati Waewae.
2. It provides a summary of generic effects to be avoided and those effects specifically relevant to Escarpment mine Project.
3. It sets out the areas that are subject to further discussion.
4. It describes the expectations of Ngati Waewae going forward.

6.1 PRIORITIES OF NGATI WAEWAE.

Priorities of Ngati Waewae include the following:

- Protecting the headwater streams that flow from maunga.
- Protecting the many small aquatic resources including streams, wetlands and springs.
- Rehabilitating degraded lands and waters
- Negotiating an Accidental Discovery Protocol;
- Protecting the opportunity to enhance mahinga kai habitats; and
- Protecting indigenous biodiversity, in particular taonga species.

6.2 ADVERSE EFFECTS TO BE AVOIDED

In other documents prepared for Mining development including developments on Te Tai Poutini, Ngati Waewae have observed that they have experienced the following adverse impacts:

- wahi tapu and wahi taonga areas have been inundated and lost. As a result, named and active associations are broken and the cultural relationship with areas is weakened and damaged,
- previously valuable mahinga kai areas have been similarly destroyed, and in instances access to existing resources has also been adversely affected.
- the character of the catchment is irrevocably altered;
- diverting or daming flows are not considered adequate for the maintenance of the water ways mauri;
- infrastructure can have serious environmental implications and can damage fishery and other mahinga kai interests, sometimes irrevocably;
- water diversion by bunds or drainage channels interrupt the continuity of flow from the mountains to the sea which conflicts with the philosophy of “Ki Uta, Ki Tai”; and

Ngati Waewae are committed to:

- supporting abundant mahinga kai resources, particularly in important wetlands, backwaters, and tributaries;
- protecting the quality of the waters of Te Tai Poutini;
- protecting wahi tapu / wahi taonga;
- protecting cultural landscapes;
- ensuring variability in West Coast river levels;
- providing a sufficient buffer, or safety margin, to mitigate against the adverse effects of changing land uses on the waters of Te Tai Poutini;
- enhancing access throughout the catchment;
- addressing issues relating to changing land uses in catchments.

When assessing the impact associated with the Escarpment Mine Project Ngati Waewae want to see the following adverse effects avoided:

- Any deterioration to the quality of water – monitoring needs to confirm improvement;
- Unnatural changes to the sediment flow and patterns of deposition – monitoring needs to confirm no adverse impacts. Monitoring of the river mouth is particularly important – consistent with ki uta ki tai;
- Any encroachment of adjacent land uses onto river margins and riverbeds;
- Any dewatering or loss of small aquatic resources including streams, and springs, throughout the catchment – hydrological monitoring is required;
- Any loss of access to sites of significance, especially remaining mahinga kai sites;
- Any loss of mahinga kai habitats and mahinga kai species;
- Any loss of wahi tapu and wahi taonga.

As is noted in some of the dot points above, some of these issues can be addressed by consent conditions and monitoring.

6.3 ONGOING DISCUSSIONS

Ngati Waewae would like to discuss the following issues:

- Ngati Waewae is interested in discussing mahinga kai enhancement opportunities.
- Ngati Waewae would like to discuss the re-introduction of species providing such initiatives are also supported by DOC.
- New water treatment options
- How to mitigate mauri of the land and water ways

Ngati Waewae wishes to be advised of:

- Initiatives to avoid, remedy or mitigate the adverse effects of new mine infrastructure on the values identified in this report.
- Initiatives to avoid, remedy or mitigate the adverse effects of the Project on the values identified by stakeholders.

6.4 GOING FORWARD – NGATI WAEWAE EXPECTATIONS

It is expected that the impacts specific to the Escarpment Mine project raised in this CIA will become the focus of direction discussions between Ngati Waewae and L&M Coal Limited

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APPENDIX 1

APPENDIX 2

ARCHAEOLOGICAL SITE ACCIDENTAL DISCOVERY PROTOCOL

Purpose

The purpose of this protocol is:

- To manage and protect the integrity of "known" and "unknown" archaeological sites from damage and loss.
- To maximise the opportunity to retrieve physical and archaeological evidence from disturbed sites. In cases where sites clearly are unable to be retained intact, the orderly and systematic removal of archaeological evidence and information is of the utmost importance.
- Köiwi Tängata (human skeletal remains) are from time to time unearthed through a range of causes, man made and natural. The dignified and appropriate cultural management of such sites and remains is of vital importance.
- To obtain quality information on the lives, activities, food, resource use, trails and camp sites of Ngäi Tahu ancestors from archaeological sites. Early detection and assessment is dependent on early intervention to manage retrieval of such information.
- To obtain quality historic information on the lives of people, their activities, resource use and structures.
- To provide the conditions to be imposed on any earthworks consent.

Definition

"Archaeological site" means any place in New Zealand that —
(a) Either —
(i) Was associated with human activity that occurred before 1900; or
(ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and
(b) is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand" Historic Places Act 1993

Process

'the Company" shall consult with Te Rünanga o Ngäi Tahu and 'the Rünanga" to determine, in accordance with Tikanga Mäori, if there are any matters of protocol which tangata whenua wish to undertake in relation to the commencement of any development works, significant events or the commissioning of the completed works.

In the event of any discovery of suspected cultural remains (e.g. shells, charcoal or charcoal-stained soil, fire-fractured stone, or bones) the workman/contractor shall take the following action:

1 Cease all works immediately.
2 Advise the site supervisor of a find.
3 The site supervisor shall contact an appointed archaeologist to advise on the significance of the find.
4 If the find is of potential significance to Ngäi Tahu, "contact" person(s) from 'the Rünanga" must be advised.
5 The Historic Places Trust must be advised in all cases (note that it is an offence under section 99 of the Historic Places Act 1993 to modify, damage or destroy an archaeological site without the prior authority of the New Zealand Historic Places Trust).

In cases of wähi taonga and wähi tapu

- The nominated representative(s) of 'the Rünanga" will be consulted by the archaeologist and site supervisor to determine what further actions are appropriate to avoid, reduce, remedy or mitigate any damage to archaeological sites.
- 'the Company" shall consult with 'the Rünanga" on any matters of protocol which they may wish to undertake in relation to the find and prior to the commencement of any investigation.
- 'the Company" shall consult with The Historic Places Trust for advice of any requirements under the Historic Places Act.

In cases of suspected Köiwi Tängata

- The site supervisor shall take steps to immediately stop work, shut down all machinery or activity, secure the area to ensure that the remains are not touched and then notify the police and the nominated representative(s) of 'the Rünanga".
- 'the Company" shall consult with The Historic Places Trust for advice of any requirements under the Historic Places Act.
- The site supervisor must ensure that staff are available to meet and guide Police (note that the Coroners Act applies), Kaumatua and Historic Places staff to the site and to assist with any requests made. The area shall be marked off and if the remains are of Mäori origin, Kaumatua will decide what will happen to the remains and advise the Police and other parties of their decision.
- Work may only recommence in the area with the approval of the Police, Kaumatua and the Historic Places Trust.

In all other cases

- The archaeologist and site supervisor to determine what further actions are appropriate to avoid, reduce, remedy or mitigate any damage to archaeological sites.
- The Historic Places Trust shall be consulted for advice of any requirements under the Historic Places Act.

<u>Responsibilities</u>

‘the Rünanga”

1 To inform ‘the Company” of the position of any known sites prior to earth disturbance.
2 To inform ‘the Company” in accordance with tikanga Mäori, if there are any matters of protocol which Tängata whenua wish to undertake in relation to the commencement of work or significant events.
3 To provide a list of contact persons and phone, fax and mobile numbers to ‘the Company”.
4 To adopt a policy of guaranteeing response to notification of a “suspected site find” within a 24 hour time frame;
   (a) this will consist of contacting appropriate people and organisations depending on the nature of the “find”;
   (b) arranging a time for inspecting the site;
   (c) co-ordination of the appropriate action to remove or otherwise any archaeological material from the site.

‘the Company”

1 To require all staff/contractors involved in drilling, earthmoving or mining operations to undertake a training session on the recognition of archaeological sites, wähi tapu, wähi taonga, urupa or köiwi tangata. ‘the Rünanga” and Te Rünanga o Ngäi Tahu will be contracted to provide appropriate training to such staff.
2 To implement internal management protocols to ensure staff are aware of the requirement to monitor operations in a way that allows the identification of archaeological sites including wähi tapu, wähi taonga, urupä or historic (European) cultural sites.
3 To implement a reporting procedure in the event of a “find” of any archaeological material as described in the Process above.
4 To ensure that ‘the Company” will meet all statutory obligations under the Historic Places Act 1993 and comply with all conditions of resource consent as they relate to matters of archaeological significance.
5 To provide a copy of the work plan no less than 25 working days prior to any earth-moving works to ‘the Rünanga” and the Historic Places Trust setting out:
   - A schedule of the dates of all significant earthmoving events, their sequence and duration
   - A summary of all measures being undertaken to ensure that adverse effects on archaeological values are avoided, remedied or mitigated.

6. To invite ‘the Rünanga” and Te Rünanga o Ngäi Tahu to attend any episode of archaeological, monitoring or earthmoving activity.
7. To provide ‘the Rünanga” and Te Rünanga o Ngäi Tahu and the Historic Places Trust with a copy of all archaeological monitoring and investigation results with an invitation to respond, comment or meet to discuss any results.
8. The consent holder shall notify the District Council of all information provided to ‘the Rünanga” and Te Rünanga o Ngäi Tahu and any responses received. If appropriate, the District Council, with the agreement of the consent holder and ‘the Rünanga” and Te Rünanga o Ngäi Tahu shall convene meetings/hui should any of the information or issues require further discussion.

9 To appoint an archaeologist(s) approved by ‘the Rünanga” to be available during all earthworks and excavations to act as an advisor on identification or protection of wähi tapu, wähi taonga, urupä or historic cultural sites. This person(s) to be on-site as required by conditions of resource consent or as required in the event of a discovery.

ACCIDENTAL DISCOVERY PROTOCOL

1. Introduction

This protocol records those procedures that should be followed in the event that koiwi, taoka, wāhi tapu, or archaeological sites, are unearthed or discovered during development.

2. Definitions

In this Protocol the following terms are used:

Archaeological Sites – as defined by the Historic Places Act 1993 (as amended).

"Koiwi takata" means human skeletal remains.

"Taoka" means cultural artefacts such as implements, weapons or decorations traditionally and historically utilised by tangata whenua and include parts or the remains thereof.

"Wāhi tapu" means any site of religious, cultural or spiritual significance for takata whenua.

3. Accidental Discovery Protocol

The following procedure shall be adopted in the event that koiwi takata, taoka or wāhi tapu are unearthed or discovered, or are reasonably suspected to have been unearthed or discovered, during the course of development.

a. If koiwi takata (human skeletal remains), taoka or a wāhi tapu site are uncovered during development all activity in the immediate vicinity of the site shall cease.

b. The plant operator shall shut down all machinery and / or activity immediately, leave the area, and advise the Project Manager of the occurrence.

c. The Project Manager shall take steps immediately to secure the area in a way that ensures that the discovery remains untouched so far as possible in the circumstances.

d. The Project Manager shall, dependent on the nature of the discovery, notify the New Zealand Police and the Public Health Unit (in the event of a koiwi takata discovery); nominated Rūnaka representatives; the New Zealand Historic Places Trust; and the Territorial Local Authority.

e. The Project Manager shall ensure that staff assistance is made available to guide kaumatua, police, or Historic Places Trust staff to the site, assisting with any requests that they may make.

f. The Project Manager shall ensure that kaumatua are given the opportunity to undertake karakia and such other religious or cultural ceremonies and activities at the site as may be considered appropriate in accordance with tikanga Māori (Māori custom and protocol).

g. Where the koiwi takata, taoka or wāhi tapu are of Māori origin, any materials discovered shall be handled and removed by the kaumatua who are responsible for the tikanga (custom) appropriate to their removal or preservation.

h. All parties involved shall endeavour to ensure that these matters are dealt with as expeditiously as possible.

Nominated Runaka Representatives

Francois Tumahai
Chairman
Te Runanga o Ngati Weawea
PO Box 37 Hokitika
O21 425 229

APPENDIX 3

Birds

Name in Maori	Name in English	Scientific Name
Hoiho	Yellow-eyed penguin	*Megadyptes antipodes*
Kahu	Australasian harrier	*Circus approximans*
Kaka	South Island kaka	*Nestor meridionalis meridionalis*
Kakapo	Kakapo	*Strigops habroptilus*
Kakariki	New Zealand parakeet	*Cyanoramphus* spp.
Kakaruai	South Island robin	*Petroica australis australis*
Kaki	Black stilt	*Himantopus novaezelandiae*
Kamana	Crested grebe	*Podiceps cristatus*
Karearea	New Zealand falcon	*Falco novaeseelandiae*
Karoro	Black backed gull	*Larus dominicanus*
Kea	Kea	*Nestor notabilis*
Koau	Black shag	*Phalacrocorax carbo*
	Pied shag	*Phalacrocorax varius varius*
	Little shag	*Phalacrocorax melanoleucos brevirostris*
Koekoea	Long-tailed cuckoo	*Eudynamys taitensis*
Koparapara *or* Korimako	Bellbird	*Anthornis melanura melanura*
Korora	Blue penguin	*Eudyptula minor*
Kotare	Kingfisher	*Halcyon sancta*
Kotuku	White heron	*Egretta alba*
Kowhiowhio	Blue duck	*Hymenolaimus malacorhynchos*

Name in Maori	Name in English	Scientific Name
Kuaka	Bar-tailed godwit	*Limosa lapponica*
Kukupa/Kereru	New Zealand wood pigeon	*Hemiphaga novaeseelandiae*
Kuruwhengu/Kuruwhengi	New Zealand shoveller	*Anas rhynchotis*
Mata	Fernbird	*Bowdleria punctata punctata* and *Bowdleria punctata stewartiana* and *Bowdleria punctata wilsoni* and *Bowdleria punctata candata*
Matuku moana	Reef heron	*Egretta sacra*
Miromiro	South Island tomtit	*Petroica macrocephala macrocephala*
Miromiro	Snares Island tomtit	*Petroica macrocephala dannefaerdi*
Mohua	Yellowhead	*Mohoua ochrocephala*
Pakura/Pukeko	Swamp hen/Pukeko	*Porphyrio porphyrio*
Parera	Grey duck	*Anas superciliosa*
Pateke	Brown teal	*Anas aucklandica*
Pihoihoi	New Zealand pipit	*Anthus novaeseelandiae*
Pipiwharauroa	Shining cuckoo	*Chrysococcyx lucidus*
Piwakawaka	South Island fantail	*Rhipidura fuliginosa fuliginosa*
Poaka	Pied stilt	*Himantopus himantopus*
Pokotiwha	Snares crested penguin	*Eudyptes robustus*
Putakitaki	Paradise shelduck	*Tadorna variegata*
Riroriro	Grey warbler	*Gerygone igata*
Roroa	Great spotted kiwi	*Apteryx haastii*
Rowi	Okarito brown kiwi	*Apteryx mantelli*
Ruru koukou	Morepork	*Ninox novaeseelandiae*

Name in Maori	Name in English	Scientific Name
Takahe	Takahe	*Porphyrio mantelli*
Tara	Terns	*Sterna* spp.
Tawaki	Fiordland crested penguin	*Eudyptes pachyrhynchus*
Tete	Grey teal	*Anas gracilis*
Tieke	South Island saddleback	*Philesturnus carunculatus carunculatus*
Titi	Sooty shearwater/Muttonbird/Hutton's shearwater	*Puffinus griseus* and *Puffinus huttoni* and *Pelecanoides urinatrix*
	Common diving petrel	and
	South Georgian diving petrel	*Pelecanoides georgicus* and
	Westland petrel	*Procellaria westlandica*
	Fairy prion	and
	Broad billed prion	*Pachyptila turtur* and
	White-faced storm petrel	*Pachyptila vittata* and *Pelagodroma marina* and
	Cook's petrel	*Pterodroma cookii* and
	Mottled petrel	*Pterodroma inexpectata*
Tititipounamu	South Island rifleman	*Acanthisitta chloris chloris*
Tokoeka	South Island brown kiwi	*Apteriyx australis*
Toroa	Albatrosses and Mollymawks	*Diomedea* spp.
Toutouwai	Stewart Island robin	*Petroica australis rakiura*
Tui	Tui	*Prosthemadera novaeseelandiae*
Tutukiwi	Snares Island snipe	*Coenocorypha aucklandica huegeli*
Weka	Western weka	*Gallirallus australis australis*
Weka	Stewart Island weka	*Gallirallus australis*

Name in Maori	Name in English	Scientific Name
		scotti
Weka	Buff weka	*Gallirallus australis hectori*

Plants

Name in Maori	Name in English	Scientific Name
Akatorotoro	White Rata	*Metrosideros perforata*
Aruhe	Fernroot (bracken)	*Pteridium aquilinum* var. *esculentum*
Harakeke	Flax	*Phormium tenax*
Horoeka	Lancewood	*Pseudopanax crassifolius*
Houhi	Mountain ribbonwood	*Hoheria lyalli* and *H glabata*
Kahikatea	Kahikatea	*Dacrycarpus dacrydioides*
Kamahi	Kamahi	*Weinmannia racemosa*
Kanuka	Kanuka	*Kunzia ericoides*
Kapuka	Broadleaf	*Griselinia littoralis*
Karaeopirita	Supplejack	*Ripogonum scandens*
Karaka	New Zealand laurel/Karaka	*Corynocarpus laevigata*
Karamu	Coprosma	*Coprosma robusta, coprosma lucida, coprosma foetidissima*
Katote	Tree fern	*Cyathea smithii*
Kiekie	Kiekie	*Freycinetia baueriana* subsp. *banksii*
Kohia	NZ Passionfruit	*Passiflora tetranda*
Korokio	Korokio Wire-netting bush	*Corokia cotoneaster*
Koromiko/Kokomuka	Koromiko	*Hebe salicfolia*
Kotukutuku	Tree fuchsia	*Fuchsia excorticata*
Kowahi Kohai	Kowhai	*Sophora microphylla*
Mamaku	Tree fern	*Cyathea medullaris*
Mania	Sedge	*Carex flagellifera*
Manuka Kahikatoa	Tea-tree	*Leptospermum scoparium*
Mapou	Red Matipo	*Myrsine australis*
Matai	Matai/Black pine	*Prumnopitys taxifolia*
Miro	Miro/Brown pine	*Podocarpus ferrugineus*
Ngaio	Ngaio	*Myoporum laetum*
Nikau	New Zealand palm	*Rhopalostylis sapida*
Panako	(Species of fern)	*Asplenium obtusatum*
Panako	(Species of fern)	*Botrychium australe* and *B.*

Name in Maori	Name in English	Scientific Name
		biforme
Patotara	Dwarf mingimingi	*Leucopogon fraseri*
Pingao	Pingao	*Desmoschoenus spiralis*
Pokaka	Pokaka	*Elaeocarpus hookerianus*
Ponga/Poka	Tree fern	*Cyathea dealbata*
Rata	Southern rata	*Metrosideros umbellata*
Raupo	Bulrush	*Typha angustifolia*
Rautawhiri/Kohuhu	Black matipo/Mapou	*Pittosporum tenuifolium*
Rimu	Rimu/Red pine	*Dacrydium cypressinum*
Rimurapa	Bull kelp	*Durvillaea antarctica*
Taramea	Speargrass, spaniard	*Aciphylla* spp.
Tarata	Lemonwood	*Pittosporum eugenioides*
Tawai	Beech	*Nothofagus* spp.
Teteaweka	Muttonbird scrub	*Olearia angustifolia*
Ti rakau/Ti Kouka	Cabbage tree	*Cordyline australis*
Tikumu	Mountain daisy	*Celmisia spectabilis* and *C semicordata*
Titoki	New Zealand ash	*Alectryon excelsus*
Toatoa	Mountain Toatoa, Celery pine	*Phyllocladus alpinus*
Toetoe	Toetoe	*Cortaderia richardii*
Totara	Totara	*Podocarpus totara*
Tutu	Tutu	*Coriaria* spp.
Whaririki	Mountain flax	*Phormium cookianum*
Whinau	Hinau	*Elaeocarpus dentatus*
Wi	Silver tussock	*Poa cita*
Wiwi	Rushes	*Juncus* all indigenous *Juncus* spp. and *J. maritimus*

Marine Mammals

Name in Maori	Name in English	Scientific Name
Ihupuku	Southern elephant seal	*Mirounga leonina*
Kekeno	New Zealand fur seals	*Arctocephalus forsteri*
Paikea	Humpback whales	*Megaptera novaeangliae*
Paraoa	Sperm whale	*Physeter macrocephalus*
Rapoka/Whakahao	New Zealand sea lion/Hooker's sea lion	*Phocarctos hookeri*
Tohora	Southern right whale	*Balaene australis*