Westland Ilmenite, Punakaiki South Island, New Zealand

**The journey**

A large pilot mineral sands processing plant (40,000 tpa) was constructed at Punakaiki in 1989 and a short dredge mining campaign saw 150 t of ilmenite concentrate produced in May and June, 1990. The site was then placed in care and maintenance. In the same year, North Ltd acquired the site’s owners, Fletcher Titanium, forming Westland Ilmenite Ltd (WIL). WIL further evaluated the mineral sands resource but the project was found to be not viable. Rio Tinto inherited the site after acquiring North in 2000, and following a business evaluation, the focus shifted quickly to defining a closure strategy. Rio Tinto began evaluating its options for the site in January 2003.

The former Westland Ilmenite site lies within the coastal plain known as the Barrytown Flats; an area that was originally forested, but has been largely cleared for mining and agriculture over the last century. The site comprised 277 ha of freehold land, with blocks both to the north and south of Nikau Scenic Reserve.

A multi-sector partnership between Rio Tinto, the New Zealand Department of Conservation and Conservation Volunteers New Zealand is restoring a corridor of native forest from mountains to sea, at a mineral sands mining project site on the west coast of New Zealand.

The pilot mining took place in a single small area at the northern end of the property. Oversize and reject material from the wet plant was backfilled after mining ceased, and pasture was re-established.
WIL had leased its southern blocks (163 ha) to a local dairy farmer. This land was subject to a pre-existing option to purchase and was sold in 2004. Four parcels of land remained.

The site is bordered to the east by the Westland Petrel Special Protected Area – the only breeding colony for this iconic bird species – and the Paparoa National Park. To the south is the Nikau Scenic Reserve, a small but important remnant of the sand plain forest that once covered the area. The WIL site itself contains some small forest remnants including a large stand of nikau palms, as well as an ecologically diverse wetland area.

The transformation

The long-term vision is for the site to be restored as a nature reserve, connecting Nikau Scenic Reserve with the Westland Petrel SPA and the National Park. A corridor of native forest would be established from mountain to sea, enhancing the protection of the Westland Petrel’s breeding habitat and increasing ecotourism in the area.

The aim for the restoration is to make a positive and lasting impact on the social, economic and environmental values of the site. The Punakaiki Coastal Restoration Project (PCRP) partnership was formed in October 2008 to deliver this vision.

In 2010, the site was gifted to the Department of Conservation and declared a Reserve. The main area (the 3 parcels to the north and east of Nikau Scenic Reserve) is now the Te Ara Taiko Nature Reserve. The separate parcel located to the south of Nikau Scenic Reserve has become a Scenic Reserve.

The role of partnership

The pursuit of a multi-stakeholder approach for the site’s closure resulted in a genuine partnership for conservation, involving government, NGO and corporate sectors.

The Punakaiki Coastal Restoration Project partnership is between Rio Tinto, the New Zealand government (through the Department of Conservation) and Conservation Volunteers New Zealand. Key features of the partnership include:

- An agreed vision, common values, clear goals, measurable outcomes and mechanisms to ensure accountability
- A relationship characterised by mutual trust, respect, integrity, and commitment
- An understanding that the contributions of all partners are valued – building on strengths and assets
- A commitment to open communication and reflection to bring about improvement, and
- A defined partnership term of 5 years with an exit or renewal mechanism in place.

The features are found in the formal Partnership Agreement, which covers project aims and objectives, governance, budget, roles and responsibilities, communication protocols, dispute resolution, exit arrangements and sustainability. The PCRP project is managed by Conservation Volunteers New Zealand on behalf of the partners, who all participate via a Management Committee.

The partners’ shared objectives were to support the conservation of the Westland Petrel and the unique ecological values of the Punakaiki area and to demonstrate the value of partnerships for conservation.

The partners’ shared objectives were to support the conservation of the Westland Petrel and the unique ecological values of the Punakaiki area and to demonstrate the value of partnerships for conservation.
Highlights
Rio Tinto came to the site committed to achieving a sustainable land use that would benefit the local community. Gifting of the land, formation of the PCRP and the restoration work so far is tangible evidence of this commitment.

The conservation values of the PCRP partnership are very evident at the site and the project provides a local hub for social interaction and community engagement.

The project benefited from implementation of Rio Tinto’s integrated Health, Safety, Environment and Communities policy framework.

CVNZ have enthusiastically adopted safety systems and processes developed by its parent organisation, Conservation Volunteers Australia, with Rio Tinto’s assistance and encouragement. All site staff and volunteer coordinators have been trained.

Demolition of mine infrastructure, removal of waste materials, and refurbishment of the office and workshop buildings for use by CVNZ, was completed safely and without incident in August 2009. No significant contamination was detected at any stage.

Collaborations to develop methods and tools for long term monitoring of the restoration ecology are being formed with local and international researchers.

The project site is important to biodiversity conservation in New Zealand. It is identified in DoC’s Conservation Management Strategy for the West Coast of New Zealand, updated in 2010. The Strategy identifies sites with intact sequences of natural vegetation extending from mountain ranges to the coast for natural heritage management.

CVNZ has gone on to develop additional projects with the Department of Conservation, and formed relationships with other government agencies and the corporate sector in New Zealand.

Rio Tinto came to the site committed to achieving a sustainable land use that would benefit the local community. Gifting of the land, formation of the PCRP and the restoration work so far is tangible evidence of this commitment.
Lessons learnt

The approach and principles applied in this partnership for closure and conservation could be applied elsewhere.

- Bringing sectors together – corporate, government and NGO – is a well understood model, and can be effectively replicated where there is a commitment to transparency, good governance, and appropriate resourcing – both cash and in kind.

- Applying internal expertise to the development and management of partnerships with NGOs and other organisations for this project worked well. Rio Tinto’s relationship with Conservation Volunteers Australia was established over a decade ago. CVA wanted to establish in New Zealand and this project provided an ideal platform for Conservation Volunteers New Zealand. The project managers have access to well-established systems and protocols developed by CVA.

- Rio Tinto’s global systems pertaining to Health, Safety, Environment and Communities have been applied to this project.

- Working with all stakeholders to develop a sustainable land use that would benefit the local community requires a rigorous examination of options and approaches for the site.

  - Several years of study and consultation were undertaken to reach a solution that was supported by most stakeholders.

  - A simple land sale would have realized asset value for Rio Tinto. It could have enabled continued economic use for grazing, residential opportunities, or other commercial development including mining. However, the community expressed a clear preference for conservation use, focussed on protection of the petrels and remnant sand plain forest.

- Planning for a mine closure requires a continuous improvement approach, and an open mind to stakeholder interests.

- A clear framework was an essential ingredient to success for the PCRP partnership.

Our Vision

We aim to ensure that our legacy sites are made safe, that all problem areas are addressed cost-effectively, and that there is a sustainable socio-economic future for the community together with a minimised aftercare burden.