

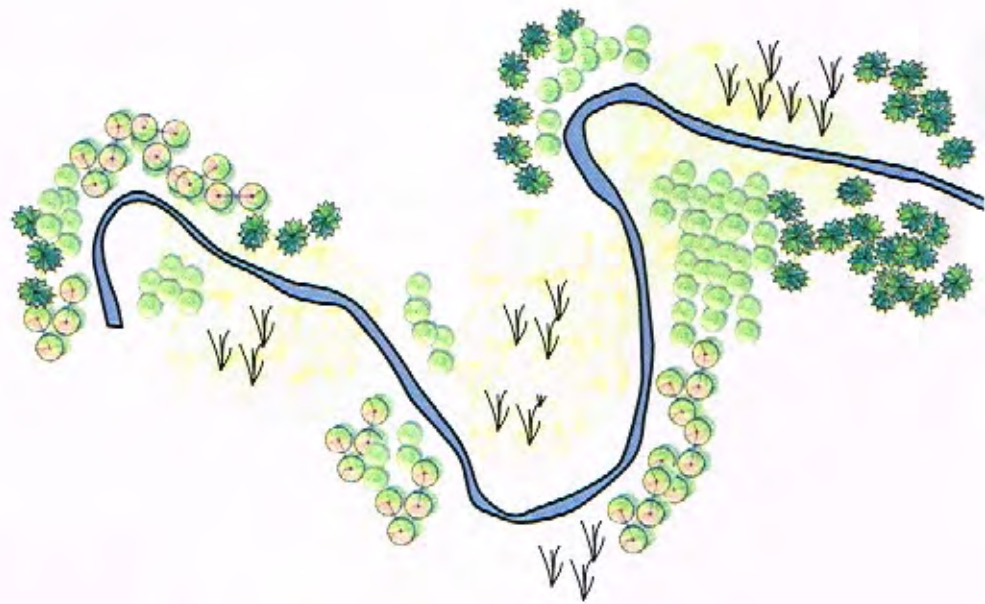
APPENDIX C

Bridge to Bridge Riparian Planting Project



BRIDGE to BRIDGE

*Enhancing Community
and Environment.*



Bridge to Bridge Riparian Planting Project

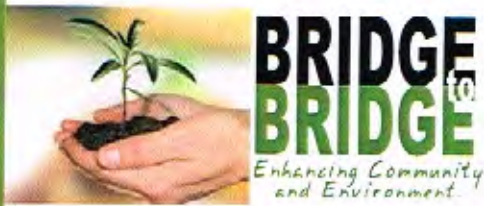
*A celebration of the completion of an environmental and
community improvement project spanning 10 years.*

NEWMONT
The Gold Company

NEWMONT WAIHI GOLD

2005 NEWMONT AUSTRALIA
SAFETY, ENVIRONMENT AND COMMUNITY
EXCELLENCE AWARDS

Submission for Best Environmental Project



Background

Ten years ago environmental staff at Martha Mine identified an opportunity to enhance the water quality of the Ohinemuri River that flows through the mining lease between the waste rock and tailings storage facility and the processing plant.

Specifically, the river's riparian margins, tributaries and wetlands could be improved by the establishment of native tree species.

Since 1995 the riparian margins on company-owned land have been gradually retired from farming, cleared of weed infested scrub, fenced and planted in native species. The project named *Bridge to Bridge* extends some five kilometres along the Ohinemuri River between Golden Valley Bridge and Coronation Bridge (see map).

On 24 September 2005 the last 80 metres of stream bank was planted at a community open day with approximately 200,000 plants having been established in the 10 year life of the project.



Above Right: On September 24 2005 members of the community joined Newmont Waihi Gold staff and representatives from local and regional councils to plant the last section of the Bridge to Bridge project.

Right: Students from local schools have been enthusiastic participants in the project.





Why plant riparian margins?

Waterways are an important part of our environment and community. They form part of our history, culture, traditions, recreation, and economy. The sustainability of waterways is directly related to how they are currently used and managed and it is important that we in Newmont take an active role in ensuring that the quality of water is maintained or enhanced.

An important part of any waterway system is the riparian margin. These are the strips of land that run either side of rivers and streams from the edge of the floodplain to the waterway itself. Over much of New Zealand riparian vegetation has been cleared for farming and this has reduced water quality by increased sedimentation and fertiliser nutrients. The ability of livestock to access streams has damaged stream banks, disturbed aquatic habitats and lowered water quality by addition of faecal matter. Flooding of the grass-dominant riparian zone has caused substantial bank erosion in places.

The company manages substantial areas of farmland and one of our rehabilitation targets is to return the waste rock embankment to a land use equivalent to pastoral production. The riparian planting programme ensures that terrestrial and aquatic habitats and water quality are enhanced alongside the pastoral and mining land that we manage.

A juvenile kauri tree on the last piece of riverbank to be planted. On the opposite bank previous plantings flourish.





Bridge to Bridge: Process and Product

The *Bridge to Bridge Riparian Planting Project* was initiated by the company in 1995 and a partnership was formed between industry, regulators, schools, and community groups. This partnership was called the Habitat Enhancement and Landcare Partnership (HELP) and was fully supported by Newmont Waihi Gold to promote local sustainable land use practices.

Approximately 200,000 shrubs and trees have been planted over the ten-year period. The company has provided approximately 180,000 of these plants and HELP has contributed around 13,500 plants.

A key feature of HELP is its structure and organisation; with the appointment of a HELP co-ordinator who promoted and managed activities among the various Waihi schools (over 450 students and teachers), many volunteers from the community, landowners, the Hauraki District Council (provision of land), and various conservation groups such as the New Zealand Forest and Bird Society.

The Waikato Regional Council has been an important advocate of riparian management and has provided guidance to ensure that riparian planting programmes meet their criteria for a financial subsidy. Environment Waikato has awarded HELP a 'Clean Streams' subsidy in the past two years and this money has been re-invested in other local riparian planting projects.

The school students, teachers, HELPerS and supporters were involved in establishing a nursery, propagating native plants from seed, growing and care of native plants, planning of land clearance and fencing, safety assessment, planting, aftercare, and monitoring of selected sites.

Over the last three years the HELP project has been moving towards a broader approach to include riparian biodiversity assessment and water quality monitoring.

In 2001, the planting programme was stepped up by contracting a local nurseryman to supply and plant up to 15 – 20,000 native plants per year, and maintain them for a further four years. Planting occurs in the autumn and winter months from April to September.

In the intervening summer period selected riparian areas are cleared of invasive weed species and fence lines established along farmland areas by local contractors. This project has sustained local businesses and continues to provide employment.

It takes about four to five years for a planted area to become maintenance free and self-sustaining. There have been some setbacks. Flood events have seen large clean up efforts become necessary and replanting in damaged patches. It has been well worth the effort, and it's all part of Newmont Waihi Gold's philosophy and continued commitment to the environment and our community.



**BRIDGE
to
BRIDGE**
*Enhancing Community
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Bridge to Bridge: Process and Product Cont.

In addition walking tracks have been developed that take full advantage of the Bridge to Bridge riparian planting and these have become a popular local attraction. The Waihi Walkways group has been involved and they have provided advice on the visual aspects of the planting programme and walkway development. Says HELP co-ordinator Andrew Jenks, 'These tracks are lined with native trees and shrubs now, and people are surprised by the extent of the walking network and the beauty of these areas. We have come a long way in the last 10 years. There are now great vistas of the river, masses of trees and shrubs for wildlife and plants to stabilize the erosion-prone stream banks – and there are only a few hardy remnants of the blackberries and other weeds that once smothered the banks and obscured the view. A lot of perspiration has gone into this project!'

Another initiative that has been integral to the success of the Bridge to Bridge Project is the KauriBank Project initiated two years ago. Kauri, *Agathis australis*, is the largest native tree in New Zealand and 'king of the forest'. The kauri is a magnificent tree that can attain a diameter of seven metres and heights of 60 metres and more.

Of all New Zealand native trees it is regarded as our most noble and symbolic, and for Maori has a spiritual significance. Kauri only occur naturally in the upper part of the North Island north of the Kaimai Ranges, some 20 kilometres immediately southwest of Waihi. Kauri were felled in the hills of Waihi early last century to supply supporting timber to the extensive underground workings at Martha Mine. New Zealand's early development in the upper part of the North Island was largely founded on exploitation of the widespread forests for a wide diversity of uses. The tree has almost disappeared from most lowlands and only remains in steep and elevated country in any numbers within forest parks.

Now Newmont Waihi Gold is endeavouring to replace some of those kauri by sourcing seeds from remaining trees in the Waihi area. Over 1600 native kauri trees have been planted in groves along the Ohinemuri River. At present there are approximately 2700 kauri growing in the nursery at different stages of development (between three and seven years old) to be planted in the coming years as part of the ongoing project.

The Bridge to Bridge Riparian Planting Project has taken ten years to complete.





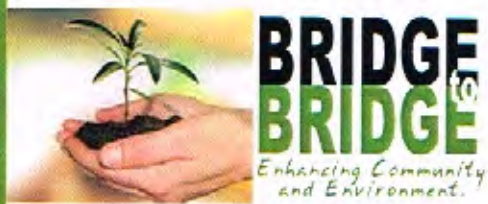
Benefits to the Company, Community and Environment

In ten years the *Bridge-to-Bridge Riparian Project* has benefited the company, community and environment through:

1. Improved water quality and aquatic habitat by:
 - Fencing preventing stock access and stream disturbances
 - Providing shading to streams and rivers
 - Regulating stream temperatures
 - Reducing the potential for bank erosion by floods
 - Riparian vegetation filtering sediment and nutrient runoff (since 2000 suspended sediment levels have significantly decreased during low flow periods – see graph)
2. Restoring natural plant diversity and habitat
3. Attracting wetland birds
4. Returning kauri trees to lowland areas
5. Added amenity value and visual attraction to the river side
6. Providing walking access and identified recreational activity areas
7. Providing business opportunities and employment
8. Improved sense of well-being by community involvement and rewards (HELP was presented an Environmental Award by Environment Waikato in 1995 and 1996. In 1998 HELP was runner-up in the National Young Conservationist of the Year Award run by the Department of Conservation)
9. Providing a forum for educational activities
10. Enhancement of Newmont's reputation and profile
11. Integration with the Golden Legacy mine closure concepts
12. Providing a model of industry-community partnerships

Conclusion

The Bridge to Bridge Riparian Planting Project has taken ten years to complete. It has involved a wide range of community groups, organisations and individuals, working cooperatively to produce a resource that will be of significant environmental and community benefit. The project is a solid example of company and community working together, using each other's strengths, to produce something of real and lasting value. It also graphically displays Newmont's ongoing commitment to sustainable development in New Zealand. For Newmont, the Bridge to Bridge Project is an excellent example of meeting the International Council on Mining and Metals Sustainable Development Principle – contribute to conservation of biodiversity and integrated approaches to land use planning.



Low flow suspended sediment levels in the Ohinemuri River from 1995 to 2005

