

ALPURTNEWS

SHI: NORTHERN MOTORWAY EXTENSION (ALPURT B2)

Mokomoko find sanctuary

On 25 November, the Northern Gateway Alliance (NGA) and Auckland Regional Council, together with Ngati Manuhiri and Ngati Whatua released native lizards (mokomoko) removed from within the footprint of ALPURT B2 into the Open Sanctuary at Tawharanui Regional Park.

The mokomoko were released at a dawn ceremony, attended by representatives of the NGA, ARC, the Tawharanui Open Sanctuary Society Inc. (TOSSI) and Rodney District Council.

Although lizard relocation is not unique to the ALPURT B2 project, the recovery operation carried out earlier this year was the largest ever attempted in New Zealand. This was also the first major gecko release on the NZ mainland that is being monitored, providing an extremely valuable opportunity to gather important information about how to manage future releases of this nature.

Two species of mokomoko were uplifted from the motorway designation, the Auckland green gecko and the forest gecko. These geckos are in gradual decline on the mainland due to introduced predators and loss of habitat. The



A Forest Gecko is released against an ancient Puriri.

mokomoko have been breeding during their time in captivity, adding over 50 juveniles to the 82 rescued adults.

The lizard's relocation to Tawharanui marks a significant achievement for the NGA, Auckland Regional Council (ARC) and iwi, who have been working together to ensure the lizards are returned to the wild in the best possible location.

NGA Project Director Robert Jones said the preservation of native wildlife living within the motorway corridor is a key aspect of the project's environmental mitigation programme. "We are extremely pleased to have facilitated the lizards' relocation to Tawharanui, where they have a much better chance of long-term survival than if they were returned to their original habitat," he said.

Whilst not endangered, native New Zealand lizard (mokomoko) species are declining in number; they also play a significant role in Maori culture as kaitiaki

(guardians) of koiwi (skeletal remains) and taonga (treasures).

The recent release of the adults captured in the wild will be followed by the release of the juveniles in the second stage early next year. This will enable the ARC to monitor the health of the adults and confirm that the release sites are suitable, as well as giving the young lizards born in captivity time to grow and therefore a better chance of surviving in the wild.

Closed for Christmas

The Northern Gateway Alliance will be closing down all construction works on the ALPURT B2 project between the afternoon of Thursday, 22 December and Tuesday, 3 January 2006. Works will resume on Wednesday, 4 January 2006.

We take this opportunity to wish you a Safe and Happy Christmas and New Year.

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Simon Chapman

Managing Director, Envirollogic Limited



The Northern Gateway Alliance mokomoko relocation project came to a very successful conclusion early on Friday the 25th November when a pre-dawn ceremony was held at the NGA offices near Orewa. Eighty-two mokomoko were uplifted in a brief ceremony before being taken north on a hikoiki to their new home at Tawharanui Open Sanctuary.

The mokomoko were then handed from Ngati Whatua to Ngati Manuhiri in a moving dawn ceremony near the release site. The event marked the handover of responsibilities for the mokomoko from Ngati Whatua and the Northern Gateway Alliance to Ngati Manuhiri, the ARC and the Massey University researchers who will monitor and protect them.

Once the mokomoko were handed over, the hosts and guests joined together to release them into their new habitat. It seemed appropriate that the only child present (it was a school day after all) released the first mokomoko to its freedom in an ancient puriri tree.

The NGA mokomoko relocation project involved capturing Auckland green geckos and forest geckos along the route of the ALPURT B2 motorway. The mokomoko relocation team from Envirollogic Limited worked mostly at night, systematically searching the bush for mokomoko. Finding a mokomoko was just the beginning. Often they were hiding high up in kanuka so the team had to use a range of innovative techniques to capture them.

Maintaining the mokomoko in captivity involved designing and furnishing cages to mimic the natural environment, and feeding the mokomoko a diet of moths, flies, crickets, soft fruits, and water.

This was the fourth time that a mokomoko relocation has been undertaken as a commercial project and a lot was learned. Firstly, proactively incorporating protection of mokomoko into planning processes for ALPURT B2 meant that the costly delays typically associated with last-minute archaeological or ecological discoveries were able to be avoided.

Secondly, there are seasonal windows of opportunity for relocating mokomoko. If release sites are selected and prepared earlier in the process, it should be possible to avoid keeping the mokomoko in captivity. The lessons learned can now be applied to other civil projects to ensure that achieving environmental excellence becomes the norm.

Bridge beams launched



A bridge beam makes its way to the launching site.

In November, the first set of 10 bridge beams for the Otanerua Eco-Viaduct were launched out over the forest canopy in the Otanerua valley, forming the deck for the first span of the bridge.

The beams, manufactured at the Stahlton yard in Henderson, are about 30 metres long and weigh about 50 tonnes each. They are delivered to site on large transporters via the state highway network. These special transporters are called "jinkers" and comprise a large truck on the front end and another, smaller truck at the rear end, controlled by a second driver. This provides extra control, ensuring the long, heavy beams can successfully negotiate corners.



A beam is launched for the first span of the eco-viaduct.

In order to launch the beams, the drivers at each end of the jinker must negotiate the steep track into the bridge construction site before painstakingly manoeuvring the beam into place under the launching truss. The truss then lifts the beam and launches it out, before lowering it carefully into place between the abutment and the first crosshead (in the case of the first and last span) or one crosshead and the next.

A total of 80 beams will be required for the viaduct, which has 8 32-metre spans. The second set of beams is due for delivery in December and will be launched to form the second span in time for Christmas.

Pile testing a success

The pile tests on the Pakiri Formation in the Waiwera Valley, reported in the previous edition of ALPURT News, have resulted in significant non-cost benefits and possible cost savings for the ALPURT B2 project.

The new information on the strength of the Pakiri Formation provided by the pile tests has resulted in a shorter pile design for the Waiwera Viaduct, saving up to 400 metres in total pile length. The tests were the first on the Pakiri Formation and the results can be used for years to come as a benchmark for other structural projects in the region.

Tunnels to get underway

With the relocation of the existing SH1 completed, the NGA is getting close to beginning work on the Johnstone's Hill twin tunnels. Clearing works for the tunnel portals have now been started on the southern slopes of Johnstone's Hill and the recently refurbished Mitsui Miike S200MA Roadheader machine has arrived in Auckland, ready to start work.

The NGA purchased the roadheader from Sydney's Cross City Tunnel project, after which it was completely refurbished at Alliance participant Leighton Contractors' workshop in Melbourne.



The Mitsui S200MA Roadheader following its refurbishment in Melbourne.

The roadheader is powered by electricity and uses a cutting head with 30 tungsten carbide cutting picks on it to cut through rock. To start tunneling, the machine is manoeuvred into position and locked into place. The cutting head is then extended 700mm into the rock face, moved horizontally across as far as its reach allows, then up, and back across. This pattern is repeated until the desired cut shape has been achieved.

To complete the required tunnel width, the roadheader needs to be repositioned three times. A laser controlled guidance

system gives the operator directions and helps ensure cutting efficiency and accuracy. Drilling debris is gathered away from the machine by rotating arms and onto conveyors that transport it to the rear of the machine where it is loaded onto a truck and removed.

The roadheader will be moved into place for a start to drilling when the drilling platform in the northern portal area is completed. The NGA anticipates a start to tunneling works early in the New Year.

Whero's Corner

Kia ora Readers

Kei te pehea koutou (how are you)

Reply: Kei te pai matou (all right)

How times have changed when we were kids and asked a question, the answer was always "later" or "what do you want to know that for?" and as I reflect on those times I am sadly reminded of the knowledge that has been lost.

So for the sake of our mokos (grandchildren) I am going to explain in my way what wahi tapu means to me and it starts like this:

The dead, the living, the unborn.

Without the dead we have no history.

Without the living we have no presence.

Without the unborn we have no future.

These are three important aspects of Maori psyche and are graphically acknowledged in our carvings in the three fingers – the past, the present, the future. Each of the above stages of life has tapu associated with them and as such are equally important. The deceased however we refer to as **wahi tapu**. **Wahi** in this instance means **place** and **tapu** means sacred or under restriction. So in a broad sense **wahi tapu** means a place that is associated with the departed.

Wahi tapu is not confined to tangible physical presence (archaeological sites). It is vital to understand that for Maori the intangible (spiritual) presence is equally important and only local kaumatua/kuia can address issues with these sites.

Kia tupato (a note of caution) – Each whanau or hapu has their own tikanga (protocols) for dealing with issues relating to **wahi tapu** and one must never assume that what is appropriate in one situation or area will necessarily be appropriate in another.

So for all those readers out there and our mokos, I hope the above enriches your knowledge of things Maori and from my colleagues and whanau we wish you a Merry Christmas and a prosperous New Year.



Team member profile – Sean Neatherway



Sean Neatherway undertaking a site inspection at the northern end of the project.

NGA Occupational Health and Safety (OH&S) Manager, Sean Neatherway, has been with the project since May 2005. Prior to joining the NGA, Sean was working in the forestry industry.

Asked what he enjoys about working on ALPURT B2, Sean says: "Lots of different things are always going on at once and working with a big mix of people from different backgrounds, companies and countries on the job means we can all teach each other something and learn something from each other."

Sean's message for a safe and happy holiday period is: "Don't drink and drive, slow down at road works and swim between the flags, it's the safest place to be – especially if I'm surfing nearby!"

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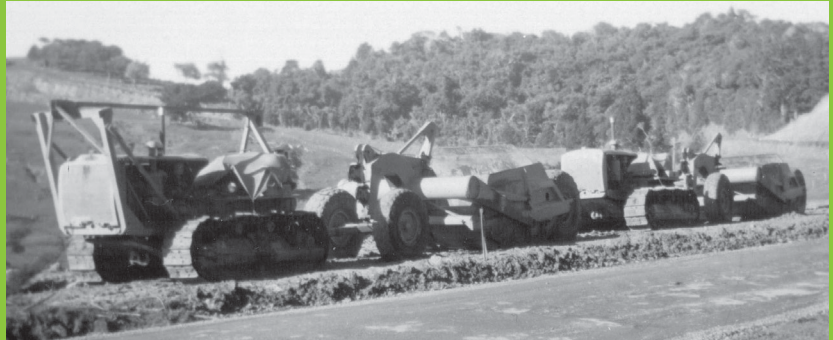
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ALPURT News will be produced regularly throughout the duration of the project. If there is something you would like to see covered in the next issue, or would like to be on the mailing list, please contact Kate Woodruffe on 09 427 3614

A piece of history



Construction equipment sits beside the original SH1 under construction, looking south to Johnstone's Hill from just above the Puhoi Estuary.

Working in a region rich in local history, the NGA team often hear stories of days gone by from residents who have lived near the new motorway route for many years. One such resident, Mrs Stanaway, was kind enough to share with us some photographs taken when the original State Highway 1 was built.

These images highlight the extent to which the local landscape has changed over the years and the difference in the scale and sophistication of construction machinery. Mrs Stanaway recalls a time when just a handful of vehicles travelled north past her family property each day, with "a dozen or so" on weekends. How times have changed...

Community focus – working through the issues

In addition to the existing SH1, some local roads are being used to access the ALPURT B2 construction site in hard-to-reach areas of the motorway alignment. Earlier this year the NGA was granted consent by the Rodney District Council to establish and service a site facility and access the motorway construction site via Otanerua Road in Hatfield's Beach.

Over the last few months, the NGA has been working with the residents of Otanerua Road to ensure that the NGA complies with the conditions of consent and addresses residents'

concerns appropriately. In an effort to understand the residents' perspective and to keep them informed, a number of meetings and a site visit have been held and information sheets have been distributed on a regular basis.

Despite this, the NGA has been having some difficulties in reaching agreement with Otanerua Road residents due to differences in interpretation of the consent conditions. NGA Project Director, Robert Jones says the Alliance remains committed to minimising any disruption to residents caused by construction traffic. "We will continue to consult with residents on an ongoing basis to ensure their concerns are addressed," he said.

Otanerua Road resident, Brenda Massey, comments: "The need for the motorway extension is obvious, but the tranquillity of my peaceful road has been shattered. At the moment the benefits of living where I do outweigh the disruption, but with four years of work still ahead I suspect that I am not the only resident who monitors this delicate balance on a weekly basis."



Otanerua Road during the upgrade works in November this year.