



Newdicks Beach Biodiversity Management Plan Report for 2014-15



Maketu Spit May '14 (Photo: Julian Fitter)

**Report prepared by Maketu Ongatoro Wetland Society Inc.
For: Bay of Plenty Regional Council, Western Bay of Plenty District Council, Department of
Conservation and Forest and Bird**



Overview

Thanks to the support of the Bay of Plenty Regional Council, Western Bay of Plenty District Council, Department of Conservation and Te Puke Forest and Bird in the inaugural year of the Biodiversity Management Plan (BMP) Maketu Ongatoro Wetland Society (MOWS) have made significant progress in improving the native biodiversity of Newdicks Beach, Maketu. Noteworthy developments include: dune and rear dune/bank planting, control of Pampas, gorse, sea couch and other grasses, erecting new fences to protect dunes around the car park and in the eastern sand dune near Little Waihi Bar and the development of an ongoing reptile survey which we expect to provide interesting and useful data concerning the populations of the native shore skink, *Oligosoma smithii* found at Newdicks Beach.

This year most of the contract work undertaken was completed by members of MOWS, we have increased our membership by attracting local workers. This was made possible by getting appropriate training for our members, and by obtaining the necessary equipment including traps and the Polaris ATV and trailer. The vehicle has already proved its worth; it will enable us to be much more efficient and effective with all of our programmes.

Biodiversity Monitoring

Birds

Two endangered or threatened species have been known to nest at the eastern end of Newdicks Beach; New Zealand Dotterel and Variable Oystercatcher. One breeding pair of New Zealand Dotterel nested near the Little Waihi Bar in 2013, this pair did not return during the 2014 breeding season. With the establishment of a pest control programme this year and new fences to protect the site from vehicles, the area is much safer for breeding pairs to return as local populations increase.

Reptiles

Reptile monitoring at Newdicks Beach has been conducted for a single season by contractor and MOWS member Moniqua Nelson-Tunley, although Onduline ACOs were used at an earlier stage as a detection method. To date, three shore skinks have been captured within pitfall traps, all of which were caught in the large dune at the eastern end of the beach. Shore skinks have been observed in the dune by the carpark, as well as under Onduline placed along the fence line (next to *Muehlenbeckia*) at the eastern dune. The number of shore skinks detected at Newdicks is lower than Pukehina (see below), possibly due to a combination of high predator numbers and a highly disturbed fore-dune. The eastern dune at Newdicks beach is mostly composed of *Muehlenbeckia* rear dune, which the Onduline test reveals could have a reasonable shore skink population. However, the fore-dune is heavily impacted by storm surges, sand deposition and the occasional vehicle that possibly prevent shore skink establishing within the fore-dune. No other reptile species have been detected at Newdicks Beach.

Invertebrates

In autumn 30 invertebrate pitfall traps were placed in two transects at Newdicks Beach, split evenly between the fore-dune and rear dune. These were in place for two weeks before harvesting. The samples from the pitfall traps are being identified over winter and a report will be presented after that time.

Vegetation

Three reconnaissance (RECCE) plots were taken at Newdicks Beach. The RECCE plots consist of photo points at either end of a 50x5m transect and a list of the plants present within each transect, their relative abundance and their height. An additional 13 photo points were taken along the beach, banks and car park. A full report on the vegetation will be presented at the same time as the invertebrates.

Pest Animals

The Newdicks Beach pest control programme was initiated in August 2014 with 7 DOC 200 traps in the dunes at the eastern end of Newdicks Beach. These traps were situated at the edge of farmland amongst blackberry and Muehlenbeckia. Two Good Nature traps were added in November 2014 and a further 6 double ended DOC 200 traps were added in May 2015 making a total of 18 traps at two sites in the eastern dune area; 10 traps at the Little Waihi end and 8 at the bank end.

The catch since August 2014 comprises: 51 rats, 1 ferret, 16 mice, 5 stoats and 11 weasels, 12 Hedgehogs and one feral cat. The traps were baited and checked every second day by MOWS pest control officer Carolyn Symmans from August 2014 to July 2015, this programme is ongoing.

A small amount of rabbit presence has been noted near the car park, however as this is a high recreational use area MOWS do not plan to use poison bait in the dune.

MOWS would like to purchase GoodNature traps to control possums, rats and stoats in the car park zone. Possum control will help protect the new plants.



Pest Plants

We have a significant number of pest plants on the banks at Newdicks Beach. Our policy has been to control them on a gradual long term basis and given the windborne nature of many seeds we will always need to have a control programme in place. Our main focus has been on the following species: pampas, buffalo grass, kikuyu grass, sea couch, tall fescue, *Dimorphotheca*, gorse, moth plant, boneseed and blackberry.

This season MOWS have made significant inroads in to gorse and boneseed removal in the upper and lower car park. As well as spraying pampas and other grass species on the banks between the eastern dune and the car park.

Pampas – *Cortaderia selloana*

MOWS have sprayed down the edges of the access road, the upper and lower car park and along the banks up to 10m above sea level. More spraying on the banks and along the access road to Newdicks is required. Ongoing control of sprayed areas is needed to prevent regrowth from previously treated stools, and new plants.

Buffalo Grass - *Stenotaphrum secundatum*

This occurs on the sea edge of the bank area and in occasional patches near the car park and along the eastern dune. These patches have been sprayed and maintenance is ongoing.

Kikuyu Grass - *Pennisetum clandestinum*

This is found both on the fore-dune close to the carpark and in the back-dune where it threatens to cover the Spinifex. Spray line is being maintained to stop its advance in the car park area, with spot spraying where needed. MOWS have also mulched and planted a strip at the edge of the car park to suppress weeds. Kikuyu is also present on the farm edge of the eastern dune; this will be addressed in the coming season.

Other grasses

Tall fescue and buffalo grass are present throughout the *Muehlenbeckia* in the eastern dune; a spray regime will be set in place over the coming season to address this. The first 10m above sea level has been sprayed in the bank zone.

Gorse and boneseed

Gorse and boneseed are present in the car park and bank zone. Patches in the upper and lower car park have been removed and MOWS will continue to clear areas with chainsaws moving to the bank zone next. Patches in steep areas will be sprayed.

Moth plant

This species is present in the car park and bank area and will be targeted for spraying this coming season.

Dimorpotheca

Is rampant in the car park zone and is not being targeted this year due to it being in steep areas and suppressing gorse, we have started planting *Coprosma* in these areas with a long term goal of controlling *Dimorpotheca*. Spot removal has cleared any plants occurring in the dune near the car park and is ongoing.

Ice plant

One patch has been removed from near the car park, with plans to remove two remaining patches this season. Monique has recommended removing half at a time to allow reptiles a chance to relocate.

Planting Programme

We have continued with our fore-dune and bank planting from 2013. The fore-dune programme is run in conjunction with CoastCare and has involved planting Spinifex and Pingao in front of the car park, selected places along the bank zone as well as, along the eastern dune to fill gaps. Wiwi, *Ozothamnus*, *Coprosma rugosa* and *Muehlenbeckia* were planted at the edge of the car park and ice plant drilled in to the edges of the bank at the car park to help stabilise erosion.

Wiwi had to be replanted due to die back from 2013; this was attributed to planting late in the 2013 season and not mulching the area. The replanted wiwi and *Ozothamnus* now have a 10mm layer of mulch.

In the upper and lower car park we planted taupata, hebe, pohutukawas, five finger, flaxes, wiwi and toetoe. The majority of these plants have been mulched and have combiguards to protect them. These plants all appear to be doing well with new growth on the pohutukawas and taupata are thriving. We expect to continue both programmes in the new season, including planting in the bank zone where we clear gorse and boneseed.



Dune protection fencing

A new fence was erected in the car park to protect plantings and help direct people to use set access points. Access points from the car park were improved, with two sand ladders and one new set of stairs. A fence was erected around the new dune area in front of the car park as well as around 2 planting sites along the eastern dune. One sand ladder was installed on the eastern dune for easier access for pest control.



Pohutukawa protection

In August 2014 MOWS received consent to build a sand bag wall around the lone pohutukawa tree at Newdicks Beach, this structure was successful for all tides experienced, until unusually large storm surges occurred during cyclone Pam in May 2015. It is our view that the tree would have sustained further damage during the storm if the sand bag wall was not present.

MOWS are currently for consent to rebuild the sand bag wall with some adjustments. The plan is to complete the sand bag wall first by filling in the eroded areas under the pohutukawa roots with sand. MOWS will then place sand bags around the roots on 3 sides to protect the tree from further erosion and increase moisture retention and nutrients for the tree's roots. MOWS plan to use geotech poly bags for the bottom 3 layers and hessian bags for the top, number 8 wire will be used to join the bag ends together on the inside of the structure, the wire will then be attached to waratahs anchored in the sand, this should help to hold the wall together during storm events.





In the zone to the west of the pohutukawa tree (left photo) MOWS have planted ice plant in the upper bank and plan to move some large logs to the site which will hopefully start to trap some sand in the area.

The small dune to the east of the tree (created in August 2013, left photo below) now has established spinifex (right photo below). This dune survived the storm surges during Cyclone Pam without sustaining too much damage.



Signage

One new sign, designed by Sonia Frimmel, has been produced to erect at Newdicks in the car park. The sign will be erected in August 2015.

Te Kura O Maketu will be working on new posters in September to be made in to signs for MOWS, these will cover anti littering messages and asking people to stay out of dotterel breeding areas.

Working Bees

We held two working bees at Newdicks in 2014 and one so far this winter season, one more is planned for August. These focused on planting at the eastern dune and around the car park with the support of CoastCare.

Education

MOWS initiated a formal education programme with Te Kura O Maketu in 2015 with seed funding from Western Bay of Plenty District Council. The programme includes 3-4 field trips to Newdicks beach. In early May our education coordinator Tania Bramley organised a field trip to Newdicks for the entire school. The kids learned about pest control work done by local resident and MOWS trapper Carolyn Symmans. MOWS reptile expert Moniqua Nelson-Tunley talked to the kids about the reptile monitoring, and the kids were able to see and touch geckos that are part of a breeding programme. Chris Ward from Coast Care took the kids down the beach to plant spinifex and pingao, native beach plants that bind the sand and help build dunes. All in all, it was a great day of fun and learning in our beautiful outdoors.



Plans for 2015-16

- Spray regime for grasses in the eastern dune, as well as, gorse, moth plant and boneseed in the bank zone
- Ongoing monitoring of wildlife and vegetation
- Ongoing trapping programme, introduce Good Nature traps and DOC 200s to safe areas in the car park and bank zones
- Clearing patches of the bank zone to begin replanting
- Address drainage issues in car park
- One more set of stairs for access to beach
- Sand bag pohutukawa tree
- Encourage new dune to west of pohutukawa tree.

