

Maketu Ongatoro Wetland Society Inc.



Maketu Spit BMP - 2016 annual Report

Introduction/Overview

2015/16 was an important year for the Maketu Spit BMP as it was the start of a new five year term, the original BMP was started in July 2010 and ran for 5 years. Our initial estimates of the cost of the programme were a little optimistic, but fortunately the DOC Rena Recovery fund came to the rescue and enabled us to invest significantly more in the pest control effort. The new BMP also runs for 5 years.

The first 5 year term was successful in removing or controlling most of the serious pest plants and all of the vertebrate pest animals. This is not to say we have won the battle, but we are better aware of what we are dealing with and have plans as to how to deal with the pests in the future. We have also established biodiversity monitoring systems which we anticipate enabling us to measure our progress. Our big achievement was obtaining Important Bird Area (IBA) status for Maketu, based in part on our work on Maketu Spit. The IBA covers Maketu and Waihi harbours.

The new BMP has a higher level of funding based on our experiences during the first five years, with the key features being the control of pest animals and plants, but with a significant focus on the monitoring of the biodiversity. Our work to date has shown Maketu Spit to be a very significant native biodiversity hotspot. The key purpose of the BMP is to ensure that the native biodiversity thrives and increases. There is also a training budget within the new BMP.

Te Tumu Carpark Rubbish

The Kaituna Scenic Reserve at Te Tumu is one of the most popular fishing spots in the Bay. Rubbish is a serious and ongoing issue, and we have initiated talks with WBOPDC in order to try and find a way of reducing the problem, it may not be easy, but we feel that there are opportunities, especially with the Kaituna rediversion taking place, to improve the carpark and reducing the amount of rubbish and especially fishing line, left there. our first working bee of the season is always spent cleaning the spit of rubbish, but the car park needs cleaning on a weekly basis. This is a sad commentary on the fishers and their families who use the site and we hope that a revamp will not only make it easier to keep clean, but will also encourage the fishers to change their habits and behaviour. Restricting or banning camping would also help.

Kaituna Rediversion

The Kaituna Rediversion project was approved during the year with the first work likely to start in early 2017. The existing barrage of four culverts at Fords Cut will be increased to 20, allowing for an increase from 5% to 20% of the river flow to be channelled into the top of the estuary. At the same time the two causeways to Papahikahawai Island will be removed, and a bridge will be built from the spit to give access to the island. In time the rediversion is hoped to stop the build-up of the flood-tide delta and help to restore the ecological integrity of the harbour. We have already been involved in discussion with Pim de Monchy and his team over the design of the bridge to Papahikahawai Island, the possible pest control options on the new culvert barrage and the provision of public access and bird hides on the new wetland that is being created north of Fords Cut. More on this next year.

always be changes and variations. Attached to this report is a summary report , full reports on each area will be produced during the year.

Monitoring - Birds

We should maybe consider giving Maketu Spit the name Bird Point. This year, thanks to our participation in a national red-billed gull survey, we have a more accurate record of the numbers of birds breeding at the distal end. The results show a record number of birds breeding there this year, estimated numbers were:



Gull colony on Maketu Spit.

Red-billed gull	806 pairs - from aerial photograph
White-fronted terns	518 pairs - from aerial photograph
Black-billed gull	36 pairs - visual count
NZ Dotterel	14 pairs - from fortnightly observations
Variable oystercatcher	20 pairs - from fortnightly observations

The increase in red-billed gulls and white-fronted terns is partly down to underestimates in previous years, but still shows a very significant increase, possibly a doubling in the size of the tern colony. Black-billed gulls decreased slightly, which is a concern as they are critically endangered nationally. NZ Dotterel increased by just one pair, but had an excellent fledging rate with 12 chicks estimated to have fledged. Variable oystercatchers increased by around 25% and also had a good year

for fledging. One thing is clear, that the only way to reliably monitor the gull and tern colony, is to use aerial photography, this is most likely to be a drone in future.

Pest Control - Animals

This year we started as previously with a bait station/brodifacoum blitz at the distal end in July and August. Track tunnels at the start showed the presence of rats in all 20 tracktunnels, after the programme there were no rats and just 9/20 showed the presence a small number of mice. We maintained the same number of traps, nine, set in 3 fences, one small one across the causeway from Papahikahawai Island and two across the spit towards the distal end. However we have also installed four GN24 gas-powered automatic traps along the harbour margin, between the Papahikahawai Causeway and the #2 Fence. The increase in rats and mice last year and this is due largely to the due to the use of these GN24s

Year	Mustelid	Rat	Cat	Mouse	Hedgehog	Rabbit	Total
2015/16	6	11	4	0	4	0	21
2014/15	6	14	4	14	12	1	51
2013/14	7	6	2	0	10	2	27
2012/13	8	6	0	0	1	0	15
2011/12	4	2	1	10	7	0	24
Totals	31	39	11	24	34	3	138

Pest Control Statistics.

It seems reasonable to conclude that the lack of catches in fence #1 is caused largely by the effectiveness of the other fences. We continue to have occasional issues with feral cats, with four being caught during the year. We have agreed a per head cost for this trapping as it can be very time consuming. We had no evidence of cat predation on the gulls, terns, dotterel or oystercatchers. We had three black-backed gull nests on the spit this year, two failed to hatch and the third failed to fledge.

As in most years, we conducted a rabbit control programme during the winter, focussing on the area between the Papahikahawai Island causeway and the #1 fence. Pindone was laid out on mats, covered by a nissan hut-shaped cover of black, 3mm polypropylene. This patented MOWS structure was effective in keeping the bait dry and so more effective for longer.. We also used a number of Philproof bait stations. Rabbits were eradicated, and we think a significant number of rats and mice also perished. Until the spit is isolated from Papahikahawai, we expect rabbits to return from time to time.

Pest Control Plants.

This is an ongoing programme, we made good progress on the control of pampas, salt-water paspalum, sea couch, lupin and velvet groundsel, all of which will keep recurring due to their seed dispersal and propagation techniques. We had less success with Kikuyu grass and tall fescue which continue to threaten the muehlenbeckia on the back dune and will be the focus of more control work in the spring. There is a new very broad leaved grass that has appeared near the gull

colony - a regular source of new species. this will be included in the control programme, though the proximity to the gull colony makes it difficult to control once they are in residence.

We continued our control of salt-water paspalum and spartina in Maketu village, mainly round the sportsfield beach and up Maketu road in the saltmarsh, This is an ongoing programme which will be needed until we are able to do a full control of the spartina which has flourished along the southern estuary margin where it had previously grazed by cattle. It is good that the farmer has put a fence along the stopbank as cattle in the harbour is not a good look, however it has resulted in the spartina flourishing.

We still have a number of *Pinus radiata* to get rid of, we poisoned another batch during the year, but our main focus was attending to the already dead trees, especially those close to the path where there is a danger of them falling onto it, and those close to the harbour which fall onto the beach and block access which is needed for controlling the various invasive grasses, sea couch, salt water paspalum and tall fescue. We anticipate finishing off the remaining live pines over the next two years, but it will be a while before we have dealt with the dead ones.

Planting Programme

Our planting programme is operated in close conjunction with CoastCare, and we must express our sincere thanks to the CoastCare contractor, Chris Ward who is unfailingly helpful and cooperative. The programme focuses in two areas, firstly on the foredune where we have been filling gaps and increasing the species variety, in particular introducing pingao whose distribution has previously been affected by rabbits. We have also planted sand tussock *Austrofestuca littoralis* and sand coprosma *Coprosma acerosa*. Our earlier planting of horokaka *Disphyma australe* has done very well.

One area that has done exceptionally well is the foredune right close to the carpark, not only is the spinifex threatening to close the access to the beach, but the pingao has really taken off and has been very effective at colonising an area that the spinifex had been reluctant to enter.

The other planting area is along the harbour edge. Three years ago we did a stretch about 400m. away from the car park, but we are now focussing on the area close to the carpark, and working our way down. The area is looking good and we anticipate joining up with the earlier plantings sometime next winter. Some of the earlier plantings are looking very bonny, though there are a number of gaps.

Our planting work is done during our working bees, we held two of these during the year, one was modestly attended due to a clash with another event, the other had a dozen or so volunteers which is about par for the course now that we have at least eight during the season.

Erosion Monitoring

It has been clear for a while now that the distal end of the spit has been growing while the narrow neck has been getting narrower. After discussions with BOPRC, we have established an erosion monitoring programme to keep an eye on the erosion at the narrowest point of the spit. The erosion is at least in part, the result of the growth of the flood tide delta in front of the Whakaue Marae, this is an issue which will hopefully be addressed by the rediversion project, but in the meantime we are keen to ensure that the good work, and large amount of money that has been spent making the spit the special place that it is, is not damaged by a break in the spit which would likely result, at least initially, in the filling in of the main entrance. This would result in easy access to the spit for dogs, cats, rats and people which would almost certainly drive most of the breeding species away.

Monitoring is conducted by calculating the dune profile at two points just to the west of the #1 Fence. Measurements are taken on a quarterly basis together with photos at each location, oceanside and harbourside. To date we can see a very gradual erosion on the inside of the spit coupled with considerable variations on the oceanside. Regional Council have agreed to take appropriate remedial action should the integrity of the spit be threatened. While this is not technically a part of the BMP, it is integral to the management of the spit.

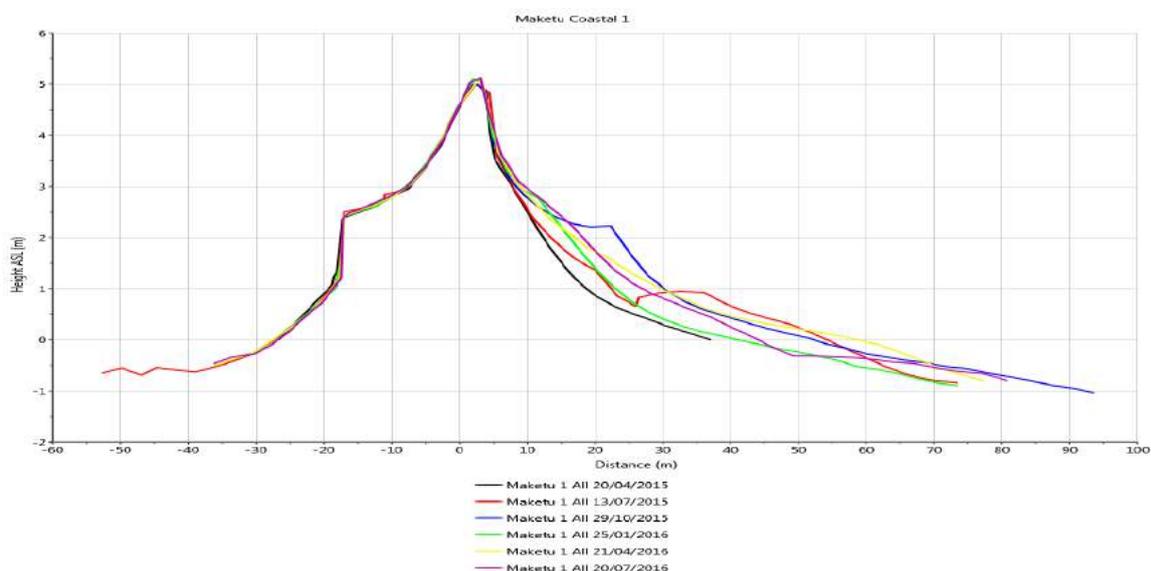


Fig1. Dune profile 200m west of #1 Fence

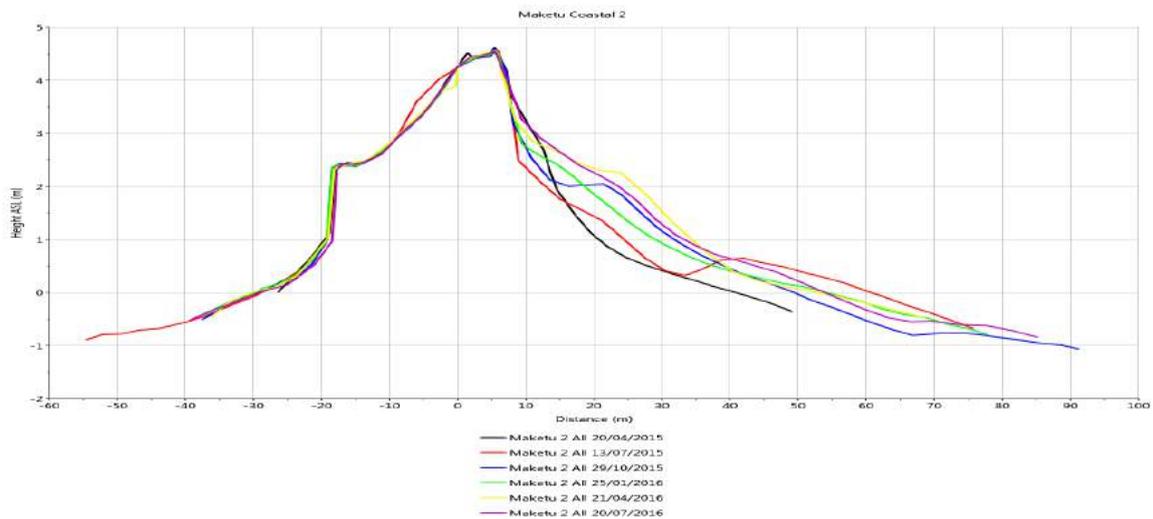


Fig2. Dune Profile 30m. west of #1 Fence

Each coloured line is a different recording date - Fluorescent Pink is July 2016.

Conclusions

Maketu Spit is important not just because of its unique biodiversity, but because of what we can learn from it and what it can teach our schoolchildren and the wider community about the importance of looking after our environment. There is little doubt that the last five years have been a great success in improving the native biodiversity on the spit, but also in raising the profile of dunes and spits and in providing opportunities for local people to become involved in the preservation of their rohe.

I would like to express my thanks and appreciation, not just to our funders, BOPRC, WBOPDC, DOC, WWFNZ, Baytrust, TECT, Forest & Bird Te Puke, and others, but to all our helpers and workers, both the paid and voluntary ones, without your help and support none of this would be possible. It has truly been a team effort and will I hope continue to be, I also hope that it is just the first step in obtaining the RAMSAR Status that is one of our stated objectives. Then I will feel that we have made real progress. Thanks also to Birdlife International for the recognition of our work to date.

Julian Fitter
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 October 2016