



Rena Recovery
Long-Term Environmental Recovery Plan



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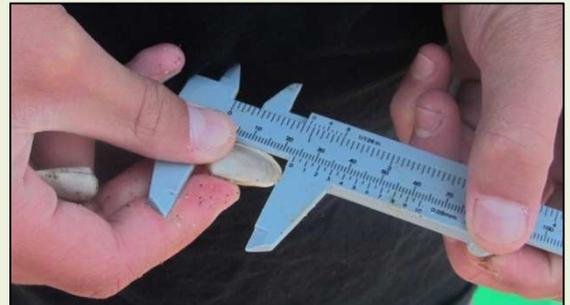


A diver from Resolve Salvage & Fire heads down to carry out further investigations underwater at the wreck site.

Rena Recovery Newsletter – Issue 8

Happy New Year to all and here is the first update of 2013!

We have had many students working over the summer holidays collecting samples across the coastline. The Department of Conservation has reported that wildlife programmes are progressing well with no inconsistencies. Our monitoring team is shifting focus to Otaiti where they have confirmed elevated levels of contaminants. Also in this issue read about research into clean-up techniques and also an assessment of impact on mauri.



Sampling Tuatua – recording size measurements.

Further sampling at Astrolabe Reef a priority for scientists

Further sampling is a priority for Rena Recovery scientists who have confirmed there are elevated levels of contaminants close to the Rena wreck on Otaiti (Astrolabe Reef).

The Rena Recovery monitoring team has recently gained greater access to the reef following over a year of dangerous salvage operations restricting access. The team is now working hard to determine the significance of the contaminants, including any impact on marine life around the reef, and the best approach to address those impacts.

University of Waikato Chair of Coastal Science, Professor Chris Battershill, said that it had been expected that contaminants would be found at the ship wreck site and they are now working directly with the salvors to access the reef to collect more samples.

“Sediment samples have shown elevated levels of contaminants including copper and PAHs (polyaromatic hydrocarbons) which are known contaminants that were lost to sea from the Rena and its cargo.

“While we only have limited sampling information at this point, early indications are that the contamination is localised,” Professor Battershill said.



The Rena ship wreck at Otaiti in January 2013

Dr Jim Miller, Bay of Plenty Medical Officer of Health, said that while the two nautical mile exclusion zone remains in place these results do not change current advice that there is no appreciable food safety risk from the Rena.

Resolve Salvage & Fire, appointed by the owners and insurers of the Rena are using specialist heavy-lifting equipment to remove cargo, wreck and container debris over approximately 10,000 square metres from around the wreck.

Professor Battershill said that the work is being carried out as quickly as possible but a full analysis would take time. “We are working hard to get more information for the public as soon as we can. Once all the sampling, testing and analysis has taken place it is likely to be March when we will next be able to provide an update.”

Assessing the best techniques to clean up oil

This is a key question being asked as part of the Rena Recovery research.

When reports started coming in of a potential oil spill, the Maketū community pulled together to decide on a clean-up process and what technique to use if oil were to wash ashore.

More than 14 months later, those choices made in the early days are now being analysed and studied to be able to better understand what clean-up techniques have proved to be most effective in the New Zealand environment.



Volunteers helping with the oil spill clean-up following the Rena grounding.

Researcher Tania Gaborit and science student Summa Newdick are assessing the effectiveness of the spill sorb product used to remove from the rocks at the Maketū estuary and out to Ōkurei.

The studies are testing how well the ecology around the rocks has recovered since being covered in oil and cleaned up by the spill sorb product. This programme will be brought together with research being undertaken at Mount Maunganui where different techniques were used, including hot-water washing and scraping.

All the field work is complete for the Maketū team and they are now working on pulling all the data results together and developing some experiments.

Pia Bennett, Environmental Officer for Ngāti Makino Iwi Authority in Maketū said that the work was a great exercise that would have long-term benefits.

“We are really thrilled to see this work being done. Most of all we are excited to see that the next generation of scientists are getting the opportunity to gain real world experience.

“Summa Newdick is connected to our iwi here in Maketū and while she is developing her science skills and providing valuable research for the programme, it is special that she is also practicing her role of kaitiakitanga (guardianship).”

Understanding the impact on mauri

One Rena Recovery programme is assessing the impact the Rena grounding has had on mauri

An important aspect of the Rena Long-Term Environmental Recovery Plan is to assess the impact from a cultural perspective. As part of the Mātauranga Programme, Maketū iwi are carrying out an assessment of mauri, which is the life supporting capacity of an ecosystem (including its people) and including metaphysical attributes. The assessment will evaluate how the Rena grounding has had an effect on mauri.



The entrance to Maketū estuary where an assessment of the mauri is being completed.

Pia Bennett, Environmental Officer for Ngāti Makino Iwi Authority is leading this project which has required a huge amount of effort.

“It is not an easy process to assess mauri. Each area has its own identity and different iwi who are connected to that land.”

“We are doing an assessment focused on our land which is the Maketū region. Mauri is best measured only by mana Whenua (people of the land) of each area. While we are only able to assess a small region, our research will be shared with all iwi so everyone can learn from the process undertaken.”

The mauri assessment model has been developed by Dr Kepa Morgan from Auckland University and has been used across New Zealand for mauri assessments.

A workshop was held for Maketū iwi where places, sites and activities of significance were mapped out for the region. The group then developed a graph that mapped out the impact on mauri over time.

“While it was a huge effort for our iwi, we are really thrilled to have put this information together. We are now just waiting for all our assessments from the day to be mapped on one template and then I will start the process of literature reviews, research and putting together a standard measurement of impacts.

“For me, this research all comes down to doing right by our tupuna (ancestors), we want to pay homage to our tupuna and continue our role that we have had for hundreds of years - protecting the mauri of our environment.”

Dive survey assessment of the stern section and remaining cargo completed

An update from the Rena owners and insurers

A dive survey to conduct an external visual assessment of the Rena’s sunken stern section and its cargo has now been completed.

Early indications from the surveys suggest that of the 36 remaining containers in the stern section carrying known contaminants, many have broken up and their contents have escaped since the vessel broke in two and sank.

Three containers, with cargo intact, were recovered; four were retrieved but were empty; another seven were recovered in pieces; the contents of the remaining 22 are presumed lost at sea.



Resolve Salvage & Fire dive teams working at the Rena wreck site.

Captain John Owen of The Swedish Club said: “We have scientists from the Cawthron Institute working with the Rena Recovery Monitoring team to undertake further sampling and testing of water and sediment samples.

“This will then confirm possible solutions to remediate contaminated areas, currently known to be in close proximity to the wreck.”

The ship split in two in early January last year and salvage operations prior to that had been unable to reach the containers as they were in the lower holds and inaccessible. Of the 1368 containers carried on board at the time of the grounding, 1007 have been recovered.

Resolve is now using specialist heavy-lifting equipment to remove the large amounts of remaining cargo, wreck and container debris from an area approximately 10,000 square metres around the wreck. More than 256 tonnes of debris has been removed in the last month.

This work will enable scientists to undertake a more detailed study of the surface of the reef to help determine what if any contaminants remain trapped. Two containers of plastic beads possibly also remain trapped by scrap and debris within the stern section. Work to remove this debris will allow Resolve to determine how to deal with the beads and any identified contaminants.

Captain Owen says studies into the environmental, cultural, economic and safety impacts of the different options for dealing with the wreck are near complete. And that a further round of community consultation will be held in late February, before a final decision is made.

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