

Darwin Harbour Indigenous Marine Ranger Program Biodiversity Impact Mitigation Offsets Strategy (BIMOS)

Annual Report,
1st November 2013 to 31st October 2014

Overview

Commencing in October 2013, the Darwin Harbour Indigenous Marine Ranger Program is an innovative monitoring and research training program involving close collaboration between the Department of Land Resource Management (DLRM) and Larrakia Nation Aboriginal Corporation (LNAC).

Funding was provided to the DLRM to establish and implement the Program as an offset for the Darwin Harbour East Arm Wharf expansion.

The Program has developed into a successful collaboration between the DLRM, Larrakia Nation and other project partners to achieve broader social and environmental benefits through engaging and enhancing indigenous capacity at an individual and organisational level in marine ecosystem monitoring.

Background

The East Arm Wharf expansion works are subject to the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approval. In accordance with the requirements of Condition 33 of the EPBC Act Approval Decision 2010/5304 the Darwin Harbour Indigenous Marine Ranger Program was established.

Implementation of the Darwin Harbour Indigenous Marine Ranger Program was as follows:

- Recruit two indigenous marine rangers.
- Train and engage Marine Rangers in water quality, sediment health and marine biodiversity monitoring with DLRM.
- Train and engage Marine Rangers in harbour surveillance and reporting.
- Train and engage Marine Rangers in migratory bird monitoring with project partners Charles Darwin University & North Australian Indigenous Land and Sea Management Alliance (NAILSMA).
- Contribute to and promote monitoring to stakeholders through the Darwin Harbour Region Report Cards.
- Participate in the annual Darwin Harbour Clean-up Day.

Project Update

By 1 November 2013 the Marine Ranger Program was established, with two indigenous rangers employed and actively participating in harbour monitoring programs, addressing threats to listed threatened species and listed migratory species.

A funding agreement between DLRM and LNAC was established initially for 12 months. The funding agreement expired on 30th September 2014 and both DLRM and LNAC have agreed to continue the program and extend it until the 30th September 2015.

The Marine Ranger Program, established under the BIMOS was expanded in September 2013 with the North Australian Marine Research Alliance (NAMRA) providing LNAC funding till June 2015 for an additional two marine rangers. The additional rangers have bolstered the Darwin Harbour Indigenous Marine Ranger Program enabling Larrakia Nation to support two female and two male rangers actively working on projects linked to the Darwin Harbour integrated monitoring and research program.



Marine Rangers: Steven Dawson, Joseph Hazelbane, Aleana Talbot & Jade Murphy

Project facilitation

The offset funding also provided for a part time project coordinator based with DLRM. The project coordinator works closely with LNAC and project partners to facilitate participation of the Marine Rangers in monitoring and research activities in Darwin Harbour. The project coordinator is responsible for developing work schedules, training plans, reporting and financial management. LNAC is responsible for ranger recruitment, day to day support,

training and supervision. DLRM and partner organisations also provide on the job training and supervision.

Training

Approximately 30% of the Marine Rangers time has been dedicated to providing opportunities for them to be trained and gain qualifications in the following:

Training Course	Status
Senior First Aid	Complete
Certificate II in Maritime Operations Coxswain	Course work complete, accruing sea time ongoing
Introduction to Excel	Complete
Certificate II in Laboratory Techniques, Sampling & Measuring	Complete, delivered by Department of Primary Industries & Fisheries.
Certificate II Conservation and Land Management	Ongoing 9 out of 15 units complete, delivered through Batchelor Institute.
I-Tracker Program	Complete, delivered by NAILSMA

In addition to formal training the Marine Rangers have completed a series of induction and on the job training provided by DLRM and project partners. The training provided focused on equipping the Marine Rangers with the skills and knowledge to be able to actively participate in monitoring and research activities. They included the following:

- Water monitoring techniques (equipment preparation, use and servicing; field techniques; field protocols for recording data, chain of custody requirements; introduction to laboratory chemical analyses and procedures)
- Seagrass identification, monitoring techniques and data entry
- Dolphin identification and monitoring techniques
- Migratory bird identification, monitoring and data management
- Microbiology Laboratory skills
- Aquatic pest identification and monitoring techniques
- Marine turtle identification, survey and monitoring techniques
- Dugong monitoring
- Land based mammal trapping techniques.

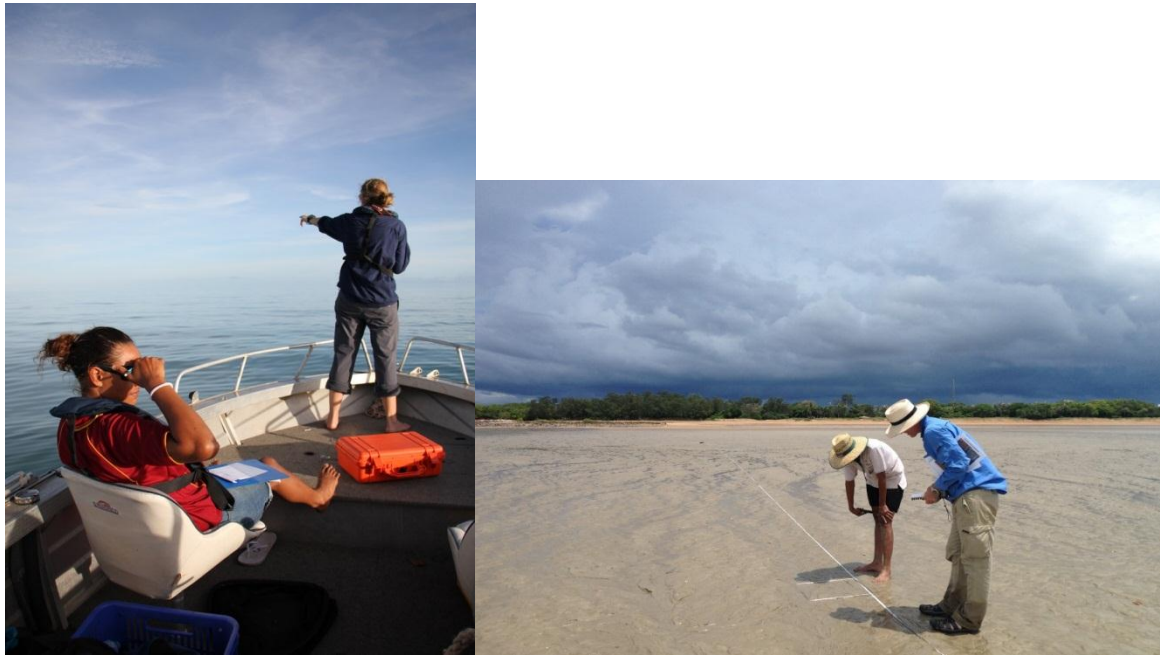
On Water Field Activities

It was anticipated that the Darwin Harbour Indigenous Marine Rangers would spend up to 80% of their time in the field (181 of 230 working days) working towards the following as stated in the offset agreement:

- 39 days/year associated with beach water quality monitoring
- 36 days/year associated with water quality monitoring
- 30 days/year dolphin monitoring
- 20 days/year associated with unscheduled on-water response activities
- 10 days/year associated with unscheduled monitoring and surveillance activities.
- 10 days/year with seagrass monitoring
- 10 days/year fish monitoring
- 10 days/year Marine Wild Watch program
- 10 days/year migratory bird surveys
- 5 days/year with sediment health monitoring
- 1 day/year Darwin Harbour Clean up

Their actual time in the field was 160 out of 230 working days, approximately 70%. Below is a summary of their activities. The remaining days were allocated to formal training.

Field Work Summary Actual	Days/year
Beach water quality monitoring	4
Water quality monitoring	51
Dolphin monitoring	52
Unscheduled on water response (No incidents of significance occurred)	0
Unscheduled monitoring or surveillance activities	Whenever on water this activity was undertaken - 144
Seagrass monitoring/URCHIN project	26
Aquatic pest monitoring	2
Fish Monitoring (Monitoring program ceased end October 2013).	0
Marine Wild Watch Program (Rangers have not been involved in operational responses to strandings, injured or decreased marine fauna).	Whenever on water marine fauna observations were conducted
Migratory birds surveys	6
Darwin Harbour Catchment mammal trapping	10
Sediment health monitoring	2
Darwin Harbour Clean-up day	1
Turtle survey and monitoring	4
Fisheries laboratory	2



Marine ecosystems monitoring

Community Engagement & Awareness

- Marine Ranger article in the Darwin Harbour Report Card 2013 (Appendix 1)
- Marine Ranger articles in Larrakia Nation Annual Report 2012/13 & 2013/14 (Appendix 2 & 3)
- Participated with AQIS, Beach Debris Survey
- Presentation of the Darwin Harbour Indigenous Marine Ranger Program at the Australian Society of Limnology and Australian Society of Fish Biology Congress held in Darwin during July 2014.
- Presentation of the Darwin Harbour Indigenous Marine Ranger Program at the 2014 Landcare Conference held in Melbourne.
- Display at Natural Resource Management Conference, Darwin Convention Centre.
- Display and information exchange at Charles Darwin University's Survival day about the Marine Ranger Program & Darwin Harbour.
- Regular Darwin Harbour and Marine Ranger Program reports to the Larrakia Board

Conclusion

The implementation of the Darwin Harbour Indigenous Marine Ranger Program has met the requirements of the Biodiversity Impact Mitigation Offsets Strategy for the East Arm Wharf expansion project by providing rangers training and field time.

Appendix 1 Darwin Harbour Region Report Card 2013

DARWIN HARBOUR REGION REPORT CARD 2013

Monitoring by Indigenous Rangers

The Northern Territory Government has made a commitment to train Indigenous marine rangers to monitor the health of Darwin Harbour. This undertaking will be carried out in partnership with the Larrakia Nation Aboriginal Corporation. Rangers will be trained to undertake tasks including water quality sampling and dolphin monitoring. They will also provide assistance to the migratory bird program which is investigating the way these birds use the Darwin foreshore.

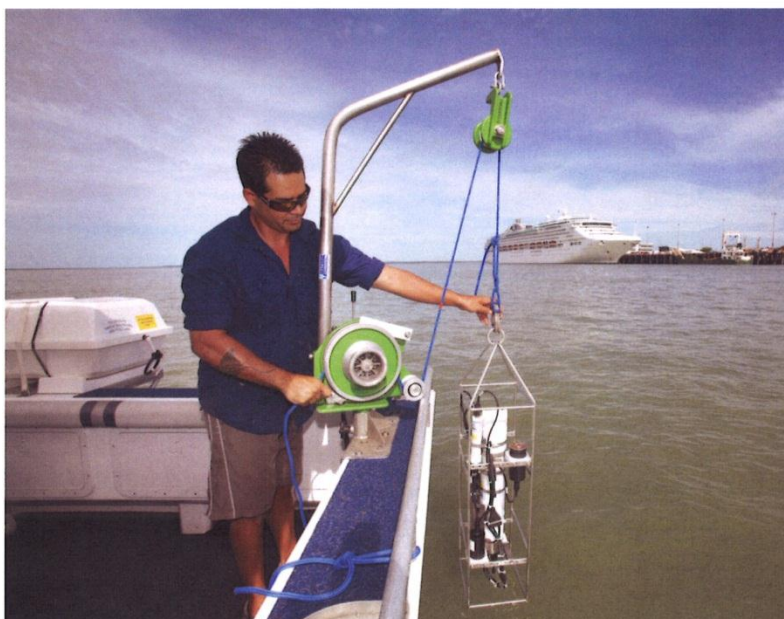
This is an exciting opportunity for young Indigenous men and women to be involved in traditional sea country management, to develop a range of skills which will introduce them to the latest technology, and in doing so maximise their future opportunities in the wider employment market.



Darwin Harbour Water Quality Protection Plan

The Darwin Harbour Water Quality Protection Plan (WQPP) is a list of more than 100 actions from government, industry and community groups that will help ensure that the quality of our harbour is maintained. The actions focus on water quality monitoring, and managing nutrient and sediment pollution to the harbour.

The actions include initiatives to reduce soil erosion and improve the management of wastewater and stormwater. Water quality protection is one element of a broader coordinated approach to the management of Darwin Harbour, the rivers that flow into the harbour, and the surrounding land area. The WQPP was funded by the Australian and Northern Territory governments.



Appendix 2 Larrakia Nation Annual Report 2013



ANNUAL REPORT 2012/13



The year ahead

With a higher degree of professionalism, a new business model, a positive reputation and higher profile, Larrakia Nation is positioned to achieve a number of outcomes for the community in the 13/14 year. This reflects both tighter times financially, a new Country Liberal Party government in power, and the need for a renewed emphasis on business development to support the delivery of community programs.

Marine Rangers

We have received funding as well as obtaining a number of commercial contracts that will allow us to set up a marine ranger program. Working closely with government and industry partners, the marine rangers will offer a great opportunity for younger people to be trained up and spend time on Larrakia sea country.

Cross Cultural Training

This year will see the creation of new jobs and incomes for Larrakia people through the delivery of a cross cultural training package that we developed in the 2012/12 financial year. With Leighton's Constructions, who work on the Inpex Ichthys Project, a

confirmed regular client, and bookings from a number of other firms and organisations, we expect to provide a regular income for at least four people.

Healing Centre Development

The Aboriginal Healing Foundation has agreed to fund us for the development of an Aboriginal Healing Centre in Darwin. With a large number of community members passionate about healing, and given our existing expertise in the area, we expect this project to be successful in winning long term contracts and funding for this healing centre.

Town Camp Leases and Larrakia Hotel

Larrakia Nation has been in negotiations to take over the land held by the defunct Aboriginal Development Foundation. What will happen with this land long term will be the product of consultation with town camp residents and Larrakia people. One early proposal is the development of a Larrakia-owned hotel and residential aged care facility One Mile Dam and adjacent crown land.



Image 31: Minister Bess Price with the new Marine Rangers



LARRAKIA
NATION

Annual Report
2014



“culture empowering community”

Shoal Bay and Berry Springs trial rehabilitation of the Howard River Sand Sheets with Greening Australia and Conservation Volunteers Australia

Kenbi Larrakia/Wagaitj place name recording and verification with Belyuen elders and University of Newcastle

Commercial Activities

Our largest project this year was for Seaforce Pty Ltd working on the **ConocPhilips jetty refurbishment**, surveying each day for crocodiles and assisting the dive teams to meet safety requirements. It required two rangers per day six days a week on our own boat. This project has required a lot of preparation and included upgrading of the boat and our policies and procedures to meet oil and gas industry standards.

We also undertook activities with a variety of clients related to the **Inpex near shore monitoring** project as part of the dredging work undertaken by the firm. Our largest client was GHD which we worked with on marine mammal spotting, and we also worked with Cardno Pty Ltd

on boat ramp surveys of fishermen.

We also continued with our conventional land management work. We undertook **weed spraying** for Sodexo at the airport, and a coffee bush weed control job for Crown Lands at Lambell Terrace, and **Kahlin compound**. The work for NT Parks and Wildlife Service decreased this year but we did do the clearing and reopening of **Holmes Jungle**.

Marine Rangers

The Marine Rangers was an excited new initiative this financial year that has already had a big impact and achieved great community outcomes. They are funded by the Darwin Port Corporation's offsets program via the NT Government's Department of Lands Resource Management with an additional contribution from the North Australian Marine Research Alliance via Charles Darwin University.

The program is designed to provide Aboriginal people experience and training working alongside scientists and ecologists from a variety of academic



institutions and government departments, primarily in marine bioscience. It has presented the rangers with a variety of opportunities in terms of working in partnership with teams from the Department of Land Resource Management, CSIRO, the Aquatic Health Unit and PhD students from CDU. Projects have included water sampling, fish surveys using underwater cameras, sea grass surveys, animal surveys in remnant bushland, migratory shorebird counts, pontoon water quality monitoring and research on the Daly River.

Training

On top of all the work the rangers carried out, there were a lot of training goals achieved this year, filled by a combination of formal and informal training, short courses and on-going study.

Certificate II Conservation and Land Management is our major focus, with staff undertaking nine units this financial year including felling small trees, erosion, sediment control and seed collection.

We also have the opportunity to complete the **Inshore Coxswains** course as an

intensive, with ten Rangers completing all 12 units and then getting sufficient sea time due to the opportunities from the ConocoPhilips/Seaforce project.

As part of the marine rangers program, two of the staff completed a **Certificate II in Laboratory Techniques, Sampling and Measuring**, run over two weeks at Nungalina College by NT Fisheries and attended by ranger groups from around the Top End.

Senior staff also undertook a number of short courses to improve their ability to deliver program outcomes and lead and mentor their staff. These included Leadership Training at CDU, Mentoring Indigenous Workers delivered by the Australian Indigenous Leadership Centre, Costing and pricing Quotes from the NT Department of Business.

Finally, staff also did informal training throughout the year. This included cultural knowledge such as traditional fish spear making techniques and bush tucker, as well as western science such as bird surveys and identification and beach debris survey techniques.

