

Little Tern Conservation Project

COUNCIL NAME

Central Coast Council

WEB ADDRESS

centralcoast.nsw.gov.au

SIZE

1680 square kilometres

POPULATION

342,047

Overview

This project set out to manage threats to the endangered Little Tern rookery at Karagi Point, North Entrance to enable a successful breeding season. Threats included human disturbance, litter, avian predators and dogs.

A number of Council teams participated in the Project as well as external agencies and consultants. Management actions included the installation of temporary fencing and signage, regular litter collection, weekly nest monitoring and ranger patrols, and community education and engagement.

The project led to the most successful Little Tern breeding season at Karagi Point on record and the breeding colony being considered the most important nesting site in NSW for the 2020/21 breeding season with 152 chicks observed.

Background

The endangered Little Tern flies from South-east Asia to Australia each spring to breed on our beaches where they face many threats including human disturbance, litter, avian predators, and dogs. Historically, Little Terns nested at the mouth of Tuggerah Lakes with varying degrees of success. Karagi Point, North Entrance is a popular site for recreational activities including fishing, boating, swimming, surfing, dog exercise and walking and receives high visitation during the nesting season from October to February.

Little Terns lay their eggs directly into a scrape on the sand and rely on camouflage to hide them and the resulting chicks. As Kargi Point is a popular site for recreation, the species is particularly vulnerable to human disturbance at breeding time. Threats include trampling and physical disturbance to eggs and chicks, litter left on the site, discarded fishing lines, dogs and vandalism.

In the past, Central Coast Council installed simple, temporary fencing and signage to protect the birds throughout the breeding season. In response to a vandalism incident in the 2019/20 season, Council increased management interventions. This included the installation of more secure fencing, increasing rubbish collection to reduce avian threats, and committing to a more effective communication and engagement strategy. Formal monitoring and record keeping techniques were also implemented in consultation with the Department of Planning, Industry and Environment (DPIE).

This project linked to several objectives in Central Coast Council's Community Strategic Plan including educating the community on the value and importance of natural areas and biodiversity and encouraging community involvement in caring for the natural environment.

Implementation

Council's Environmental Infrastructure team worked collaboratively with other Council units and external agencies to install temporary fencing and signage, undertake regular litter collection, weekly nest monitoring, ranger patrols, public communication and community education.

Council teams that worked on the project included Environmental Infrastructure, Rangers, Environmental Education, Communications, Lifeguards, Catchments to Coast, Beaches and Boat Ramps, Bushland Maintenance, Environmental Management. Other contributors included NSW National Parks and Wildlife Service (NPWS), DPIE (Planning), consultants, the local community, and volunteers. Some additional site monitoring was also carried out by volunteers from Birding NSW, Central Coast Group.



The project was resourced from September 2020 through to March 2021. Project costs included:

- \$5000 for 400 linear metres of fencing plus additional 'wings' of 50 metres
- \$720 for 8 corflute signs
- Installation of 6 existing "no dogs allowed" signs.

The approximate number of hours contributed by Council and agency staff was 887 hours, including:

- Dredge management / site preparation – 40 hours
- Litter collection - 360 hours
- Fence installation, seasonal adjustment and removal at season end - 152 hours
- Nest monitoring - 100 hours
- Reporting of breeding results - 72 hours
- Education activities - 75 hours
- Consultation with State agencies – 52 hours
- Communication and media - 36 hours.

The site was monitored regularly throughout the nesting season and management practices were adapted as conditions and impacts changed. Some of the challenges included:

- high volumes of litter as human visitation increased,
- vandalism of signage and fencing,
- unauthorised access issues,
- sand loss due to water movement, and
- mobile chicks which were hard to count

Council adapted to these challenges by increasing litter collection, ranger, and operational staff patrols; replacing signs, re-positioning the fence and adding additional 'wing' fencing to protect chicks from trampling once they moved outside the main enclosure. Over summer, Council staff removed a daily average of 120 litres of litter from site and significantly more following weekends and holidays. This was considered a key management action to ensure that avian predators such as Ravens and Gulls attracted to food scraps were not in a strong position to predate on Little Tern eggs and chicks.

The communication and education messages to the community were delivered by staff from Council, NSW NPWS and OEH through media releases, social media, ad hoc conversations whilst monitoring and delivering on-site education activities.

At least 318 people were reached in face-to-face conversations and a minimum of 33,270 people were reached through social media posts. Tens of thousands more were reached through print, radio, and television stories. Staff also focused on educational opportunities to discuss the importance of the Little Tern fence and other estuary issues with over 180 visitors and residents over the season.

Additionally, two educational stalls were set up to educate the public by NSW NPWS and DPIE over the summer at The Entrance markets and at Karagi Reserve. 138 visitors were engaged at these stalls and 500 brochures were delivered to 4 fishing and tackle shops, the adjacent caravan park, and The Entrance Visitor Information Centre to raise awareness of the rookery/fence and the issues around rubbish and discarded fishing lines.

Outcomes

The project led to the most successful Little Tern breeding season at Karagi Point on record with the colony considered the most important nesting site in NSW for the 2020/21 breeding season.

The project recorded 72 breeding pairs, 97 nests, 236 eggs and 152 chicks. At least 51 chicks were confirmed as having successfully fledged at Karagi Point, although the real number is expected to be significantly higher. These numbers are greater than those observed at any other site in NSW for the 2020/21 breeding season.

This is more than double the number of chicks fledged in the previous season and is the most successful breeding season recorded at Karagi Point in over 20 years of monitoring, for both the number of breeding pairs and eggs/chicks/fledglings produced.

This also represents one seventh of the total estimated 350 chicks recorded as successfully fledged throughout NSW during the 2020/21 breeding season. An exceptional outcome given the species is declining by approx. 3% annually in NSW.

Key Learnings

Early planning, budgeting, consultation followed by implementation of the agreed management actions including: the installation of secure fencing and interpretive signage, regular litter collection, formal monitoring, community engagement and adaptability were the keys to providing Little Terns with the best chance of breeding success.

Establishing the likely extent of the breeding colony and installing more robust and extensive temporary fencing and a regular a Council presence early in the season avoided disturbance to prospecting / nesting Little Terns. This in turn helped identify sensitive areas to the local community and public more broadly and facilitated community engagement and ownership. This also led to many in the community informally assisting Council with site monitoring.

Another key lesson learnt is the need to remain flexible and reactive given the dynamic environment and the suite of threats and impacts to be addressed.

Having now undertaken a whole breeding season of monitoring and data collection there are several adjustments to this process that are planned for the 2021/22 season. These adjustments will include:

- re-using the more secure fencing and using wings when necessary,
- updating the nest markers to be consistent with those used by NSW OEH, and
- installing artificial shelters and
- communicating with the public early and throughout the season.

It is hoped these minor improvements will lead to even better data collection and less overall disturbance to nesting Little Terns.

Central Coast Council has received extensive positive feedback following the project and hopes the techniques and approaches can be used to assist other organisations and Council in supporting other locally threatened species, including the endangered population of Bush Stone-curlews.



Contact

Name: Luke Sulkowski

Position: Unit Manager, Environmental Management

Phone: (02) 4350 5184

Email: luke.sulkowski@centralcoast.nsw.gov.au

This project was the 2021 winner of the Natural Environment Protection & Enhancement: On-Ground Works Award at the LGNSW Excellence in the Environment Awards