



## SHOREBIRD CONSERVATION CONSERVING SHOREBIRD HABITAT: The Kakadu Beach Artificial Wader Roost Project.



### Where

Kakadu Beach is located on the west coast of Bribie Island in the Pumicestone Passage in south east Queensland. The Pumicestone Passage runs northward from Moreton Bay, separating Bribie Island from the mainland. The high environmental values of this area have been recognised with the declaration of the Moreton Bay Marine Park. Moreton Bay has also been listed under the Ramsar convention which identifies it as a wetland of international importance. Being located relatively close to Brisbane, this area is experiencing increased levels of recreational use and residential development.



### The birds

Up to 35 species of migratory shorebirds and 16 species of resident shorebirds have been recorded in the Moreton Bay area. More than 2500 shorebirds have been observed using the artificial roost at Kakadu Beach including threatened species such as the eastern curlew and little tern. The area is used as a high tide roosting site.

### Who

The Kakadu Beach Artificial Wader Roost project has created an unusual yet a strong and fruitful alliance between a property developer (QM Properties) and their environmental consultants (HLA Envirosciences) with a range of other stakeholders including conservation organisations. HLA Envirosciences mediated the conflict resolution process that created the opportunity for partnerships between stakeholders to be formed. A working group now called the Pumicestone Shorebird Management Group was formed consisting of the developer, conservation groups (Queensland Wader Study Group and Bribie Island Environmental Protection Association), and other stakeholders such as state government agencies and local councils.

### Problems and Challenges

Due to the growth in population and residential development in the Greater Brisbane area, a number of high tide shorebird roosting sites have been destroyed. However, the case of Kakadu Beach is quite unique. The original high tide roost was actually created by a previous developer when vegetation was cleared and dredge spoil was dumped on the shore. The developer subsequently went into receivership and the abandoned site was hosting large numbers of shorebirds. However, a new developer (QM Properties) acquired the site and planned to continue the development. The retention of the existing roost would not have been feasible.



Red-necked stint flock.

Given that the existing roost was likely to be lost, the creation of a substitute artificial roost was considered. However such a project would be a major and expensive undertaking. Furthermore, there were few previous examples and information on this kind of work that the group could draw on.

Another potential problem, if an artificial roost was to be constructed, was that it would be located in close proximity to the new housing development. This can create its own range of problems including disturbance of the birds by humans and domestic animals and degradation of the roosting habitat by weed invasion and urban runoff.



Aerial view of the housing development and the artificial roost in the bottom right corner.



## Solutions

The case of the development at Kakadu Beach had the potential to develop into a stand-off between the developer and conservation groups. However, the Queensland Wader Study Group (QWSG), realised that such an approach was unlikely to be productive and opted to engage the developer in a non-confrontational manner to achieve the best possible outcome for shorebirds given the circumstances.

The QWSG conducted a number of field trips to acquaint the developer's environmental consultant with shorebird ecology and conservation issues. Meanwhile, the developer had revised the residential development plan and identified a site for an artificial replacement roost.

The developer's environmental consultant established a working forum to create a management plan for all high tide roosts within the southern region of Pumicestone Passage. A workshop with the stakeholders was held, the Management Plan structure was agreed and the plan was lodged and approved.

An important action that contributed to the success of this project was to include all stakeholders in the planning and decision making process from the outset. This fostered a sense of ownership of the project in all parties and streamlined the administrative aspects of the project such as the issuing of permits from relevant agencies.

To gain some much needed information and experience about the construction of artificial roosts, QM Properties constructed a prototype. This provided valuable insights into the management of soil and water levels and other construction details. The construction of the roost cost a million dollars and was covered by the developer.

In order to reduce the impacts of residents and animals on the shorebirds, a tidal lagoon was installed behind the beach roost to act as a barrier. Low dense vegetation and fencing has been established at either end of the roost to discourage entry. A public education campaign is being developed for residents of the new housing development. This will aim to raise awareness of shorebirds and their plight.

## Outcomes for the environment

- The project has shown that collaboration between developers and conservationists can be achieved to produce positive conservation outcomes.
- Indigenous plantings have been established and encouraged in the new development.
- Regular monitoring of bird numbers present on the roost has been implemented.
- Interpretive signs have been installed at the site to reduce human disturbance.
- Management plans and maintenance manuals have been compiled for habitat and shorebird roosts in the Pumicestone Passage.

## Outcomes for the participants

- All participants have had access to a wide range of professionals and experts from other fields which has helped them to acquire a different range of skills.
- The developer has benefitted from marketing a development having a conservation feature.
- The project was awarded the Prime Minister's Award for Excellence in Community Business Partnerships in 2001.

## Measures of Success

This project was very successful in establishing trust, respect and good communication between all participants. Many different stakeholders from a wide range of backgrounds were able to cooperate and achieve common goals. The numbers of shorebirds using the original roost were monitored for some time before construction commenced. Therefore it is possible to make comparisons between new and old roosts. So far, the following outcomes have been achieved;

- Birds are using the new roost, although in lower numbers than those observed on the original roost. This may be due to the fact that the current roost is still quite new and that the remains of the original roost still exist and are being used.
- A new roost has been created which, in light of the alternative outcomes, must be regarded as being successful.

All stakeholders concede that the best outcome for shorebird conservation would have been to retain the original roost. The new roost is not as large as the original, is of a different gradient and substrate and does not support the same number and diversity of shorebirds. While being aware of the limitations of the new roost, the stakeholders agree that the current project has still made an important contribution to shorebird conservation given that it was not feasible to retain the old roost.

## Future strategies and directions

- An education program will be developed for the residents of the development encouraging them to develop a sense of custodianship over the roost and become its guardians.
- The artificial roost will require monitoring and maintenance. Specifically, it will need to be kept clear of weeds and other vegetation.
- Plans have been made and funding obtained to enhance and extend another roost in the area. The lessons learnt from the current project will be implemented in future works.
- The QWSG will continue to conduct regular monitoring of shorebirds using the roost.



Watching shorebirds at the new roost.



Shorebirds at the roost with the Pumicestone Passage and the Glasshouse Mountains in the background.





## Summary

The success of this project can be attributed to the following factors;

Environmentalists and developers built a relationship based on trust and respect and worked well together to gain a positive outcome.

Knowledge, experience and expertise from a wide range of stakeholders was brought together and incorporated into the project.

The participants showed innovation and willingness to resolve conflicts.

Important objectives for the future will include;

QWSG working with Caboolture Shire Council to maintain the roost and the continued monitoring of bird use and numbers

Working closely with the residents of the new development and minimising their impact on the roost.

## Key groups and contacts

### Birds Australia

Tel (03) 9882 2622

Email: [mail@birdsaustralia.com](mailto:mail@birdsaustralia.com)

Website: [www.birdsaustralia.com.au](http://www.birdsaustralia.com.au)

### WWF Australia (Shorebird Conservation Project and Threatened Species Network)

Freecall 1800 032 551

Website: [www.wwf.org.au](http://www.wwf.org.au)

### Queensland Wader Study Group

Website: [www.waders.com.au](http://www.waders.com.au)

### QM Properties

Website: [www.pacificharbour.com.au/project/kakadu-bg](http://www.pacificharbour.com.au/project/kakadu-bg)

### HLA - Enviroscience Pty Ltd

Website: [www.hla-enviro.com.au](http://www.hla-enviro.com.au)

### Australasian Wader Studies Group

Website: [www.tasweb.com.au/awsg/](http://www.tasweb.com.au/awsg/)



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Watching shorebirds from one of two hides at the new roost.



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New interpretive centre constructed by the developer.

The shorebird case studies were developed by Birds Australia as part of the Shorebirds Conservation Project which is funded by the Natural Heritage Trust and managed by WWF Australia

