



# THE MORETON BAY OIL SPILL Environmental Restoration Program



Moreton Bay oil spill at Spitfire Creek, Moreton Island, March 21, 2009

## The Moreton Bay Oil Spill

On March 11th 2009, the Pacific Adventurer cargo ship, was travelling from Newcastle to Brisbane. Caught in Cyclone Hamish, the vessel suffered two hull punctures, when falling shipping containers damaged the side of the ship. As a result, over 250 tonnes of heavy fuel oil leaked into the ocean off the northern coast of Moreton Island.

It took just five hours for the oil to wash up on the shores of Moreton Island, Bribie Island and the Sunshine Coast. The resultant oil slick impacted beaches, rocky reefs and two coastal wetlands on Moreton Island (Spitfire and Eagers Creeks); and beaches and mangrove wetlands between Bribie Island and Coolum Beach on the Sunshine Coast. Many of the affected areas were located within the Moreton Bay Marine Park and Moreton Bay Ramsar site. This oil spill is now considered Queensland's worst environmental disaster.



Oil deposits from Spitfire Creek, Moreton Island

The initial cleanup took two months, 2500 people and involved the removal of 3000 tonnes of sand. The huge operation was led by Maritime Safety Queensland, in partnership with the Department of Environment and Resource Management, Sunshine Coast Regional Council, Brisbane City Council, Moreton Bay Regional Council and Emergency Management Queensland.

## Rehabilitation and Restoration

Following the emergency clean up response, the Australian Government allocated \$2 million from its *Caring for our Country* initiative towards rehabilitation and recovery from the Moreton Bay Oil Spill. This funding was provided to SEQ Catchments to implement a community-based environmental restoration program. The Program received tremendous enthusiasm from the community and a total of eight projects, with six project partners, were developed through a competitive Expression of Interest process.



Oil washing around Coffee Rock, Mudjimba Beach, Sunshine Coast, March 14, 2009

Top photo: Spitfire Creek, Moreton Island, January 22, 2010



CARING FOR OUR COUNTRY

# THE MORETON BAY OIL SPILL Environmental Restoration Program



1

## Sunshine Coast Regional Council

The Sunshine Coast Regional Council is working with approximately 30 community groups and research institutions to (1) facilitate rehabilitation of coastal ecosystems impacted by the oil spill and (2) build Council and community capacity to care for coastal environments and respond to environmental emergencies.

Project works are located between Caloundra and Coolool and include:

- onground rehabilitation (e.g. revegetation, weed removal, pest management and fencing);
- monitoring of key species (e.g. turtles, shorebirds and frogs); and
- building a comprehensive bank of baseline data to inform current and future coastal activities and planning.

Outcomes to date include approximately 600 meters of protective fencing, 80 hectares of weed management and the propagation of over 800 local mangrove plants.



2

## South East Queensland Traditional Owner Alliance

South East Queensland Traditional Owner Alliance is managing two Traditional Owner Knowledge Recording projects that involve knowledge exchange between Elders and trainee indigenous rangers in areas impacted by the oil spill.

One project is based with the Quandamooka people on Moreton Island and the second project with the Gubbi Gubbi and Kubi Kubi groups on the Sunshine Coast. Trainee rangers will be provided with training in Certificate III: Conservation and Land Management and the Sunshine Coast team will also undertake onground works at three coastal sites.

Elders will be taken to relevant coastal sites to share their traditional and cultural knowledge (e.g. significant species, songs, bush medicine). This knowledge will be digitally recorded and securely stored for future generations.



3

## Quandamooka Lands Council & DERM

Quandamooka Lands Council and the Queensland Department of Environment and Resource Management (DERM) are working in partnership to facilitate the recovery of Spitfire and Eagers Creeks on Moreton Island. This project integrates indigenous knowledge and contemporary scientific information to restore these wetlands; and facilitates stronger relationships and knowledge sharing between indigenous Elders, trainee rangers and DERM scientific staff.

A team of Quandamooka trainee rangers are undertaking onground rehabilitation works, with the guidance of DERM scientists, who are conducting monitoring of water quality and fish assemblages.

Outcomes to date include: preparation of an adaptive management plan for the wetlands; removal of oil deposits (flotsam and jetsam) located in the wetlands; and monitoring of key ecological indicators and water quality parameters.



4

## Birds Australia Southern Queensland Branch

Many coastal bird species are primary and secondary consumers and knowledge of the impact of the Moreton Bay oil spill on such birds is largely unknown. Birds Australia Southern Queensland (BASQ) volunteers are monitoring bird species on Moreton and Bribie Islands, as a guide to the progress of coastal habitat restoration, in areas affected by the oil spill. BASQ are also coordinating four community training workshops to encourage local people to participate in the bird monitoring program.

Results to date include the identification of 118 bird species on Bribie Island and 90 bird species on Moreton Island, up to the Summer 2010 surveys. Of importance, was the large number of Beach Stone-curlews sighted on Moreton Island, 17 individuals in total.



5

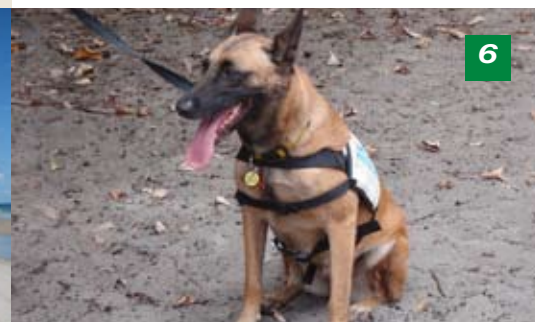
## Moreton Bay Regional Council

Moreton Bay Regional Council are working with local volunteers to improve the resilience of Woorim Beach dune ecosystems and increase public awareness of this unique area.

Specifically, this project will:

- revegetate foredune vegetation communities;
- construct trial fencing to protect dune vegetation, support sand accretion and allow for egg-laying turtles to access the dunes;
- install interpretative signage; and
- conduct a community awareness campaign.

Outcomes to date include finalising the design of trial fencing and interpretive signage; the propagation of 10,000 locally sourced plants for revegetation works and approximately 30ha of weed control.



6

## Moreton Island Protection Committee

The Moreton Island Protection Committee are implementing an extensive onground and community awareness project on Moreton Island. The project comprises: revegetation, weed control, rubbish removal, feral pig census and a cane toad eradication and public awareness campaign.

Surveys for cane toads that may have inadvertently been translocated to Moreton Island during clean up activities, have been conducted using a specially trained cane toad detection dog ("Nifty"), on loan from the Western Australia Department of Environment and Conservation.

Ongoing outcomes to date include planting of over 1200 coastal plants, propagation of over 4000 plants from seed, over 200 hours of cane toad searches using Nifty and over 100 hours of cane toad searches with volunteers.





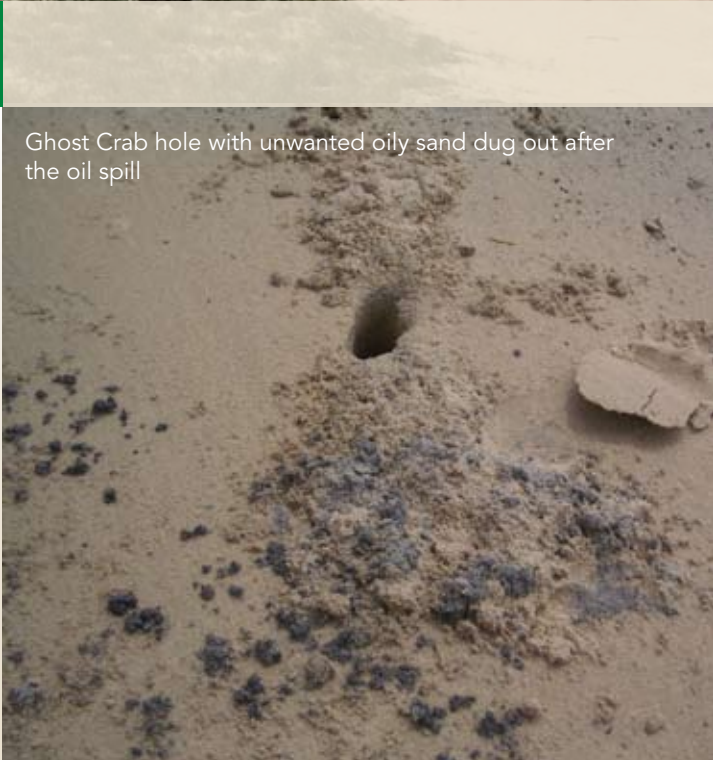
Natural recovery of dune vegetation at Buddina, Sunshine Coast, February 2010

## Impacts on Wildlife

Wildlife can suffer a range of physiological and toxic effects from oil spills. Oil entering the water can release carcinogenic and toxic chemicals, which are absorbed in tissues of water filter feeding shell fish like mussels and oysters, and consequently their predators, such as crabs. Fish death can also occur and become a toxic food source for birds.

Fortunately, a lot of wildlife sought shelter from the rough conditions created by Cyclone Hamish when the Moreton Bay Oil Spill occurred. Consequently, a relatively small number of wildlife, including birds, turtles and seasnakes were affected, compared to what was initially expected. However, without rigorous monitoring it is impossible to estimate the full extent to which marine and coastal species were affected.

On the Sunshine Coast, turtle nests were covered with purpose built cages so hatchlings would not emerge and head towards the water. Hatchlings were rescued as they emerged from the nest and released at local beaches that were oil free, once it was safe to do so.



Ghost Crab hole with unwanted oily sand dug out after the oil spill



Loggerhead Turtle hatchlings released at Teewah, on the Sunshine Coast, after the oil spill

**For more information**

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Photos courtesy of J. O'Connor, J. McEwan, D. Wells, D. Percival, S. Galvin and S. Lloyd.

