



From waste to wetland

The treated effluent of Byron Bay has shaped a wetland wonderland.

WALKING ALONG a gravel road within the West Byron Sewage Treatment Plant (WBSTP) I was astonished by the multitude of native birds dotting a large wetland. My eyes danced across the scene – graceful black-necked storks, royal spoonbills, black-winged stilts, glossy ibis, little pied cormorants, comb-crested jacanas (lotusbirds), Eurasian coots, Australasian grebes and even tiny black-fronted dotterels. A colleague of mine had mentioned there may be a ‘few’ waterbirds worth photographing here, but little did I expect to find such a flourishing wetland within the grounds of a sewage-treatment plant.

Flashback to the 1980s when the Byron Shire Council bought a 105-hectare area for use as a sewage-treatment plant. They now call it the

A female black-necked stork feeds in the wetland that, according to ecologist David Pont, “is the first example of its type in Australia – on such a large scale – where a council has created artificial wetlands to accommodate treated liquid.”



West Byron Effluent and Wildlife Management Area, and before long, a 12 ha wetland was built. To date, approximately 170 species of birds have been recorded there, including a recent sighting of the rare freckled duck.

WBSTP operator Alan Dickens explained that the wetland constitutes the sewerage treatment plant’s tertiary, or final, leg. “The process that takes place in the tank here is made up of three cycles,” he said. “Aeration, settling and decanting. The final product of all this is a

sludge that’s fit to be used as a soil conditioner on pastoral properties. The clear liquid effluent goes to a catch pond for six days before it reaches the wetland.”

Strict monitoring processes ensure the clear liquid is safe for release. “Testing is carried out weekly on the quality of the sludge to qualify that it’s fit to be introduced onto land, while waste-water samples are tested on a daily basis by us, and fortnightly by the EPA,” Alan said.

It was late afternoon and time for a spot of photography, so I headed down to the main wetland. While soaking up its tranquil surroundings, I bumped into David Pont, wetland ecologist with the environmental conservancy group, Australian Wetlands. David, like Alan, was also keen to spread the gospel regarding this innovative project. “This is the first example of its type in Australia – on such a large scale – where a council has created artificial wetlands to accommodate treated liquid effluent while

More than 170 bird species have been recorded in a 12 ha wetland created by the West Byron Effluent and Wildlife Management Area. The wetland constitutes the West Byron Sewage Treatment Plant’s tertiary, or final, leg.

creating a sanctuary for local fauna,” David said.

While the wetland proved successful in the early years, in the late 1990s dwindling plant populations and an abundance of sludge caused some problems. David’s recent plant-regeneration work has dramatically improved the wetland operation and has also provided valuable information about the design of such systems. “Wetlands can complete the treatment process cost-effectively,” he said. “They also begin the ecological conditioning of the effluent so it can rejoin the water cycle with minimum impact and actually benefit the environment. The area is continually widening. The original wetland was 10–12 ha, but a proposed



Ephippiorhynchus asiaticus

upgrade will increase its size to 17.5 ha."

Before heading off, David drove me to a nearby site where melaleuca regeneration is in progress. On the advice of Dr Keith Bolton from the Centre for Ecotechnology at Southern Cross University, Lismore, 500,000 trees are being planted on 24 ha adjacent to the treatment plant. The idea is to recreate some of the original wetland forest that was destroyed years earlier by landclearing. Effluent will then be used to feed the forest. The area, which has highly acidic soil and thick cover, is the perfect environment for acid-loving

Waterbirds such as this royal spoonbill will benefit from the planting of 500,000 trees on 24 ha adjacent to the existing wetland. The idea is to recreate some of the original wetland forest that was destroyed years earlier by land clearing.

frogs and the rare eastern grass owl, a species that's recently been recorded here.

With the sun all but retired, I set up my camera and clicked away at the glorious array of birdlife silhouetted against a burnt umber sky.

I was less than 5 minutes from the centre of Byron Bay, a tourist town abuzz with people, yet here I stood,



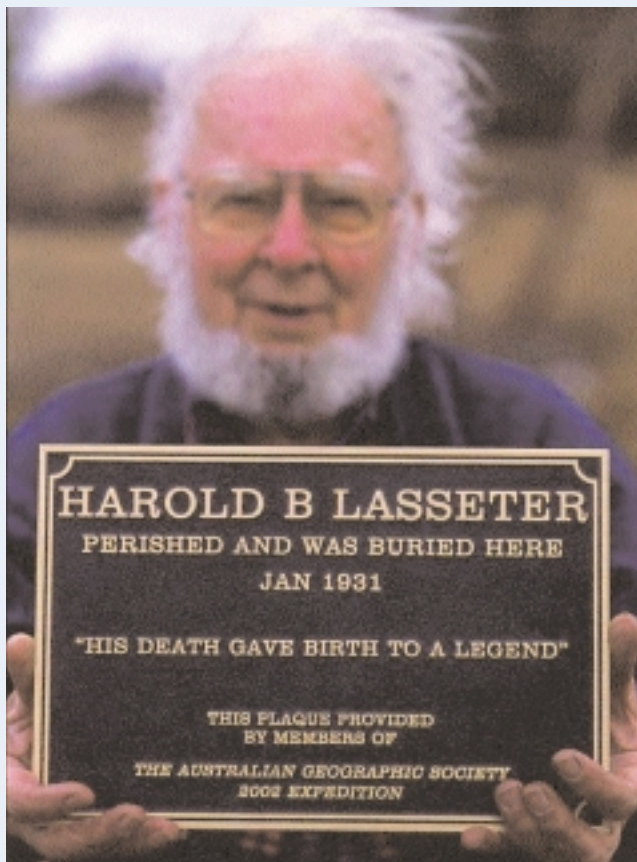
Platalea regia

surrounded by a verdant wetland watered by treated effluent. It was comforting to know that passionate individuals, in conjunction with the local council,

are successfully creating viable solutions to what is, quite literally, a flood of environmental challenges.

Story and photographs by Michael Snedic

Epitaph in bronze



PETER McNEILL

APERSISTENT WIND tugged at the blue tarpaulin covering the unpretentious stone monument. "It's ironic that my father died of thirst here, as it looks like we'll be fighting rain to get this plaque attached," Bob Lasseter said.

Bob and I were part of a small group – 17 people in six vehicles – that travelled to Irving Creek in the Petermann Ranges, Northern Territory, to affix a plaque to the stone cairn marking the spot where, in 1931, Harold Lasseter died while searching for his 'reef of gold'.

"When I first saw photos of my father's grave, it was marked by four corner posts and one in the middle of one side. This is the way you mark a mining claim," Bob said. It struck me as an incredible irony: Harold Lasseter died after recording in his diary that he had pegged a mining

claim on his gold reef.

The idea for the plaque originated from a 2002 Australian Geographic Society expedition (AG 69) that followed the footsteps of Harold Lasseter through Central Australia. During the two-week journey, the expedition members decided a bronze plaque would be a lasting tribute.

After securing it, Bob read aloud an entry from his father's diary, written not long before he died: "I suppose the children have grown immensely since I saw them last. Joy may not remember me but others will. How I would love to see them..."

Harold's daughter, Joy McClure read a passage from the Bible he carried with him on his ill-fated expedition. The small gathering then sang his favourite hymn, *When the roll is called up yonder*.

"I never thought it'd happen," Joy said. "It's a nice end to it all."

Peter McNeill

Bob Lasseter displays the plaque that marks his father's grave site.