

## A Natural Buffer

Driving past the Nucrush Quarry at Oxenford reveals little of the activity that goes on inside. Wide land buffers hide the quarry from view, creating suitable distance to reduce the effects of the quarrying on the local community, as well as providing homes for wildlife which has been displaced by urban encroachment.

## Nucrush, The Environmental Protection Agency and Natural Resources and Mines

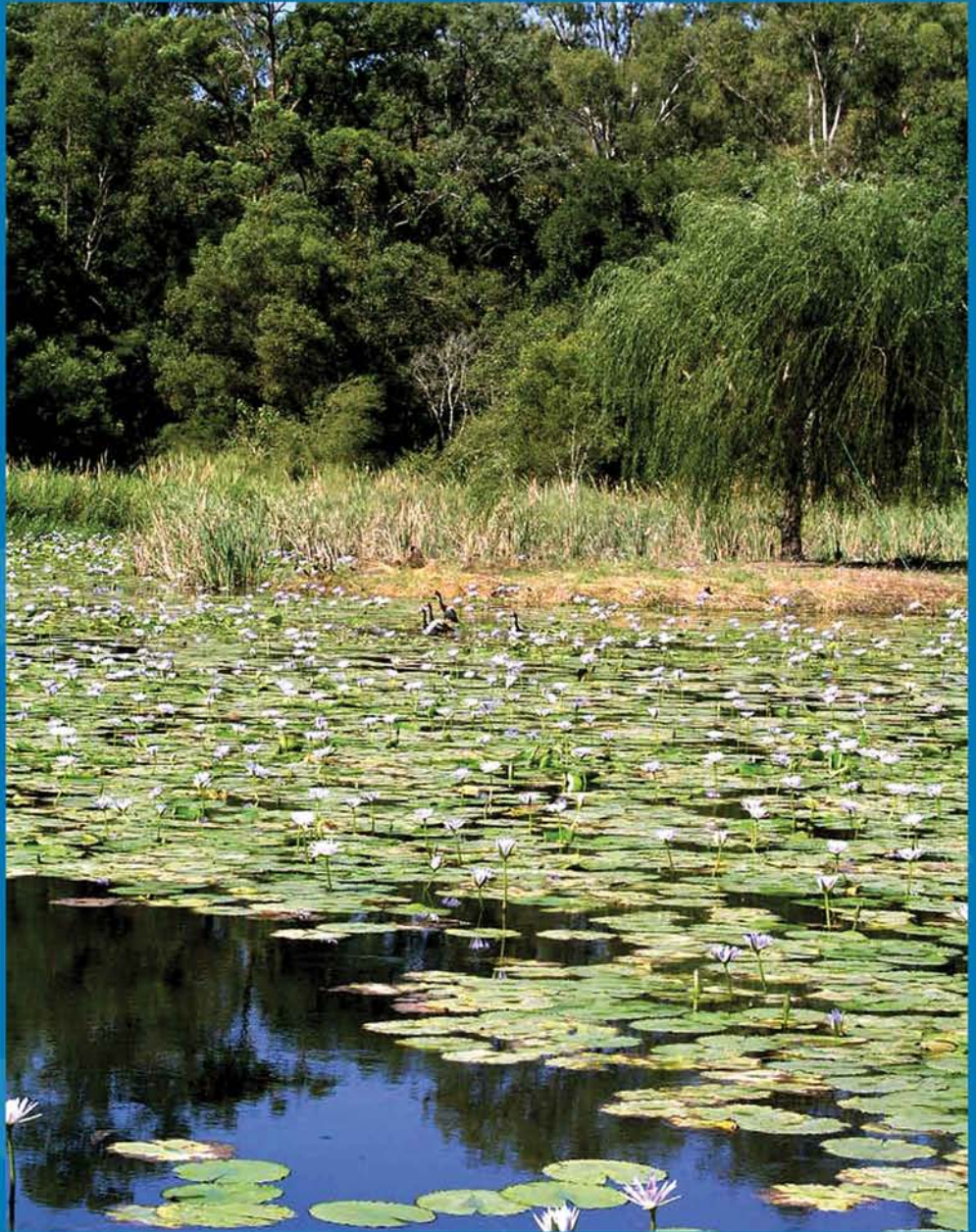
The Nucrush Quarry operates under a licence from the Environmental Protection Agency (EPA), a government authority responsible for managing the environment and under statutory regulations set out by Natural Resources and Mines.

In addition to regulating the licensing conditions of the quarry, the EPA has obligations to the Department of Natural Resources and Mines and the Gold Coast City Council to ensure all guidelines are adhered to. Conditions of this license control certain aspects of the quarry including blasting, water, noise and dust management. The EPA regularly visits the quarry to ensure it is complying with the conditions set out in it's license and any other applicable regulations.

## Water Management

Nucrush collects stormwater run-off from its site in a series of dams. As a result, the quarry operations never draw on the precious water resources which serve the Gold Coast.

The dam water is used to dampen haul roads, jaw crusher conveyor belts, and trucks leaving the property.



Water is also used in the concrete plant and the dust management process.

Any water that overflows from the dams, and discharges from the site is sampled and must meet quality guidelines set by the EPA.

The largest dam, at the entrance to the Quarry, is an important habitat to a number of birds, ducks, geese and platypus. Every year we look forward to seeing the baby magpie geese who breed close to the dam banks.



## Noise Management

Nucrush undertake various noise mitigation measures to minimise the noise levels of their quarry operations.

These noise mitigation measures include:

- ◆ Location of the crushing plant and all ancillary operations.
- ◆ Minimising the hours of operation.
- ◆ Conducting the monthly blasts during the middle of the day.
- ◆ Maintaining existing and extending land buffer zones to minimise noise levels at all surrounding residences.
- ◆ Modifying the reversing beepers on mobile equipment to reduce noise emissions.
- ◆ Internal lining of bins in the crusher plant with resilient materials to reduce impact noise.
- ◆ Adherence to strict truck, plant, equipment, maintenance and repurchasing schedules to ensure quieter motor noise and running emissions.
- ◆ Haul road levels are designed to minimise noise emissions from dump truck engine breaking.

Environmental acoustic / noise consultants undertake noise monitoring in the areas surrounding the quarry and within the quarry, to assess the state of compliance with our environmental licence.



## Dust Management

Dust monitoring is carried out at seven strategic locations in and around the 70 hectare property. Dust levels are measured by the amount of dust that falls into the monitors over a period of time.

The EPA also sets strict guidelines in relation to dust monitoring which must be adhered to at all times. All of Nucrush's dust monitoring results are below EPA guidelines.

Nucrush undertakes the following activities to minimise the impact of dust on the surrounding areas. These include:

- ◆ Wetting down the rock on the quarry face.
- ◆ Using a water truck to wet down haul roads.
- ◆ Minimising sediment on roadways.
- ◆ Using water sprays within the processing areas.
- ◆ Enclosing conveyer belts.

- ◆ Hosing down transport trucks prior to departure.
- ◆ Covering all transport loads.
- ◆ Minimising site vehicle speeds.
- ◆ Maintaining critical dust suppression plant and equipment.
- ◆ Consideration in plant design.

## Nucrush's Continued Commitment

Nucrush constantly monitors all aspects relating to the surrounding environment and local community.

We are continually looking for ways to improve our operations, to reduce the impact of the quarrying on the residents as well as local fauna and flora. We continually go beyond the requirements set by the governing authorities to ensure we are doing as much as possible to preserve the natural state of the Upper Coomera and Oxenford areas.



This information was produced by Nucrush Pty Ltd, part of the Neumann Family Group of Companies.

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