

## Urunga

# Remediation of the old antimony site

April 2015

### The antimony processing site

Figure 1 the processing plant (circa 1980)



The old antimony processing site is located on Hillside Drive at Urunga on the north coast of NSW. The derelict site lies between the Pacific Highway and a state significant wetland (SEPP 14) which is Crown land and forms part of the Urunga Lagoon and Kalang River systems.

The antimony processing plant, which was located on freehold land, was operational from 1969 to 1974. The site was abandoned by the owners in 1974 with no clean up or remedial work done.

When the antimony processing plant was in operation, it received antimony ore (stibnite) from the Wild Cattle Creek mine in Dorrigo for crushing and processing. The mineral extraction process left behind tailings and mill waste water that were discharged onto the wetland foreshore. The waste material contains a range of heavy metals that include arsenic, antimony and mercury.

Although the processing activities occurred on freehold land, over time the wastewater and tailings spread downstream into the wetland.

In 2011 the Environmental Protection Authority sought to place a remediation order (20111405) on the freehold owner of the site. The owner was unable to fund the works and the ownership of the site was transferred to Crown Lands.

### The Remedial Action Plan

Crown Lands engaged the Soil Conservation Service to project manage the detailed investigations of the site and develop a Remedial Action Plan.

The objective of the Remedial Action Plan is to achieve compliance with the Management Order and to remediate the site so that it's safe for public access without unacceptable risk to human health and minimise any further impact on the adjacent wetland.

The recommended option, which has conditional approval from the Environmental Protection Authority, involves excavation of the site, treatment of the contaminated material which is then placed in a specially engineered "monocell" which will be capped and the area revegetated.

Figure 2 Soil Sampling during investigation



### Site Remediation

The area to be remediated covers a total area of 4.0 hectares with 1.8 hectares of this being wetland.

Site Remediation will begin in April 2015 and will involve:

- Establishment of a work site
- Excavating contaminated material from within the wetland
- Construction of the containment cell

- Importing clean materials for engineering purposes including construction of impervious containment cell, surface capping, void filling, and land reshaping for revegetation and habitat purposes
- Dewatering of surface groundwater which enters the works
- Installing groundwater piezometers for the purpose of monitoring before and after the remediation works
- Clearing and disposal of vegetation (both native regeneration and weeds)

Flora and Fauna will be protected by:

- maintaining clearing limits
- machinery exclusion visual barriers
- retaining high value vegetation
- revegetation program
- daily monitoring

## Environmental Impact Statement

A detailed Environmental Impact Statement was prepared to assess impacts from the proposed remediation works. The Environmental Impact Statement assessed:

- Dust
- Noise
- Traffic
- Soil, water and groundwater
- Visual amenity
- Flora and fauna

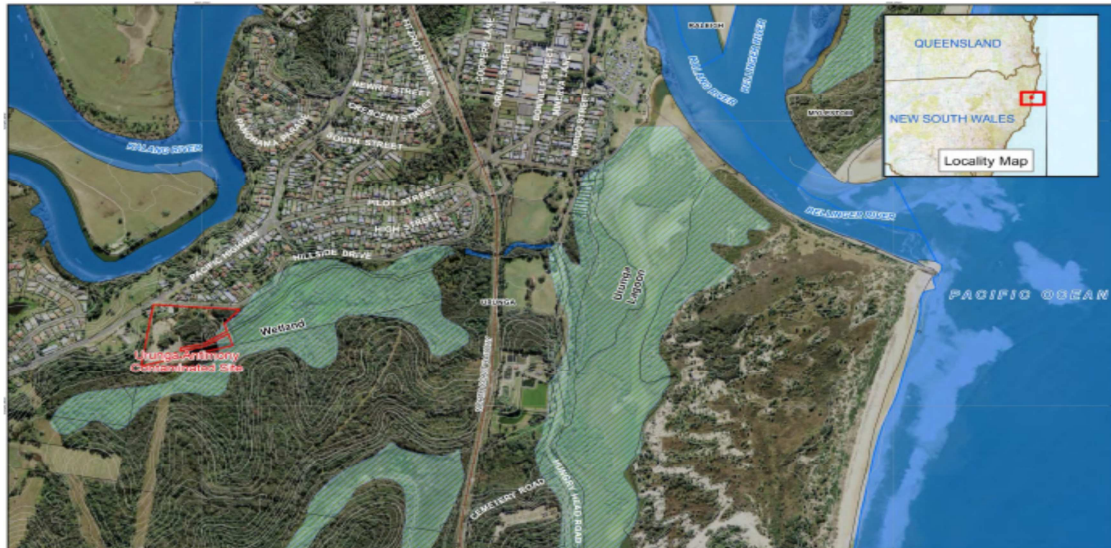
The Environmental Impact Statement was assessed by relevant government agencies and placed on public exhibition from November to December 2014.

## Remediation Funding

Remediation of the site is expected to cost approximately \$4 million.

The Environmental Trust had previously allocated \$700,000 towards the project. The balance of funding includes \$2.1 from the Derelict Mines Committee and \$1.2 million from Crown Lands.

Figure 3 Location of the remediation site



## More information

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