

## **ART-WORK-SITE: OPERATION CRAYWEED**

### **PLASTICS MANAGEMENT PLAN**

**October 2016**

### **PROJECT NAME**

*Art-Work-Site: Operation Crayweed*

By Jennifer Turpin and Michaelie Crawford

### **DESCRIPTION OF PROJECT**

An 'art-work-site' will be established along the Bondi to Bronte walk to conceptually highlight the underwater crayweed reforestation beneath the swell between Marks Park and the South Bondi Headland.

*Art-Work-Site: Operation Crayweed* is a collaboration between artists Turpin + Crawford Studio and the scientific team from the University of NSW department of Marine Ecology headed by Dr Adriana Vergés, Dr Ziggy Marzinelli and Professor Peter Steinberg, also from the Sydney Institute of Marine Science (SIMS).

The artwork is comprised of a 500m long fence made of barrier mesh, bunting and crab floats, constructed on top of the existing fence structure. In Notts Avenue, there will be three large marine buoys repurposed to become viewing scopes aimed towards the crayweed planting site. A large marine buoy will mark the underwater planting in the sea.

The project is aimed at raising awareness around the replanting by UNSW scientists of the crayweed, which disappeared from Sydney's coastline in the 1970s and 80s, likely due to water pollution. The new replanting sites stretch from Long Bay to Avalon. A version of the *Art-Work-Site: Operation Crayweed* project will take place at each of the planting sites, beginning with the site at North Bondi for this year's Sculpture by the Sea.

### **LOCATION / SITE**

Sculpture by the Sea  
Bondi to Bronte Coastal Walk

Artwork will be sited at Bondi between the South Bondi Headland and Marks Park.

## **PROJECT START DATE**

Installation 15-19 October

Exhibition dates: 20 October – 6 November

## **PROJECT END DATE**

Exhibition ends 6 November.

Deinstallation will take place from 7 – 10 November.

## **MATERIALS USED**

The three primary components of the work are:

LDPE (low density polyethylene) – barrier mesh (recyclable)

EVA (ethylene-vinyl acetate copolymer) – crab floats (recyclable)

PVC Vinyl – bunting – (recyclable)

UL Approved Nylon – Cable ties – (possibly recyclable)

## **WASTE MINIMISATION**

Materials used in the *Art-Work-Site: Operation Crayweed* project may be reused for future plantings of crayweed moving northwards to Avalon.

In the long term, the materials will be recycled via commercial recycling operators. We are also exploring the use of an open-source machine for recycling plastics, currently being built at the Michael Crouch Innovation Centre at UNSW.

## **METHOD FOR QUANTIFYING LOSS**

The greatest risk of loss is during installation and deinstallation – however, our methodology is designed to completely eliminate waste. For example, materials will be pre-cut and pre-prepared away from site, within the contained environment of our studio. Cable ties will be used on site and during deinstallation, they will be cut using sharp blades rather than wire cutters or pliers, to eliminate risk of flyaways. All materials used in this artwork are designed for long-term outdoor use, and will not degrade or disintegrate during the exhibition period.

## **USE OF PLASTIC BY SCIENTISTS IN THE RESTORATION OF CRAYWEED**

To restore crayweed underwater forests, the scientific team attaches adult plants to polyethylene mesh plots that are temporarily attached to underwater boulders via steel screws and washers and nylon cable-ties. This plastic is recycled, durable and resistant to degradation by sunlight and waterflow, and it is removed once the established crayweed has reproduced and self-propagated.

In consultation with Dr Mark Anthony Browne's 'Benign by Design Programme', the team trialled several non-plastic alternative materials (i.e. coconut fibre, starch and metal mesh), however, plastic produced the best results. Dr Browne, a world expert on impacts of plastic debris on biota based at UNSW, commented "the team's materials and methods are currently the most effective at improving biodiversity whilst minimising emissions of microdebris to the environment".