

Litter Free Estuaries

A FRAMEWORK FOR LITTER PREVENTION IN BENTHIC HABITATS



BENTHIC LITTER

Knowledge of litter in benthic estuarine habitats is relatively minimal as these areas are typically difficult to survey. However it is estimated that 70% of all marine debris is eventually deposited in benthic habitats, suggesting that a large portion of litter goes unnoticed by the wider community. Understanding litter in these habitats requires effective methods for surveying benthic environments. OceanWatch Australia has worked to determine the suitability of four survey methods, and develop a strategic framework to tackle benthic debris.



Benthic debris in Sydney Harbour captured using ROV

SURVEY METHODS

OceanWatch trialed and reviewed four benthic survey methods to determine effectiveness across several criteria and habitats. Whilst each method offers advantages, there are clear distinctions that make certain methods more effective in estuarine ecosystems. The usefulness of these four methodologies will depend on the capacity and capability of the organisation and/or individual undertaking the surveys. Detailed recommendations can be found via the QR code below.

Want to know more?



RECOMMENDATIONS FOR THE USE OF FOUR METHODS FOR SURVEYING LITTER HOTSPOTS/HIGH VALUE AREAS IN ESTUARIES

| | REMOTELY OPERATED VEHICLE | SCUBA DIVING | BENTHIC SLED | TROLLING PARAVANE |
|---------------|---------------------------|--------------|--------------|-------------------|
| DATA QUALITY | ★★★★★ | ★★★★★ | ★★ | ★★ |
| SAFETY | ★★★★★ | ★ | ★★★★ | ★★★★★ |
| PRACTICALITY | ★★★★★ | ★★★★ | ★★ | ★★★★ |
| INVASIVENESS | ★★★★★ | ★★★★★ | ★ | ★★★★★ |
| AFFORDABILITY | ★ | ★★ | ★★ | ★★ |
| MANGROVES | ★★★★★ | ★ | ★ | ★★★★ |
| SEAGRASS BEDS | ★★★★★ | ★★★★★ | ★ | ★★★★★ |
| KELP | ★★★★★ | ★★★★★ | ★ | ★★★★★ |
| ROCK/OYSTERS | ★★★★★ | ★★★★ | ★ | ★★★★ |
| SAND/SEDIMENT | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| SHALLOW <3M | ★★★★★ | ★★★★★ | ★★★★ | ★★★★★ |
| DEEP >3M | ★★★★★ | ★★★★★ | ★★ | ★★ |

THE FRAMEWORK

Key steps to guide litter prevention in estuaries



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