

**Curtin Artificial Reef, Moreton Bay Marine Park
Underwater Clean-up 2015 -2017
Annual Progress Report 31 October 2016**



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Summary

- URGQ is ahead of its clean-up commitment and has completed milestone 11 or a 7th day of diving ahead of time.
- Total of 138 dives have been logged against a 90 as estimated by this time.
- A total 277.2kg of rubbish has been collected.
- It is requested that funds be reallocated to cover expenses where they are becoming low such as from Project Administration and training into boat hire, petrol and compressor/air fills.
- It is also requested that the cost of volunteers and vehicles required to transport equipment and people return to Moreton Island in March and October 2016 be off set against Equipment Hire - SCUBA equipment?
- The overall expenditure remains the same.
- A hand-held analyser was purchased to check the quality of air fills. This was reported against 'Incidentals for Volunteers – PPE' but is better allocated against Purchase of Materials – equipment for clean-ups.
- Clean-up effort is significantly enhanced by a grant provided by Sea World Rescue and Research Foundation and a partnership formed with Dive Dive Dive, Tingalpa.
- Educational presentation titled "*Marine Debris and Threatened Species – What YOU can do*" was developed and presented to 30 URGQ members and guests on 21 September 2016. Further presentations are planned.
- Recommended not to use lifting bags and crates but buckets and DSMBs.
- Investigating the option of Ken Holzimer being involved in March 2017.

Background

This project is managed and implemented by *The Underwater Research Group of Queensland Incorporated* (URGQ) and co-funded by the State Government *Everyone's Environment Grant Program*, *Sea World Rescue and Research Foundation* and *Dive Dive Dive*. Background about the URGQ and the site is provided in the *Annual Progress Report 2015* submitted to the Department of Environment Protection and Heritage.

Equipment

Same equipment was used except that the buckets were preferred by volunteers as they were more manageable. Lifting bags are no longer used but decompression surface marker buoys (DSMBs) are used instead. A hand-held gas analyser was purchased to ensure the quality of gases supplied by the URGQ portable compressor. The analyser monitors oxygen and carbon monoxide in the air fills.

The second vessel used was funded by a Marine Debris Grant awarded to the URGQ from the Sea World Rescue and Research Foundation.

Methodology (unchanged)

The protocols and equipment used in previous clean-ups undertaken by the URGQ. The only change being that the buckets are used instead of a lifting bag.

Pool Training

No pool training was scheduled in preparation for this trip. Members that had not attended pool training were briefed about the use of a lifting bag and buddied with someone who had attended training.



Fig. 3 – Crate, lifting Bag and knife no longer used



Figure 4 – The preferred - a bucket with lid and DSMB

Clean-up Protocol (unchanged)

For the purposes of this project marine debris is defined as lost or discarded equipment that represents a threat to marine species and which is mostly found at a site such as Curtin AR. That is fishing line, hooks, lures, weights and anchors.

Glass bottles (beer bottle) are specifically excluded from being collected as they are a common habitat for blue-ringed octopus. Also if a glass bottle breaks it represent a safety risk to divers and the vessel.

The dive plan was altered from the initial proposal to include trips departing from Cowan Cowan, Moreton Island.

Each clean-up dive is performed by a buddy pair who used either a crate/bucket/onion bag and lifting bag to collect and lift debris to the surface. Dives are planned to occur when the tide is slack or there is little current flowing. A descent is made down an anchor line to a known point/wreck.

To maximise the amount of working time underwater the dives are planned to coincide with the least amount of water movement or slack water. Slack water at this site is calculated as being approximately 40 mins either side of HW or LW. The movement of water is further influenced by moon phases and trips are organised to occur when neap tides occur which is on a half moon.

At the end of the dive, divers return to the anchor/shot line where using a clip the lifting bag and rate/bucket is attached to the anchor/shot line. Air is then used to inflate the lifting bag so it SLOWLY floats to the surface. This prevents lifting bags from floating away from the anchored boat and protected divers on the anchor line. At the surface the boat handler lifts the crate into *Diver 1*. The divers are now free to ascend to the surface unencumbered and perform a decompression safety stop on the way. A dive briefing is given and divers must sign off against it to ensure all information has been provided (Attachment 1).

Clean-up effort

The clean-up effort was concentrated on parts of Curtin Artificial Reef not yet dived for clean-up. Over the course of Fri 7 / Sat 8 / Sun 9 / Mon 10 October 2016 a total of 15 divers dived and 42 clean-up dives achieved. At least the following wrecks were visited by divers:

- | | |
|--------------------|---------|
| - Barge 25 | - Utah |
| - Estrella Del Mar | - Tyres |

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- Point Lookout
- Concrete pipes
- Kos I
- Rock Driller
- Statue

Much improved logs were kept of the diving effort and a formalised briefing provided to volunteers. This has assisted in a more accurate documentation of the clean-up effort and which wrecks divers visited.

The milestone identified by the project proposal (5.10 of the application) proposed to achieve an effort of up to 60 dives per year. At this point that is equivalent to 6 diving days by 10 volunteers or up to 120 dives. To date the clean-up effort is equivalent to 138 dives. Hence the URGQ is ahead of its commitment to this project. This is without a doubt attributable to the second vessel funded by a grant from the Sea World Rescue and Research Foundation and Dive Dive Dive, Tingalpa.

The visibility was poor over the whole weekend and there were fewer volunteers due to sickness and some injuries. These variables combined resulted in less clean-up effort. Some divers were reporting that wrecks were clear of fishing line and weights. Whilst this might be the case I believe that the debris was not seen due to the poor visibility.

Marine Debris Collected to date

The total weight of fishing line, lures/hooks and fishing weights collected to date is 277.2kg. Table 1 shows the breakdown of marine debris collected by the URGQ.

Table 1 – Summary of marine debris collected to date

Date	Curtin wrecks	No. Dives	Fishing Line & lures/hooks (kg)	Fishing Weights (kg)	Anchors & Line/Chain (m)	Other
TOTAL		96	64 & 11	171	17 & 50	
1 Aug 2015	Southern	6	8	11	3 & 10	
22 Aug 2015	Southern	10	11	7	9 & 20	
23 Aug 2015	Mid	10	9	5	5 & 20	
5 - 7 Mar 2016	Mid & Northern	70	36 & 11	148	12 & 75	2 small Burley bins 2 large burley bins 1 line reel 1 spear 1 fishing rod 1 rod holder 1 toilet seat
7 – 10 Oct 2016	Barge 25, Estrella Del Mar, Utah, tyres, Point Lookout, Concrete pipes, Kos I, Rock Driller and Statue	42	4.4 & 1	25.8	0 & 0	1 Bait bag 10m rope

Educational Talk

A 40-minute motivational presentation was developed and presented to members and guests at the URGQ Club House. Approximately 30 people turned up and the response was positive. Two invitations have been received because of this presentation with dates TBC. Connections have been made with WWF, AMCS and representatives of *A Plastic Ocean Foundation*.

Financials

The Expenditure Template showing the latest figures is provided as Attachment 2 and Attachment 3 shows the requested reallocation of funds. A summary of financials is as follows:

Total Allocations (ex GST)	\$23 540.00
Amount withheld 25%	\$6 474.00
Amount receipted 75% total	\$19 420.00
Total expenditure YTD	\$7 046.14
Surplus cash at ban	\$ 11 672.88

Approval is requested to:

1. Reallocate funds between identified areas within the budget, and
2. Off-set volunteer and vehicle costs to and from Moreton Island. These expenses have occurred because of a change in methodology from day trips to weekend trips. Funds are available for this expenditure from the allocation of \$5000 Equipment Hire – SCUBA Equipment. To date only \$625.00 has been expended from this allocation.

Please note that the reported expenditure of \$530.00 from the Incidentals for volunteers is to be off-set against Purchase of materials – equipment for clean-ups.

Conclusion

The project is on track and ahead of the deliverables. The next weekend field trip is planned to coincide with the Clean-Up Australia Initiative March 2017. Day trips will be organised to continue to meet deliverables are the weather permits. A motivational and educational presentation has been developed and presented. It is titled “Marine Debris & Threatened Species – what YOU can Do.”