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TEST EXCAVATION OF **S.S. DICKY**

17th APRIL 2015



S.S. Dicky
26° 41' 51.37", 153° 08' 21.65" (WGS 84)
Dicky Beach
Caloundra
NSW

April 2015

Test Excavation of S.S. *Dicky* – 17th April 2015

EXECUTIVE SUMMARY

The Sunshine Coast Council (SCC) is proposing to preserve key heritage elements and remove hazardous elements from the remains of the S.S. (Screw Steamer) *Dicky* due to concerns for public safety in light of recent increased deterioration. A permit is required from the Department of Environment and Heritage Protection under section 91 of the *Queensland Heritage Act 1992* to disturb the site. The awarding of a permit would be conditional, in part, on acceptable archaeological mitigation being implemented before, during and after the removal of hazardous elements from the wreck.

So as to better inform and plan for the cutting of the wreck and to finalise a Conservation Management Plan (CMP) for the wreck, a test excavation was planned to investigate a number of unknown aspects and test cutting equipment to inform the CMP methodology. A permit application for this investigation was approved by the Department of Environment and Heritage Protection under section 91 of the *Queensland Heritage Act 1992* (approval letter dated 16th April, 2015). The test excavation was conducted on the 17th of April, 2015. The key objectives of this test excavation were as follows:

- To test the cutting equipment and methodology both above water and underwater;
- To expose the top of an isolated position of the port side hull at midships and determine cutting depth;
- To inspect the structural integrity of the stanchion; and,
- To test the complete archaeological strategy proposed in the draft CMP.

The test excavation encountered a considerably higher sand level than previously experienced which hindered progress in exposing and cutting frames. However, the test excavation was able to successfully test a thermal lance underwater and a hand held circular saw above water. The thermal lance took approximately 20 minutes to cut through a relatively small frame underwater, while cutting with the saw above water took approximately 6 minutes to cut through a frame almost three times the size. It was also found that most of the port side hull from stern to past midships will require cutting underwater regardless of the tide level.

The test excavation was not able to reveal the edge of the hull on the port side, except right at the bow, demonstrating that the sand level is a major factor when considering access to the desired frames to be removed and indicating that there should be some reconsideration as to what is considered to be a hazardous element of the wreck.

2.13 m of the length of the stanchion was exposed, however, a cause for its instability was not located. Despite this, the stanchion was relatively stable at this level of exposure which indicated that the weakness is much deeper and that the stanchion should remain quite stable without reinforcement.

A number of issues were identified as part of the CMP methodology including the difficulty of recording with only two archaeologists and the unnecessary complexity of the recording process. It was also found that baseline offset measurements hindered the progress of excavation and would be of limited accuracy. The amount of access to the site by archaeologists was limited by travel times and the objectives and timings of the test excavation could have been better communicated between SCC and the archaeologists.

From the findings of the test excavation, the following recommendations have been made:

- A hydraulic powered circular hand saw would be useful for underwater and above water cutting of the wreck. A diamond saw blade needs to be used and would need to be a minimum size of 10 inches. Underwater cutting will require a commercial dive team to complete the cuts;
- Re-evaluate what is considered unacceptably hazardous elements of the wreck in order to inform the location of cutting. This is to include consideration of depth of burial and infrequent exposure of the port side hull;

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- The stanchion should remain *in situ* in the beach with no additional supports or reinforcements until it becomes too unstable to remain in this position. The CMP should be amended likewise;
- The labelling and recording methodology in the CMP should be reviewed by the archaeologists in order to simplify the process;
- Three archaeologists would be required during the main cutting works in order to fulfil the tasks required in an efficient and timely manner;
- DPGS positioning is preferred as the method of positioning of frames during the cutting works;
- Storage and initial conservation measures of the artefacts should be monitored by an archaeologist. The artefacts should also be recorded at the storage facility, rather than on-site, in order to obtain a higher standard of recording;
- The amount of sand cover appears to be more effective at prohibiting access to the wreck than tide levels and so should be given a higher consideration when determining the timings of the excavation;
- Archaeologist(s) will need to stay in Caloundra the night prior to works commencing in order to undertake preparatory work before the excavation as well as allowing works to commence early in the morning; and,
- Adequate briefings should be undertaken for all personnel involved in the excavation so that the objectives are clear. This will include a summary of objectives and other key points supplied to Council by the archaeologists, as well as an itinerary, timings and equipment/stores required.

