

# *S.S. Dicky* Inspection Report

20 and 30 May 2013



Prepared by: Heritage Branch, Environmental Policy and Planning Division, Department of Environment and Heritage Protection

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August 2013

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SS Dicky Inspection Report: 20 and 31 May 2013

## Summary

The *S.S. Dicky* is in an advanced state of degradation. Extant material above the sand is actively corroding and continues to collapse at an accelerating rate. Much of the ship's outline has disappeared over the last three years, with only a section of the rear starboard quarter and the stern still visible above water, even at low tide. The remaining exposed sections are structurally weak and at risk of collapse. Forward of amidships, only a single deck stanchion is consistently visible above the sand, although other components such as another bent stanchion and the bow are periodically exposed by beach erosion. The speed of deterioration appears to reflect that the wreck has passed a key 'tipping point' and exposed sections will not survive in situ beyond the short term. The critical factors in the hull's deterioration are electrochemical corrosion and the physical impacts associated with its unstable littoral environment. Recent successive years of extreme weather events have accelerated the rate of deterioration comparative to the timeframes estimated in the management plan (Cosmos Archaeology: 2008). There are a small number of possible management actions that could be considered to potentially retard the rate of decay in the short term. However these are unlikely to have a significant impact given the advanced state of deterioration and there is little prospect of preserving the exposed upper sections in the medium to long term. The partially buried and periodically exposed lower hull could potentially survive for decades. The less visible and rusted remnants, however, present a serious risk to beachgoers especially in the absence of clear physical markers of danger.

**Please note—Much of the report detail pertains to the site as inspected in late May 2013. However, in July 2013 the Sunshine Coast Regional Council (SCRC) advised another section had collapsed. Although the details in this report remain valid, the addendum accounts for the most recent changes and the summary and conclusion have been updated accordingly.**



Image 1—A view of the *S.S. Dicky* looking north-east from near the bow toward the stern. While much of the lower hull remains buried in sand, this is the only section clearly visible (SCRC 25/07/2013).

## Introduction

An inspection of the wreck of the S.S. *Dicky* was undertaken by the Department of Environment and Heritage Protection (EHP) on 20 May 2013 with a subsequent brief site visit on 31 May 2013 following further extreme weather. During the survey a range of observations were made and data collected pertaining the condition of the wreck and the nature of its environment. The S.S. *Dicky* Management Plan was developed by Cosmos Archaeology in 2008 for the then Caloundra City Council (Appendix A). This inspection report is an adjunct to this management plan and the two documents should be read in conjunction.

The 2013 inspection was initiated due to media reports of the wreck's accelerated deterioration (refer Appendix B). The purpose of the inspection was to:

- clarify the current condition of the wreck
- determine what potential management options could be taken given the revised condition of the site.

The inspection was conducted by a maritime archaeologist, but not a specialist maritime conservator. All recommendations should be considered preliminary advice and the implementation of specific management options may require technical input of a qualified and experienced conservator.

## Site location

The wreck of the S.S. *Dicky* is located in the intertidal zone of Dicky's Beach, Caloundra, South East Queensland (refer to Map 1). The wreck is located at coordinates latitude: -26.78091667, longitude: 153.13925833 and is orientated with the bow to the west-south-west at an angle of approximately 240 degrees.

The position of the wreck relative to the low water mark varies due to periodic accumulation and erosion of sand, although generally, the wreck appears to be predominately located above the lowest astronomical tide (Cosmos Archaeology 2008:11). The wreck therefore comes under the jurisdiction of the *Queensland Heritage Act 1992*, which protects all wrecks older than 75 years within Queensland waters, rather than the Commonwealth's *Historic Shipwrecks Act 1976*.

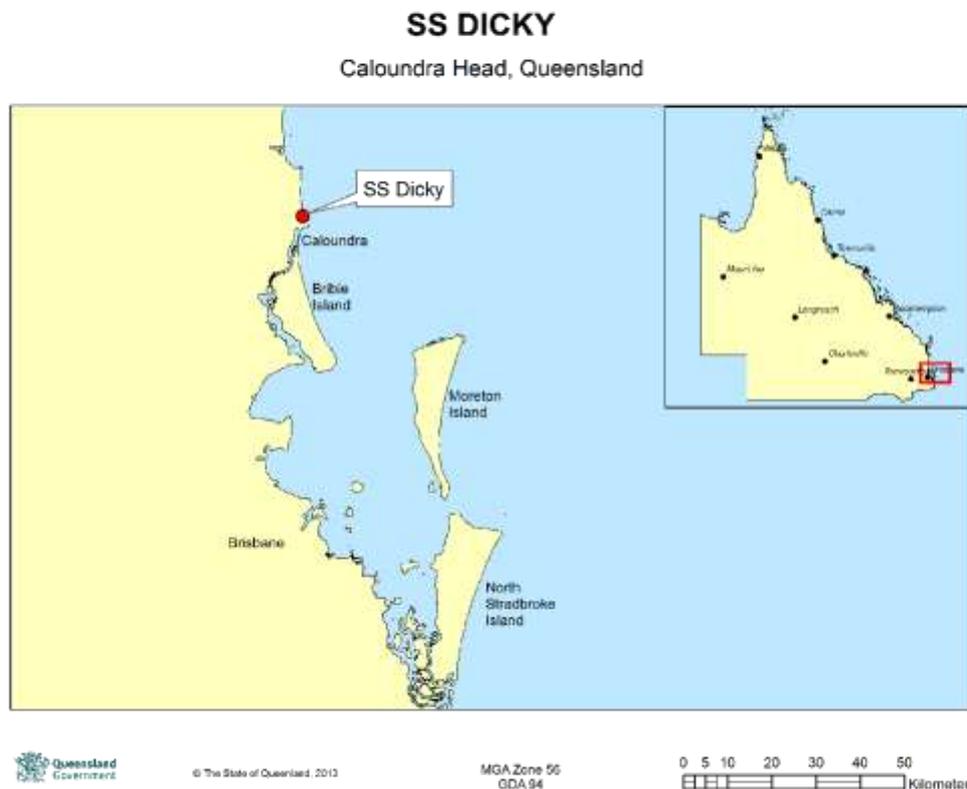




Image 2—The outline of the S.S. *Dicky* on the beach and its proximity to modern infrastructure.

## Brief history

The S.S. *Dicky* was an iron-hulled steamer that was built in Germany in 1883. Owned by Brydon Jones and Company, the *Dicky* operated as a coastal trader in and around Australia from at least 1887. The vessel was driven ashore at Caloundra during a cyclone in early February 1893. A number of efforts were made to re-float the *Dicky* but on each occasion it beached again and was eventually abandoned as a total wreck. The engines, steam winch, sails, spars, gear, boats and anchors were sold at auction on 6 June 1893 and subsequently salvaged. The iron hull of the wreck was left on the beach due the low price of iron at the time and the comparatively high cost of recovering it.



Image 3—The wreck of the S.S. *Dicky* c. 1900 (State Library of Queensland, image # 15543).

At the time of the *Dicky's* loss, Caloundra was a small emerging settlement and the beach which came to bear the wreck's name was relatively isolated (MacKay 200:62). Even so, the presence of a shipwreck on the beach soon became a local attraction, with numerous oral stories of how the community made use of the hulk for functions and as a dressing facility for bathers (MacKay 2007:66). Over the years the wreck deteriorated but continued to be a local icon, attracting tourists and photographers. The ship's propeller was removed for a monument in 1963 (refer to image 4) and the mid-section of the wreck's hull plating was apparently removed later that decade for unknown reasons, although most probably to facilitate vehicle access along the beach (Cosmos Archaeology 2008).



Image 4—Removing the propeller in 1963 (State Library of Queensland, image # 109371).

Dicky's Beach is now a popular urban bathing site with considerable local and tourist visitation. The patrolled bathing beach is immediately south of the wreck (refer to Image 2). The beach was badly eroded by ex-tropical cyclone Oswald in early 2013, but appears to be slowly recovering. The beach is sloping toward the sea, with an angle of 10 degrees in the intertidal zone, although the beach takes a more acute angle close to the edge of the eroded dunes.

### Recent deterioration and description

Although the wreck has steadily deteriorated, the outline of the hull remained clearly discernible until 2011 (refer to Image 5). Recent extreme weather events have caused several sections to collapse and only 12.5 metre section of the rear starboard quarter and stern remain consistently exposed. The majority of the base of the hull is intact—but the keel is possibly twisted or broken (Cosmos Archaeology 2008:29). There are sections of lower hull framing and collapsed port side structure spread on the seafloor within and immediately adjacent to the outline of the wreck; although many of these sections are partially obscured by sand and tidal waters.

The wreck has a well-documented history of variable sand coverage which will have directly contributed to its decay and recent rapid collapse. While the upper sections have always been exposed to the elements, the lower hull has ranged from burial to complete exposure. The recent accelerated deterioration appears to have been facilitated by the earlier loss of the bow or stern post and a series of extreme weather events that have scoured the beach and regularly exposed the lower sections of the wreck. The sand helps to preserve the wreck in two ways:

- physically supporting the hull, and
- providing a natural barrier to corrosive elements such as bacteria, heat and oxygen.



Image 5—This Google Earth Image shows the outline of the wreck in 2011. The missing section of the hull plating about amidships is clearly evident. This feature was possibly created in the late 1960's to allow vehicle access along the beach and would have had a negative impact on the hull's integrity.

Loss of sand leads to increased physical impact from wave action and heightened corrosion rates, especially in freshly-exposed iron. The plating is generally better-preserved in the periodically buried lower sections. When they are exposed, they suffer from increased impacts from wave action as they afford more resistance to the movement of water than the more decayed upper sections where only rib frames remain. The impacting wave action causes the metal to flex, resulting in weakened areas around sand level that are prone to stress corrosion. Physical movement further prevents the proper formation and/or retention of insulating corrosion products on the surface of the metal. This leads to a state of active electro-chemical corrosion through the constant exposure of the fresh metal.



Image 6—The exposed hull of the wreck in 2006 during conservation treatment.



Image 7—The reburied hull in June 2007.



Image 8—The -exposed remains of the S.S. *Dicky* in June 2012 (Courtesy of SCRC).



Image 9—The S.S. *Dicky* during heavy seas caused by ex-Cyclone Oswald in 2013. SCRC advised that the forward starboard hull plates collapsed soon after (Courtesy of SCRC).

The management plan by Cosmos Archaeology (2008:64) estimated that the hull was deteriorating at a relatively slower rate. With constant weather patterns and no intervention, it was estimated that the rudder post would collapse within 10 to 20 years and, the remaining structure above the sand would progressively disappear over the next century.

Although the stern is still extant, the majority of the hull plating has collapsed due to the loss of sand associated with a series of extreme weather events since 2008. As illustrated by images 8 and 9, these events have generated large seas and caused heavy scouring. This triggered catastrophic failure of much of the exposed wreck that was already critically weakened by a combination of historic human intervention, electro-chemical corrosion and over a century of wave action. The port side hull plating appears to have collapsed first, followed by the forward starboard section.

## Inspection

The inspection was undertaken by Department of Environment and Heritage Protection Principal Maritime Archaeologist, Paddy Waterson. The survey was restricted to a visual inspection supplemented by the use of a probe and Excalibur II underwater metal detector. These two instruments were principally used to locate the extremities of the wreck site. The metal detector was also used to gather prima facie indications of metal condition based on the strength of detection response. The inspection commenced at 9:00am with an initial on-site meeting with Mr Denis Shaw, Coast and Canals Manager for SCRC to discuss council's concerns regarding the condition of the wreck. The inspection concluded at 12:30pm.

A brief subsequent visit to the site was made on the 30 May 2013 at 15:30 but only a small number of images were taken due to extremely poor weather conditions.

## Weather and sea conditions

The conditions were generally very good on 20 May 2013. The weather was fine with an initial slight west-north-west wind of approximately 13 kilometres per hour (km/h), which changed to 22km/h south-westerly wind with gusts up to 33km/h by the end of the inspection. The air temperature was a quite warm 22 degrees Celsius.

Sea conditions were generally calm with 0.2 metre (m) easterly swell with peaks to 0.75m. No current was detected although there was intermittent surge associated with wave action.

Height (m)	Time (hundred hours)
1.5	03:30
0.5	10:16
1.5	16:32
0.7	20:28

Table 1—Tide times at Dicky Beach, 20 May 2013.

The weather and sea conditions on 30 May 2013 were blustery with north-easterly winds averaging 9.3 knots with gusts up to 26 knots. This generated heavy seas and brought 88 millimetres (mm) of rain. No detailed observations were taken during this visit.

## Marine flora and fauna

Very few flora and fauna species were identified during the inspection. Two small crabs—less than 10 centimetres (cm)—were noted in the interior of the stern. Much of the hull plating and frames were covered in small shellfish (periwinkles). Some algal growth was detected on the northern frames of the wreck.

## Human disturbance

The location of the *S.S. Dicky* means there has always been a considerable amount of human interaction with both the wreck and its immediate environment. As highlighted in Map 2, the wreck is located immediately adjacent to a patrolled surf beach. Beach-goers frequently walk around and in the wreck (as illustrated by the cover image on the management plan). In fact, when the forward sections of the wreck were buried, people frequently walked directly over the forecabin without realising. A creek, with storm water drains feeding it, discharges into the surf 140m to

the south of the wreck, but would have a negligible effect on salinity and nutrient levels around the wreck.

### Degree of site exposure

The base of the hull remained buried in sand but a 12.5m section of the rear starboard quarter and the stern were clearly exposed. Although the exposed section was variable in height, the maximum height of starboard section was estimated at 2m.

Heavy weather and sea conditions between the 20 and 30 May 2013 did cause a noticeable degree of beach erosion between visits. Based on the height of freshly exposed features of the wreck (bow and forward deck stanchion) it is estimated that erosion was in excess of 0.3m.



Images 10 (above) and 11 (below)—These images were taken on the 20 and 30 May respectively. Poor weather during the intervening period had removed over a 0.3m of sand from the beach, exposing the bow and the bent over forward deck stanchion that had been buried during the first visit.



### Condition—May 2013

While much of the lower hull of the wreck remains below the sand, only the stern and rear starboard quarter of the *S.S. Dicky* are consistently exposed. These exposed sections are structurally vulnerable and divided into three main components; the stern and two misaligned sections of rib framing with partial hull plating (refer to images 12 and 13). The middle section of rib framing clearly flexes when struck by waves (refer to images 14 and 15). Forward of amidships, only a single deck stanchion is consistently visible above the sand, although other components are periodically exposed due to beach erosion.

The midsection of rib framing has been visibly weakened by the collapse of the upper stringer near the stern. Judging from available images the break appears to have occurred as late as early 2013. This was probably facilitated by the prior loss of the hull plating that was helping to provide structural support (refer to images 16 and 17). The separation of the stern and bow from the main body of the wreck is a common feature in iron hulled wrecks as, by their nature, both terminal ends of the ship are more heavily built than the sides (McCarthy:2000).



Image 12—The remnant starboard side looking north. Note the break in the stringer near the stern and the missing stern post.



Image 13—The remnant starboard side looking south.



Images 14 and 15—The misaligned sections of rib framing. Note the orange colour and lack of protective concretion layers. The section of frame jutting out of alignment visibly flexes, even in gentle surf.



Images 16 and 17—The starboard side of the stern in 2008 and the same view in May 2013. Note the accelerated loss of hull plating near the break site.

It was beyond the capacity of the inspection to undertake detailed analysis to determine the condition of the metal near the break. However, a visual assessment indicated the remaining section is relatively weak and flexes in even gentle surf. The extant frames are visibly narrowed or tapered and show signs of cracks near the base.

The missing sections from the port side have collapsed both into the wreck itself and onto the adjacent ocean floor—often in large sections. Some of the broken port side frames are still quite proud of the ocean floor and are corroding in the water column to a classic 'point' shape (refer to image 18).



Image 18—The remnant exposed section and the protruding abraded ends of the collapsed port side right of centre.

The forward section of the wreck is more commonly obscured, although the extent to which it is exposed can vary greatly. The bow was also heavily exposed in June 2012 (refer to Image 8) indicating a relatively regular pattern of periodic exposure that will inevitably lead to accelerated aerobic corrosion with each exposure event.

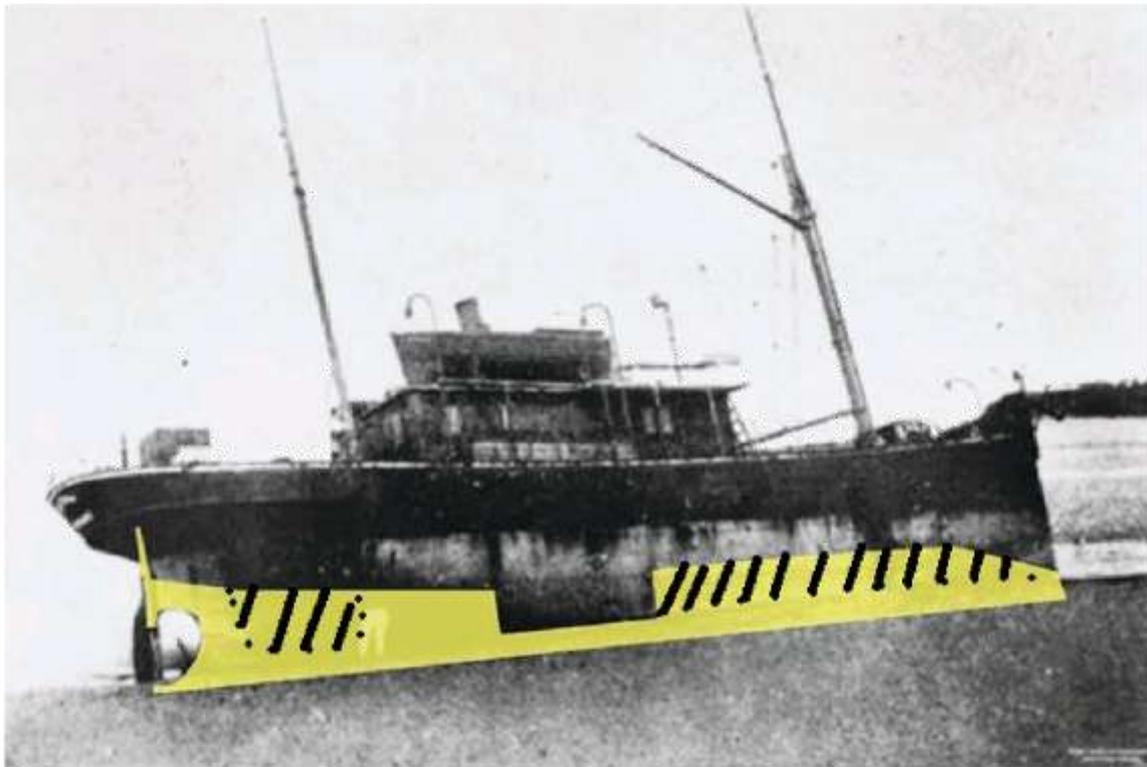


Image 19—The 2008 management plan (Cosmos Archaeology 2008:36) illustrated the decay of the wreck by shading an historic image with yellow to represent the extent of the then surviving fabric. This image has been updated to reflect the subsequent loss of fabric by marking the recently collapsed sections with black hatching. Only the areas in solid yellow are now extant.

## Significance assessment

The heritage significance of the wreck of the *S.S. Dicky* should directly inform management planning. A detailed assessment of the wreck was made in the 2008 management plan. The statement of significance stated:

*The significance of the S.S. Dicky lies in its excellent ability to convey the story and meaning of shipwreck through its present form and context. It is a much loved and perhaps even revered cultural landmark of the Sunshine Coast.*

*The statement of significance also implies that the;*

- a) *Setting within which the wreck of the S.S. Dicky is located is a critical component of its significance.*
- b) *Current form and articulation of the wreck makes it recognisable as a wreck.*

*Following on from this, it is obvious therefore that the deterioration, breaking up, dis-articulation and severance from its present context will markedly reduce its most elevated values, these being its aesthetic, interpretative and social significance.*

(Cosmos Archaeology 2008:50)

The substantial loss of much of the wreck's exposed fabric since 2008 has obviously had a negative impact on its cultural significance. The social value of the wreck is, however, only something that the community itself can articulate and it is important that future management decisions factor in community sentiments.

## Management considerations

All iron hulled shipwrecks will eventually decay, and management options are relatively limited, especially in such a highly unstable littoral environment. The principle concern regarding the fate of the *S.S. Dicky* is the popularity of the beach on which it wrecked; it is uncommon to have a historic wreck permanently visible on a popular bathing beach. If the wreck was located on a more isolated section of beach, the safety concerns would not be so great

and a program of managed decay could be pursued. Given the proximity of the wreck to a highly populated area and designated bathing area, the management approach needs to be cognisant of public safety.

While many of the recommendations within the existing management plan largely remain valid, the accelerated deterioration of the wreck has changed some of the emphases. The loss of much of the exposed wreck means that there is a heightened safety concern as bathers and other beachgoers are less able to clearly see where the wreck is, especially at high tide. It is therefore vital that exposed sections that are permanently visible (namely the stern and the rear starboard quarter) are retained in place as long as feasible. To facilitate this, consideration should be given to three-phased approach that combines structural reinforcement, anodes and corrosion retardation. Notably, all these measures were proposed in some form in the original management plan, although the feasibility of these measures is progressively reducing with its accelerated deterioration.

## Structural reinforcement

The break in the stringer in the mid-section of the extant rib framing is a serious concern. As stated previously this section is misaligned and flexes easily in light swell. The section of framing is therefore very fragile and could collapse during the next major weather event. The extant lower stringer was never directly attached to the stern, but rather to the upper stringer, which has since collapsed. There is quite advanced decay on the surviving metal terminals on both the extant stringer and stern and it is unclear how much viable metal is left. This inspection was unable to directly assess the condition of the extant metal under the corrosion product, but there are concerns there may not be enough viable metal left to make an effective attachment. If viable metal remains, it may be possible to brace the mid-section by welding in a short piece of iron to reconnect the stringer to the stern. The introduced metal would soon be covered in corrosion product and marine growth and blend in. The dimensions or shape of the introduced metal could deliberately differ in a minor way from the original fabric so that on close inspection it was readily distinguishable from the original (thereby complying with the provisions of the Burra Charter).

The materials used in repairs would need to be carefully considered and monitored to avoid galvanic corrosion of the historic metal and/or cause more serious damage to the reattached sections, should the mid-section still collapse.

The concern is that the whole mid-section is now misaligned and that the above bracing will do little to stabilise the lower rib-frames, which are obviously damaged through repeated flexing and exposure. It may be possible to further stabilise these areas as well. But if the level of decay is too advanced, this section is unlikely to survive in the short-term and the viability of attaching reinforcing material is slim.

Reinforcement of the stern post to provide added structural support was recommended in the management plan and it is still potentially viable in the short-term. The stern post has a section missing, which was probably cut during the removal of the propeller in 1963. As the stern post, keel and bow post form the principal structural spine of the ship, maintaining these sections is the key to preventing the wreck from completely 'unzipping'. The loss of the upper portion of the bow post would have structurally weakened the hull and placed added emphasis on the hull plating to retain the outline of the ship forward of amidships. The turbid conditions and safety precautions prevented the stern from being closely examined, but it generally appears quite solid and its usual submersion would help create a more stable preservation environment compared to those sections that are more regularly exposed to the air.

## Anodes

The use of anodes has been a popular approach in mitigating the rate of metal decay in a range of maritime infrastructure and historic shipwrecks (McCarthy 2000:186). The complicating factor for the *S.S. Dicky* is that because of its intertidal position it is not within a stable environment and therefore the lower submerged sections of the wreck and the stern may preferentially benefit from the use of anodes. The upper exposed sections of rib framing, which are also a high conservation priority, may receive some conservation benefit from the use of anodes, but at a comparatively lower rate; this was recognised in the management plan (Cosmos Archaeology 2008:76). The movement of sand about and over the site would mean that zinc anodes would be preferable as they continue to work even when buried.

## Corrosion retardation

The use of corrosion retardants was also recommended in the management plan. A one-off application of fish-oil and white spirit was applied to the wreck in 2006, but this measure should ideally have been repeated at regular intervals. The full exposure of the wreck to apply the coating is not necessary as buried components are generally less exposed to corrosive agents, especially at a depth of 50 centimetres (cm)—although this ideal anoxic environment depth varies per site. The corrosion retardant should be applied to exposed areas soon after a major

scouring event. Unfortunately, much of the hull plating that would have potentially benefited from this approach has collapsed.

### Safety concerns and possible mitigation options

Safety is not a new consideration in relation to the wreck of the *S.S. Dicky*, as illustrated by earlier newspaper reports (Appendix C). The collapse of the *S.S. Dicky*'s port side frames and the increased risk they pose to the public does heighten concerns however, and safety should be factored into management planning. This does not automatically mean that complete removal of the wreck is the only possible management option, especially while highly visible components are extant. Nor should the desire to retain the popular wreck for as long as possible completely override safety concerns. Safety should be factored into planning like any other management constraint or opportunity (Pearson and Sullivan 1995:191).

The initial focus should be to retain the extant visible structure as long as possible. Retention of these areas (stern and rear starboard quarter) will act as a warning to the public, but they are also integral to the aesthetic and interpretive significance of the wreck.

Signage is one potential option to partially mitigate safety concerns. Revised and updated signage at the beach entrances could incorporate site interpretation and updated warnings about the wreck's condition. It may also be possible to deeply insert warning signs closer to the wreck. However, design would need to be carefully considered to ensure the signs do not detract from the aesthetic appeal or pose a hazard to beachgoers.

There have been suggestions that constructing barriers around the wreck would help reduce the physical impacts of waves. However, any construction within the intertidal zone is problematic due to the unstable environment and the impact such structures can have on the movement of sand and water. If a wall is feasible at an engineering level, the overall impacts would still need to be considered. For example, it could act as a sand trap, which may help preserve the wreck by increasing and stabilising sand coverage however, it would also have an inverse impact on the aesthetics and may pose a physical danger for bathers. Given the advanced state of deterioration, there is also no guarantee that such a measure would significantly extend the life of the surviving exposed components.

In the short term, it may be feasible for highly dangerous elements, such as the partially-exposed and pointed ribs on the port side, to be collected (if loose) and placed with other materials held by SCRC, or be cut off below sand level and coated with retardant before being reburied. This could reduce (but not completely remove) the risk of a bather or visitor being impaled or cut.

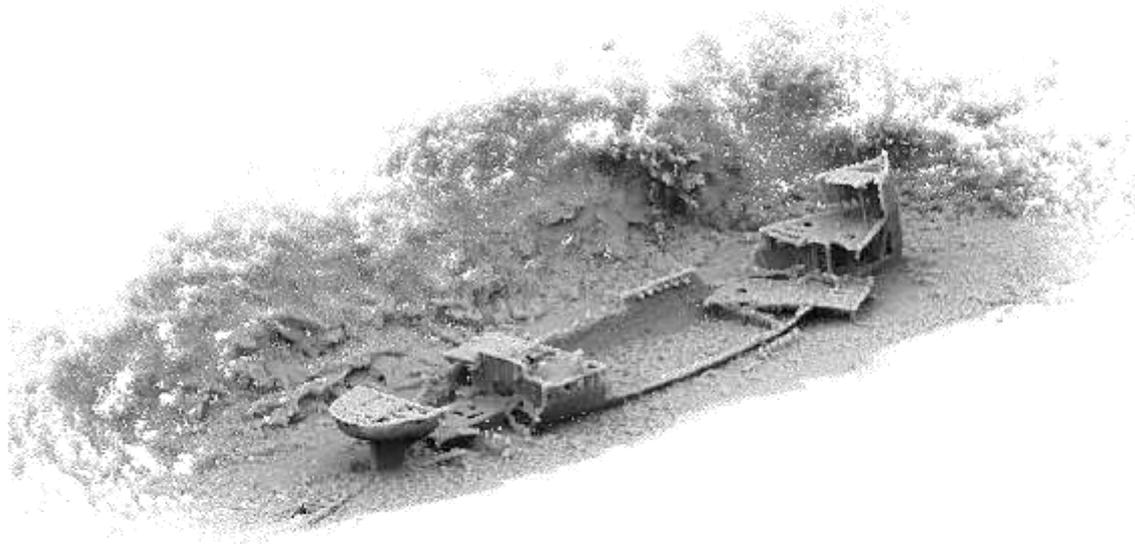


Image 20—A high resolution digital scan of the wreck of the former HMCS Gayundah on the foreshore of Woody Point, Redcliffe (Courtesy of the CSIRO).

In-situ conservation is the preferred management option under the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage—accepted in Australia as the industry standard. Should the wreck of the *S.S. Dicky* continue to deteriorate however, the case for partial or full removal of the wreck would strengthen. The loss of the visible fabric would impact upon the collective significance of the site and also heighten safety concerns. The complete removal and/or relocation of the wreck would be a costly and difficult exercise. Removal and relocation options were discussed in the management plan. Other than cost, which will have significantly increased, many of the considerations raised in the report remain valid and will not be repeated here in detail. The integrity of the remaining structure should be preserved as much as is practical. Any significant disturbance of the wreck should be preceded by a formal archaeological excavation so the interior construction details can be accurately recorded and potential artefacts in the bilge recovered. The excavation process would also reveal the condition of the keel, which would be vital to preparing for the removal/relocation of the wreck. Loose pieces should be documented and collected. Given that the wreck is in the intertidal zone, its excavation, recovery or even break-up would be difficult due to tidal range and the upward seepage of water, and mitigation strategies would need to be developed.

There would be ongoing costs associated with the conservation of both artefacts and the remains of the ship if it, or a large piece, is relocated as part of a monument. If this occurs the monument should be placed nearby to retain the association with the original site of the wreck—for example, the park immediately adjacent. Unfortunately, the exposed marine environment is less than ideal for the continued preservation of the piece as it will require regular treatment and monitoring. It is possible for anodes to be used on land and this technique could be applied to help conserve recovered fabric on display. Given the condition of most of the wreck, the stern and the lower hull (depending upon its condition once exposed) are the obvious choices for use in a monument. The complete removal of the wreck, however, is unlikely to completely resolve the safety risk as components would be spread along the beach and difficult to detect and remove. This was the case in Rainbow Beach recently, when king tides exposed fragments of the *Cherry Venture*, which was removed in 2007 for safety reasons.

Under s.91 of the *Queensland Heritage Act 1992* any interference with a 'historic' [sic] shipwreck requires the approval of the chief executive or their delegate—in this instance, the Director of Heritage Branch, Department of Environment and Heritage Protection. This position is also the Queensland Delegate under the *Historic Shipwrecks Act 1976*.

If a decision is made to remove or significantly disturb the *S.S. Dicky*, there are new tools available for in-situ archival recording of heritage features. For example, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) recently conducted a high-resolution scan of the wreck of the former HMQS *Gayundah* using the 'Zebedee' system (refer to Image 20). Undertaking such a scan would require the full exposure of the extant wreck as the lasers cannot penetrate water and sand.

## Addendum: July 2013

On the 25 July 2013, Mr Denis Shaw, Coast and Canals Manager at SCRC informed EHP that the wreck of the *S.S. Dicky* had deteriorated further. The mid-section of rib framing had collapsed, and although the stern remained upright, it was no longer supported by any vertical hull structure. The instability of the mid-section of rib framing was recognised during the inspection and it appears that concerns about its stability and viability for conservation were warranted. With the continued deterioration of the wreck and the resultant impact upon its established heritage significance, the case for complete or partial removal is heightened. The preferred management option will need to be agreed by SCRC and a proposal put to EHP for approval by the Director of Heritage Branch.



Image 21—The remaining exposed sections of the *S.S. Dicky* after the collapse of the mid-section of rib framing in July 2013.

## Conclusion

The significance of the *S.S. Dicky* is strongly linked to its visibility on the popular beach. The rapid loss of fabric following successive extreme weather events has dramatically affected the wreck's appearance and heightened safety concerns. There are management options available to SCRC which could extend the life of the extant components. However, it appears the wreck has reached a catastrophic level of deterioration and nothing can be done to preserve the upper portions of the ship in the medium to long-term. Unfortunately, recent predictions that the wreck will not be visible for much longer seem to be accurate. EHP is willing to work with SCRC and the community to develop a revised management strategy, but it is appreciated that not all members of the community will agree on the direction to be taken. Given the weakened and vulnerable nature of the site, serious consideration should be given to what the community want long-term. A monument that incorporates a conserved section of the wreck and/or associated interpretation will be more effective if measures are taken before the wreck deteriorates further.

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## Appendices

**Appendix A**     ***SS Dicky* Management Plan**

**Appendix B**     **Sunshine Coast Daily—11 February 2013**

**Appendix C**     **Sunday Mail—31 May 2009 page 29.**