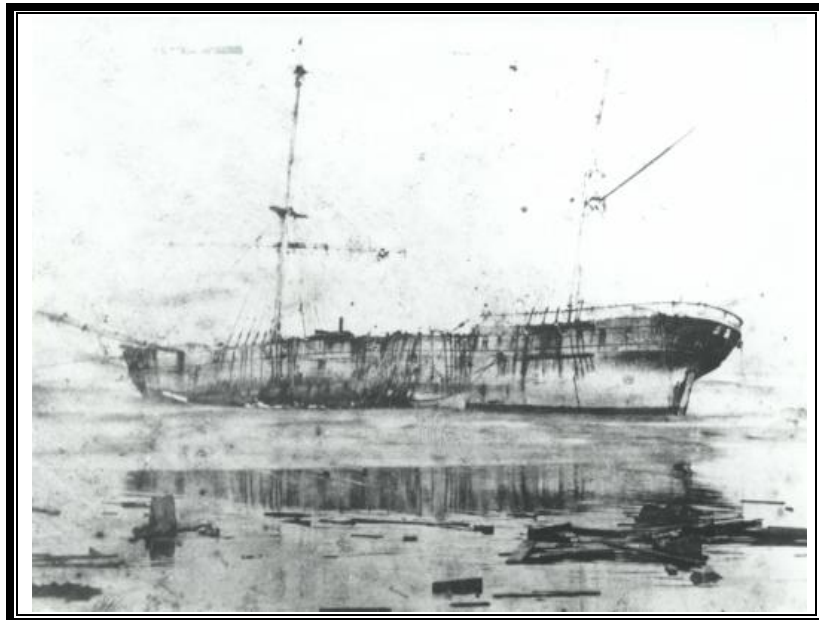


QUEEN OF NATIONS (1861-1881)

CONSERVATION MANAGEMENT PLAN



1992 (revised 2000)

Heritage Office
NSW AUSTRALIA



Prepared by: David Nutley and Tim Smith

CONTENTS

1.0 SUMMARY OF THE REPORT	1
2.0 INTRODUCTION	2
2.1 Background	2
2.2 Scope	2
2.3 Methodology and Terminology	3
2.4 Legislation	3
2.5 Limitations	4
2.6 Acknowledgments	4
2.7 Project Team	4
3.0 OUTLINE HISTORY OF THE QUEEN OF NATIONS	6
3.1 Historical Context	6
3.2 The Vessel	6
3.3 The Wreck Event.....	6
3.4 Salvage	7
3.5 The Site	7
4.0 CULTURAL SIGNIFICANCE	12
4.1 Nature of Significance	12
4.2 DEGREE OF SIGNIFICANCE	15
4.3 Statement of Significance.....	15
5.0 CONSTRAINTS AND OPPORTUNITIES	16
5.1 Factors Arising Out Of Significance.....	16
5.2 Human Threats.....	16
5.3 Relics.....	16
5.4 Archaeological Context.....	16
5.5 Environmental Threats.	16
5.6 Environmental Factors.....	17
5.7 Site Use.....	17
5.8 Archaeological Investigation.....	17
5.9 Archaeological Excavation and Permits.	17
5.10 Development Proposals.	17
5.11 Site Interpretation.	17
5.12 Records Collection.	18
5.13 Legal Status.	18
5.14 Custody of Artefacts.....	18
5.15 Site Documentation.....	18
6.0 CONSERVATION AND MANAGEMENT POLICY	19
6.1 Legal Protection.	19
6.2 Site Inspection.....	19
6.3 Environmental Study.	19
6.4 Site Integrity.	20
6.5 Protection From Damage.	20
6.6 Proposed Developments.....	20
6.7 Site Use.....	20
6.8 Education.	20
6.9 Interpretative Materials.....	20
6.10 Single Repository.....	20
6.11 Scientific Recording.....	20
6.12 Conservation.....	21

7.0 IMPLEMENTATION PLAN.....	21
7.1 Site Inspections.....	21
7.2 Environmental Assessment.....	21
7.3 Site Integrity.....	21
7.4 Site Surveillance.....	22
7.5 Site Interpretation.....	22
7.6 Interpretative Materials.....	22
7.7 Education.....	22
7.8 Repository.....	22
7.9 Artefact Register.....	23
7.10 Scientific Recording.....	23
7.11 Conservation Records.....	23
7.12 Storage/Display.....	23
7.13 Exhibition.....	23
7.14 Access for Research.....	23
7.15 Private Publications.....	24
7.16 Copyright.....	24
8.0 REVIEW.....	24
9.0 REFERENCES.....	25

<i>Figure 1: Corrimal Beach, Wollongong</i>	3
<i>Figure 2: Location Map</i>	5
<i>Figure 3: Wreck Site Sketch Plan</i>	8
<i>Figure 4: Queen of Nations bow</i>	9
<i>Figure 5: Queen of Nations stern</i>	9
<i>Figure 6: Unidentified iron wheel is a strong visual feature on the site</i>	10
<i>Figure 7: Marble cross near stern of wreck</i>	10
<i>Figure 8: Queen of Nations – concrete barrel and ship’s mast</i>	11
<i>Figure 9: Bottel of pickled vegetables from Queen of Nations</i>	12
<i>Figure 10: Ceramic and Glass Artefacts from Queen of Nations</i>	14
<i>Figure 11: Artefacts from Queen of Nations</i>	15
<i>Figure 12: Reconstructed Cross-section of the Queen of Nations.</i>	19

MANAGEMENT PLAN
QUEEN OF NATIONS (1861-1881)
ON 29238

1.0 SUMMARY OF THE REPORT

This Management Plan has been prepared by the NSW Heritage Office (then the Department of Planning). Its purpose is twofold: **1.** to evaluate the heritage significance of the wreck, ***Queen of Nations***; and **2.** to provide strategies for management of the site and its associated artefacts.

The inclusion of the *Queen of Nations* as an Historic Shipwreck under Section 5 of the Commonwealth's *Historic Shipwrecks Act, 1976* acknowledges that the wreck site is culturally significant. This management plan examines its heritage values in the context of potential impacts of human activities and natural forces.

The first stage in the evaluation is the understanding of the historical context. Therefore, the Management Plan begins with: a brief history of the vessel based largely on documentary sources (3.0) and a detailed description of the wreck structure and associated materials visible on the site (3.5).

From this information, a detailed Statement of Significance for the wreck site and associated materials has been prepared (4.3). This is related to an assessment of significance using established significance criteria (4.1).

The Plan examines various constraints that may affect the integrity of the wreck site and associated materials (5.0). The Plan proceeds to determine a management policy (6.0) from which general and specific recommendations flow (7.0).

In brief, this report concludes that the *Queen of Nations* is an item of State and National heritage significance and recommends that all elements of the site should continue to be protected and conserved. Further, that various opportunities exist for the interpretation of the site and associated materials drawing upon existing information centres.

2.0 INTRODUCTION

2.1 Background

In April 1991, a recently observed shipwreck was reported to the then Heritage Branch of the Department of Planning (now NSW Heritage Office) by the Wollongong Public Works Department. Located on Corrimal Beach, some four kilometres north of Wollongong, jurisdiction of the site falls within the Commonwealth's *Historic Shipwrecks Act, 1976* (HSA). The Heritage Office is responsible for the survey and assessment of the site, the Director of the office being the New South Wales delegate for administration of the *Act*.

A series of site inspections were conducted by Heritage Branch maritime archaeologists David Nutley (Project Leader) and Tim Smith with assistance from Manly Hydraulics Laboratory (Department of Public Works & Services) and the Australian National Maritime Museum. These inspections occurred on the 4/15/16 April 1991, 7/8 May 1991, 23 August 1991, 16 March 1992 and are ongoing.

As a result of the foregoing assessments, the *Queen of Nations* was gazetted for Provisional Declaration as an Historic Shipwreck under Section 6 of the Commonwealth's *Historic Shipwrecks Act, 1976* on 8 May 1991 (Case for Provisional Declaration as an Historic Shipwreck, New South Wales Department of Planning). The shipwreck was gazetted as an Historic Shipwreck under Section 5 of the *Act* on 7 February 1992 (*Queen of Nations: Wreck Inspection Report*, New South Wales Department of Planning). (Note that since that time, shipwrecks over 75 years of age are automatically protected as Historic Shipwrecks under the *Act*, due to the invocation of Section 4 of the *Act*).

This plan aims to ensure the survival of the site and all associated materials as irreplaceable items of cultural heritage. The Plan provides a framework for any decisions regarding what happens to these items, with specific reference to legal protection, threats, the interpretation of the remains and future research.

2.2 Scope

The scope of this plan of management includes the wreck site and associated remains, the artefact collections, and the records collection.

2.2.1 The Site: The *Queen of Nations* site lies approximately 70 metres off Corrimal Beach opposite the outlet of Towradgi Creek, 4 kilometres north of Wollongong. The remains cover an area of approximately 60x15 metres in a water depth of 3-5 metres, just beyond the surf zone.

2.2.2 The Artefact Collection: This includes materials recovered at the time of the disaster, some later donated to the Illawarra Historical Society & Museum. The greater collection of artefacts recovered by divers since that time is in private, largely undocumented, collections. A further two artefacts containing pickled vegetables underwent conservation treatment by the New South Wales Branch of the Museums Association of Australia and later by the Australian National Maritime Museum.

2.2.3 The Records Collection: This includes approximately 150 colour transparencies stored at the Heritage Office and entered onto the Maritime

Photographic Register (MPR), underwater recording sheets, site/artefact drawings derived from the field surveys and historical research material.



Figure 1: Corrimal Beach, Wollongong where the Queen of Nations site lies approximately 70 metres offshore from the outlet of Towradgi Creek (D Nutley)

2.3 Methodology and Terminology

The investigation of the site has followed established procedures for pre-disturbance wreck surveying. This Management Plan and assessment of significance are based upon criteria outlined in the "*Guidelines for Management of Australia's Historic Shipwrecks*" published by the Department of Arts, Sports, Environment and Territories (now under Environment Australia). The report acknowledges the principles laid down in 'The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance', "The Burra Charter"). Three kinds of investigation were employed; documentary research, site investigation and oral research. The sources consulted are given as references in Section 9.0.

2.4 Legislation

Historic shipwrecks in Australia are protected from vandalism, looting and theft through laws passed by the Commonwealth and some State Governments. The Commonwealth's *Historic Shipwrecks Act, 1976* covers shipwrecks in Australian waters below the low water mark. Persons who find shipwrecks or articles associated with shipwrecks in these waters are required to notify the Federal Minister for the Environment Australia. The notification is made through the Director of the heritage Office as the New South Wales delegate for administration of the Act.

The New South Wales *Heritage Act, 1977* covers all shipwreck remains and other underwater heritage which lie within the internal waters of New South Wales (i.e. rivers, harbours, lakes and bays) and which are related to the colonisation of Australia or are more than fifty years of age. Under this Act, no relics may be intentionally disturbed or altered without an excavation permit issued by the Heritage Council of New South Wales.

2.5 Limitations

A limitation to the overall interpretation of the site is that the remains are periodically covered by sand, limiting diver access. The sand cover also limits further archaeological inspections of the site, necessary to complete the documentation and interpretation of the remains.

2.6 Project Team

Mr David Nutley (Maritime Archaeologist, NSW Heritage Office - Project Leader)
Mr Tim Smith (Maritime Archaeologist, NSW Heritage Office)
Mr. Colin Browne (Dive Supervisor, MHL)
Mr. Phil Clark (Boat handler, diver, surveyor, MHL)
Ms. Jenny Dickens, (Conservator, Museums Association, New South Wales)
Mr. Steve Dillon, (Heritage Officer, Wollongong City Council)
Mr. Les Griffin, (Southern Commercial Divers)
Mr. Dennis Hayward (Private Researcher)
Cpt. Peter King (UK) (Private Researcher)
Mr. William Neish (UK) (Private Researcher)
Mr. Michael Organ, (Secretary, Illawarra Historical Society)
Mr. Mark Staniforth, (Maritime Archaeologist, National Maritime Museum)
Mr. Ian Tulloch (Private Researcher).

2.7 Acknowledgments

The NSW Heritage Office acknowledges with thanks the assistance kindly provided by the following organisations and people:

Manly Hydraulics Laboratory, Sydney (MHL)
Maritime Archaeological Association of New South Wales
Mitchell Library, Sydney
New South Wales Water Police
Wollongong Public Works Department
Wollongong Reference Library

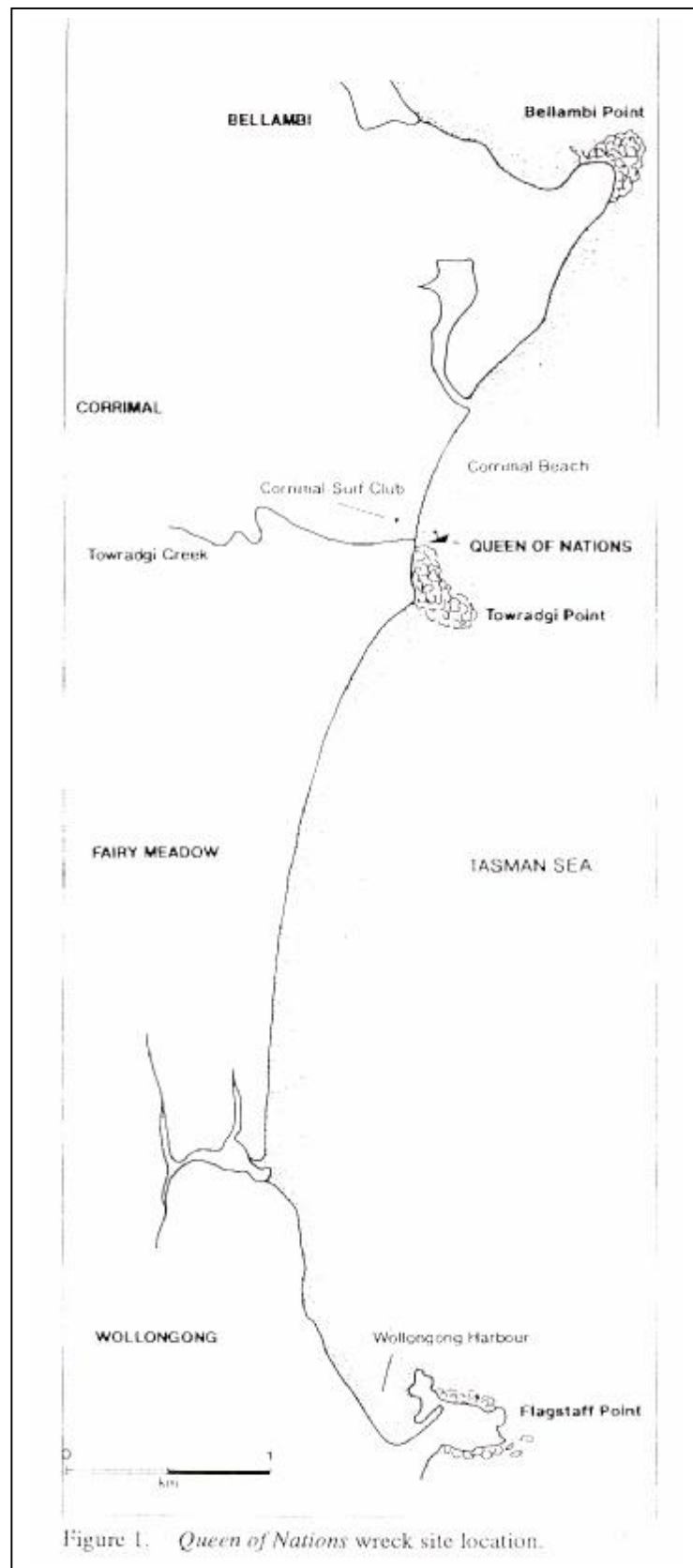


Figure 2: Location Map(T Smith)

3.0 OUTLINE HISTORY OF THE QUEEN OF NATIONS

3.1 Historical Context

The wooden clipper ship, *Queen of Nations* belonged to George Thompson's "Aberdeen White Star Line", a line which had a long association with Australian ports. Large sailing vessels were the mainstay of the developing colonies during the nineteenth century. Apart from carrying passengers, they carried nearly everything that the inhabitants required as very little was being made in Australia. Such products as were being produced, including wool and tallow, were shipped on the return voyages which sometimes took in Chinese ports in search of established cargoes like tea. A study of the remains of vessels such as the *Queen of Nations* can lead to a better understanding of the companies involved, the ships, the trade routes and the trades themselves. Important developments in ship design and technology can also be revealed through an examination of the material remains in association with surviving historical records.

3.2 The Vessel

The *Queen of Nations* was built in Aberdeen in 1861 by the acclaimed shipbuilder, Walter Hood. The vessel was launched on 25 April that year and sailed on the maiden voyage from London to Melbourne. A wooden clipper of 827 tons, the *Queen of Nations* featured the prominent Aberdeen clipper bow, was fitted out expressly for the Australian trade and was regarded from the outset as an extremely fast and reliable vessel.

Following the maiden voyage, the next three voyages were directed towards the tea and silk trade with Shanghai. From 1865, the *Queen of Nations* returned to ply the trade with the Australian ports of Melbourne, Sydney and Brisbane. The clipper carried general cargoes including a wide variety of goods desired by the developing colonies. Several fast voyages were made to Australia and the *Queen of Nations* gained a favourable reputation as a reliable carrier. Some twenty-one successful voyages were made before the vessel was wrecked in unusual circumstances in 1881.

3.3 The Wreck Event

At about half past six on 31 May, 1881, just as day was breaking, the *Queen of Nations* bounced hard over a low reef outlying Corrimal Beach. Stranded to the north of Wollongong, the vessel became a total wreck.

The unusual circumstances leading to the disaster only then began to unfold. The *Queen of Nations* hit the reef after the drunken master, Captain Samuel Bache, had mistaken the burning coal heaps of the nearby Mount Keira mine and the lights of Wollongong to be those to the entrance of Port Jackson and Sydney. One seaman was drowned in the surf whilst attempting to leave the stricken vessel. The fast disintegrating wreck was later sold at auction on 29 June to a resident of Sydney, Captain Bloomfield, for one hundred and thirteen pounds.

3.4 Salvage

A stevedore began salvage of the vessel on 9 June with a significant amount of the cargo being recovered. This cargo included oil men's stores, printing paper, brandy and ironmongery. The *Queen of Nations* broke up within a month preventing a portion of the lower cargo from being salvaged.

The general location of the wreck site was never forgotten; the remains are known to have been exposed in 1938, 1946/7, 1968/9, 1976 and April/June 1991. Portions of the wreck were removed from the water by Wollongong City Council in 1968 and 1976 on the grounds that the wreck structure was interfering with beach users. Relics have been removed from the site on various occasions and remain in private collections.

Recent concern by the Wollongong Council for the safety of board riders and swimmers in the area, prompted the first archaeological surveys of the wreck site in April 1991. These inspections confirmed the popular identification of the site as that of the *Queen of Nations* ('Case for Provisional Declaration as an Historic Shipwreck', New South Wales Department of Planning. 1991).

3.5 The Site

The site is located entirely underwater and has sustained a high degree of integrity. Wreckage lies in an area of dynamic wave and surge action at a depth of 3-5 metres. Approximately seventy metres from Corrimal Beach and opposite the outfall of Towradgi Creek, the remains are orientated ENE / WSW with the bow directed out to sea. The wreck structure lies on a sand bottom within the outlying Bellambi Reef and adjacent Black Rocks.

Substantial portions of the surviving hull and associated cargo became exposed due to storm activity. The extremities of the site became clearly identifiable; the bow marked by the foot of the stem post and chain cable, the stern by the stern post, associated deadwood and a rudder brace. Internal ceiling timbers and frames could be seen throughout the remainder of the site, covered by cargo remains. Ship's fastenings, including iron deck beam supports and knees lay scattered over the site. Major sections of lower iron masts with wooden upper masts were located lying parallel to the hull on the port side.

Unsalvaged cargo covered much of the structural remains and comprised a diverse range of items including, beds of railway tracks, boiler tubes, barrels of cement, ironmongery, cemetery stone, alcohol, ceramics and glass artefacts.

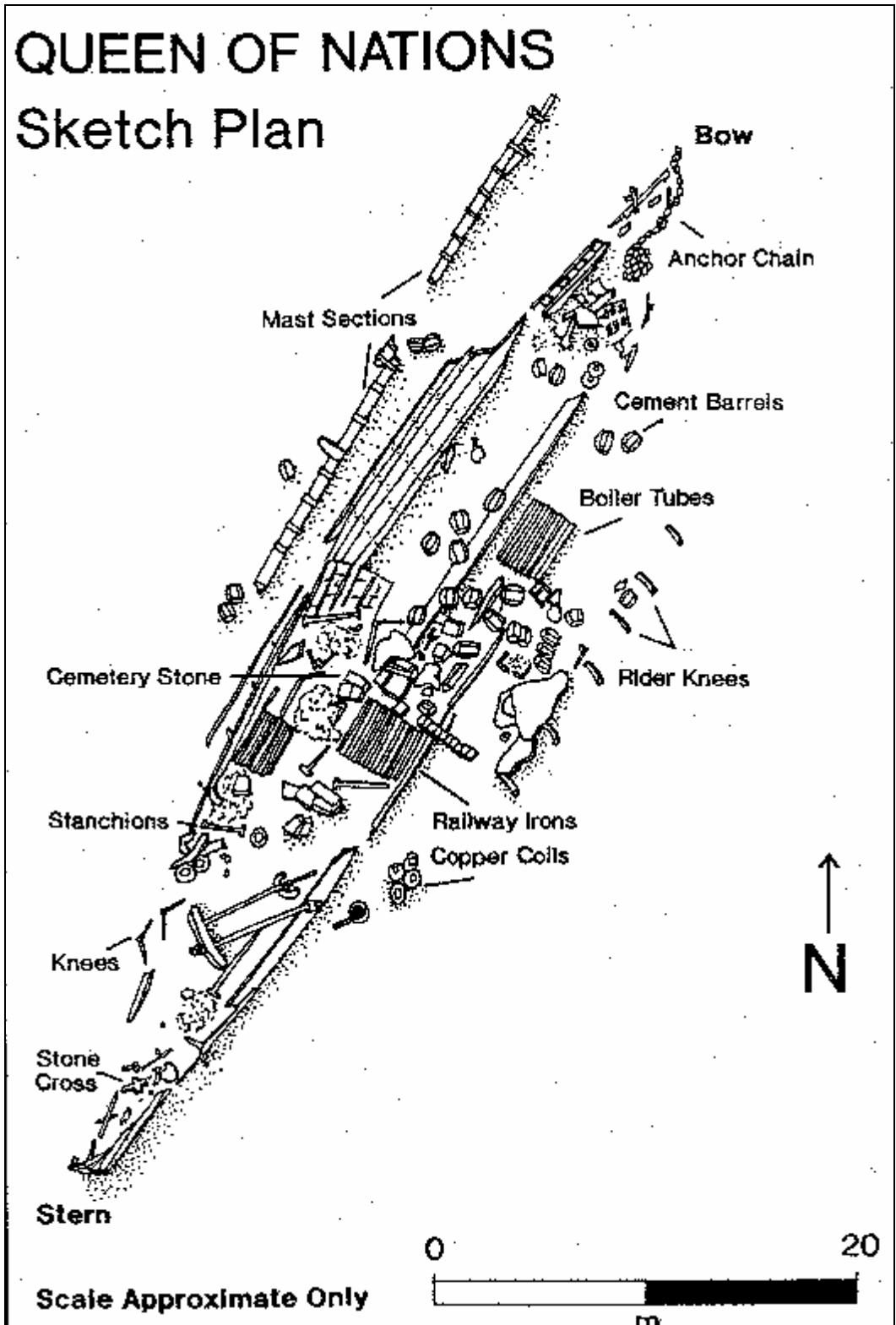


Figure 3: Wreck Site Sketch Plan(T Smith)



Figure 4: Queen of Nations bow (D Nutley)



Figure 5: Queen of Nations stern (D Nutley)



Figure 6: Unidentified iron wheel is a strong visual feature on the site (D Nutley)



Figure 7: Marble cross near stern of wreck (D Nutley)



Figure 8: Queen of Nations – concrete barrel and ship's mast (D Nutley)



Figure 9: Bottel of pickled vegetables from Queen of Nations wreck site- illegally removed and now in conservation/storage at the Australian National Maritime Museum in Sydney. (D Nutley)

4.0 CULTURAL SIGNIFICANCE

Significance has been assessed in accordance with the nature and degree of significance of the site's primary attributes. These include attributes related to historical, social, archaeological, scientific and interpretative significance.

4.1 Nature of Significance

4.1.1 Historical (Concerned with range of context)

The site is associated with:

- the creative achievements of the celebrated builder Walter Hood and his renowned yard.
- the importation of worked stone into Australia.

The *Queen of Nations* contains the only recorded shipment of cemetery stone documented from a wreck site in Australian waters.

4.1.2 Technical (Concerned with technical or creative achievement)

The surviving elements of the vessel have the potential to yield information on ship design and construction in a leading shipbuilding centre of the late nineteenth century.

A shipwreck, which due to the surviving hull integrity and accessibility, which when compared to those of the *Walter Hood* (1852-1870) and *Centurion* (1868-1887), has the potential to clarify details of construction and development which have not survived in the historical record.

4.1.3 Archaeological (Concerned with research potential through investigation of material remains)

The remains can document:

- **various aspects of late nineteenth century colonial trade.**

A site which includes a significant portion of the original cargo. This material forms a major cultural resource which has the potential to illustrate the diversity of items imported from England to Australia during this period.

- **the manner in which cargo was stored for transport.**

Beds of railway tracks, boiler tubes, cases of ceramics and glassware remain in a recognisable distribution pattern within the wreck structure.

4.1.4 Scientific (Concerned with research potential through repeatable measured tests)

The site has the potential for scientific analysis of both the ship's structure and cargo.

The shipwreck has significant potential for analysis of the well preserved vegetable matter which constitutes part of the bottled cargo.

The site could contribute to the general data available on wreck site conditions and their effects on the survival of the cultural remains. The well documented stages of collapse of the vessel would greatly assist such studies.

4.1.5 Interpretative (Concerned with public education values)

The site is significant for its interpretative potential through public education programs.

A shipwreck which can highlight the danger and frequencies of tragedy associated with sea travel in the nineteenth century.

The remains are conducive towards interpretation by virtue of their accessibility and integrity.

The *Queen of Nations* can accommodate a variety of educational experiences, through diving, on-site interpretative plinths/signage, brochures and broadsheets, lectures and other publications.

A site with considerable recreational potential.

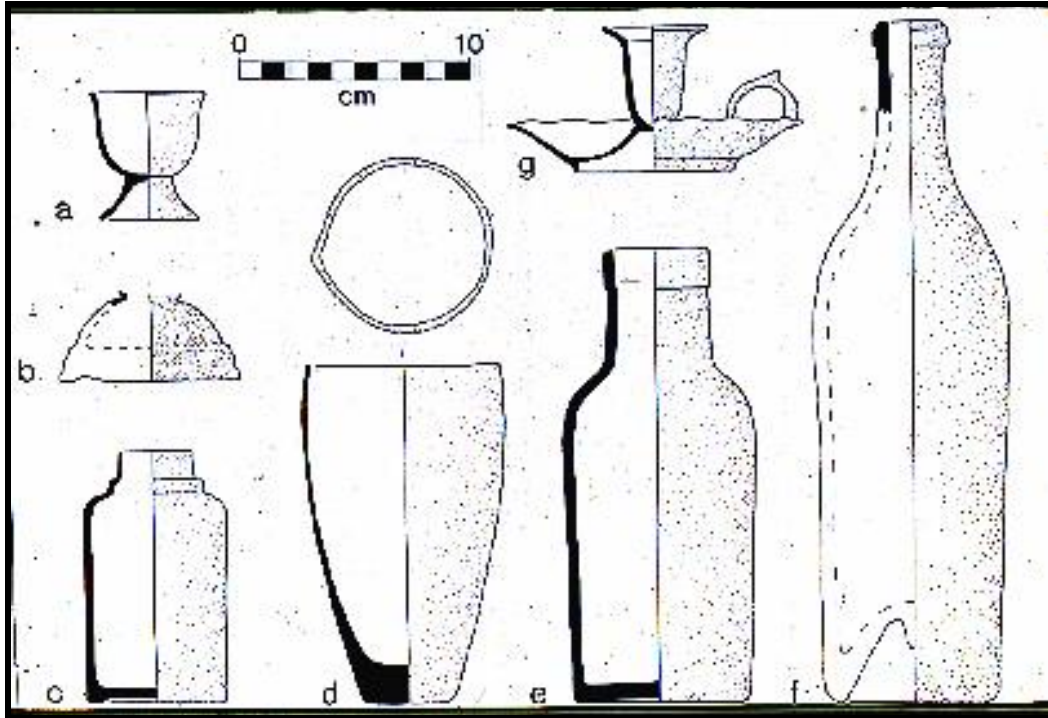


Figure 10: Ceramic and Glass Artefacts from Queen of Nations: Drawings – Tim Smith



Figure 11: Artefacts from *Queen of Nations* (D Nutley)

4.2 DEGREE OF SIGNIFICANCE

4.2.1 Rare (concerned with the exceptional or uncommon)

The wreck site:

- is a rare example of a latter nineteenth century British built wooden clipper vessel.

A shipwreck which by virtue of the integrity of part of its hull can demonstrate latter nineteenth century shipbuilding techniques for which there are few contemporary archaeological examples or surviving documentation.

- contains a unique example of imported cargo.

The wreck contains a shipment of cemetery stone, a trade known from historical sources but not previously documented in the archaeological record.

4.2.2 Representative (concerned with the typical or characteristic)

A site representative of the type of large sailing vessels trading to Australia in the late nineteenth century.

A shipwreck which, together with its cargo, has the potential to demonstrate ship construction techniques, stowage of goods and the range of commodities imported into Australia during this period.

4.3 Statement of Significance

The *Queen of Nations* is significant in its ability to contribute knowledge on the development of Aberdeen wooden clipper vessels. It is a site with potential to yield information on ship construction and development in a leading building centre during the late nineteenth century. The wreck contains one of the most easily accessible and substantially sealed archaeological deposits covering this period in New South Wales. Significant in its ability to yield information about various aspects of late nineteenth century trade, in particular, the importation of cemetery stone. The shipwreck is important for its social, cultural and educational associations with a community in Australia. It has the

potential to highlight the dangers and tragedy associated with sea travel through public education programs.

5.0 CONSTRAINTS AND OPPORTUNITIES

5.1 Factors Arising Out Of Significance.

The site and the artefact collections are significant and should be protected. The integrity of the ship structure must be maintained together with that of the cargo. A close association must be maintained with the wreck location, Wollongong, to promote the areas historical ties with the wreck site, together with its protection and continued assessment.

5.2 Human Threats.

The site is vulnerable to human intervention problems, being located in a highly populated area, on a beach frequently used by the local community. The beach area is also utilised by those from more distant population centres. Surfboard riders are known to have come into contact with the wreck remains, whilst sport and commercial divers readily gain access by boat or beach entry. Dive boats anchoring close to the site could potentially interfere with portions of the wreck structure. Diver activity can also lead to damage through the removal of organic overburden and handling of the remains. A substantial number of small, loose artefacts remain within the exposed hull structure and can be readily removed from the site.

5.3 Relics.

Material recovered from the *Queen of Nations* site includes that recovered by individuals at the time of the wrecking and that removed by private persons since that time. The majority of this material is held in personal, undocumented collections. A limited number of relics are on display at the Illawarra Historical Society Museum, together with artefacts undergoing conservation treatment by the Museums Association of Australia. No material has been recovered during the recent archaeological site inspections.

5.4 Archaeological Context.

Material recovered from the site and those items undergoing conservation treatment, should be, where possible, kept together as a single collection. At present, the material is widely separated and is insufficient to support any form of travelling or other exhibition.

5.5 Environmental Threats.

The visible portions of the site are susceptible to damage from natural forces. Ships wrecked in an area of strong wave and surge action, like the *Queen of Nations*, at a shallow depth in a highly oxygenated environment can have

high rates of decay and corrosion. Such conditions can lead to accelerated deterioration and dissemination of material remaining on site.

5.6 Environmental Factors.

The wreck site is exposed to the majority of sea conditions. Heavy storms periodically lead to the exposure and later redeposition of sediments surrounding the remains. These physical processes can impinge on site longevity and thus on the sites archaeological significance. Erosion of the wreck structure and the removal of exposed artefacts can lead to a reduction of site integrity. In turn, oceanic processes such as the deposition of sand deposits, can assist in the stabilisation of the archaeological deposit.

5.7 Site Use.

The *Queen of Nations* wreck site is presently used for recreational activities and is visited by snorkelers and divers alike. Access is not monitored and it has been impossible to gauge the frequency of the public use of the site.

5.8 Archaeological Investigation.

There is an opportunity for further archaeological investigation of the site to answer questions regarding details of the shipwreck structure, associated artefacts and the environmental conditions. Additional historical research is required to determine the role of the vessel in the development of New South Wales in the late nineteenth century.

5.9 Archaeological Excavation and Permits.

Archaeological excavation of the site is not anticipated in the near future although any proposed excavation must follow the guidelines outlined by the AIMA Code of Ethics and meet approval by DASET or the Director of the Heritage Office as the New South Wales delegate. Any excavation would need to consider the effect that the removal of material would have on the overall stability and integrity of the site. All material removed must be conserved in accordance with the AICCM Code of Ethics.

5.10 Development Proposals.

The remains of the *Queen of Nations* may be subject to development proposals. Lying some 70 metres from Corrimal Beach opposite the outlet of Towradgi Creek, any development plans for the straightening and dredging of this creek may impact on sediment run off patterns. The creek is currently land-locked during most of the year. Changes to the drainage / flow patterns may impact on sediment re-deposition patterns associated with the shipwreck remains. Changes to the environmental conditions in terms of pH and salinity might also have a detrimental effect on the site deterioration rates and needs to be addressed.

5.11 Site Interpretation.

There is potential for heightened public awareness of the existence of the wreck site and the significance of the remains. The site needs to be

interpreted in terms of the important role played by large trading and passenger vessels in the development of Australia. The vessel's position within a period of rapid technological modifications in ship design and construction should be highlighted. Dangers associated with sea travel in the late nineteenth century can also be documented through the *Queen of Nations* site, together with a greater appreciation of the importance of shipwrecks and associated remains for research.

5.12 Records Collection.

The records collection (Section 2.2.3) is presently stored at the Heritage Office. The collection is accessible to bone-fide researchers on request.

5.13 Legal Status.

The *Queen of Nations* site was declared under Section 5 of the Commonwealth's *Historic Shipwrecks Act, 1976* on 7 February, 1992. Environment Australia (formerly DASET) has the responsibility for the administration of the Act while the Director of the Heritage Office is delegated to administer the Act in New South Wales. Activities to disturb the site are not permitted except within the provisions of an Excavation Permit issued by the Heritage Office. Any artefacts removed from the site must be registered with the Heritage Office.

5.14 Custody of Artefacts.

Custody of artefacts removed from the wreck site prior to the declaration of the site as an Historic Shipwreck lies with the individuals holding material. Such articles legally held (ie: with the written permission of the Heritage Office) must be maintained in a manner consistent with the conditions of the permit.

5.15 Site Documentation.

The Heritage Office is responsible for providing archaeological reports to Environment Australia outlining work carried out in regard to the site.

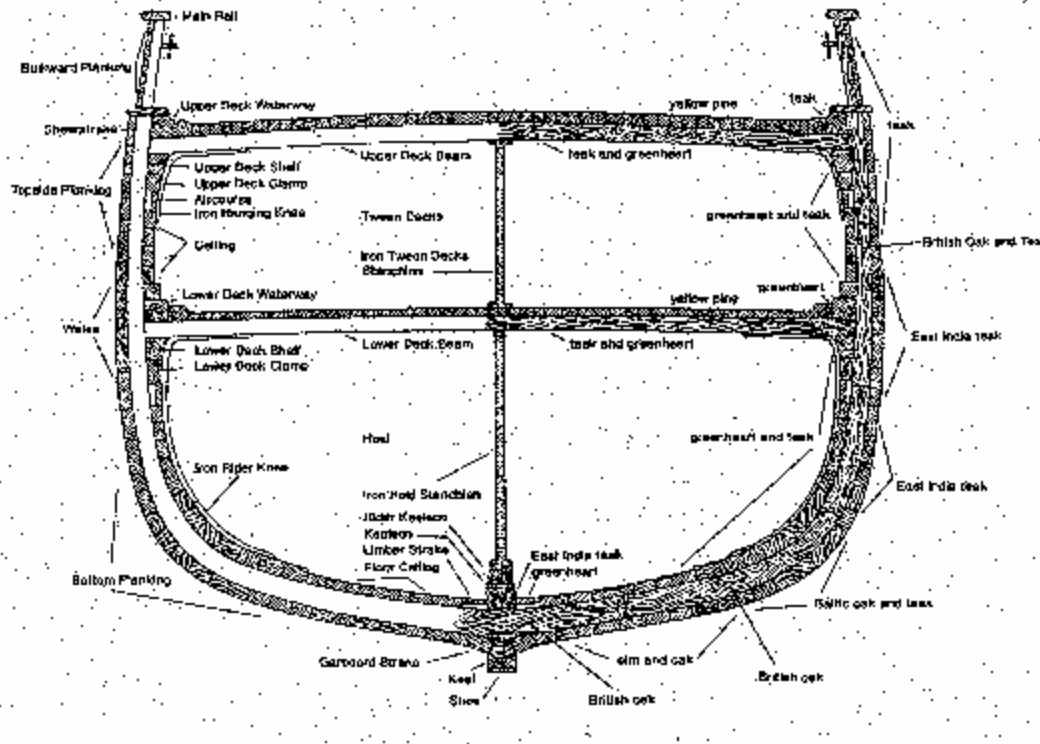


Figure 12: Reconstructed Cross-section of the Queen of Nations.

6.0 CONSERVATION AND MANAGEMENT POLICY

6.1 Legal Protection.

The Provisions of the Commonwealth's *Historic Shipwrecks Act, 1976* will continue to apply to the site and collections.

6.2 Site Inspection.

Regular site inspections are not required but close liaison with recreational divers should be sought by the Heritage Office. This will encourage up to date information reports on the condition of the site. Site inspections by specialists should be conducted a) when there are reports of damage/deterioration of the site or, b) if information is required from the site in relation to research/management issues.

6.3 Environmental Study.

A study of the environmental conditions on site should be implemented to gauge the effects of scouring and deposition routines and other actions affecting the conservation and integrity of the remains. If necessary, protective methods may be implemented in areas of heavy damage or instability (eg sand bagging, etc).

6.4 Site Integrity.

The site's archaeological significance demands that the site be disturbed only for justified conservation or research purposes by approved conservators and archaeologists. No permit will be given for conservation or for archaeological expeditions to work on the wreck site unless that permit is consistent with the ICOMOS Burra Charter, AICCM Code of Ethics, the AIMA Code of Ethics and have approval of Environment Australia.

6.5 Protection From Damage.

Surveillance by wreck inspectors, site interpretation and shipwreck educational programs should focus on discouraging further damage caused by looting and recreational activities. The site should not be used for anchorage by visiting divers.

6.6 Proposed Developments.

Proposed developments in the area such as the dredging of Towradgie Creek, stabilisation of beach dunes, etc, should mitigate damage to the *Queen of Nations* site.

6.7 Site Use.

The underwater site should generally be reserved for passive recreational use. Appropriate informative signage could be maintained above water (site conditions do not support underwater signage methods). During periods of exposure the site should be buoyed to protect swimmers and board riders.

6.8 Education.

This management plan should facilitate the general public gaining access to its heritage and an understanding of that heritage.

6.9 Interpretative Materials.

Public awareness of the site should be increased by the production of broadsheets and other interpretive materials, audio visuals, lectures, etc. An interpretive plaque should be placed on the shoreline adjacent to the wreck site.

6.10 Single Repository.

The Illawarra Historical Society and Museum should be approached to serve as the principle interpretative centre being close to the wreck site. This centre would house artefacts recovered from the site in association with illustrative/textual material explaining the role of the *Queen of Nations* in the development of Australia in the late nineteenth century.

6.11 Scientific Recording.

Private individuals who have removed material from the site should be encouraged to pass this material (loan or otherwise) voluntarily to the Illawarra Historical Society and Museum and make it available for registration and

recording by the Heritage Office (requirement of HSA, 1976, Section 9: subsection 1 & 2). All material removed from the site post declaration is in the legal ownership of the Commonwealth Government (HSA, 1976, Section 11).

6.12 Conservation.

Material recovered from, or associated with, the *Queen of Nations* should be conserved, housed and curated in a professional manner where possible, to ensure its long term conservation and protection.

7.0 IMPLEMENTATION PLAN

7.1 Site InspectionsError! Bookmark not defined..

Arrangements should be made for periodic informal reports from divers or formal inspection of the site at least every two years by a maritime archaeologist acquainted with the site and collections. Inspections should outline the conditions of the site and be kept in a report on the Shipwreck files at the Heritage Office. Unless specific funds become available, formal inspections would be undertaken by archaeologists from the Heritage Office.

7.2 Environmental Assessment.

A full environmental assessment of the *Queen of Nations* site to be undertaken including the measurement of:

- sand movement
- conductivity of water
- pH
- predominant weather patterns
- swell and storm activity
- water temperature
- O₂ saturation
- marine organisms, etc.

These measurements are essential to assess corrosion rates and the overall deterioration rates of the site. Longer term documentation of site stability in terms of oceanic processes and environment types is required to establish site longevity and possible effects of changes to the currently observed processes. Such studies could be conducted using the facilities of the Manly Hydraulics Laboratory during the Office's Historic Shipwreck Monitoring Program, or by enlisting a relevant practitioner in the field, ie marine engineer, sedimentologist, oceanographer.

7.3 Site Integrity.

The overall site integrity must be preserved, any work carried out on the site should ensure that the maximum information is obtained with the minimum disturbance to the site.

7.4 Site Surveillance.

Frequency of surveillance of the site to be increased. The Heritage Office will ensure the security and integrity of the site by suitable notification of the remains to the relevant inspectors under the HSA. The local Corrimal Beach and Towradgi Beach Surf Life Saving Clubs should be contacted so that they might monitor the wreck site and provide additional security. Site usage should be assessed by these organisations to establish the frequency and pattern of usage.

7.5 Site Interpretation.

The Heritage Office in conjunction with local groups and individuals including local dive shop operators, will encourage the production and distribution of pamphlets and other interpretative materials. Negotiations have already begun on the production of an interpretative plaque.

This will assist in the increased public awareness of the site and its links with the local community. Those interpretative materials presently underway, including archaeological and historical reports, should be seen through to completion with minimum delay.

7.6 Interpretative Materials.

The Heritage Office in association with the Wollongong Municipal Council and the Illawarra Historical Society & Museum, should continue negotiations to have an interpretive plaque mounted overlooking the wreck site. This plaque would form the focus for non divers to the site together with existing informative signage.

7.7 Education.

The Education Officer of the Heritage Office in association with other relevant organisations and individuals should develop links with local primary, secondary and tertiary institutions with a view to incorporating the *Queen of Nations* wreck and maritime archaeology generally, into their existing curricula. This might be achieved through the development of special courses, museum and site visits, videos, slide shows and lectures. This activity will:

- promote community involvement with the site and its protection
- expand the interpretation of the site and the history of the vessel
- identify the importance of shipwrecks for research
- promote the Heritage Office's role in regard to the shipwreck resource.

7.8 Repository.

As far as possible, all *Queen of Nations* material will be stored in the one location.

The Illawarra Historical Society (IHS) and Museum should be formally approached regarding its suitability as the principle interpretative centre to house artefacts recovered from the site together with other relevant informative materials. Subject to their agreement to become a repository, artefactual material recovered from the site and currently being conserved by the Museums Association of Australia (N.S.W. Branch) should be transferred to the Illawarra Historical Society Museum collection following successful conservation treatment.

7.9 Artefact Register.

The Heritage Office in association with the Illawarra Historical Society and Museum should establish an artefact register of all material known to have been recovered from the *Queen of Nations* wreck site. This data could be used in compiling a catalogue of artefacts associated with the *Queen of Nations* for publication at a later date.

7.10 Scientific Recording.

Where possible, all material thereby located should be scientifically recorded including appropriate photographic and illustrative documentation. Duplicate records of this documentation should be deposited at the Heritage Office and at the Museum.

7.11 Conservation Records.

Subject to their agreement to 6.10, the Illawarra Historical Society and Museum will ensure that records are kept of all work done on the collection for purposes of conservation, research and display.

7.12 Storage/Display.

All artefacts will be housed indoors at the Illawarra Historical Society and Museum in adequate display and storage cabinets where possible, to be conserved and curated in a professional manner consistent with ruling museum standards and the Guidelines and Code of Ethics of the AICCM. The Museum should become acquainted with the publication, "Guidelines for the Storage and Display of Archaeological Materials" produced for the Heritage Office by the University of Canberra (when available).

7.13 Exhibition.

Subject to their agreement to 6.10, the Illawarra Historical Society and Museum should ensure that a selection of artefacts are utilised for a display which will illuminate the role of the *Queen of Nations* in the development of late nineteenth century Australia.

7.14 Access for Research.

Subject to their agreement to 6.10, the Illawarra Historical Society and Museum should ensure that supervised access is provided to bona-fide researchers interested in the collection who approach the Museum. The Museum should keep a register of those researchers.

7.15 Private Publications.

Individuals who are pursuing private historical research into the *Queen of Nations* should be encouraged to publish their findings, in the form of reports and monographs.

7.16 Copyright.

The copyright of the *Queen of Nations* records collection belongs to the Heritage Office. All original photographs of the site and associated artefacts will be stored in the Office's Maritime Photographic Register (MPR). Duplicates of these photographs should be made available for suitable publication/exhibition purposes.

8.0 REVIEW

The conservation and management policies may need to be modified over time as new information/circumstances arise. The Implementation Plan is therefore subject to re-assessment during the life of the Management Plan. The Management Plan will be reviewed every six years by the Heritage Office following consultation with the Illawarra Historical Society and Museum, local diving groups and others interested in the preservation of the site and associated remains.

9.0 REFERENCES

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|----------------------------|------|---|
| AICCM Code of Ethics, | 1986 | <i>Code of Ethics and Guidance for Conservation Practice</i> Australian Institute for Conservation of Cultural Materials Inc. |
| AIMA Guidelines, | 1991 | <i>Guidelines for Management of Australia's Historic Shipwrecks.</i> Department of Arts, Sport, The Environment and Territories. |
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| NSW Department of Planning | 1991 | <i>Queen of Nations (1861-1881): Case or provisional declaration as an historic shipwreck.</i> |
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