

Historic Ships Research

The National Lottery Heritage Fund/ National Heritage Memorial Fund, together with National Historic Ships UK

Final report

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Title page image source: NHS-UK

Executive Summary

Introduction

In the Autumn 2023, BOP Consulting and Raybel Charters were commissioned to undertake a piece of research into the historic ship sector for National Heritage Memorial Fund (NHMF)/ National Lottery Heritage Fund (The Heritage Fund), together with National Historic Ships-UK (NHS-UK). Both NHMF and the Heritage Fund have experienced increasing demand for grants from historic vessels. This has raised concerns that a greater number of ships are falling into disrepair, which could mean that the potential level of demand in the next few years could exceed available resources among the funders.

This research was commissioned in order to gain a deeper understanding of the conditions and needs within the sector, as well as to develop guidance which can be used by the funders to respond to historic vessel applications in a rational and systematic way. The primary focus of the research lies on applications to the NHMF, as well as the 197 historic vessels registered on the NHS-UK's National Historic Fleet (NHF), as these are currently prioritised by the funders as vessels already identified as being of particular historic importance.

The Executive Summary summarises the findings from the research against a number of set research questions.

The historic ship sector: overview of the sector context

What is the current shape of the National Historic Fleet (NHF)?

- The NHF currently comprises 197 vessels and is largely made up of vessels that were designated as of greatest national and regional importance when the historic ships registers were first created in the 1990s.
- A National Historic Ships-UK (NHS-UK) 2014 consultation report suggested a new review process and assessment methodology for NHF and the wider register. Due to lack of funding, the review remains a slow, ongoing process (completed only for lifeboats so far).
- The current composition of the NHF is well balanced across a number of factors, including vessel function, age, ownership type and current use. 32 (16%) are currently listed as under or in need of restoration.

Which support structures are currently available to the sector?

- Historic vessels receive comparatively little national support compared to some other countries, leading NHS-UK to conclude that “historic vessel conservation is under-funded by national government”.
- Given the limited opportunities to secure funding from elsewhere, support from NHMF and the Heritage Fund is seen as invaluable to the sector.

- Funding opportunities often require significant existing internal capacity both application and delivery, making them difficult for smaller organisation to access.
 - Research also identified challenge of increased competition for funding.
- Only few existing sources of grant aid are available for private owners. While NHS-UK have stated that, “private owners shoulder the main burden of financing their [historic vessel’s] care and upkeep.”, many commercial operators are also struggling and would benefit from a loosening of current Heritage Fund rules.
 - The knock-on effects of the Covid pandemic have resulted, among others, in maintenance and conservation work being stalled, financial reserves being used and volunteer numbers reducing. This has led to a need for additional funding for small grants schemes and a focus on organisational resilience and long-term sustainability.

Historic ship conservation and maintenance: standards and costs

What can we learn from both expert knowledge and existing evidence as to the appropriate standards of maintenance and conservation of vessels of national importance?

- There are two key points to consider with regard to conservation and maintenance: ships i) tend to be built of highly perishable materials and ii) need ongoing maintenance and conservation.
- The ‘golden standard’ of maintenance and conservation is widely acknowledged to be the comprehensive ‘Conserving Historic Vessels’ guidance by NHS-UK.
- However, a number of issues affect these standards, or vessel owners’ ability to adhere to them:
 - Clarity around the vessel’s end use and appropriate standards in particular for static vessels, including discussions around appropriate conservation approaches for static vessels; the balance between ‘authentic conservation’ and a focus on the overall historic significance and context of a vessel and commercial viability
 - Challenges in obtaining appropriate materials
 - The impact of (new) regulations and contracting requirement on conservation standards, including health and safety standards, and the tension between these and conservation objectives and final use of the vessel
 - Skills shortages and a declining workforce

- Improved technology of digital scanning, leading to increased acceptance of deconstruction as viable alternative.

What are the typical long-term costs of conservation and maintenance for vessels supported by the National Heritage Memorial Fund (NHMF)?

- Each historic ship presents a unique set of problems: conservation strategies need to be tailored to each vessel and the costs of conservation and maintenance vary accordingly.
- Some general principles apply in determining costs: i) vessels “will always need regular minor work, then more major maintenance”; ii) regular maintenance is more economical than periods of inadequate maintenance; and iii) the temptation to ‘scrape away the rust and patch up’ is unsustainable in the long run.
 - However, high costs mean that owners cannot always do what they know is ‘best’. There is also a perennial risk of unexpected or unplanned conservation and maintenance work.
- **Considering typical conservation costs:**
 - Conservation costs vary widely by the type of vessel, its size, age, condition and use; as well as the conservation approach taken.
 - Conservation costs typically range between £100k and £2m, with Naval vessels showing the highest conservation costs and Leisure vessels the lowest. NHMF grant amounts since

2012 for Fishing, Service and Naval & Military/Warship vessels averaged approximately £1m, for Cargo vessels £1.8m. Heritage Fund grant amounts for conservation had more variation: from £48,100 for a Cargo vessel, to over £15.1m for a Naval & Military Vessel.

- Data shows past examples of vessels/ vessels being restored to static use as having considerably higher conservation costs; however, the vessels restored to static condition have tended to be bigger, more complex vessels, suggesting that vessel type is the more significant factor in determining cost. Returning these types of vessels to operational use would in all likelihood have been even more costly.
- Costs also vary depending on the preservation pathway taken – preserving the current condition of a vessel can be cheaper than a reconstruction or restoration.
- Reflecting this, stakeholders consistently saw conservation costs stretching into the millions of pounds – none had a project under consideration costing less than £1m.
- **Considering typical maintenance costs:**
 - Maintenance costs again vary across vessel size, function, age, whether it is on water, and whether it is on static display or in operational use.
 - A key challenge lies in the cost of maintenance being very difficult to judge, and often being underestimated, as it is often virtually impossible to establish the precise condition of

a vessel before starting to strip away its outer fabric or bringing it out of the water.

What factors are these standards and costs being impacted by?

- Both standards and costs of vessel conservation and maintenance are being impacted by a number of sector-wide factors and challenges:
 - Facilities to conserve historic vessels are becoming increasingly difficult to find, compounded by a surge in drydocking demands following the pandemic, across the UK. This has resulted in prohibitive cost increases. Relatedly, challenges were reported around finding suitable permanent berths for vessels.
 - The (traditional) skills required to conserve and restore industrial heritage collections are disappearing and at risk of being lost, compounded by challenges around recruiting younger people into the sector. This requires unique, high-level skills which cannot be met purely by training volunteers; however, low rates of pay reduce the attractiveness of the occupation. Moreover, there are challenges around making a business case for apprenticeships and accredited training; small, localised training offers cannot alone address the sector-wide need.
 - There are a number of challenges related to the materials required for appropriate conservation, both in terms of availability and costs (steel price fluctuations, lack of

sustainable traditional boatbuilding timbers, high energy costs).

- Climate change presents a major threat and challenge to historic vessels with regard to e.g., weather changes and plastic pollution. Vessels also contribute to climate change – efforts to move away from fossil fuels will increase costs in the short term.
- Survey results revealed that for vessel owners, the most frequently named challenges were lack of funds for conservation (72%), lack of funds for ongoing maintenance (70%) and cost of materials and components (65%). A lack of funds for ad-hoc/unexpected maintenance, a lack of skilled labour, and of succession planning were also mentioned by roughly half the respondents. This highlights the significant need for support to deal with conservation challenges, with only few respondents capable of implementing their plans without raising funds.

Assessing likely future demand for funding

What has been the pattern of support from NHMF and the Heritage Fund to the National Historic Fleet (NHF) over the recent years?

- Since 2012, NHMF has awarded £7.5m to historic ships, of which almost all funding (98%) went to vessels on the NHF. In the same period, the Heritage Fund awarded £63m to historic ships, just over half of which went to vessels on the NHF.
- NHMF funding since 2012 shows a noticeable increase in historic vessel applications submitted (and grants made) in recent years: of the total funding distributed since 2012, over 70% (£5.35m) has been awarded in the last three years.
- Roughly half of the vessels funded by NHMF since 1982 have received both ‘emergency’ NHMF funding, as well as subsequent Heritage Fund funding.

What evidence is there as to the long-term threats to the NHF, including how many vessels could be at risk of loss, and how could our organisation account for these in our policy and decision making?

- There is anecdotal evidence that the pressures on the maritime heritage sector means that new applications to NHMF or the Heritage Fund are being prepared.
- Considering current evidence, 32 vessels on NHF are currently listed as ‘under or needing restoration’. A 2023 survey by NHS-UK which asked vessel owners to self-assess the condition of

their vessel based on a Red-Amber-Green (RAG) rating furthermore identified 22 vessels (11% of NHF) as having a ‘red rating’ on the overall assessment; 29 vessels (15%) were deemed to be in a ‘poor or at risk condition’. A further 24 (12%) were put on a ‘watch’ amber rating across all criteria; for another 18, the condition is unknown.

- Based on the above, a list of 65 individual vessels most likely to require conservation at the present time was identified for this report, in order to understand likely future demand.
 - Of these, 34 are owned by trusts, museums, local authorities, i.e., eligible for NHMF funding now.
 - Both the 65 identified vessels and the wider NHF display a relatively even balance across use, function and ownership.
- It is suggested that NHMF and the Heritage Fund consider jointly with NHS-UK how an active ‘watch list’ based on the above list could be maintained going forward; and that the funders should aim to maintain the current balance within the NHF.

What is the likely future demand to the NHMF for emergency support from vessels that are on the National Historic Fleet (NHF)?

- Huge variations in maintenance and conservation costs among vessels make it impossible to provide an accurate basis for estimating the size of potential future grant applications to NHMF.

- As a ‘thought experiment’, the potential funding demand was calculated based on an assumption of £1m per vessel. Based on this, the total could, very roughly, lie between £25m and £50m, considering the list of 65 vessels identified as requiring conservation at the present time. This is considerably more than NHMF distributed to historic vessels in the past 10 years. It is thus unlikely that NHMF will be able to allocate funding to address all of the ‘at risk’ need within the sector in future years. Moreover, further vessels – currently ‘amber’ rated, or not identified through the existing channels – may also require attention or be planning applications over the coming years.
- This strongly indicates that some form of prioritisation will thus be necessary, highlighting the importance of considering the shape and needs of the sector as a whole and taking stock of the priorities for investment. Past funding has not in all cases reflected current need across function, ownership and use, reiterating the argument for considering these categories, to ensure survival of representative and historically important vessels across all categories.

Sector representatives’ views on sector policy and support priorities

How could our organisation account for the identified long-term threats in our policy and decision making?

- Consulted stakeholders gave feedback on the priorities they saw for NHS-UK, NHMF and the Heritage Fund, in the face of the various threats and challenge. This included:

- strong feedback that the NHF should be maintained and amended regularly
- a need for timeline and regular investment, including considering possibilities for repeat funding
- a need to invest in organisations’ visions (i.e., to understand how a vessel fits within an organisation’s overall purpose and vision) and in organisational capacity
- accepting loss, including considering funding alternatives to full conservation where vessels cannot be saved
- a need to invest in training and workforce, with a need for new training offers – considered at a national level and structurally, tying in with employment opportunities
- a need for increased co-operation and knowledge sharing
- a wish for more, and more standardised, sector-wide guidance on specific elements related to historic vessels, in the form of consulting ‘expert teams’ or guidance documents
- a need to consider infrastructure, workplaces and the context of ‘place’ – considering the issue of scarcity of industrial workplaces and moorings; and highlighting the need to understand funding for ships within the context of their place, making connections between vessels and their place.

Recommendations for new NHMF assessment guidance

How should the NHMF distinguish the relative importance and need when considering applications from multiple vessels on the National Historic Fleet (NHF)? How should our process interact with the existing criteria and assessment methodology for inclusion on the National Historic Fleet itself?

- NHMF is a funder of last resort, which funds not-for-profit organisations and public bodies only. Applications are assessed on two essential criteria – the asset’s importance to the UK’s national heritage and its outstanding interest – and focuses on saving items at risk. NHMF can fund acquisition and essential repair of heritage items, but does not fund conservation or restoration costs beyond emergency repairs.
 - The current system of assessing applications combines in-house review by the NHMF team, with external advice and commentary provided by NHS-UK. This ensures objective assessment, whilst also tapping into the knowledge, context and vessel expertise of NHS-UK. NHS-UK advice draws on the criteria for inclusion on the NHF as well as its conservation guidance.
 - The NHMF application process differs from the Heritage Fund in that approaches tend to be discussed to a greater degree in advance of formal applications.
 - However, the proposal called for, and the research identified, a need for further guidance to inform assessment and prioritisation of incoming funding approaches to NHMF.
- The additional assessment guidance proposed in this report is intended to run alongside the existing process. It is based on two key assumptions:
 - First, NHMF continues to focus funds on covering stabilisation work only (including acquisition, salvage and transport costs where relevant), with full conservation costs subject to subsequent Heritage Fund applications, to spread NHMF’s limited resources over a larger number of vessels and better fulfil its mission of saving nationally important heritage. We suggest consideration should be given to adding the cost of disposal and recording under the work funded by NHMF, as this is difficult for organisations to adequately fund.
 - Evidence about the range of vessels in need has shown the importance of NHMF keeping a balance in its funding, in order to maintain balance within the NHF, and as such, the wider UK fleet of historic vessels. We suggest the introduction of new balancing approach within the assessment guidance, to ensure NHMF funding continues to reflect and support balance within the sector across vessel function, age, usage and ownership.
 - The new assessment guidance follows a step-by-step approach, including a set of early considerations to understand the fundamental value and viability of the project; guidance to understand how funding would affect the balance of the sector; more detailed questions around stabilisation works; questions around future conservation and maintenance; consideration of the applicant’s ideas around further developing community

engagement; and consideration as to how the future business plan for the vessel is being shaped.

Broader recommendations for supporting the maritime heritage sector

What are the implications for the Heritage Fund in terms of demand for funding from historic vessels, for Heritage Fund rather than NHMF funding? How could the identified long-term threats be accounted for in policy and decision making?

- A number of key observations came through the research, which Heritage Fund, NHMF and NHS-UK need to be alerted to:
 - If NHMF retains the approach suggested above of using its resources for stabilisation work only, follow-on applications for Heritage Fund funding must be anticipated for full conservation costs.
 - If NHMF funding continues to be restricted to the NHF, all of the at-risk vessels on the wider NHS-UK register of historic ships will only have access to Heritage Fund funding - the scale here is potentially vast (estimated 300-350 ships)
 - The stock of ships in current community use will continue to require regular operational and maintenance support. Tying all available NHMF and Heritage Fund resources into saving vessels 'at risk' would severely disturb the health of this existing set of ships and organisations. We believe the Heritage Fund needs to consider how best it can approach

the need for support for periodic repair work that is beyond the capacity of volunteer-led organisations.

- Both the Heritage Fund and NHS-UK may want to consider how they can be more responsive to escalating project costs and the inherent unknowns associated with what lies beneath the outer fabric of a historic ship, and therefore what additional restoration costs might be incurred. More guidance on contingency planning would be helpful.
- If the broader needs of the maritime heritage sector are to be genuinely addressed, a full suite of funding approaches will be needed, across NHMF, mainstream Heritage Fund grants and potentially through a Heritage Fund strategic initiative. To decide the right balance of priorities and strategies, three questions of principle need to be resolved:
 - **Getting in early?** We believe that the Heritage Fund should send a clear signal to owners of vessels that they should apply to the Heritage Fund before vessels deteriorate to such an extent that expensive 'at risk' funding is the only option.
 - **Role of the NHF?** We urge relevant potential funders to agree resources for NHS-UK to complete the review of the National Historic Fleet as soon as possible. Whilst the review is underway, we think there is a temporary, 'meanwhile' case for greater flexibility of NHMF funding for vessels on the wider register, if owners can make the case for national importance and outstanding heritage significance.
 - **Private owners?** We assume and agree that there will be no changes in NHMF and Heritage Fund policies on funding

private owners. However, it should be considered how potential routes to community/ voluntary sector organisation could be highlighted for private owners seeking funding.

— **Summary recommendations for NHMF, based on the above:**

- Keeping a ‘watching brief’ over the priority vessels most at risk, in close collaboration with NHS-UK. Analysis of the vessels on this ‘watching brief’ by vessel function, use, ownership, age, to support ongoing balance within the NHF.
- In the interim, until NHS-UK is able to fully update the NHF, be prepared to fund vessels off the NHF that can demonstrate significance
- Continue to only fund stabilisation works, acquisition costs, salvage and necessary transport of vessels to a more secure home. In addition, consider funding recording and deconstruction of nationally significant historic vessels where no other option exists.
- Adopt the new assessment guidance presented in this report.

— **Summary recommendations for the Heritage Fund:**

- Continue to have less focus on ‘at risk’ vessels, and be open to vessels on the wider register, with a focus on a more general sense of community value (rather than NHMF’s focus on ‘national significance’).

- Consider how best to accommodate the need for smaller-scale funding to cover periodic repair works that are beyond the capacity of community organisations, as long as these are combined with activities to support organisational capacity and audience development. One potential mechanism may be a partnership arrangement with grants allocated through the existing NHS-UK Small Grants Scheme.

— **Summary recommendations for NHS-UK:**

- Complete the review of the NHF
- Consider how the demand for more sector guidance could be addressed

— Finally, we considered **ideas for a dedicated Maritime Heritage strategic initiative**, to be led by the Heritage Fund, based on a potential investment of around £25m. We suggest that such a strategic initiative should aim to pick up on the various sector issues identified through the research – with two ideas in particular having strongly emerged. Both would require further research and consideration to identify the best approach to be taken:

- a comprehensive, structural measure to address the persistently highlighted issue of the lack of available skills and training facilities. This could e.g., be addressed by formally linking an extensive training programme into all funded projects; by improved co-ordination of skills-sharing within the sector; and a variety of other suggestions.

- support to a broader 'ships in place' scheme, which would incorporate investment in local maritime heritage facilities such as heritage docks, harbours, boatyards and/or wharves, as well as visitor facilities, interpretation and community engagement, alongside vessels associated with the place. As such, the connections between the ships and the place could become the entry points into the heritage and history of local communities and facilitate conversation between maritime communities.

1. Introduction

In the Autumn 2023, BOP Consulting together with Raybel Charters were commissioned to undertake a piece of research into the historic ships sector for the National Heritage Memorial Fund (NHMF)/ the National Lottery Heritage Fund (The Heritage Fund), together with National Historic Ships-UK (NHS-UK).

1.1 Aims of the research

As a background to this commission, both the **NHMF and the Heritage Fund have recently experienced high and increasing demand for grants from historic vessels**, for restorations, repairs and renovations. This, together with insights into the sector from NHS-UK, raised the concern that a greater number of ships are falling into disrepair and may approach the funders in the coming years. This could mean that the potential level of demand in the next few years could exceed available resources among the funders. Given this, the funders feel a **better evidence base for prioritising grant awards** is needed in the future.

This research was therefore commissioned in order to gain a **deeper understanding of the conditions and needs** within the sector, as well as to develop **guidance** which can be used by the funders **to respond to historic vessel applications** in a rational and systematic way. Within this context,

— **the primary focus of the research lies on applications to the NHMF**, the fund of ‘last resort’. However, initial applications to NHMF often subsequently apply to the Heritage Fund for renovation, community activities, etc. The research therefore

also draws out implications for the Heritage Fund in terms of **demand for funding from historic vessels, for Lottery funding from the Heritage Fund** rather than NHMF funding, as well as in considering future strategic initiatives that could be delivered through Heritage 2033.

- **focus lies on the 197 historic vessels registered on the NHS-UK’s National Historic Fleet (NHF, see Section 2.1.1)**, as these are currently prioritised by the funders as vessels already identified as being of particular historic importance.
- consideration is given to the fact that at present, NHMF does not accept applications from private and commercial for-profit vessel owners and so less data collection and analysis has been conducted for these vessels.

1.2 Research approach and methodology

Responding to the above aims, BOP Consulting and Raybel Charters devised a methodology to produce insights and evidence to:

- build a picture of the general historic vessel sector context and challenges (see Sections 2 and 3, see also Section 5 and case studies in Section 8);
- gain insight into the level of need and likely demand for funding among the NHF (see Section 4, see also Section 5); and
- to identify and build guidance and prioritisation tools to support the funding bodies in assessing grant applications, as well as to inform the Heritage Fund’s thinking on potential strategic initiatives to support the sector (see Sections 6 and 7).

Each section begins by setting out a more detailed set of research questions addressed, including some questions set out in the initial brief (ITT) for this research, as well as a small number of additional questions, which were identified by us as important in addressing the overall aims of the research.

Research undertaken to support this work included:

- A review of existing literature on the historic ships sector, its challenges and key learnings from experts
- Identification of 13 sector stakeholder interviewees from across i) major organisations caring for NHF vessels, ii) membership body including owners of smaller NHF vessels, iii) industry representatives and iv) skills training representatives. Interviews took place throughout the early weeks of December.
- Data analysis of the overall NHF database; NHMF and Heritage Fund funding databases; and NHS-UK's recently undertaken strategic assessment process of vessels on the NHF, to understand the make-up and condition of the current NHF and past funding patterns;
- development of a short survey circulated to a subset of 113 NHF vessel owners, who highlighted challenges in the recent strategic assessment process undertaken by NHS-UK, as well as those showing other factors which may impact on their long-term sustainability, to include questions around future conservation and fundraising plans. The survey received a total of 67 responses, of which 21 were from private individuals or commercial organisations.

- Identification of a set of 65 vessels currently deemed most likely to require conservation work in the near future;
- Development of 10 case studies of selected NHF vessels to provide specific examples of the contexts, challenges and opportunities presented across the report;
- Development of recommendations for i) additional guidance in assessing applications, to complement the NHMF's current assessment framework and ii) potential areas for consideration for a Heritage Fund strategic initiative to support the historic vessel sector.

BOP Consulting and Raybel Charters would like to thank all those who contributed to this research.

2. The historic ships sector: overview of the sector

This first section provides a basis for those that follow; by setting out a short overview of the current sector and in particular the National Historic Fleet and considering in brief the current support structures available to the sector.

This section responds to the following research questions:

- What is the current shape of the sector and in particular the National Historic Fleet?
- Which support structures are currently available to the sector?

2.1 A brief overview of the sector

The UK has a long and strong background in maintaining and conserving its wide-ranging heritage infrastructure, supported by internationally renowned organisations such as the National Trust, English Heritage, the Heritage Fund as well as a host of sector-specific organisations, foundations and individual trusts and organisations. Whilst people may most commonly think of heritage in terms of buildings and monuments, as an island nation, the UK is also home to a large number of historic vessels. As National Historic Ships-UK¹ (NHS-UK, see more in Section 2.2), the umbrella organisation for the historic ship sector, points out, these are important representations of the UK's culture and history,

“intertwined with places, objects and archives” and “reflecting the history of [the UK's] people, politics, economies and national prestige” (NHS-UK, *Conserving Historic Vessels*, Vol. 2).

Today, most historic vessels that remain in existence in the UK are no longer used for their original purposes – most are now used for leisure or education purposes, as memorials or as part of the tourist industry (ibid.). As such, the historic vessel sector today forms part of a much bigger Leisure Marine industry. This consists of a variety of activities and in 2019 directly supported ca £3.4 bn in business turnover, £1.2 bn in GVA and 32,000 jobs. This means that heritage vessels operate within a wider thriving industry, within which skills and resources are available, if financial support can be secured (CEB, *Maritime sector economic impact report*) – although, as detailed below, more specialist skills required for the conservation and maintenance of heritage vessels are in short supply and at risk of being lost (see Section 3).

2.1.1 The National Historic Fleet: background and review process

NHS-UK maintains five databases: the National Register of Historic Vessels (NRHV), which provides an overview of over 1,300 historic vessels; the **National Historic Fleet (NHF), a subsection of this, currently comprising 197 vessels**; the National Archive of Historic Vessels (NAHV); the Overseas Watch List (OWL); and the UK Replica List. Vessels on the NHF are

¹ NHS-UK is a government funded, independent organisation which gives objective advice to UK governments and local authorities, funding bodies and the historic ships sector, on all matters relating to historic vessels in the UK. More detail is provided in Section 2.2.

currently prioritised by NHMF and the Heritage Fund as vessels that have already been identified as being of particular historic importance. The NHF comprises vessels identified as: being of pre-eminent national or regional significance

- spanning the spectrum of UK maritime history
- illustrating changes in construction and technology
- meriting a higher priority for long term conservation.

NHS-UK also maintains the Shipshape Network, a UK-wide initiative connecting historic vessel owners, skilled craftsmen, businesses, heritage organisations, training bodies and all those with an interest in Britain's maritime heritage.

The NHF was compiled in 2010, by combining two registers of vessels deemed to be of 'national' and 'regional' significance, which had been first drawn up in the early 1990s. In a consultation report of 2014, NHS-UK recognised that "at the outset, information on some vessels was sparse and it is sometimes difficult to see why certain vessels were nominated for national or regional significance" and that "there had been no identifiable formal comparative process in arriving at the list of all the vessels finding their way into what is now the National Historic Fleet." A suggested review process and assessment methodology for the Registers, including a new set of assessment criteria for inclusion on the NHF, which received widespread consultation support, was therefore published at the same time, with the aim of reviewing and updating the NHF. According to NHS-UK, "this is a critical

piece of work to ensure the Fleet remains representative and up to date".

As a corner stone of this **review process for the NHF**, the new set of assessment criteria for inclusion are based on a number of key elements for assessing a vessel's significance. These include:

- Innovations (new ideas and techniques)
- Historical connections (people and events)
- Hull fabric / form of vessel – level of originality
- Condition
- Age (date of build)
- Rarity (based on numbers of other vessels within the category).

For some vessel types a 'specialist score' was also introduced to better define group age and rarity. Crucially, vessels are assessed against others of a similar function and type. In doing so, the aim is not to arrive at a pre-determined number of vessels; the process instead is significance-led. This means that if a vessel scores sufficiently highly across all criteria in its category (type), it will remain or be added to the NHF; likewise, should it not score sufficiently highly, a vessel currently on the Fleet may be removed

and join the wider NRHV. Once a group has been assessed in full, it will be re-visited whenever there is a change in circumstances.²

Whilst NHS-UK has begun undertaking the review process of the NHF, unsuccessful grant applications to date to support this work mean that capacity and resources to undertake the review process are limited. **NHS-UK has therefore not been able to implement a full-scale review to date**, and is instead taking an in-house, and of necessity slow, 'category-by-category' approach.

In doing so, NHS-UK has so far completed the scoring and assessment of 157 lifeboats; the first category to be reviewed. The results of the review are scheduled to be published shortly³, and are likely to result in some lifeboats being added to and some removed from the Fleet. Whilst finalising the outcomes for this group, NHS-UK is already working on the next category for review, which comprises some 80 tugs. It is important to note that this currently ongoing process means that the **NHF is still largely made up of vessels that were designated as of greatest national and regional importance when the historic ships registers were first created in the 1990s**, despite new registrations of craft being received and processed annually.

2.1.2 Current composition of the NHF

As part of the 2014 review, NHS-UK also developed a classification system for vessels on the registers, based on eight groupings for vessel function, with each of these further categorised by vessel type. This allows us to draw a broad overview of the balance of vessels currently on the NHF (whilst bearing in mind that the numbers of historic vessels surviving overall varies hugely across both function and type).

Overall, the **composition of the NHF is well balanced** across a number of factors. First, the **mix of vessels in terms of vessel function is very even**, with just under a quarter (23%) being service vessels, another 23% cargo vessels and the remainder split equally across fishing, leisure and passenger vessels. Within these functions, vessels are further categorised by type. Among these, although there are relatively large numbers of some types of vessels (e.g., sailing barges, warships, tugs, trawlers), none of these number more than 20 (10%) of the 197 vessels on the NHF.

² For example, if a NHF lifeboat were to be lost or a new lifeboat registered with a particularly high score, NHS-UK will look back at the group scores to see whether any NHF changes are required to reflect this.

³ Publication was initially planned for 2023 but had to be delayed due to a high number of vessels requiring visits and the limited capacity to undertake the work in-house. Publication is now scheduled for early to mid-2024.

Figure 1 NHF, by vessel function and type

Vessel function	Number of vessels	Vessel type (category)
Service	46 (23%)	Includes: 13 tugs, 9 pilotage vessels and 9 lifeboats, along with victualing and maintenance vessels including a fireboat and former sewage dumping vessel
Cargo	45 (23%)	Includes: including 20 sailing barges / wherries and 8 narrowboats
Naval / military / warships	30 (15%)	Includes: 11 mechanical warships, 3 sail warships, 9 auxiliary vessels and 7 coastal forces
Fishing	27 (14%)	Includes: 15 trawlers
Leisure	25 (13%)	Includes: mix of steam launches and types of yacht
Passenger	23 (12%)	Includes: inshore and offshore excursion boats, paddle steamers, ferries
Experimental/ Research	1	-
Total	197	-

Source: NHS-UK/ BOP Consulting (2023)

Second, NHF data and website entries give us a broad indication of the Fleet by date of **vessels age**. This reveals that the large majority of vessels on the Fleet was built in the early to mid-20th

century, with only a handful dating from pre-1800. Of the 53 vessels built in the 19th century, there is a broad mix across all the functions, with around half made up of cargo and fishing vessels.

Figure 2 NHF, by construction date

Construction date	Number of vessels
Post 1945	11 (6%)
between 1900 and 1945	128 (65%)
19th century	53 (27%)
pre-1800	5 (Mary Rose, HMS Victory, Prince Frederick's Barge, Queen Mary's Shallop and the pilot cutter Peggy, in Castletown Isle of Man)
Total	197

Source: NHS-UK/ BOP Consulting (2023)

Third, NHF data lets us review **ownership of vessels on the Fleet** (

Figure 3). Ownership models are varied, and not easily categorised. However, vessels can be categorised as split between museum-based organisations (a mix of non-departmental public bodies and independents); charities, trusts and other forms of community company that are not or not part of a museum attraction; local authorities; private owners; and commercial companies. While the majority of vessels are owned by museums or charity/ trust/ CIC/ community company, **72 (37%) are owned privately or by commercial companies**. This is significant, as these vessels would currently be ineligible for NHMF support without some form of change in ownership or status.⁴

Looking at **how ownership breaks down across function** (Figure 4), naval vessels are predominantly owned by museums (60% of all naval vessels); cargo ships are split evenly between museums (44% of all cargo ships), trusts (22%) and private / commercial owners (33%); and fishing boats are concentrated amongst private owners, commercial companies and trusts (82% of all boats). Most leisure boats are in private / commercial / trust ownership (72%). Among the 125 vessels that are owned by public or not for profit organisations (i.e. those belong to local authorities, museums, trusts, CICs) – and hence in principle eligible for NHMF funding – there is a relatively even distribution of vessels by function, with the largest group made up of service, cargo and naval vessels.

Figure 3 NHF, by ownership

Ownership type	Number of vessels	Detail on ownership type
Museum organisation (which the vessel is part of)	73 (37%)	Includes e.g., national government supported bodies (e.g., National Museum of the Royal Navy, National Maritime Museum, through to small independent museum trusts
Non-museum charity, trust, CIC, community company	51 (26%)	-
Private ownership	50 (25%)	-
Commercial company	21 (11%)	Predominantly in the leisure sector
Local authority	2 (1%)	-
Total	197	-

Source: NHS-UK/ BOP Consulting (2023)

⁴ There may be some over-counting here, with a number of commercial companies and private owners operating as some form of de facto community group.

Figure 4 NHF vessels owned by public or not for profit organisations, by function

Function	Proportion of vessels on the NHF owned by public or not for profit organisations
Service	26%
Cargo	24%
Naval	21%
Fishing	10%
Passenger	10%
Leisure	9%
Research	1 vessel

Source: NHS-UK/ BOP Consulting (2023)

2.1.3 Current use and condition within the NHF

Lastly, NHF data lets us review the **current use of vessels**; which simultaneously acts to provide a first indication of the current condition of vessels on the NHF. A broad distinction is made between vessels that are:

1. in **operational use** – i.e. sailing, steaming, motoring on seas, rivers, lakes; or
2. no longer able to operate but are displayed as **static exhibits**.
3. A third set of vessels are listed in the NHF data as under or in **need of restoration**. For most of these, there are plans to

bring them back into either operational or static use, though in some cases future use is yet to be decided.

In conservation terms, this is an important distinction, since static vessels can be maintained to the form and features of a specific period in their history, with no requirements to replace fabric for operational reasons (though floating static vessels require upkeep to ensure safe access); whereas vessels still in operation will continuously require fabric replacement to keep them in sea/water going condition and safe.

Based on current NHS-UK data and descriptions of vessels on the NHS-UK website, **the balance within the NHF between operational and static vessels is very even**, with roughly two-fifths in each category (see Figure 5).

Figure 5 Vessels on the NHF by current use

Current use	No of vessels
Operational use	86 (44%)
Static display	79 (40%)
Under or in need of restoration	32 (16%)

Source: NHS-UK/ BOP Consulting (2023)

A further distinction can be made within the set of static vessels – between those remaining ‘in water’; those ‘out of water and outdoors and those ‘out of water under cover e.g., in display / exhibition halls or in storage). Considering all 86 vessels listed as either static (79) or as ‘needing restoration to static’ (seven), this breakdown shows an almost **equal proportion of static vessels**

in water and under cover/ indoors, with fewer static vessels out of water and outdoors. The conservation and maintenance needs of static vessels is different, depending on how they are kept – a point addressed below in Section 3.2.

Figure 6 Static vessels on the NHF – further detail

Static use – further detail	No of vessels
Static in water	33 (38%)
Static out of water – outdoors	19 (22%)
Static out of water – under cover/ indoors	34 (40%)

Source: NHS-UK/ BOP Consulting (2023)

Breaking the ‘use’ categories down further shows us that:

- by vessel function, the even split across operational and static that exists across the whole NHF is also found within cargo and service vessels. However, more vessels are still operational in the cases of fishing boats (63% operational), passenger (57%) and leisure vessels (52%); whereas just 13% of naval vessels are still operating, with 73% static.
- by ownership, static vessels are very highly concentrated within museum organisations (85% of all static ships); whereas operational vessels are split across private owners (36%), trusts (35%) and commercial companies (22%).

Turning now to the third category, **slightly less than one-fifth (16%, 32) are listed as ‘under or in need of restoration’** – in other words, broadly most likely to be currently ‘at risk’. Among this latter group of 32 vessels, 14 are intended to be restored to

operational use, seven as static displays – for 11 vessels, current end use is as yet unclear. Looking in more detail at these 32 vessels shows up some strong variations (see Figure 7-9):

- 19 of the 32 vessels are service, fishing and cargo boats
- 18 of the 32 vessels are in private ownership and one further under commercial ownership, leaving 13 owned by trusts and local authorities (one) and thus in principle eligible for NHMF funding.

The extent of ‘risk’ among the NHF will be considered in more detail in Section 4.

Figure 7 NHF vessels ‘under or in need of restoration’ – breakdown by function

Vessel function	No / %
Cargo	6 (19%)
Fishing	6 (19%)
Leisure	5 (16%)
Naval	4 (13%)
Passenger	4 (13%)
Service	7 (22%)

Source: NHS-UK/ BOP Consulting (2023), n=32

Figure 8 NHF vessels ‘under or in need of restoration’ – breakdown by ownership

Vessel ownership	No / %
Museum	0 (0%)
Trust	12 (38%)
Private	18 (56%)
Commercial	1 (3%)
Local Authority	1 (3%)

Source: NHS-UK/ BOP Consulting (2023), n=32

Figure 9 NHF vessels ‘under or in need of restoration’ – breakdown by use

Vessel use	No / %
Cargo	6 (19%)
Fishing	6 (19%)
Leisure	5 (16%)
Naval	4 (13%)
Passenger	4 (13%)
Service	7 (22%)

Source: NHS-UK/ BOP Consulting (2023), n=32

2.2 Current support to the sector

In 2004/05, a House of Commons publication highlighted that maritime heritage **had not received the same attention and resource as historic monuments, buildings and structures on land**, concluding that the National Historic Ships Committee merited formal backing and resources and that the sector was in need of support to create effective fundraising strategies and identify innovative funding methods and efficiency savings (House of Commons, DCMS, 2005). Until the Advisory Committee on National Historic Ships was established **in 2006** (now NHS-UK), **there was thus no overarching UK body responsible for promoting the interests of historic vessels**, or for providing advice around conservation and maintenance. (NHS-UK, Conserving Historic Vessels, Vol. 2)

As sector umbrella organisation, NHS-UK provides both financial and other forms of support to the sector. In terms of financial support, this is distributed through its Small Grants Scheme, which is open to all vessels on the NHF and wider Register, including privately owned craft, and which has given out £489,600 through 405 individual awards since 2006. However, the ability of NHS-UK to offer these grants has significantly reduced since the scheme started.⁵ In addition, NHS-UK provides sector support in the shape of technical and conservation guidance, webinars and events, direct advice for vessel custodians, sitting on vessel committees, advising on appraisals, providing training and

⁵ They are now largely dependent on commissions received via the Winter & Co Historic Ships insurance policies.

educational opportunities, supporting networking within the sector, maintaining a skills directory, etc.

Beyond this, **historic vessels as yet receive comparatively little national support when compared to some other countries** (ibid.), despite the fact that the maintenance and conservation of historic vessels comes with significant, often unforeseeable, costs (see Section 3.3.2 for more). This has led NHS-UK to conclude that “historic vessel conservation is under-funded by national government”. While in some cases, vessels kept by museums are able to receive government funding indirectly (for example in the case of the HMS Belfast), adequate support cannot be guaranteed.

2.2.1 Support for vessels owned by public bodies or not for profit organisations

In terms of financial support that currently exists for historic vessels, **some historic vessels owned by public bodies or not for profit organisations (e.g., trusts, charities, CICs etc.) qualify for ‘emergency’ grant aid from the National Heritage Memorial Fund (NHMF)** – however, this is only eligible to a relatively small number of vessels, who are on the NHF and considered of outstanding importance and of memorial character or at risk. In addition, **more substantial funding for conservation projects for vessels can be sought from the Heritage Fund**. Beyond these and the small grants distributed through NHS-UK, there are a few other foundations and trusts that provide grant funding to historic vessels, including the Pilgrim Trust, Garfield Weston Foundation and the Headley Trust.

Given the limited opportunities to secure funding from elsewhere, however, the **support from NHMF and the Heritage Fund is seen as invaluable to the sector**: “this organisation has stood between many ships and the breakers’ yard.” (NHS-UK, Conserving Historic Vessels, Vol. 2) Support from the Heritage Fund **enabled conservation projects that otherwise would not have been possible**. In one example, a 2015 evaluation of the Heritage Fund Major Grants (BOP, 2015) found that “it was the Heritage Fund that saved Cutty Sark, and they didn’t just save it once, but several times. The costs could not have been met by any funder other than the Heritage Fund”. In other cases, Heritage Fund grants have been able to fast-track conservation work (e.g., in the case of the Mary Rose) and helped to change the perceptions and strategic importance of organisations within their locality (e.g., in the case of the SS Great Britain).

Similarly, a 2016 evaluation of the Heritage Fund’s Catalyst Endowment initiative, which aimed to generate longer-term sustainability in the sector, found that this funding opportunity had helped to fast-track creation of an endowment for vessels (e.g., in the case of the Mary Rose); leverage other funding sources (e.g., encouraging donors to give, spurred on by the agreed match funding and time-limit of the fund) and keep up the fundraising momentum; and raise the strategic importance of vessels and their operating organisations. (University of Kent, Catalyst Endowments Evaluation, 2016).

This **important role of the Heritage Fund for the sector** was also reflected by interviewees for this report. One interviewee, who looks after three vessels on the NHF, reported that they “100%

would not exist without the funding. Two of our vessels got substantial funds from the Heritage Fund”. Another interviewee, whose organisation received both capital and endowment funding for their historic vessels, highlighted how the latter was “really important. It focused on the less exciting side, which is the maintenance, but this is crucial.” A third interviewee agreed on the importance of grants which support longer-term financial sustainability. In their case, the Heritage Fund provided a grant to improve wider museum facilities and their training programme for wood-working and boat conservation skills – which are now drawn on for ongoing maintenance of the vessels in the collection. The case study of The Danny further shows how a significant cash injection from the Heritage Fund through capital funding was able to lay the foundations for future organisational growth and vessel preservation, which is now sustained through a mixed-income model managed by the society.

However, it is important to note that funding opportunities often **require significant existing internal capacity** both for the application and delivery process (e.g., fundraising capacity in the case of the Catalyst Endowments programme), **making it difficult for smaller organisations to access and benefit from these opportunities.** (Catalyst Endowments Evaluation, Mary Rose and SS Great Britain Case Studies, 2016). But even for larger organisations, there are risks associated with delivery of major projects – both in terms of capacity and expertise required to do so, and their ability to secure match funding – which are also recognised by the Heritage Fund. For instance, the 2015 evaluation of the Heritage Fund Major Grants Programme argued

that, given the significant funding commitment required for both the Cutty Sark and the SS Great Britain ships conservation projects, there was some initial caution from the Heritage Fund to support the projects. More recently, the case study of the Glenlee demonstrates the challenge of increased competition for funding, which means that – even where organisations develop strong funding applications – funders may decide to spread their funding more widely (but thinly), rather than continuing to invest in a smaller number of vessels.

2.2.2 Support for vessels in private ownership

Meanwhile, for **private owners**, there are **only few existing sources of grant aid available** (NHS-UK, Conserving Historic Vessels, Vol. 2). NHS-UK’s Small Grants Scheme is open to privately owned vessels but relatively limited in scope. In addition, private owners can apply to the Heritage Fund for grants up to £250,000 (this maximum amount has recently increased), provided that they can demonstrate that the resulting public benefit will outweigh any private gains. However, in practice, there are no cases to date of privately owned historic vessels having received Heritage Fund funding, and NHS-UK believes that this is very difficult to achieve for private owners: while many private owners are happy to engage in public events and engage the community, they often lack the ability, time or expertise to complete applications for funding. NHS-UK has seen an increase in enquiries from private owners about transferring vessels into a charitable structure for funding purposes recently, though coupled

with concern about how they could then remain actively involved themselves.

The situation continues despite the fact that the House of Commons paper in 2005 noted that considering that much of “the work to preserve the historic fleet is carried out by private individuals, charities and trusts, it is imperative that their views are fully considered”, and that funding schemes are available for them to access (House of Commons, DCMS, 2005). This has led NHS-UK to conclude that “private owners shoulder the main burden of financing their [historic vessel’s] care and upkeep.” (NHS-UK, *Conserving Historic Vessels*, Vol. 2) – the John H Amos case study provides an example of this.

There were mixed views among stakeholders consulted for this report. While one stakeholder interviewee felt that due to the lack of public access to these vessels “privately owned ships should take care of themselves [...] it is not the role of public funders to support the private pleasure of private owners”, others highlighted the “sense of massive frustration” among private owners as “they face the same problems as charities in maintaining vessels, but without access to funding”. Many commercial operators are also struggling to break even and would benefit from a loosening of the Heritage Fund rules around private ownership.

2.3 The impact of the economic crisis and Covid-19 pandemic

Sector feedback and available literature suggests that this context of high costs and limited public funding was further exacerbated by the wider economic crisis of the past decade as well as the Covid-

19 pandemic, both further impacting costs and the availability of funding.

NHS-UK summarised that the wider economic crisis is having an **effect on historic vessels across all aspects of maintenance and conservation**, through “e.g., local authority cuts [for example to museums who are custodians of historic vessels], Canal and River Trust cuts resulting in increases in licence and mooring costs, private owners who have seen their income reduce, volunteers now unable to cover their own expenses, etc.”

In recent years, in addition, Covid-19 “had a considerable effect on the sector”, both in the short-term and longer-term (NHS-UK, DCMS Select Committee Report on the Impact of Covid-19 for our sector). In the short-term, the pandemic led to closures, event cancellations, furloughing of staff and loss of seasonal revenues (ibid.) – this in a context, where vessels in temperature-controlled museum environments had to continue covering the costs for maintenance whilst unable to generate revenue, and where operational vessels lost income due to being unable to sail (NHS-UK).

This inevitably had knock-on longer-term effects on ongoing maintenance and future conservation efforts. Most directly, **maintenance and conservation work in many cases stalled** due to staff, volunteers and owners not being able to access or undertake the work, according to NHS-UK (also see Glenlee case study). In addition, the DCMS Select Committee Report found that:

- Volunteers, often from older age groups, have been slow to return post-pandemic, leaving gaps in capacity and specialist skills for the maintenance of vessels.
- Inequal access across the sector to government funding support during Covid left some organisations at risk of redundancies or insolvency, potentially leading to closures and the resulting loss of heritage.
- Financial reserves held, some of which were earmarked for future maintenance or conservation needs, were often used up during the pandemic, simply to keep organisations afloat.

According to several stakeholders, specialist training providers like the Boat Building Academy in Lyme Regis or the International Boatbuilding Training College (IBTC) in Lowestoft have also seen reduced student numbers on their courses, including fewer younger people and people considering a career change into maritime skills due to the overall financial climate. This, alongside rising costs, led to IBTC Portsmouth being closed in 2023.

In conclusion, the NHS-UK report identified the **need for additional funding for small grants schemes** to support the sector in addressing the resulting challenges, where financial support needs are greatest. In addition, it advised a **continued focus on organisational resilience and long-term sustainability**, including through **support for endowment funding** to help replenish financial reserves of organisations.

3. Historic ship conservation and maintenance: standards and costs

Building on Section 2, this section considers in more detail the current standards of maintenance and conservation within the historic ship sector, the costs associated with this, and the various challenges and contextual factors that standards and costs are impacted by.

This section responds to the following research questions:

- What can we learn from both expert knowledge and existing evidence as to the appropriate standards of maintenance and conservation of vessels of national importance?
- What are the typical long-term costs of conservation and maintenance for vessels supported through the National Heritage Memorial Fund?
- What factors are these standards and costs being impacted by?

3.1 Existing sector guidance on maintenance and conservation

The very idea of ships conservation is relatively recent, as one stakeholder interviewee pointed out: “our collective knowledge of conservation is only 120 years old”. The research highlighted two key points to consider in terms of historic vessel maintenance and conservation. Firstly, **ships of all kinds tend to be built of highly perishable materials**, they are highly complicated creations and “among the shortest lived of durable objects” (NHS-UK). This was a point also made by many stakeholder interviewees: “Ships [...]

were not designed to last 50 plus years.” And “most transport items were built to be transient; the survivors are almost by accident”. One example of this is the HMS Cavalier, owned by Chatham Historic Dockyards, which was built in 1944 as an emergency class Destroyer, designed to last 16 months. Secondly, “many ships remain in the open environment and are **subject to extremes of weather**” (NHS-UK). As a result, most vessels **require ongoing maintenance and conservation** to at least some degree.

In this context, the ‘**golden standard**’ of **maintenance and conservation** of vessels is widely acknowledged across the sector to be **the comprehensive ‘Conserving Historic Vessels’** guidance produced by NHS-UK. However, this is currently only available in hard copy, and could benefit from a digital version being produced. The publication sets out the following **ten key conservation principles**:

- Historic ships and boats should be conserved according to their significance.
- The aim of conservation is to retain the significance that has been identified and pass it on to future generations.
- All aspects of significance should be dealt with in a considered and thoughtful way.
- Rigorous maintenance is a key to good conservation practice for all vessels.

- Make and keep records throughout, including recording all changes to the vessel and what happened to any material which has been removed.
- When in doubt, do the absolute minimum. Conservation demands a cautious approach to change.
- Replace ‘like with like’ wherever possible and practicable.
- Conjecture should be avoided in all conservation projects. If uncertain, don’t do it.
- The best knowledge, skills, techniques and types of management available and affordable should be employed in all types of conservation.
- Do things in a logical order, as set out in this book.

The publication then lays out nine steps from early evaluation, acquisition, stabilisation and understanding to assessing significance (steps 1-4); deciding the most appropriate route to preserve the vessel (step 5, depending on the ships fabric, use and ownership); investigating viability/ feasibility (step 6); on the basis of this either recording and deconstructing, or moving into the conservation process (step 7) or considering replication (step 8); then moving onto a costed maintenance cycle to ensure longevity (step 9).

Finally, the guidance **dissects the conservation process into recognisable phases**, which helps to identify and plan at what stage in a long-term project more funds are likely to be needed – an important aspect for the assessment of funding applications.

Other NHS-UK guidance, such as guidelines on access and how to make adaptations for the public, which do not impact adversely on significance (NHS-UK, Creating Access for All: Guidance for Historic Vessels), or guidelines on recording and deconstructing historic vessels (NHS-UK, Recording Historic Vessels and Deconstructing Historic Vessels Publications) are also available to be used by the sector and have helped to raise awareness around these issues.

3.2 Issues affecting sector conservation and maintenance standards

Although the existing guidance is clear and practical, **a number of issues were identified by stakeholders, which affect these standards, or vessel owners’ ability to adhere to them.** This section brings together factors specifically affecting conservation and maintenance standards. Some of these are developed further in Section 3.4, which considers more widely the key factors impacting on both the standards and costs of maintenance and conservation in the historic ship sector.

3.2.1 Discussions around vessels’ end use and appropriate standards in particular for static vessels

Which standards of maintenance and conservation are appropriate is dependent on the conservation pathway selected for a vessel, and there remains **some tension within the sector about the approach for static vessels** that are not ever going to return to operational use. This is significant as there is a wide recognition that many vessels on the NHF and the wider Register are far

beyond their expected life when first built and that **static display is their only viable future use.**

The survey of ship owners undertaken for this research provides some more detailed insight into the planned conservation and maintenance approaches of vessels on the NHF. The survey received a total of 67 responses, of which 21 were from private individuals or commercial organisations.⁶ Respondents were asked about their current plans to maintain or achieve long-term sustainability of the vessel. This highlighted a **roughly equal split between those planning restoration to operational condition** (27, 43% of 63 respondents to the question) **and those planning conservation for static display** (22, 35%). Only a small proportion of six respondents reported having identified the vessel as no longer having a future in their care, including two considering deconstruction (a fishing and a naval/ military vessel, both owned by private individuals), and four considering sale/ disposal (three of which are cargo vessels and one service vessel, each owned by a different type of owner). Of another eight who responded 'other', further information suggested several were not yet clear about the future of the vessel.

If it is decided to preserve or restore a vessel for static public display, this changes the nature of the conservation task, and the choices around skills and materials. As one interviewee for this research pointed out: "Most shipwrights will attempt to do work that

makes the ship seaworthy, whereas this is usually irrelevant and inevitably leads to loss of original structure".

This requires a shift in perspective. As another stakeholder pointed out, "there are differences in the mindset between conservation shipwrights and building shipwrights.". This was similarly echoed by another interviewee.

At the same time, **conservation of a vessel aimed for static display may lead to a reappraisal of the importance of certain elements**, as one stakeholder interviewee pointed out:

“ If you're caring for an industrial objective, you tend to focus on the nuts and bolts, but people are primarily interested in people [...]. You need to think creatively how to make stories relatable. If you are a ship nerd, you might think that this is dumbing down, but it's important to consider audience engagement and this is where the focus must lie.

The same stakeholder also felt that, rather than a dogmatic adherence to 'authentic conservation', the **focus should be on ensuring that the historic significance of the vessel is maintained.** For instance, in the case of one of the vessels in their care, three wheelchair ramps were installed which required taking out some parts of the ship. However, the main question is: "Is it

⁶ Responses for 10 vessels came from the Canal and River Trust. 25 of the respondents are also represented in the list of 65 NHF vessels identified as a priority in Section 4.2.2.

largely reversible? And what do we gain by making it accessible to a core group of people who otherwise wouldn't have access?"

Such considerations also raise **wider contextual questions around how best to connect vessels and their history with the interest of visitors/ communities**, perhaps particularly important for museum vessels. The case study of the SS Great Britain highlights the increasing importance of focusing learning and engagement on "people and storytelling rather than solely concentrating on ship technology", while the case study of LCT 7074 suggests that interest can be enhanced by presenting a story that has popular appeal (in this case, the D-Day celebrations).

It is in this wider context that funding for a vessel needs to be understood. As one stakeholder put it, "there will always be a community of people who are interested in the ship, the bus, the train as an object for sure – but this is too narrow an interest to justify funding. But the connections between these objects and their places are the entry points into the heritage and history of communities. This is what is more real and significant about them. The complexity of a vessel, in all its social and economic significance, needs to be understood and explored."

These stakeholder views are also supported by findings from the survey of ship owners. Respondents were asked about the most likely conservation pathway they were expecting to follow. This highlighted that the **majority of respondents (66% of 61 respondents) are working towards plans for preservation of the vessel** (= keeping the fabric or part of the fabric of a vessel as far as possible in its existing state, and retarding deterioration),

while a much smaller proportion (21%) was working towards restoration (= returning the existing fabric to a known earlier state by removing additions or re-assembling components with the minimum introduction of new material). Only very few are considering reconstruction (3 out of 61) or adaptation (2 out of 61). Of the 40 vessel owners planning towards preservation, 29 were public or not for profit owners.

Ensuring that highest conservation standards are maintained during this process is also linked to the prevalence of assessments of significance and conservation management plans. Responses to the survey highlighted a clear difference between private/ commercial respondents, and public/ community respondents:

- **A majority of vessels have undertaken an assessment of significance.** Of 63 respondents, 48 (76%) confirmed having undertaken such an assessment. Among these, of 44 vessels owned by public bodies (local authorities/ other public sector bodies) or not for profit organisations, 36 (88%) reported having undertaken an assessment of significance. Of 21 private or commercial for profit organisations, 12 (57%) reported the same. A further three reported currently planning or undertaking an assessment of significance (one local authority, one not for profit, one private individual).
- **Fewer vessels confirmed having developed a conservation management plan, but more reported that this work was in planning or underway.** In total, of 64 respondents to the question, 21 (33%) reported having a conservation management plan. Among these, of 44 vessels owned by public bodies (local authorities or other public sector bodies) or not for

profit organisations, 19 (43%) reported having a plan in place and a further 10 (23%) that this was currently in planning/underway. Of 21 private or commercial for-profit organisations, a considerably smaller proportion of 2 (10%) have a plan in place, but more (7, 33%) are currently working on this.

This shows that whilst considerably more public or not for profit organisations have either of these plans in place, several of the private or commercial owners are currently planning to or undertaking this work.

Finally, several stakeholders highlighted the **importance of ensuring that the intended end-use is rooted in a sound and sustainable business model**. This is important to consider as it may impact conservation standards: as identified in the Heritage Fund Major Grants Evaluation, **‘authentic’ conservation and commercial revenue generation objectives to achieve long-term financial sustainability do not always easily align**.

3.2.2 Appropriate materials for the highest conservation standards

Conservation efforts and repairs carried out in the past have not always been to a very high standard and **many vessels that had major conservation projects carried out in the last couple of decades, require further work now**. In the case of one vessel, “[...] some areas restored 30 years ago are now showing signs of disrepair, while most of the original fabric is fine.”

Historic issues are compounded today by the **increasing difficulty in obtaining the materials** that perform best on historic

vessels, which means that ‘inappropriate’ modern alternatives are increasingly being used, affecting conservation standards (see Section 3.4.3 for a more detailed discussion of availability of materials).

Partly as a consequence of these supply issues, shipwrights are concerned about work procedures, which they see as having been developed in the building industry, now appearing in Invitation to Tender documents for ship work. They worry about the use of quick clean modern materials, which do not work. As one interviewee highlighted:

“ In too many cases, boats suffer damage due to lack of experience and knowledge, and the introduction of modern materials. The historic ship repair business is becoming dominated by large building construction companies and a small number of marine consulting engineers. There is a sense that ships are being treated as building sites and repaired with the wrong materials, which are not durable and damage the original fabric.

Ineffective conservation with poorer quality materials has led to work failing and needing to be repeated. There is some concern here that the Heritage Fund is unable to monitor and prevent repeat episodes, with the case of the Cutty Sark decks widely known across the sector. However, there may be trade-offs occurring as well, between shipwrights wanting materials appropriate for sea-going and the different focus of museum managers more concerned about audiences (as outlined above).

3.2.3 Regulations and contracting requirements

Concerns were expressed by traditional skills stakeholders, about the **impact of regulations and new contracting requirements on conservation standards**. For instance, one stakeholder interviewee reported that:

“ We have had to make some interesting compromises on the collection of vessels in the light of mechanical and legislative requirements. This has also stimulated a rather big conversation about when authenticity needs to meet reality.

For example, requirements to employ a CDM Manager (Construction Design Management) are increasingly appearing in specifications and appear to be causing tension within the sector. While some argue that CDM does apply to some scenarios of repair work to historic vessels, one stakeholder reported taking legal steps to show that CDM could not apply to ship work, and that this had been recognised by some other sector stakeholders and other sectors. Given these complexities, NHS-UK has recently undertaken research into this subject (to be published in 2024 in a brief guidance note) and is investigating the option for CDM Awareness training to be provided for the maritime heritage sector.

Similarly, new contracting **requirements in the field of health and safety are sometimes at odds with conservation objectives**. Regulations like the introduction of the Maritime and Coastguard Agency (MCA) Safety Standards for Older Passenger Ships is causing vessels to become unviable as passenger craft

and being put up for sale or requiring major works to adapt them (NHS-UK). MCA safety standards regulations will also have an impact on older shipyards as well as older craft looking to return to operation. In some cases, the introduction of these standards could require them to change their business model, use, area of operation or to significantly adapt the vessel. Stakeholder interviewees consulted for this research also highlighted such concerns:

“ Most historic shipyards don't have the infrastructure to achieve the zero risk requirements of modern building regulations and to do so would destroy much of (the yards) historic fabric.

“ We would like to use the [our vessel] for training in apprenticeship on operating steam ships. But one factor in our final decision will be the MCA coding – once a vessel has been out of water for five years, MCA can require significant safety adaptations before licencing it for passengers (especially for more than 12 passengers) which can conflict with conservation objectives.

This is in addition to longer-standing health and safety regulations, which under-resourced historic boatyards and vessel owners are finding difficult to adapt to – affecting both ongoing maintenance and visitor engagement with historic vessels. For instance:

— Despite recent repair works (worth £60,000) on one of the vessels in one museum's portfolio, the boat can only be “looked

at from the distance”, since due to health and safety requirements, “nobody can enter it.”

- In another museum, volunteering roles solely focus on public engagement, rather than technical roles – a decision partly driven by safety requirements: “our modern workshop has dangerous equipment, and for large organisations such as [ours], health and safety requirements and scrutiny are higher than for smaller ones.”

3.2.4 Skills shortage and declining workforce

Underlying all of these challenges around appropriate standards is the **issue of a declining workforce**. Even when there is a willingness and commitment to use the best standards, this is not always possible due to skills shortages (see Section 3.4.2 for a more detailed discussion).

Stakeholder interviewees highlighted, in particular, the **shortage of industrial heritage and traditional boat building skills** that will affect maintenance of standards, tied in with the disappearance of traditional boat yards:

- “It is industrial heritage and the engineering skills needed for large machines which present the biggest problem.”
- “Traditional boat building and shipwrighting is a huge issue [...] as evidenced by the Heritage Red Listing of traditional boat building. Without the boat building colleges in Lowestoft and Lyme Regis we would be seriously scuppered. But where do these people go? There needs to be the certainty and existence of projects providing work, otherwise it is not a viable career.”

- “There is a need for more yards that focus on traditional skills rather than commercially viable skills. For example, the way in which a traditional boat is extracted from the water to protect their structural integrity. Most yards are going down the commercial route and therefore the skills are disappearing [...]. [Our organisation] has trained dozen traditional shipwrights to go into a world that does not exist.”

3.2.5 Acceptance of deconstructing

Within the context of all these issues, rapid advances in digital scanning and mapping are leading to a **growing acceptance of vessels being broken up**. Stakeholder interviewees acknowledged that not all vessels can (or should be) saved and that, even if the actual vessel is deconstructed, their historic significance may be preserved:

- “What do we want to save? Not all can or should be – and the opportunities around digital recording are now feasible in ways that were impossible 15 years ago”.
- “The experience would be everlasting, even if the original artefact disappears.”

However, there are still cautions:

- “The sector needs to adapt to digital opportunities, but we are kidding ourselves if we think that laser scanning and photographing can substitute for walking around a ship. The connection with the ‘tangible real’ can’t be replaced.”

3.3 The cost of conservation and maintenance

3.3.1 General principles of historic ship conservation and maintenance costs

Each historic ship presents a unique set of problems. This means **conservation strategies need to be tailored to each vessel and the costs of conservation and maintenance vary accordingly.**

However, there are also **some general principles that apply** in determining costs, as discussed in the NHS-UK Conserving Historic Vessels, Vol 2 publication. **Firstly, vessels “will always need regular minor work, then more major maintenance”.** This is true both for vessels with ongoing operational use (which are at risk as a result of contact with water) and for static vessels (which, if kept in the open, are vulnerable to weather-related damage).

Secondly, **regular maintenance is more economical than periods of inadequate maintenance**, resulting in major works:

“ A period of inadequate maintenance followed by major works increases costs and wipes out original fabrics that could have been kept if a vessel had been well maintained. Good maintenance is costly, but lack of maintenance or work done badly is far more expensive. Failures that are noted and then put right at an early stage cost less than leaving them until a later date when the deterioration will be worse.

Thirdly, an evaluation of the Heritage Fund Major Grants further highlighted that the **“temptation to ‘scrape away the rust and patch up’ is unsustainable in the long run”.**

The stakeholder consultation as part of this research confirmed these principles. One interviewee noted that “it’s much more efficient to do £10k of maintenance every year, than to apply for £15 million every 15 years”. Another stakeholder reported that their organisation had taken on a number of ships that have much larger needs because they were neglected or not maintained properly over time: “the longer you leave maintenance costs, the more exponentially they rise”.

However, **high costs mean that owners cannot always do what they know is ‘best’.** One stakeholder highlighted that “in times of austerity, owners can’t afford essential regular maintenance costs from their revenue budgets”. Another reported that their organisation’s “ships are maintained at a standard to ensure watertight integrity, but we don’t have the funds to do a full restoration.” Similarly, another reported that dry docking is only carried out as frequently as is required with coating expiry – every 14 years: “we would love to do it more frequently, but it costs a lot and our charity could not afford to.”

According to NHS-UK, in particular in operational vessels, there is also a **risk of unexpected or unplanned maintenance** that can arise if something breaks whilst in use. This can cause loss of income whilst repairs take place and have an impact on any reserves.

3.3.2 Considering ‘typical’ conservation costs

Attempts to put a figure on ‘typical’ long-term conservation costs are very difficult, as **costs vary widely by the type of vessel, its size, age and condition; as well as by the approach to conservation taken.**

Analysis of the records of NHMF and Heritage Fund funding for ship conservation projects since 2012 provides some identification of likely minimum costs. In considering these, it should be noted that the grant amounts do not simply equate to the total conservation budget. In many cases, the grant amount will be lower than the total conservation budget, accounting for alternative funding sources and the fact that NHMF “can only consider paying the total costs of a project in exceptional circumstances” (NHMF website), while the Heritage Fund grants over £1m require a contribution of at least 10% of the project costs. However, in the case of Heritage Fund funding, where staff and engagement costs are also always included within the grant amount, the grant figure will exceed the actual conservation costs.

The analysis highlights a **considerable range in conservation costs**. NHMF grant amounts for Fishing, Service and Naval & Military/Warship vessels averaged approximately £1m, while grant amounts for Cargo vessels averaged £1.8m (Figure 10). Grant amounts for conservation awarded by the Heritage Fund (

Figure 11) had significantly more variation, ranging from £48,100 for a Cargo vessel, to over £15.1m for a Naval & Military vessel. In summary, these tables indicate that in terms of vessel type, **conservation costs typically range between £100,000 and £2m** – with Naval/ Military vessels the most expensive, and Leisure vessels accounting for the lowest average costs.

Figure 10 NHMF grant amounts to NHF vessels since 2012 (£), by vessel type⁷

Vessel type	Average	Minimum	Maximum
Cargo (based on one grant only)	1,809,500	1,809,500	1,809,500
Service (based on two grants)	802,592	196,415	1,408,768
Naval & Military Vessels / Warships (based on three grants)	1,041,501	916,149	1,110,930
Fishing (based on one grant only)	820,000	820,000	820,000
Passenger	-	-	-
Leisure	-	-	-
Research	-	-	-

Source: The Heritage Fund/ NHMF/ BOP Consulting (2023)

⁷ Note this is based on a total of seven grants to NHF vessels distributed within the period, only.

Figure 11 Heritage Fund grant amounts to individual NHF vessels since 2012⁸, by vessel type (£)

Vessel type	Average	Minimum	Maximum
Cargo	264,068	48,100	914,712
Service	77,743	58,030	90,000
Naval & Military Vessels / Warships	4,359,174	90,600	15,159,745 ⁹
Fishing	335,193	76,300	820,000
Passenger	2,543,550	130,000	4,957,100
Leisure	82,300	65,100	99,500

Source: The Heritage Fund/ NHMF/ BOP Consulting (2023)

Figure 12 and 13 shows the same set of vessels broken down by use at the end of the conservation work. In terms of use, the data shows **past examples of static vessels/ vessels being restored to static use as having considerably higher conservation costs** (in particular static out of water). However, it is important to contextualise this: the vessels restored to static condition have tended to be bigger, more complicated vessels, including the

costly naval vessels identified in Figure 8 and 9. One example of this is the case study of LCT 7074 (Landfall). Returning these types of vessels to operational use would in all likelihood have been even more costly than the presented costs for static conservation. Though the data is not extensive enough to establish this, **our suggestion is that vessel type is the more significant factor than end-use.**¹⁰

Figure 12 NHMF and Heritage Fund grant amounts for individual NHF vessels since 2012 (all vessels), by use (£)

Vessel use/ no of vessels	Average	Minimum	Maximum
Operational + being restored to operational (13)	288,426	65,100	914,712
Static + being restored to static (12)	3,133,579	58,030	16,257,168

Source: The Heritage Fund/ NHMF/ BOP Consulting (2023)

⁸ This excludes a number of grants provided for non-vessel conservation project work. Note that most of the included grants below £100,000 are for limited repair works rather than full conservation., e.g. steel plate works, hull planking, timber bridge.

⁹ Note this is an outlier (for HMS Caroline, of the National Museum of the Royal Navy), with the next highest grant for an individual vessel at £5.4m (LCT 7074, also naval & military, of the NMRN)

¹⁰ This is difficult to prove, given the lack of like for like examples that could be used as comparators of operational vs static conservation costs for the same (or a similar) vessel; however, other contextual insights support the notion that conservation to operational condition is generally considerably more complex and hence more costly.

Figure 13 NHMF and Heritage Fund grant amounts for individual NHF vessels since 2012 (static vessels only), by use (£)

Vessel use/ no of vessels	Average	Minimum	Maximum
Static – in water (8)	3,619,112	58,030	16,257,168
Static – out of water & outdoors (2)	4,068,375	1,844,000	6,292,749
Static – out of water & under cover/ indoors	-	-	-
Static – being restored, end use unclear (2)	256,650	90,000	423,300

Source: The Heritage Fund/ NHMF/ BOP Consulting (2023)

Responses to the survey of ship owners distributed for this research likewise highlighted the huge variations in expected cost for planned conservation, reflecting both how different costs are for different vessels and the huge challenges in estimating these. For conservation work, the average perceived/ expected costs for respondents were reported as between £6.9m for naval & military vessels and £60,000 for leisure vessels.

As reflected by the above grant amounts, the **consulted stakeholders consistently saw conservation costs stretching into the millions of pounds** – no stakeholder had a conservation project under consideration (even for vessels not deemed ‘at risk’) that they could see costing less than £1m. This applied whether they were likely to be conserved for static display or operational use. According to one national museum the ‘true conservation cost’ for larger operational vessels, “would be in the region of £5-

10m”, whilst smaller wooden vessels, “would be a bit cheaper, but no less than £5m to get them back into working order”. However, the interviewees highlighted the **significant cost differences between different conservation pathways**, with one giving a recent example, which highlighted significant cost reductions in preservation compared to restoration to the original condition:

“ In the case of our recent work to the Kyles, we opted for a ‘preservation’ approach. (The ship) had some metal welding added decades ago and some caps were wearing off so we found a skilled contractor to repair it, and the preservation cost was around £60k-70k. Conservation of that vessel would involve removing the welded plate and all the metal, you would need to find somebody to do the work to bring it back to its original condition and it would cost millions of pounds to conserve in the way she was built. And then part of the process would need to be repeated within ten years.

In summary, these findings highlight the challenges of identifying any ‘typical’ costs for conservation. The finding that conservation to static use appears from past data to be more costly, seems counter-intuitive. However, the fact that this mainly includes large, ‘complex’ vessels in fact suggests that the static route was chosen because it would have been even more expensive – prohibitively so – to return these types of vessels to operational use. In addition, the most viable ultimate use of very large vessels (e.g., warships) may be as static visitor attractions, whereas smaller vessels may make better e.g., river cruise attractions.

Both of these factors would have the consequence of static conservation projects being more likely to involve larger, more complex vessels, and thus having average costs that are greater than operational conservation projects: the underlying cause is the type of vessel and public use, rather than static conservation being inherently more expensive than returning ships to operational use.

3.3.3 Considering 'typical' maintenance costs

Maintenance costs equally vary across vessel function, age and size, whether it is in water and whether it is on static display or operating. Survey results suggest that for ongoing maintenance work, average perceived/ expected costs for respondents were between £140,000 for Naval & Military vessels and £16,750 for Service vessels annually. The stakeholders provided further insights into this widely varied picture:

For vessels on water (both operational and non-operational):

- Regular maintenance of vessels on water was suggested to be more difficult and costly than for those on land. One national museum reported spending more (£5-10,000/year) on annual maintenance of vessels which are on land, but that (non-operational) vessels on water then require bigger repairs every couple of years: "We spend less than that on a yearly basis for the ones that are on the water, but then every four to five years we have to bring them out of the water and spend £50-60k on repair".
- Some stakeholders felt smaller wooden sailing and steam vessels could be maintained for c. £5,000 to £20,000 pa. with a

'big spend' of £50k for a full hull repaint every few years. But all vessels will need considerable sums spending periodically – e.g. on woodwork fails or metal rusts.

- Similarly, one consultant felt that £10,000 of maintenance by owners of small operating vessels every year would avoid major restoration costs stretching into the millions.
- The biggest cost factor consists of bringing a vessel out of water for below water line work. But, according to one representative body, even these costs can, with regularity, be kept at less than £100k. This stakeholder suggested that major investments only need to happen every 20 to 25 years. However, as the Helwick case study shows, costs for dry docking have recently risen significantly.

For museums with vessels on static display (out of water), examples of maintenance budgets were:

- One national museum with a diverse collection of arts, transport and natural science objects, which funds maintenance through government grant-in-aid, spends circa £100,000 for the ships in the collection.
- A collection managed within a large arts organisation, with £200,000 in operational costs, including maintenance (funded from the earned income of the museum as a visitor attraction, and the revenue generated from providing engineering consultancy).

It is clear that the **size of vessels impacts on costs**. According to a representative body, there is a rough size gradient: from small

vessels that are within capability even of individual owners through to very large ships, where out-of-water repairs would be completely beyond resources of the group. The collection of the National Museum of the Royal Navy provides a clear example of these variations in size and cost:

- HMS Victory (wood, in a dry dock): £950,000 per year
- HMS Warrior/ HMS Caroline (metal and afloat): £300,000 per year for each vessel (split equally between materials and staff costs)
- Vessels like Coastal Motorboat (timber, in an indoor gallery): £5,000 per year
- In addition, approximately £1m - £1.5m per large, outdoor vessel every 10 years for major capital works, assuming that the vessel has been well maintained in the intervening period.

Independent of the size of the vessel, and whether it is operational or static, **a key challenge lies in the cost of maintenance being very difficult to judge, and often being underestimated** (NHS-UK, Conserving Historic Vessels, Vo. 2). Stakeholders pointed out that it is often almost impossible to establish precisely the condition of a ship's hull before starting to strip away the outer fabric or bringing it out of the water – which presents a major challenge for owners in estimating costs for funding applications.

A number of modern monitoring devices can make maintenance more efficient. However, these high costs of maintenance – as well as conservation – mean that **restoration should not be contemplated without serious consideration of the costs of sustaining work** on the project and “maintaining interest on what

may seem an unending job” (Third International Conference on Technical Aspects of the Preservation of Historic Vessels).

3.3.4 Other costs

By contrast, **costs of deconstructing and digitally recording are becoming cheaper**, at the same time as they are getting more sophisticated. One national museum gave the example of a vessel on the NHF, which could be digitally recorded for £50,000, compared to a £1m+ conservation, which would only retain about 10% of the original fabric.

Other costs, such as community engagement or operational costs were reported by survey respondents as between £1m for passenger vessels and £1,500 for service vessels.

A key challenge lies in accurately estimating these wider costs. According to NHS-UK “historic vessels often struggle with business planning, both in terms of writing a viable plan, accurately forecasting numbers and then adapting it successfully if circumstances change.”

3.4 Key factors impacting on maintenance and conservation standards and costs

The research revealed that standards and costs of vessel conservation and maintenance are being impacted by a number of sector-wide factors and challenges, some of which have already been touched upon in the preceding sections, and which are explored in more detail below.

3.4.1 Availability of facilities/ berths

Facilities **to conserve historic vessels are becoming increasingly difficult to find**, following closure of several docks. This means larger vessels have to travel considerable distances to find affordable, functioning docks for conservation/ maintenance work. This can both increase costs of a project and put vessels at risk. One example of this is the SS Shieldhall, one of the largest operational vessels in the NHF, which had to steam over 150 miles from her home berth before she could find an affordable, functioning dry dock to accommodate her. The case study of the Leader highlights the same issue, with the vessel having travelled from its location in Bangor, Northern Ireland to Gloucester, England for conservation works.

Other dry docks are at risk of loss, making conservation more complex and expensive (NHS-UK, Conserving Historic Vessels, Vol 2). This may be compounded by competition – more widely, there has been a **surge in drydocking demands** following the hiatus of the pandemic and an increase in works sought with an environmental component following new International Maritime Organisation (IMO) rules (Ship repair & Maintenance, 2022, Q4).

One interviewee from a representative organisation underlined these points:

“The other thing lost in the last 30 or 40 years are the facilities, yards, berths for carrying out work [...]. There is nowhere in central London anymore, and the Canal and River Trust is looking to charge huge amounts for docking into West India Dock, for example. This hampers vessels’

ability to earn a living. **But it is not just a London problem – it’s happening all across the UK.** We are losing yards where repairs can be made. Then the knock-on issue is that owners need to move the boat to a yard across the country, with cost and insurance often prohibitive. Steam ships used to have friendly links with yards’ ‘hospital rates’ in slack periods but that capacity has now gone and they are expected to pay full rates.”

The case study of the Helwick illustrates such **prohibitive cost increases and the implications for conservation and maintenance**: cost estimates for dry docking went up more than four-fold since the last time she was taken there (a decade ago), leading to delays in carrying out essential repair and maintenance works.

Similar to the issue of finding appropriate docks, several of the case studies also highlighted the wider **challenge of finding suitable permanent berths for long-term static in water display**. This was highlighted by the case studies of both the John H Amos and the Medusa.

3.4.2 Skills requirements and related challenges

According to a recent report by The Institute of Conservation (Developing a skilled industrial heritage conservation workforce: ‘A plan for action’, 2023), the **skills required to conserve and restore industrial heritage collections are at risk**. The report identified a number of key issues, including the:

— Breadth of knowledge and skills required to practice

- The discipline sits at the junction of conservation, restoration, engineering, maintenance and manufacturing
- Low number of fully trained / qualified conservator-restorers specialising in industrial heritage collections
- High reliance on volunteers, even for the heritage sector
- Lack of formal training opportunities

While all of these issues are of relevance to the historic ships sector, the research drew particular attention to the urgent need for specialist skills and related training offers, the lack of diversity in within the workforce, and the strong reliance on volunteers.

Requirement for specialist skills

Ship conservation and maintenance requires unique, high-level skills, which cannot always be met purely by training volunteers (The Heritage Fund Major Grants Evaluation).

According to one interviewee, especially “larger ships need connection to specialist skills and resources”. Access to the right skills is crucial to maintaining high standards of conservation and maintenance, as another stakeholder explained:

“ The lack of skills can have very bad effects on the fabric of historic ships. If kept afloat by amateurs for long periods, bad practice can develop. Generic handyman skills are not enough if caulking and painting need to be done to high standards.

Already in 2005, the House of Commons publication noted a key challenge in the **disappearing skills and expertise required to**

maintain and preserve historic fleets. A particular gap exists around traditional wooden boatbuilding skills. While modern wooden boatbuilding techniques appear well covered, **traditional wooden boatbuilding skills are dying out**, compounded by a scarcity of training opportunities for specialist skills, difficulties in resourcing raw materials, a shrinking market and the one-off nature of many commissions. As a result, Heritage Craft recently added traditional wooden boatbuilding to its Red List of ‘endangered’ UK crafts, joining other maritime skills such as oar, mast and spar making, rope making, sail making, canal art and boat painting. This is a considerable challenge for historic ship conservation, as “**applying modern repair techniques to older wooden boats can be disastrous**” (RINA Ship & Boat International, Jan/Feb and Jul/Aug 2023). According to one interviewee,

“ There are just no boatbuilding training courses. [...] A shipwright is not a boat builder. They need a tolerance for heritage. You can’t just cut everything, you need to have a love for the heritage. If I employ a boatbuilder straight out of college, they’d rip old bits out: we’re not a ship repair team, we are a conservation team who does ship repair.

In addition, another stakeholder mentioned the **lack of industrial heritage and engineering skills needed for large machines**, including boat engines, “which presents the biggest problem”. This was also highlighted as part of the recent report by The Institute of

Conservation (2023), which argues that the skills to conserve industrial heritage:

“are no longer taught as part of training to produce and operate modern technologies.” They are “outside of what the average conservation qualification currently provides. Not only requires understanding of multiple material types, environmental vulnerabilities, degradation processes and the ethical principles behind decision-making, but scale and complexity of these types of objects often requires more specialist knowledge of how an object was made, how it operated, how it was maintained during its working life and how it can be best protected with minimal resources.”

Recruiting specialist skills from abroad is proving increasingly difficult, due to work permits.

The need for more training opportunities

The sector is well aware of this issue. **However, mainstream apprenticeship opportunities or accredited training usually requires high numbers of students to make a business case**, which can often prove unachievable in what is a specialist sector.

Until recently, there were three key institutions in England teaching traditional boatbuilding skills – International Boatbuilding Training College (IBTC) Lowestoft, the Boat Building Academy in Lyme Regis and IBTC Portsmouth. However, IBTC Portsmouth closed its doors in March 2023, under increasing pressure from rising costs and falling student numbers.

There have been a number of initiatives by NHS-UK and others to address skills development, notably including the Shipshape Heritage Training Partnership programmes 1 and 2, delivered by NHS-UK in partnership with nine heritage organisations ([Shipshape Heritage Training Partnership 2 \(SHTP 2\) | National Historic Ships](#)). Together, both programme periods saw 26 young people aged 18-30 having gained experience and skills related to conservation, operation and maintenance of historic vessels. As a result, NHS-UK is in 2024 introducing a new Traditional Seafarer Certificate and rolling out operational training through a network of delivery providers. In another example, the Pioneer Sailing Trust in Essex has used a Heritage Fund grant to support the set-up of a new apprenticeship training programme, based on the Heritage Engineering Technician apprenticeship.

However, these are all **relatively small-scale, localised offers, which cannot alone address the sector-wide need and its associated challenges.**

Furthermore, even when students are accessing the few existing specialist training provision, there is a **dearth of early career, trainee positions** after they leave education, especially working on bigger boats. As several interviewees pointed out:

— “Once students leave, they have worked mostly on smaller boats of up to 20 feet. It would be useful for them to ‘have a stepping stone’ where they could work on larger boats. [...] Finding the right people who will take on students after their course is a problem. [...] there’s quite a lot of work out there [...] but it’s about finding the people to get them trained up with to then get them out there into the world.”

- “There seem to be limited paid opportunities available for students working on historic vessels, and the assumption from historic vessel owners is that students would be interested in working for ‘the experience’. It is important to get across to younger generations that there is a living to be had.”

Lack of diversity in sector

A further key challenge affecting skills is the **lack of diversity in the Maritime Heritage workforce**. A survey carried out by NHS-UK in 2009 found that diversity was low with regards to:

- Gender: The heritage workforce employs 209,390 people, of which 83% are male.

According to one stakeholder, this is reflected in the uptake of specialist training courses, despite significant investment into marketing and outreach as well as offering bursary support to increase accessibility: “The ratio of men to women is appalling.”

- Ethnicity: Only 5% are from Black, Asian and Minority Ethnic (BAME) groups.

However, the **most pressing concerns for the sector in terms of diversity seems to be with regards to age**. Data from the NHS-UK survey indicated that the profile of those working in the sector was 45+, with difficulties recruiting young people specifically highlighted. 51 responses indicated an ageing workforce and 67% of their employees were aged 45 or over. A recent national opinion poll (NHS-UK survey, 2021) found that only 9% of 16–24-year-olds showed interest in heritage transport. Unsurprisingly then, at a recent participatory exercise and panel discussion, a lack of young

people entering the trade was seen as key challenge (Heritage Crafts Research, 2023). Stakeholders also raised these concerns:

- “There is a generational problem looming: school leavers without the practical skills to take up heritage trades at same time as the existing group is retiring.”
- “The industry faces a significant shortage of skilled individuals due to an ageing workforce, with many boatyards predominantly staffed by individuals aged 50 and above. To address this challenge, it is crucial to focus on training younger individuals, specifically those under the age of 40.”

This issue affects a range of factors, including e.g., ownership (“Older vessel custodians often have no younger successors. This leads to vessels being put up for sale or given away.”, NHS-UK); employees (“For the task of docking, we will need to employ a dock master to support us now, as the collective site knowledge has now gone, since staff have passed away or retired”); and volunteering (“This could also result in the loss of the volunteer base that has been doing the simple regular maintenance work – so that all repair work will need funding as well, and not just the major stuff”).

Also, **secondary education now undervalues practical skills in favour of academic study**, which is an ongoing problem, limiting new and young recruits (Heritage Crafts Traditional Boat Building Report, 2023). Addressing these issues would require extensive trainee recruitment campaigns to reach young people from different backgrounds. This would require time and monetary

investment, which many restoration organisations lack (Shipshape Training Partnership Evaluation).

Stakeholders also noted **financial accessibility as a challenge in increasing diversity within the sector**. One interviewee pointed out that: “the government does not recognise the industry as vocational, therefore it is difficult for [our training college] to be eligible and register for student loans. As a result, we currently don’t engage with schools. Demographically we are surrounded by communities who would not be able to afford the fees. It would be disappointing to stir up a passion in some people, but then there is no affordable route in.”

Coupled with this, **low rates of pay mean that it can be difficult to make it a viable occupation** and there is a lack of support or funding to those who wish to develop these skills. This was highlighted as early as 2005 (House of Commons) but remains a challenge today (The Institute of Conservation, 2023, Developing a skilled industrial heritage conservation workforce: ‘A plan for action’), as also reflected by the stakeholder interviewees:

— “Carpenters working on typical housing projects can earn more than highly skilled boat builders with extensive technical expertise. This discrepancy is unfair, but convincing both customers to invest more in their restorations and boatyards to raise their prices to accommodate higher wages presents a considerable challenge. If you openly state that boat builders aren’t offering competitive pay, it may deter individuals from expressing interest in joining the industry.”

— “Skilled individuals could potentially seek more lucrative opportunities in the commercial sector, even though the work there may be less interesting. The sector relies heavily on people who just have that unchallengeable desire to be involved [...] that sentiment is really powerful.”

Finally, there **are also geographical issues relating to skilled labour**, where only a handful of companies currently have the skills and tender for the larger museum ship conservation projects. If the project is not located near to one of these, the costs rise exponentially and projects are at risk of becoming unviable. As one stakeholder explained:

“ Small organisations don’t have access to riggers and shipwrights, these are rare and expensive to get hold of, so you also need to pay for them to come across the country to work on your ship, pay for their accommodation etc. It’s a very expensive model to do on a small scale. For examples, for riggers, you need three people to do any work legally and safely, but most ships don’t need 2000/hours a year of rigging work, so you have to contract people in, but for a contractor you’ll pay 60-70% more for a short intervention than for employing a FTE (full time equivalent).

The role of volunteers

Volunteers are a crucial part of the operations and maintenance of many vessel owners. Even for a highly successful visitor attraction such as HMS Belfast (300,000 visitors

per year), upkeep remains a constant strain and relies on a team of volunteers (Institute of Marine Engineering, Conserving Warships). In many cases, volunteers are involved in the ongoing maintenance of historic vessels, **helping to reduce maintenance costs**. This is likewise reflected in the case studies in Section 8, many of which rely heavily on volunteers.

For instance, one organisation participating in this research relies on a team of over 80 volunteers, doing “everything from scraping, painting, welding to carpentry: if we didn’t have the volunteers, we wouldn’t be able to look after the ships. [...] We rely on people’s previous knowledge, bolster it, encourage them to learn and teach them to use equipment.” While this organisation’s volunteering team has increased in recent years, other evidence suggests that **volunteering levels have been falling off for a period of time, and more sharply since the Covid pandemic**. According to some of the consulted stakeholders, this is due to a decreasing interest in, and enthusiasm for, historic ships:

- “The sort of people who worked on these ships, then came out of retirement as volunteers, are dying off. We haven’t taught young people how to operate these vessels, so they become less tenable. [...] Young people are not interested because they don’t understand the history. Our industrial heritage is out of sync with what we used to do and what we do now. There is an ongoing narrative of empire and trade which doesn’t resonate in the same way.”
- “Our vast majority of boats has engines, but there are dwindling numbers of volunteers who can work with those engines. The

enthusiasm to work in old marine engines is decreasing [...] There are a lot more train engine enthusiasts. Pre-Covid, we had about 20 volunteers and now we have only nine or ten.”

Moreover, as highlighted in the section above, **volunteers may not always be fully aware of conservation standards and practices**, which carries risk:

“Many volunteers working on industrial heritage collections have a detailed understanding of the materials and methods needed to undertake essential care and maintenance. Indeed, many will also have highly relevant previous knowledge having practiced in fields such as engineering or those focused on traditional craft skills. However, we know that very few of these individuals have practiced as professional conservator-restorers and so lack the detailed understanding of the principles and practices of conservation to effectively inform their actions.” (The Institute of Conservation, 2023, Developing a skilled industrial heritage conservation workforce ‘A plan for action’)

3.4.3 Material requirements and related challenges

There are a number of challenges related to the materials required for appropriate conservation, both in terms of availability and costs (as already mentioned in Section 3.2.2 **Error! Reference source not found.**).

Steel will always be readily available since it is made in every country and is easily recyclable. However, due to its high transport

cost, most steel available in the UK comes from European makers. **Prices fluctuate due to energy costs, political change, and natural disasters.** Most recently, the war in Ukraine has affected price as Ukrainian manufacture has either stopped or been diverted to war effort (Prices for mild steel: MEPS International network). While major buyers will seek dips in the market to buy in bulk, **most ship repairers are at the mercy of volatile price fluctuations** as they buy small quantities at short notice and have no facility to bulk buy and store.

Traditional boatbuilding timbers are getting harder to find.

Teak and teak substitutes are banned for export, as are the virgin pitch pine forests of America. Substitutes such as iroko are in high demand and earn higher prices when sold for high quality furniture. Growers are developing market awareness and tooling up to mill their own timber to realise higher prices, but this means that whole logs and longer lengths of substitute timber such as opepe may not be available in future. **A move to homegrown oak and Scottish grown Siberian larch may be possible but will increase costs.** Availability and costs of timber were also a major concern for interviewees of this research. The most recent piece of research into marine timber was commissioned by the Heritage Fund in 2009 ([Research on Marine Timber, NHS-UK](#)). This is now significantly out of date and could benefit from being revisited.

- “Timber suppliers say that imports of African hardwood such as opepe are drying up. Teak and Iroko is no longer available. Using northern European softwoods which last 5 – 10 years (rather than hardwoods which last 20 – 30 years) is going to

have an effect. Timber supply could be an existential issue for wooden boat repair.”

- “Timber prices were static for many years but have increased hugely since Brexit. [They] are going through the roof. But more worrying is availability. Suppliers [...] say they cannot guarantee logs of opepe anymore. This means more reliance on native varieties [...]. Larch is no longer the product it was – disease resistant varieties do not have the same resilience.”
- “We need sustainable forests that are managed and grown for ship conservation. [...] I desperately need teak for the Gannet, but it’s important that it is ethical. All I get is alternatives, but they are just not good enough quality.”

In addition, **energy costs affect every aspect of ship restoration.** Heating a workshop, lighting a ship’s interior, operating pumps and power tools, getting deliveries, all rely on energy which is purchased from the grid. The winter of 2023 saw unprecedented price rises, which have flattened off but demonstrate the volatility of a market which has been stable for the past 40 years. According to NHS-UK, **rises in fuel costs are a particular issue for operational vessels.**

3.4.4 The impact of climate change

Climate change is a major threat to historic ships (NHS-UK, Climate Change and Maritime Heritage). Historic vessels are made of perishable materials and will therefore suffer from **climate-change related changes to weather.** Weather unpredictability affects working seasons for conservation and

tourism. **Plastic pollution can be detrimental** to ships and smaller vessels (especially for active vessels engaged in fishing trade), while there is also a potential negative indirect impact on historic vessels through **measures designed to fight climate change** (e.g. some renewable energies causing damage, deterioration and corrosion to materials in the sea, including metal; or structures built to protect against climate change negatively affecting the aesthetic appeal of historic vessels in coastal areas).

Views among stakeholders consulted for this research varied as to the challenges of climate change on their organisations.

- One trust saw “environmental issues as one of their top challenges due to increased weather volatility”.
- Another museum felt that, at present, impact was minimal: “It doesn’t directly affect us, but it’s been talked about. The only area is that our flood risk has gone up. When I started out, the risk was that we might be flooded every 250 years, now we can’t get flood insurance. So, there is some concern there, but that would only affect two of our vessels.”
- A third organisation considered climate change as “a big challenge. [...] For instance, rising sea levels have an implication for ships in dry docks; or durable paints are more difficult to find. [...] The report that NHS-UK produced on that topic is very comprehensive in outlining all the issues.”
- The case study of the SS Great Britain also highlighted localised challenges related to climate change – in this case, heightened risk of flooding.

At the same time, historic **vessels also contribute to climate change** (e.g., shipwrecks emitting pollution on the seabed, or historic vessels using fossil fuels), and **efforts to move away from cheap fossil fuels will increase costs in the short term** while new technologies are adopted. The NHS-UK report on Climate Change and Maritime Heritage highlights that **the sector has a key role to play in fighting climate change** by:

- maintaining and sharing unique skills and knowledge (e.g., traditional shipbuilding and maritime craft skills typical to the UK that are sustainable).
- contributing to climate communication, science, research and sail cargo trade, by taking part in plastic and scientific surveys, beach and waterways cleans, carrying out sustainable fishing, or joining the new eco-friendly cargo trader.
- implementing green policies in their operations (e.g., sustainable travel to site, hybrid work policy for staff, reducing waste and using sustainable products for catering and events).
- developing an environmental policy as part of conservation management plans and emergency or disaster plans for occurrence of climate change events.
- aspiring to carbon-neutrality (and where this is not possible due to the integral significance of the craft, carbon offsetting) and ensure capturing and monitoring of carbon footprint.

3.4.5 Key factors affecting the future of historic vessels

Results from the survey of vessel owners conducted for this research highlight what the sector perceives as the most important challenges that will affect their future plans. Survey respondents were first asked to indicate which of the challenges listed they considered as ‘relevant’ for the future of the vessel. As shown in Figure 14, **the most frequently named ‘relevant’ challenges were (1) lack of funds for conservation (72%), (2) lack of funds for ongoing maintenance (70%) and (3) cost of materials and components (65%).** A lack of funds for ad-hoc/unexpected maintenance, a lack of skilled labour, and of succession planning were also mentioned by roughly half the respondents.

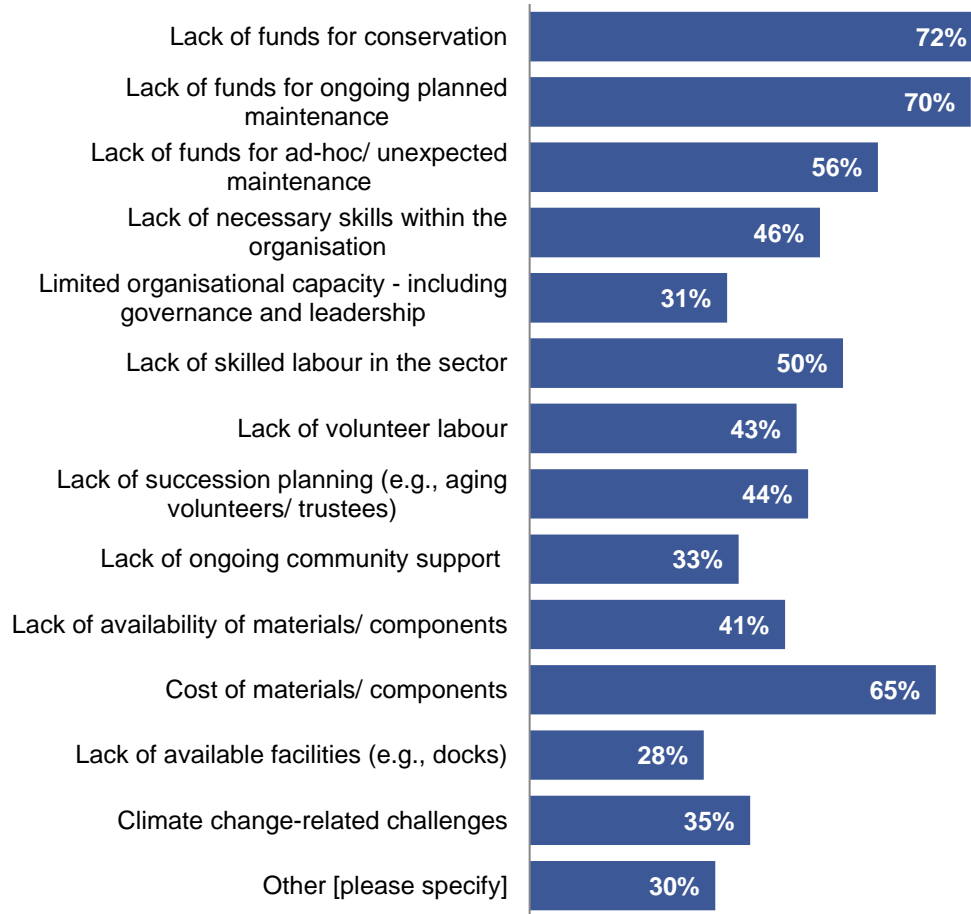
Respondents were then asked to focus on the three challenges they saw as most important. As shown in Figure 15, costs for conservation and maintenance are considered to be the most important challenges faced by vessel owners. These **findings underline the significant demands for funding across the sector.**

— **More than half of all survey respondents mentioned a ‘lack of funds for ongoing planned maintenance’ among the top 3 challenges** in achieving future plans for their vessels.

However, while between two thirds and three quarters of all local authorities, for-profit commercial and not-for-profit organisations considered it a ‘top 3 challenge’, only one quarter of private individuals did so. In terms of vessel function, ongoing maintenance funding was most concerning for Navy & Military Vessels/Warships and Cargo ships.

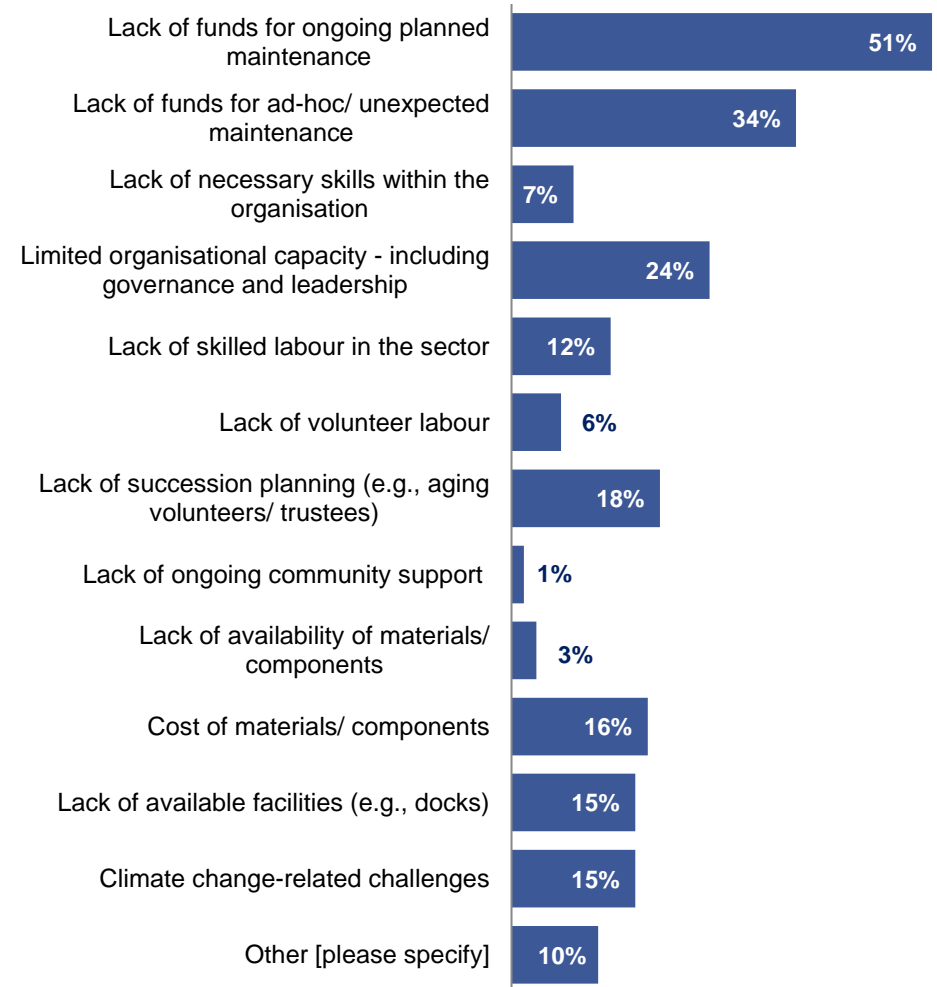
- **42% mentioned ‘lack of funds for conservation’ as one of the top 3 challenges** – particularly for local authority owned vessels (see, for instance, the Cervia case study) and for-profit organisations, as well as Fishing, Passenger and Navy & Military Vessels/Warships.
- **34% ‘considered lack of funds for ad-hoc/unexpected maintenance’ as one of the top 3 challenges** – a factor most relevant for local authority owned vessels and for-profit organisations, as well as Navy & Military Vessels/Warships.

Figure 14: Relevant challenges in achieving future plans for vessels, by percentage of respondents



BOP Consulting (2024) (n=65)

Figure 15: Top challenges in achieving future plans for vessels, by percentage of respondents



BOP Consulting (2024) (n=65)

The next three most important categories were:

- Limited organisational capacity (including governance and leadership) – a top 3 challenge for 24%, many of them from not-for-profit organisations and/or owning cargo vessels;
- Lack of succession planning (including volunteers and trustees) – a top 3 challenge for 18%, and a significant concern for owners of Navy & Military Vessels/Warships; and
- Cost of materials/components – a top 3 challenge for 16%, in particular for private individuals.

As these findings clearly highlight, there is likely to be significant need to raise funds to support owners' plans for their vessels: **of 47 responses received, the majority of 40 respondents (85%) confirmed a need to raise funds.** (including 12 cargo and 12 service vessels). Among these,

- 27 would currently be eligible based on their ownership status, with a further 10 responses from private individuals and three from commercial organisations; and
- there was a relatively even split between static and operational vessels, with 20 currently operational or needing restoration to operational, and 17 static or needing restoration to static.

Asked to tick all key elements they were seeking funds for, the options most selected by respondents were 'significant repair/ replacement of rig or hull fabric' and 'ongoing maintenance work' (each selected by 25 respondents), followed by 'other conservation work (23) – highlighting once more core conservation and maintenance as the biggest areas of need. A

further 18 respondents each anticipated seeking funds for 'unexpected/ ad hoc maintenance work' and 'community engagement activity'.

Fewer respondents anticipated seeking funds for planning purposes (10), developing organisational resilience (9) and vessel adaptation (6). Overall, these figures thus highlight the significant need for support to deal with conservation challenges within the sector, **with only few respondents capable of implementing their plans without raising funds.**

4. Assessing likely future demand for funding

Section 4 considers current evidence in order to build a picture of the likely future demand for funding from the NHMF by the historic ships sector (and in particular those vessels on the NHF), in order to inform the Heritage Fund's and NHMF's thinking around how best to support the sector going forward.

To do so, it is instructive to first review the pattern of support from NHMF and the Heritage Fund to vessels on the NHF over recent years. The section then goes on to consider what available information tells us about the likely future demand for support to NHMF, and what impact this may have on the funders.

This section responds to the following research questions:

- What has been the pattern of support from NHMF and Heritage Fund to the fleet over the recent years?
- What evidence is there as to the long-term threats to the NHF, including how many vessels could be at risk of loss, and how could our organisation account for these in our policy and decision making?
- What is the likely future demand to the NHMF for emergency support from vessels that are on the National Historic Fleet?

4.1 NHMF/ Heritage Fund funding for the NHF

4.1.1 Total funding since 2012

Since 2012, the Heritage Fund has awarded extensive funding for historic ships through both the NHMF and the Heritage Fund.

In total, £7.5m was awarded over this period through the NHMF (see

Figure 16) and £63m through the Heritage Fund (including £25m for the National Museum of the Royal Navy and £15m for Hull City Council Maritime Quarter).

Reflecting NHMF’s funding principles, **almost all NHMF funding (£7.4m, 98%) went to vessels on the NHF** – the only exception was for the Steamship Freshspring in 2016.¹¹

The wider remit of the Heritage Fund means that many organisations with vessels that are not on the NHF can receive funding. Even so, **just over half of the Heritage Fund’s funding in the 10-year period (£34.4) went to vessels on the NHF.**

Figure 16 No of vessels and amounts awarded by NHMF and the Heritage Fund since 2012

Register type	NHMF no. of vessels	NHMF value of awards	Heritage Fund no. of vessels	Heritage Fund value of awards
NHF	7	£7,359,185	11	£34,396,603
Wider NHS-UK Register / not on registers	1	£155,000	38 organisations (no of vessels unknown)	£29,730,466
Total	8	£7,514,185	unknown	£62,622,069

Source: NHS-UK/ BOP Consulting (2023)

4.1.2 NHMF approaches and distribution patterns since 2012

The process of applying and receiving funding through NHMF is different to that of the Heritage Fund, with owners of nationally significant heritage, which is at serious risk of loss, encouraged, in the first place, to approach NHMF about their circumstances and need, before formal application begins. In the period since 2012, NHMF received a **total of 17 approaches** for funding from historic ships, **eight of which were supported**. Fifteen of the approaches were for vessels on the NHF (including two vessels which made two approaches each), with seven funded.

¹¹ In this particular case, NHS-UK confirmed that Freshspring met the standards to be included on the NHF prior to the application.

There has been a **noticeable increase in the number of approaches to NHMF from owners of historic vessel** in recent years: in the last three years NHMF has received eight approaches – nearly half of the total number received over the whole of the period since 2012. In 2022/23 alone, seven approaches were made. This has corresponded with an increase in funding distributed: of the total funding distributed by NHMF since 2012, **over 70% – £5.35m – has been awarded in the last three years**. NHMF was able to provide funding for five of the eight vessels to come forward in the last three years, maintaining a rough 50% success rate for historic vessels, in line with the period since 2012. But it is doubtful whether level of success could continue if demand remains so high.

4.1.3 Types of NHF vessels supported

The 15 approaches to NHMF from vessels on the National Historic Fleet related to 13 separate ships, of which seven were funded. Across these 13, there was a **reasonable balance in terms of vessel function** (with the largest group made up of Naval vessels) **and vessel ownership** (see

Figure 17-19). Of the six cases which were withdrawn or rejected, three were from private owners, who were ineligible for NHMF funding. Noticeably, however, **there is a predominance of static versus operational vessels** among both the approaches and grantees. The notion of ‘balance’ in terms of vessels funded is further discussed in Section 4.2.4.

Figure 17 Breakdown of NHF vessel approaches to NHMF (of a total of 13 approaches and 7 funded vessels), by vessel function

Vessel function	Approaches	Funded
Naval	6	3
Service	4	2
Cargo	2	1
Fishing	1	1

Source: NHS-UK/ BOP Consulting (2023)

Figure 18 Breakdown of NHF vessel approaches to NHMF (of a total of 13 approaches and 7 funded vessels), by vessel ownership

Vessel ownership	Approaches	Funded
Managed by trusts	6	4
Managed by museums	5	3
Privately owned	2	0

Source: NHS-UK/ BOP Consulting (2023)

Figure 19 Breakdown of NHF vessel approaches to NHMF (of a total of 13 approaches and 7 funded vessels), by vessel use

Vessel use	Approaches	Funded
Vessels used as/ intended for static display following restoration	10	5
Vessels used as or intended for operational use following restoration	3	2

Source: NHS-UK/ BOP Consulting (2023)

4.1.4 Recipients of both NHMF and Heritage Fund funding

Looking back as far as its inception in 1982, **roughly half of the vessels funded by NHMF have received ‘emergency’ NHMF funding, and then subsequent Heritage Fund funding as well:** in total, this applies to 14 vessels out of the 28 NHMF has funded in total (across 47 separate grants), suggesting that this trajectory is not uncommon. This is instructive to note, given the different roles of both funders, with NHMF focusing on supporting urgent ‘at risk’ heritage, and the Heritage Fund typically funding longer-term projects.

Overall, **six vessels received NHMF grants before the advent of the National Lottery in 1994 and have had Lottery funding since:** Cutty Sark, the Tall Ship Glenlee, HMS Gannet, HMS Warrior, Mary Rose and Trincomalee. Glenlee received a further NHMF grant in 2022.

Another eight organisations have received both NHMF and Heritage Fund funding since the inception of the National Lottery in 1994. Of these, **five follow a pattern of initial NHMF grants followed by subsequent Heritage Fund projects:** HMS Caroline, HMS Cavalier, LCT 7074, Steamship Freshspring and Windemere Jetty Museum.

In the remaining three cases, however, the pattern is different:

- The NHMF grants received by HMS Unicorn and RSS Discovery are much bigger, and more recent, than their

Heritage Fund funding to date. It is notable that both of these large NHMF grants have been recent, so further follow-on Heritage Fund applications may be anticipated.

- SS Great Britain has received a whole series of Heritage Fund grants since two early NHMF projects in the 1990s.

4.2 Assessing the likely future funding demand from the NHF

4.2.1 Review of existing data on ‘risk’ among the NHF

There is anecdotal evidence, through NHS-UK and the interviews and survey undertaken for this research, that the pressures on the maritime heritage sector means that new applications to NHMF or the Heritage Fund are being prepared. It is therefore **important to gain a sense of the potential scale of this demand**, in order to enable to plan ahead and decide how best to approach the influx of applications over the coming years.

As a starting point, the **set of 32 vessels listed on NHF as ‘under or needing restoration’** as outlined in Section 2.1.3 provides a high-level indication of the scale of need among the NHF, and thus the potential demand for NHMF support. Whilst this figure includes those that are ineligible under their current ownership status, it is on the other hand unlikely to catch all NHF vessels that may require conservation and/or be planning an application in the near future.

A further in-depth step towards an **assessment of need was recently made by NHS-UK**, which undertook a survey of owners

of vessels on the NHF in the summer of 2023. The survey was sent to all NHF vessel owners and asked them to self-assess the condition of their vessel, from ‘excellent’ to ‘at risk’. It received responses from 87 owners (44%). This fed into a wider strategic assessment process, undertaken based on a mix of information from a survey of NHF vessel owners, 1-1 conversations, data on file and online information. Drawing on this information, a final Red-Amber-Green (RAG) rating was given to all vessels on the NHF based on a set of criteria, which combined heritage management, vessel condition, governance, business planning, community outreach and any other relevant external factors creating a threat or opportunity, e.g., uncertainty around moorings / berths or restoration plans in place.

Overall, the 2023 rapid review exercise **gave 22 vessels** (11% of the overall 197 on the NHF) **a red rating on the overall assessment** (see Figure 20). A larger number, **29 vessels (15%) were deemed to be in a ‘poor or at risk condition’**, but some of these were not ‘red-rated’ overall, since governance, business plans or external factors were felt to be likely to secure the vessel’s future. These vessels overlap to a certain extent with those already known to be ‘under or in need of restoration’ on the NHS-UK website, with 16 of the 29 and 12 of the 22 falling in that category.

In addition to these ‘red-rated’ vessels, **a further 24 (12%) were put on a ‘watch’ amber rating** across all criteria, making it not unlikely that they, too, may plan an application (see Figure 20).

Furthermore, there is also a large ‘unknown’ factor here, with a further 18 vessels (10%), for which the current condition is unknown due to lack of direct feedback from the owners, meaning that some of these vessels could be in a poorer condition than it’s been possible to understand.

Figure 20 NHF vessel grading through the NHS-UK Internal Risk Assessment (no. of vessels)

RAG rating	Condition criterion	Overall across all criteria
Green	93 (47%)	150 (76%)
Amber	56 (28%)	24 (12%)
Red	29 (15%)	22 (11%)
Unknown	18 (10%)	1 (0.5%)
Total NHF	197	197

Source: NHS-UK/ BOP Consulting (2023)

4.2.2 Summary identification of a ‘Priority65’ set of vessels at risk

To summarise the findings detailed above, this section presents a **headline calculation of the number of vessels which at present appear most likely to require** funding in the coming years, for the purpose of gaining a sense of the volume of likely demand on the NHMF (and the Heritage Fund).

Total vessels most likely to require conservation

22 vessels that are ‘red-rated’ overall AND for condition
 + 9 further vessels that are ‘red-rated’ for condition only
 + 32 recorded on the NHS-UK website as needing restoration
 - 16 of those, that are already included in the above ‘risk’ lists
= 47 individual vessels requiring restoration
 + 18 vessels, for which the current condition is unknown¹²
= 65 individual vessels requiring or potentially requiring restoration

This list is a useful tool to consider potential extent of demand for funding in the next couple of years; however, it is likely to shift and change somewhat, with some vessels moving off or into ‘risk’ status as time goes by. We therefore suggest that **it would be advisable for NHMF and the Heritage Fund to consider jointly with NHS-UK how an active ‘watch list’ based on the above could be maintained going forward.**

The makeup of the Priority65 list

Of the 65 vessels on the list, **34 are owned by trusts, museums and local authorities and therefore eligible for NHMF funding now.** The remaining 31 are privately owned and as such ineligible; however, some may convert ownership status to become eligible. Indicatively, of 21 respondents to the survey undertaken for this

¹² While overall assessment of these by NHS-UK was green in all cases, the lack of information on current condition makes them potential contenders.

research who are currently private individuals or for-profit commercial organisations, two reported that they were considering a change in ownership status to 'trust' to support their plans, and one to CIC, with a fourth as yet undecided.

In terms of function, the two groups most represented on the list are cargo and service vessels (26% and 28% respectively). By far the largest proportion (72%) are vessels built between 1900 and 1945, with most of the remainder (25%) built in the 19th century.

Half of the vessels on the list are currently recorded as 'needing restoration' to either operational, static or as yet unclear intended use.¹³ The remainder are fairly evenly split between operational vessels (20%) and slightly more static vessels (28%), in addition to 2 (3%) houseboats.

This relatively even balance across use, function and ownership is a significant finding, and **suggests that both NHMF and the Heritage Fund should aim to match and maintain the same evenness** in funding over time.

4.2.3 Considering the potential demand for NHMF funding

Using the above data on scale of risk, we can attempt a rough estimated forecast of likely funding application amounts that could come into NHMF (or in some cases potentially the Heritage Fund) in the coming years.

As outlined in Section 2.3.2, our literature review and stakeholder interviews have repeatedly highlighted the huge variations in maintenance and conservation costs among vessels, depending on a variety of factors, as well as the significant challenges in accurately estimating these costs. Reflecting this, our analysis of NHMF grant amounts since 2012 by vessel type similarly revealed a significant range, from around £800,000 to £1.8m. This range is hugely extended when factoring in the Heritage Fund grant amounts, ranging from around £60,000 to around £15m (for one vessel, the next highest was at £5m). This makes it **impossible to provide an accurate basis for estimating the size of potential future grant applications** to NHMF.

However, as a 'thought experiment', **we have calculated potential funding demand with an assumption of £1m per vessel**. This is based on our analysis of costs for conservation as reflected by the size of past NHMF and Heritage Fund grants (Section 3), which saw an average across all vessels included in the analysis of £1.59m, reducing to £640,000 when excluding Naval/ Military vessels.

Assuming £1m per vessel and considering the 65 identified vessels currently most at risk, thus, **the total size of potential future grant applications could, very roughly, lie between £25m and £50m** (on the basis, at the lowest end, of 26 vessels

¹³ It is not unlikely that some of the red-rated vessels may end up being recorded and deconstructed, rather than conserved, potentially requiring funding support to do so.

requiring restoration¹⁴ and owned by public bodies, trusts, museums, CICs, etc. at the moment; and at the highest end, considering the full 65 vessels requiring or potentially requiring restoration, as well as the fact that 31 of these are not currently eligible).

However, it is worth bearing in mind that a **further 24 vessels are rated on a 'watch' amber rating across all criteria**. While considered requiring less immediately urgent restoration, they nevertheless are in a condition that may require attention over the coming years. Adding those – including those owned by private owners, who may consider a change in ownership status to become eligible for funding – would bring the list to 71 vessels that may come forward for funding in the coming years.

In addition, there are a further 1,300 historic vessels that are not on the NHF. Given the outstanding work needed to complete the review of NHF register, it seems fair to consider that **some vessels on the wider register could make a serious claim to be of national significance**, and therefore suitable for NHMF funding. The lifeboats review by NHS-UK has, for example, already indicated that there are vessels on the wider register that deserve to be on the NHF, and vice versa.

Further insights into likely approaching funding applications is provided by the analysis of the survey undertaken for this research. Among other things, respondents (25 of which are also represented in the 'Priority 65' list identified in Section 4.2.2.) were

asked whether they were planning an application to NHMF or Heritage Fund over the next 10 years. The results show that among the 67 survey respondents,

- **25 reported planning an application to NHMF in the next two years** (including 13 in 2024 and 8 in 2025, with the remainder further down the line). However, six of these would be ineligible given their current ownership status (5 private, 1 commercial). Intended funding amounts vary considerably, but with a majority at the more modest end of the spectrum, compared to past NHMF grant sums:
 - 10 are planning applications of up to £100,000; seven are planning applications of £100,000-£500,000; one an application between £500,000 and £1m; and three are planning applications of more than £1m.
- a total of **42 are planning an application to Heritage Fund in the next two years** (including 18 in 2024 and 10 in 2025, with the remainder further down the line). Of these, 7 are private individuals and 1 commercial. Among the 18 planning an application in 2024, 12 also indicated planning an NHMF application in the same year.
 - eight are planning applications of up to £100,000; four are planning applications of £100,000-£500,000; one an

¹⁴ This includes all those that are either listed as 'needing restoration' on the NHS-UK website and/or red-rated for current condition and/or overall assessment.

application between £500,000 and £1m; and five are planning applications of more than £1m.

In summary, the survey responses confirm that **from the 67 survey respondents alone, NHMF may be approached for three grants of over £1m and Heritage Fund for five grants of over £1m in the next two years alone** (by seven applicants, one of which is a private individual and one a for profit commercial organisation), in addition to a number of smaller grant applications – how this compares with the funds’ track records is considered in the following section.

Whilst these figures may suggest that funding demand over the coming years may be lower than the above estimated £25-£50m, as many survey respondents are planning applications of considerably less than £1m, it is worth bearing in mind that this includes responses from only 25 vessels that are included in the list of 65 vessels identified as currently at risk (and there may be further potential applicants beyond this¹⁵). Anecdotally, we know from interviews undertaken for the research that owners of other vessels not on the list of 65 ‘at risk’ vessels nor among the survey respondents, may also come forward for funding applications over the coming years.

Whilst this makes it difficult to conclude more firmly how the survey responses support the potential costs estimated above, it does confirm a significant number of substantial grant approaches being made in the next two years, with more likely to be in planning from

other vessels or for 2026 onwards. **The NHS-UK risk assessment and the survey responses thus provide two independent sources of evidence about potential demand – with each supporting the conclusion that the Heritage Fund and NHMF are likely to face substantial calls to support ship conservation projects in the next five years.**

4.2.4 A need to prioritise funding and consider the wider context of the sector in future grant application assessments

With this in mind, it is instructive to set the rough estimated figure of £25m-£50m against NHMF’s and Heritage Fund’s track record of funding over the past 10 years: **between 2012 and 2022**, NHMF distributed a total amount of £7.5m to historic vessels; **considerably less than it might be approached for in the next ten years**, based on the above calculation.

As indicated by the survey, some of the expected applicants may go to the Heritage Fund, which distributed £63m between 2012 and 2022. However, excluding the two cases with the highest level of funding, £25m (in total) for the National Museum of the Royal Navy and £15m for Hull City Council Maritime Quarter, this leaves only £23m distributed by Heritage Fund to all other historic vessel projects in the time period.

These figures thus strongly indicate that it is **unlikely that NHMF will be able to support all grant applications** by NHF vessels in

¹⁵ Indeed, of the 25 survey respondents reportedly planning an application, not all were represented on the Priority65 list developed for this report.

the coming years, **or be able to allocate enough funding to address all of the ‘at risk’ need** within the sector. This creates a risk that – even with a robust system of assessment in place – reviewing applications singly, as and when they arrive, will lead to a less optimal overall investment record over the years. Some form of prioritisation will thus be necessary. This highlights the **importance of considering the shape and needs of the sector as a whole and taking stock of the priorities for investment** across the NHF in a more systematic way, to enable the NHMF (and, more broadly, Heritage Fund funding) to take decisions based on a clear overview of how individual vessel applications fit within the overall needs of the sector.

Beyond considering total potential amounts of likely funding applications, **comparison of the various lists discussed above also provides some further insights** useful for future planning:

- Breakdown by function on the Priority65 list indicates that the vessel function categories seeing the highest need are cargo and service. In contrast, the track record of NHMF applications shows that the largest group of applicants and grantees were naval/ military vessels. This most likely reflects ownership structures among vessel functions, with e.g., naval vessels more likely to be owned by trusts or museums than privately owned (as seen above).
- NHS-UK ‘red’-rated vessels are predominantly static. This matches with the pattern of NHMF funding, which has tended to prioritise static vessels (which are mostly in museum or trust ownership). In contrast, however, individual vessels recorded as

‘under or in need of conservation’ as well as the Priority65 list show a greater need amongst operational vessels.

- Consideration of ownership highlights the high level of private ownership on the Priority65 list. Inevitably, privately owned vessels however make up only a tiny fraction of those who have applied for and received funding from NHMF.

If current need for restoration and ‘red’ rating is any indication of the past 10 years, **this comparison suggests that past funding – whilst clearly having gone to individual vessels in need – has not in all cases reflected current need across function, ownership and use (or necessarily the NHF as a whole).** While these categories cannot be the only grounds for grading applications – clearly, heritage value, risk level and other factors are of key importance – **there is an argument for ensuring these categories are considered**, to ensure a certain balance across vessel function, to ensure survival of representative and historically important vessels across all categories. This therefore further highlights the importance of considering the sector as a whole in assessing future applications from historic vessels.

To this end, BOP and Raybel Charters have developed more detailed and sector-specific assessment guidance to support the grant application review process, including the suggested **introduction of guidance to consider how funding decisions will impact balance within the NHF** (see Section 6).

5. Sector representatives' views on sector policy and support priorities

Lastly, stakeholders gave feedback on the priorities they saw for NHS-UK, NHMF and the Heritage Fund in the face of the various threats and challenges identified in Sections 2 to 4. This feedback is brought together below and is further built on in Sections 6 and 7.

This section responds to the following research questions:

- How could our organisation account for the identified long-term threats in our policy and decision making?

5.1 Updating and maintaining the registers

There is a widespread sense that the NHS-UK registers – particularly the NHF – play an important role in guiding investment, through identifying vessels of most significance, and that the NHS-UK Registers Review therefore needs (rapid) completion. Moreover, **there was strong feedback that the NHF then has to be maintained and amended regularly**, as vessel condition and understanding of significance changes over time. The NHS-UK Rapid Risk Review has added excellent additional data to the 'condition category' of the NHF set, and this was seen as important in identifying vessels in most need.

- “ NHS-UK needs to be continuously assessing the registers and should be incorporating contextual

thinking about our understanding of significance is changing, in its decisions. (stakeholder interview)

- “ NHS-UK needs to press ahead with reviews of the registers and keep on top of these over time – the NHF needs to be a dynamic, changing record over time ... (currently) it's an over-simplification of 'greatest significance'. Some vessels will be removed as they are deconstructed, others are 'emergent' and to be added. NHS-UK needs to manage this as proactively as they possibly can, within admittedly limited resources. This cannot just rely on desk work but involve visits to see things. There needs to be balance and range across the registers and recognition of significance of all types of vessels. Lifeboats are hugely popular, but standard work boats need saving too! Need to recognise that heritage is in the continuous process of being 'created' and thought given to what we want to save as a continuous process over time. What from today do we want in 100 years? (stakeholder interview)

Some of this was connected to points about the dual role of NHS-UK in providing advice to applicants and commentary to the Heritage Fund.

- “ Need to get real around those registers. NHS-UK needs to get more hard-nosed, there is not a lot of money around. Need to focus on what is genuinely important. Needs to square the circle between giving advice and

assessing those, politically it becomes very difficult to give that advice to not fund things. Ideally there needs to be division of the branches giving advice vs. those of assessing. (stakeholder interview)

However, there was also some concern that reducing the number of vessels on the NHF was too simplistic. Rather, one organisation saw a need for NHMF to be prepared to look beyond the NHF:

“ Don't rely on the NHF – it is out of date and technical differences between some types of vessel on/off it are marginal (e.g., barges). What if community support is stronger for a vessel on the wider register? Vessels should be offered funding on merit – including community impact and long-term sustainability – not just because they are on the NHF. (stakeholder interview)

5.2 The need for timely and regular investment

The regularity of repairs for ships – even those in static display, but particularly those in operational use – came up consistently. It was **strongly felt that the Heritage Fund needs to recognise that an initial investment in conserving a vessel will need to be followed by periodic future investment.** This is a recognition of an ongoing investment relationship with both a vessel itself, but also with the organisation that is responsible for managing it and making it publicly accessible. One survey respondent described a need for “recognition of the cyclical nature of vessel repair and recurring major capital costs and the lack of other funding available”, while another called for “specific funding for small one-

of items which are outside specific project needs”. Volunteers and small grants can and should cover basic year-on-year maintenance, but it is inevitable that more substantial work – out of water repairs most notably – is beyond the capacity not only of small community groups to raise, but even large national museums. Stakeholders suggested that this **long-term thinking needs to be built into policies and assessment systems.**

“ The ideal would be small grants to keep on top of repairs, and a bigger grant every few years for major below water line stuff. Instead ... the system makes us wait until massive repair is needed. Then go in for huge grant of £500k to £2m. (stakeholder interview)

“ Need to consider plans for future maintenance needs. Need to think: where will these vessels be in 20 years' time? Don't just look at the cutting of the ribbon, but the planning process of how the vessel will be maintained and how any bigger maintenance costs in 20 years' time will be covered, has to happen as part of the process, e.g. org needs to be able to put aside reserves for future maintenance. (stakeholder interview)

Repeat funding was seen as providing the Heritage Fund and NHS-UK with the advantage of being able to re-assess an organisation's progress and quality of delivery. In this context, stakeholders highlighted the importance of assessing financial sustainability of projects/ vessels, including through review of past funding records:

“ There must be a way of assessing the track record of delivery, there needs to be much more onus on whether it's sustainable and value for money: e.g., when they previously applied for a major grant, how did they deliver the business plan? The management plans? (stakeholder interview)

“ There are some vessels that receive funding, where sustainability is not built into the project – both in terms of financial sustainability, but also state of vessel: what condition will it end up in after restoration for the future? NHMF/the Heritage Fund should consider this in assessing applications: Need to save the ones that are important, unique, but also the ones who will be financially sustainable for the long term. Need to define and assess the community of support: some generate a large community of support, but this often wanes once the vessel is saved (or during the process) – funders ... think about developing some ways of measuring if the community of support is long term. (stakeholder interview)

Stakeholders here also pointed to a possible alternative to regular funding in the shape of providing organisations with endowments. However, endowments were not mentioned by a large number of respondents unprompted.

“ In order to reach a level of sustainability, they need to focus on endowments; they've got to do something to change the model. (stakeholder interview)

5.3 Investing in organisations' visions and organisational capacity

Some stakeholders felt a level of ongoing operational funding is essential for groups to be viable, as well as support for periodic maintenance.

A strong case was made that the Heritage Fund and NHS-UK need to understand how a vessel fits within an organisation's overall purpose and vision. Inevitably, this varies widely across the sector, from museums where vessels can be just one object (albeit often very large) within a big collection, to sailing trusts with a single ship and a strong social purpose.

“ If the Heritage Fund wants to strategically invest in 'at risk' vessels, it will need to set up a ringfenced budget – in the case of museums with multiple, varied objects in the collection, it is very unlikely that a single ship will be seen as offering a value-for-money case for a funding bid. Our museum's approach to large funding bids is that they must be transformative for the organisation; a catalyst to new work or a new way of presenting the collection or engaging people. (stakeholder interview)

“ Life experience projects and sail training has been hugely successful for a century now in changing lives of

all ages / genders with great personal development benefits. But it needs funding if it is to be inclusive – charging at cost is expensive. (stakeholder interview)

To support this, effectively, several survey respondents also called alongside project funding, for **support for operational costs** (one for example mentioned community development projects) **and to develop and enable improved organisational capacity**.

5.4 Accepting loss

The growing acceptance of ‘loss’ within the sector means that the sector will most likely become more understanding of cases where NHS-UK and NHMF/ the Heritage Fund decline to ‘save’ a vessel – **so long as there is funding available for alternatives to full conservation such as e.g. retaining as relics, digital recording, and/or, if possible, to allow for finding a new creative use for the vessel structure**.

- “ We just decommissioned a vessel that was restored only 15 years ago by someone else, but which can’t be saved. (stakeholder interview)
- “ Important task here is prioritisation and role of NHS-UK/ the Heritage Fund in doing the strategic work...What do we want to save? Not all can or should be – and the opportunities around digital recording are now feasible in ways that were impossible 15 years ago. (stakeholder interview)

“ In Finland, there is a historic ship that has been put into a dry dock and opened it to all in a public area. Fears that it would be vandalised have not been realised, and it’s a popular spot. This makes the ship a feature of the community rather than a tourist attraction behind a paywall. (stakeholder interview)

5.5 Training and workforce

The **need to invest in training and workforce came up repeatedly** in interviews as well as within the open survey responses. Stakeholders highlighted the **need for additional training offers**, with suggestions ranging from the creation of a new skills provider, to support for traineeships or apprenticeships – with one suggesting the inclusion of training roles within funded projects – to wider upskilling/ skills training “in theory and practice” (survey respondent) for conservation and heritage staff.

- “ In Denmark and most European countries, there are vocational colleges, which include shipbuilding as a trade...It is essential that the UK develops a proper vocational training offer in historic ship repair. The lack of skills can have very bad effects on the fabric of historic ships. If kept afloat by amateurs for long periods, bad practice can develop. Generic handyman skills are not enough if caulking and painting need to be done to high standards. (stakeholder interview)
- “ Working with other organisations to establish a centre of excellence for industrial heritage conservation training

leading to real skills and qualifications. (survey respondent)

- “ Help us facilitate affordable trainees/apprentices to help with ongoing preservation works. (survey respondent)
- “ Funding for skills training would be very useful, both to attract new recruits to the sector, and to support them in moving on to develop their skills. (survey respondent)
- “ Creating a role to go alongside with the project – e.g., funding in an apprenticeship. When we do XX, we might give her to a boatbuilding college, where apprentices can work on her, and the funding goes towards both the vessel, and to increasing skills. (stakeholder interview)

A few also suggested an approach to ‘store’ skills and knowledge to ensure they do not get lost, e.g., by creating a “repository of artisanal heritage skills” (survey respondent).

One stakeholder furthermore highlighted the need to improve technical skills, but also the **importance among skilled workpeople working on historic vessels of understanding their heritage value**¹⁶:

- “ I need people who are skilled – but they (also) need a tolerance for heritage. They can’t just cut everything;

they need to have a love for the heritage. [They need to understand that they] are not a ship repair team, but a conservation team who does ship repair. (stakeholder interview)

Comments highlighted that the issues around skills training and availability are **not just a matter of funding, but as much about the co-ordination and advocacy roles that NHMF and NHS-UK can play – one stakeholder suggested a “feeling there needs to be a national strategy almost to deal with skills in this sector”** (stakeholder interview).

- “ Funders don’t appreciate the challenges of assembling a workforce. An organisation that could do the admin – such as a sector skills organisation – would be appreciated. (stakeholder interview)
- “ (NHS-UK) could support certain skills for larger vessels, e.g., encouraging marine contractors to develop the skills that are also necessary for vessel conservation (stakeholder interview)

Crucially, however, as one survey respondent pointed out, training **needs to be linked up with employment opportunities**: “knowledge is only part of the issue – if there are no funds for the

¹⁶ This relates to the NHS-UK course in Historic Vessel Conservation, which is intended to provide specialist knowledge around ship conservation principles, along with basic practical skills.

newly trained people to be employed in the sector, they will not see the training as an attractive career prospect.”

In this context, several stakeholders also mentioned the huge value of volunteers, and the **need to amass and develop relevant volunteer skills**, suggesting e.g., funding support to develop volunteer skills or skills-sharing programmes including for long-term volunteers. One survey respondent here suggested the notion of a “national bank of volunteers who have specific skills who could be called on to work on different vessels or projects.”

And skills are not only about technical conservation work; there was an acknowledgement that maritime heritage is now predominantly a community sector (certainly outside of those private owners able to maintain vessels for their own private use), **and that all members of a project team need to be aware of this and be able to contribute to community activities**, assist with training and be open to talking about and share knowledge about the work they are undertaking, for different groups of people and audience.

5.6 Co-operation and knowledge sharing

There was an emerging theme in some interviews that the scarcity of skills and the difficulties of assembling teams means that the **sector needs to share and co-operate more**, and that both

NHS-UK and NHMF could help develop initiatives to help with this.¹⁷

- “ Knowledge sharing in terms of best practice, lesson learnt... (survey respondent)
- “ NHS-UK is doing well with their Big Ships Forum¹⁸ etc, it's a well- connected sector. I can have really good conversations, and that is amazing, but they always need to be championed, pushed. We need to create an open forum and express our concerns. Need to be honest about what we've got, about our problems, and help each other. We all have the same problems! (stakeholder interview)

In this context, the value of ‘**economies of scale**’ were **highlighted for places with more than one vessel**, compared to having to engage people with specialist skills for one vessel, only.

- “ XXX and YYY are run by different local groups who don't communicate or cooperate ... creating a small yard in a functioning harbour could justify getting more ships. (stakeholder interview)

¹⁷ This ties in with the existing Shipshape Network managed by NHS-UK, which seeks to connect the sector through eight zones and over 80 maritime heritage projects.

¹⁸ The Big Ships Forum brings together the larger static museum ships across the UK in a virtual bi-annual session hosted by NHS-UK. One of the proposals at the most recent meetings was for labour sharing and staff project placements across forum members.

“ Small organisations don't have access to riggers and shipwrights, these are rare, expensive to get hold of, so you also need to pay for them to come across the country to work on your ship, pay accommodation etc. – it's a very expensive model to do on a small scale. We have created a critical mass of ships: There is a real benefit of economies of scale. (stakeholder interview)

Previous funding has enabled some organisations to build up skills that could be tapped into by smaller groups. Furthermore, this **sharing of skills could be self-supporting, by providing income** for some organisations as they help others.

“ We mainly received capital funding (to build up the facilities for training work), with a very small amount of revenue funding, but the funding was used to build up the financial sustainability of the organisation (by having trained people onsite who can take care of the maintenance of the vessels). Also, Dundee currently has some Lottery funding (from the Heritage Fund) and we work with them, helping them to improve their training/skills – the capital grant has allowed us to deliver services to the industry. (stakeholder interview)

“ A portfolio of several, varied projects has allowed us to develop a high level of competence in maritime heritage conservation, which is now in demand from other museums and groups. This has created a new income stream. (stakeholder interview)

5.7 Sector advice/ guidance

Related to the above, several stakeholders and survey respondents alluded to a **wish for more, and more standardised, sector-wide guidance** on specific elements related to historic vessels, either in the form of a consulting 'team of experts' and/or in the form of guidance information or documentation. Suggestions included:

“ There needs to be a team of experts that can be called on, can be brought in about things. Not employed, but...that [if work needs] to be done, to have a pool of knowledge. A hive mind! You don't always know who the best persons to contact are. (survey respondent)

“ There should be more commissioned work re guidance. It is materials, seeking the right materials – there needs to be a plan going forward to support vessel owners of wooden ships – maybe a guide to help people. (stakeholder interview)

“ Providing 'real' (rather than generic) expertise in terms of conservation and operational planning across the sector. (survey respondent)

Others suggested advice with succession planning for vessels; “better advice and support for organisational capacity and community development projects”; the creation of a bank of case studies to demonstrate how funding has helped other historic vessels; and governance advice for organisations considering

change from private ownership¹⁹. With regard to the latter, one stakeholder interviewee suggested:

“ Developing a group ownership model (which could more easily become a charity and attract grant) to which individual owners could more easily convert, might be a project worth doing as part of the package you are developing. (stakeholder interview)

5.8 Infrastructure, workplaces and the context of ‘place’

Several comments from stakeholders and survey respondents were about the **(increasing) scarcity of industrial workplaces** (e.g., dry docks) required to maintain or conserve vessels, and with this, **the recent jumps in costs** for such services (see also Helwick case study).

“ Boatyards, dry docks, slipways – all of these need investing in, alongside the vessels. Heritage harbours. New facilities could charge an income and then do lower rate for heritage work. (stakeholder interview)

“ The bigger issue (around the lack of skills) is about declining industrial workplaces – the shipyard as well as the ship. We can’t think of big ships simply as a

standalone object – they came from and are connected to a whole system of engineering and industrial skills. (stakeholder interview)

“ The one thing I’d find most helpful is a cost-efficient use of a dry dock for heritage vessels. (survey respondent)

“ At 78ft we will struggle to find a yard either willing or able (and more and more commonly both) to work with us. [...] Given the number of boatyards that have been developed for housing/ commercial use, there needs to be a move to secure/ acquire ‘public’ boatyards, thus truly helping to secure a long-term future. (survey respondent)

One survey respondent more generally suggested the **provision of “moorings and hard standings in different areas**, so the costs of keeping the fleet are reduced for the vessel owners, and they can use the money saved for boat maintenance”. Relatedly, another respondent suggested the creation of a ‘safe haven’ for historic ships, where vessels may be “stored without mooring fees until their time comes for restoration” and which would thus “benefit the entire historic fleet”.

Expanding from this issue of workspaces, one interesting concept which emerged in some stakeholder interviews was to link the

¹⁹ Related to this, in October 2023, NHS-UK together with Maritime Heritage Trust and lawyers Bates Wells hosted a webinar on governance (available on [YouTube](#)) as well as free follow-up sessions with Bates Wells for individuals/ groups to discuss specific issues. NHS-UK is currently considering options for publishing some basic guidance/ case studies around governance models.

Heritage Fund’s interest in place funding with investment in historic vessels. **Funding for ships, in this view, needs to be understood in the context of place** – the place where it is based now, where it was originally made and where it worked.²⁰ The notion is that while there will always be a community of people who are interested in the heritage object itself, this is too narrow an interest to justify funding, and that the Heritage Fund needs to take this into account and encourage vessel owners to **make these connections to place**.

“ Most transport items were built to be transient; the survivors are almost by accident. But the connections between these objects and places are the entry points into the heritage and history of communities. This is what is more real and significant about them. A ‘place and community’ approach like this could bring a coherence to the maritime heritage sector which it currently lacks. It would be something new and outward facing. It would stop the sector being so insular. And maritime heritage needs a re-boot. (stakeholder interview)

5.9 Other suggestions

Finally, a few further suggestions were made, which do not fall neatly in any of the above categories:

- A few survey respondents suggested a need for **awareness/ profile raising of the maritime heritage sector** – e.g., “raising awareness of the history and traditions of the Merchant and Royal Navy, and the importance of preserving historic vessels”.²¹
- One survey responded that more could be done to better integrate **inland water vessels** within the historic ships sector— either by NHS-UK being more explicit about their inclusion of inland vessels, or by creating a separate body. It was felt that inland water vessels are “**crying out for a bigger body to oversee them**”.
- And one stakeholder highlighted the social value of a historic vessel-based “**youth and volunteer experience programme**”, as well as its income-raising potential for vessels:
 - “ Life experience projects – sail training has been hugely successful for a century now in changing lives of all ages / genders, [resulting in] personal development benefits. But it needs funding if to be inclusive –

²⁰ This links in with the [Heritage Harbours](#) project currently being developed in partnership between NHS-UK, Historic England and Maritime Heritage Trust.

²¹ A similar point was also made by respondents to the ‘Have Your Say’ survey run by NHS-UK in 2023. This has resulted in an objective around ‘Outreach & Awareness’ in the NHS-UK Forward Plan 2024-2028, which seeks to create a more cohesive approach to raising the sector profile.

charging at cost is expensive. A youth and volunteer experience programme could enable a wider range of historic vessels to increase their income and meet social, health and community objectives by offering a wide range of work experience, skills and volunteering opportunities going well beyond what is available now and tailored to the needs of the individual. (stakeholder interview)

6. Recommendations for new NHMF assessment guidance

This section now considers the evidence set out in Sections 2-5, in order to develop advice and recommendations on the assessment by NHMF of future funding applications coming in from historic vessels.

This section responds to the following research questions:

- How should the NHMF distinguish the relative importance and need when considering applications from multiple vessels on the National Historic Fleet?
- How should our process interact with the existing criteria and assessment methodology for inclusion on the National Historic Fleet itself?

6.1 The current NHMF assessment process for historic ships

NHMF is a funder of **last resort**, which can only provide funding when it is clear that all other sources of funding have been explored. Funding can only be provided to **not-for-profit organisations and public bodies**.

If these eligibility criteria are met, applications are assessed on two essential criteria: the heritage asset needs to be of particular **importance to the national heritage** of the UK, and has to be, in some way, of **outstanding interest**, for example because of rarity, quality, an association with a historical figure, event or designation.

Moreover, the role of NHMF is specifically to **save items that are at risk**. The only exception to this is for items that have a **direct link with conflicts** or those who lost their lives during a conflict. These items do not necessarily have to be at risk, though they do still have to meet NHMF's essential criteria of national importance and outstanding interest.

NHMF can pay for both the **acquisition** of heritage items, and **essential repairs when there is a risk** of irreparable damage. However, it does not fund conservation or restoration costs beyond emergency repairs within its ongoing funding stream.

Two other considerations are taken into account during assessment:

1. Costs and whether the proposal is realistic (including whether match funding is available)
2. Public accessibility – and new opportunities for the public to access once funding has been secured and the project completed

The current system of assessing applications to NHMF from historic ships combines an in-house review by the NHMF team, with external advice and commentary provided by NHS-UK. This ensures **objective assessment, whilst also tapping into the knowledge, context and vessel expertise that NHS-UK can provide**. NHS-UK advice draws on the criteria for inclusion on the NHF, and its conservation guidance, with a focus on understanding the significance of the vessel and having a clear idea of the appropriate conservation pathway. The **NHS-UK criteria for inclusion on the NHF**, summarised in Section 2, are:

- vessels of pre-eminent national or regional significance,
- spanning the spectrum of UK maritime history, and
- illustrating changes in construction and technology.

In addition, the 2013 review process identified a set of more specific factors:

- Innovations (new ideas and techniques)
- Historical connections (people and events)
- Hull fabric / form of vessel – level of originality
- Condition
- Age (date of build)
- Rarity (based on numbers of other vessels within the category).

The application process for NHMF process differs from the Heritage Fund in that **approaches tend to be discussed to a greater degree in advance of formal application**, with some understanding and agreement of the issues and best approach agreed ahead of a full application being made. In cases where approaches look unlikely to be successful, applicants are encouraged to rework bids.

Though the current NHMF assessment considerations cover a good range of factors that should be included in an assessment, the research brief called on ideas for assessment guidance to assist in the prioritisation of approaches to NHMF for emergency funding of vessels on the National Historic Fleet. The **need for**

such further guidance to inform the assessment and prioritisation of incoming funding approaches to NHMF was further confirmed by the research undertaken for this report, which highlighted the potentially significant demand for funding for historic vessels from both NHMF and the Heritage Fund in the coming years.

6.2 Proposed new assessment guidance

6.2.1 Key assumptions informing the new guidance

The existing NHMF application assessment process needs to cover the variety of approaches which NHMF receives, across all types of heritage, and should not be amended specifically for the case of historic ships, as just one type of application. Our **proposed assessment guidance is intended to run alongside the existing process**, to be helpful in providing a structure for discussion and conversation between NHMF, NHS-UK and the applicant, both before and during the formal application process.

The guidance uses a **step-by-step approach**, which draws on the NHMF assessment criteria, the NHS-UK criteria for inclusion on the National Historic Fleet, and the NHS-UK Conservation Principles.

The guidance is **informed by two key assumptions**, which have emerged from the research feedback:

Firstly, the data clearly indicate that it's very unlikely that NHMF has sufficient resources to undertake full conservation of all vessels on the NHF that are at risk; even less so if applications

from ships on the wider register are given some considered as well, where a case for national importance and outstanding interest can be made. Given this, there is a clear **case for maintaining NHMF's current remit to only provide funding to cover emergency stabilisation work, acquisition and, where needed, the costs of salvage or transporting vessels** to a suitable long-term home.

To this set, we think, consideration should be given to adding **the costs of disposal and recording**, where all other options for saving the vessel have been exhausted, and where careful recording in line with NHS-UK guidance offers the most effective route for retaining a permanent memorial to the ship's existence. The NHS-UK guidance for recording and deconstructing historic vessels has raised awareness about deconstruction as an option. However, it is **difficult for organisations to adequately fund this process**. There are real community engagement and learning benefits that that can come from a recording and deconstruction project, which should be recognised.

Full conservation costs, however, should continue to be outside of NHMF's remit, and be subject to subsequent Heritage Fund applications. This will spread NHMF's very limited resources over a larger number of vessels, allowing it to better fulfil its mission of saving nationally important heritage, whilst leaving the heavy lifting of major repair, restoration and reconstruction work to the much larger resources of the Heritage Fund. Applications to the Heritage Fund may or may not be successful – this will depend on how applicants can make a case across both heritage and community criteria. However,

organisations will have been given the opportunity to develop projects whilst assured that the vessel is in stable condition for the time being.

Secondly, the evidence about the range of vessels in need has shown the **importance of NHMF keeping a balance in its funding**, across ship function, age, use and ownership. Dealing with applications on an ad hoc basis – even when this is done on a fair and merited way – runs the risk of funding more of one type of ship function than another; or more static over operational vessels (or vice versa); or one type of ownership over another. Across time this could lead to an imbalance in the NHF and the structure of the wider UK fleet of historic vessels. To ensure that NHMF funding continues to reflect and support the balance across function, age, usage and ownership that has been achieved in putting together the NHF, we recommend that information about the past record of NHMF and the Heritage Fund investment in vessels, set against the current makeup of the NHF and vessels at risk should be used to **introduce a new balancing approach** as an additional component to the assessment guidance.

6.2.2 New assessment guidance

Early considerations

The considerations listed below reference NHMF's current assessment criteria and include current assessment considerations, to understand the fundamental value and viability of the project. These issues are for discussion and agreement

ahead of a full application being made, as NHMF's procedures allow.

- Organisational vision and how the vessel fits into it: Is this the right organisation for the job (inc. is the organisation not-for-profit)? Does the organisation's governance and staff have a combination of expertise on the vessel with a strong focus on community benefit? How would the work proposed on the vessel fit into the organisation's vision for its future? What about after the work is finished?
- Governance and organisational capacity / project management skills: Are these up to date and adequate? Skills of board / directors / trustees. Recent track record.
- Significance of the vessel: is there a thorough Statement of Significance, which can inform the conservation approach? How significant is the vessel, based on the NHS-UK criteria for inclusion on the NHF – innovation, historical connections, originality and rarity?
- Existing condition: Has there been a recent condition survey? Has the survey been checked for second/third opinion? If so, is the vessel genuinely at risk of loss now? What will happen to the vessel if NHMF support is not provided now?
- Following stabilisation, is there a clear idea what the conservation approach would be (preservation; restoration; reconstruction; adaptation as outlined by NHS-UK's Conservation Principles) and how it links to the

post-conservation use of the ship for either static display (ensuring more fabric is preserved) or operational use

- Is the applicant going through a clear decision making process to arrive at the conservation pathway, and is it clear that a decision about end use is or has been linked to the significance of the vessel?
- Is this intended pathway realistic in both conservation terms (e.g., in terms of available skills, available material) and future financial viability?
- Community interest: Is or will the vessel be publicly accessible following stabilisation work? Is there broader public interest, or potential for interest, that can be the basis for future use of the ship?
- How has climate change been factored into this choice of conservation approach and end use (in terms of both mitigation against the consequences of climate change, as well as improvement of the vessel's environmental standards)?
- Do project costs appear realistic at this stage? Are there any other sources of funding available?
- Is there match funding in place or likely to be?

Balancing

If the project looks viable, NHMF would then need to consider how funding would affect the balance of its support for the sector, across function, age, usage and ownership. It might decide to discourage an application at this stage, on the basis that it would

imbalance its historic funding for the sector and would limit resources available for ships coming forward in the future.

Questions to ask here will be:

- How does the vessel fit within the recent record of NHMF funding?
- What other potential applications are expected from vessels, based on NHS-UK's risk assessment at the time?
- How would funding change the balance across function, age profile, use and ownership balance of the NHF and the record of NHMF funding for historic ships?

Stabilisation works

Once assessment moves forward to a consideration of the works that would be needed to stabilise the vessel, more detailed questions and issues will need to be considered.

Insufficient detail on any of these would mean the application was paused whilst more research is undertaken.

- Is the work needed to stabilise the vessel clearly understood? How much risk/ uncertainty is there?
- What are the capital costs of stabilisation – is there a level of uncertainty around these?
- Is there a shipwright / skilled workforce team available and able to do the stabilisation work? What is the labour time estimate and cost? How much uncertainty around time / cost?

- Are appropriate, accessible and affordable facilities/ workplaces (e.g. dry dock) available at which to undertake the stabilisation work? Is there adequate H&S at these facilities?
- Has thought and sufficient costing been given to the contracting model and Health and Safety, and Construction Design and Management (CDM) regulations, which might apply? HSE regulations may apply to the site or to the contractors, depending on the vessel case.

Conservation and maintenance

Proposals for the full conservation of the vessel, along with plans for subsequent maintenance, would be helpful to have at this point. However, it is acknowledged that the emergency nature of many applications to NHMF means that **stabilisation work is the priority, along with a clear rationale for the subsequent conservation pathway**. Details around full conservation works are however unlikely to be highly developed at this stage and will **need to be worked up further as part of any subsequent Heritage Fund application**:

- Is there an understanding of the future conservation work that will be needed, in line with the selected conservation pathway (preservation; restoration; reconstruction; adaptation)?
- Are indicative costs for full conservation available? How do these change, when sensitivity and optimism bias tests are applied to these?
- Is there an understanding of what materials would be most appropriate for the conservation pathway and end-use?

- Are there likely to be sourcing issues with materials?
- Is there an understanding of ongoing maintenance needs and the potential costs of these?
- How will climate change affect these?
- Is there an early understanding of the environmental impacts of material use and how to minimise these?

People and community

There could also be a consideration of the ideas the applicant has for further developing their community engagement, public access, training and volunteering (or, in the minority cases where public access and engagement are not already being provided, planning to begin these activities). It is acknowledged these will be early stage and to be fully developed as part of a subsequent Heritage Fund application.

- What new measures are being considered to support skills development within the sector, e.g., through providing training, apprenticeship, volunteer training as part of the project?
- Is there potential to create a cohort of long-term engaged volunteers to support ongoing running and maintenance of the vessel?
- Is there interest in local business partnerships?

Business planning

Similarly, the applicant will need to develop a business plan for a subsequent Heritage Fund application, and consideration could be given to how this is being shaped:

- Is there an indication of how the purpose / end use of the vessel will provide community benefit? How sustainable is this likely to be? How far is it dependant on (a) future support from the Heritage Fund and other grant funding and (b) earned income?
- Does the vessel have a ‘story’ to tell that is likely to attract visitors and interest community groups, schools, colleges?
- Is there an outline of projected costs and ideas for future income generation; is there an indication of projected audience/ visitor numbers?
- Is there a track record of sound past business plans submitted for previous applications?

6.2.3 Informing the guidance

Several of the issues included above are ones that the Heritage Fund and other funders consistently find difficult to assess, across all types of heritage and community project, whilst others are more specific to the maritime heritage sector. Some of the data and feedback from this research can be used to support consideration of these issues.

Conservation approach

It is crucial to have a clear rationale for the conservation approach, based on the current condition of vessel, its significance and the financial / business plan. This affects material costs, labour requirements, future maintenance, public access and the community function a vessel can play.

One idea would be to ‘**match up**’ vessels with similar **successful cases**, in terms of end-use and operation as well as function. This would allow assessors to check application plans on, e.g., visitor/user numbers, annual maintenance costs or earned income, against similar ones that already exist for ships in successful, active use. The case studies in this report (Section 8) are a starting point for building such a reference collection and could be expanded through further research.

Conservation costs

The research has assembled some data on the size of conservation budgets for various types of vessel, using the past record of NHMF and Heritage Fund projects. This data could be used to check the capital costs in applications as a heuristic / rule of thumb indication of whether bids are credible. However, the research once again revealed the considerable variations in cost and challenges connected to estimating cost, meaning that this **data should be treated as basic guidance**, only.

Figure 21 Conservation budgets for different vessel types, based on past NHMF and Heritage Fund projects

Vessel type	Average	Maximum	Minimum	No. of vessels
Cargo	472,630	1,809,500	48,100	9
Service	367,683	1,408,768	58,030	5
Naval & Military/ Warship	3,648,618	15,159,745	423,300	8
Fishing	456,395	820,000	76,300	4
Passenger	130,000	130,000	130,000	1
Leisure	82,300	99,500	65,100	2

Source: NHMF/the Heritage Fund, BOP Consulting (2024)

Figure 22 Conservation budgets for different vessel uses, based on past NHMF and Heritage Fund projects (all projects)

Vessel use	Average	Maximum	Minimum	No. of vessels
Operational + being restored to operational	288,426	914,712	65,100	13
Static + being restored to static	3,133,579	16,257,168	58,030	12

Source: NHMF/the Heritage Fund, BOP Consulting (2024)

Figure 23 Conservation budgets for different vessel uses, based on past NHMF and Heritage Fund projects (static vessels only)

Vessel type	Average	Maximum	Minimum	No. of vessels
Static – in water	3,619,112	16,257,168	58,030	8
Static – out of water & outdoors	4,068,375	6,292,749	1,844,000	2
Static – out of water & under cover/ indoors	-	-	-	0
Static – being restored, end use unclear	256,650	423,300	90,000	2

Source: NHMF/the Heritage Fund, BOP Consulting (2024)

Maintenance costs

The research undertaken for this report has provided some indicators of future capital funding that is likely to be needed to maintain different types of vessels into the future, which provides some very high-level guidance on the costs that can be expected. That being said, it is important to note the challenges that were also consistently highlighted in accurately estimating conservation and maintenance costs.

During assessment, a business plan review could look at the realistic chance of these sums being raised and whether future Heritage Fund support will be needed.

- Large complex ships - static display in-water (eg HMS Caroline / Warrior / Victory): £300,000 - £950,00 p.a. with £1m needed every 10-20 years for major repairs
- Smaller vessels - static display in-water: £10,000-£15,000 p.a.
- Smaller vessels - static display on-land: £5,000-£10,000 p.a.
- Smaller vessels - static display under-cover: £5,000 - £10,000 p.a.
- Wooden sailing and steam vessels in operational use: £5,000 to £20,000 p.a. + £50,000 for a full hull repaint / below water line costs every five years + major investments of £100,000 every 20 years

7. Broader recommendations for supporting the maritime heritage sector

As set out in the brief, this report has concentrated on implications for NHMF funding of historic ships, and predominantly those on the NHF.

In this final section, we broaden out to consider some observations from the research findings more generally, both for the Heritage Fund and for NHS-UK. Based on these, we have then made a number of recommendations for NHMF funding, Heritage Fund funding (including a possible maritime heritage strategic initiative) and National Historic Ships.

This section responds to the following research questions:

- How could our organisation account for the identified long-term threats in our policy and decision making?
- What are the implications for the Heritage Fund in terms of demand for funding from historic vessels, for Lottery rather than NHMF funding?

7.1 Observations from the research

There are a number of observations that come through the research which seem particularly relevant to us, and which Heritage Fund, NHMF and NHS-UK need to be alerted to.

Firstly, NHMF retains the approach recommended above of using its resources for stabilisation work only, **follow-on applications**

for Heritage Fund funding must be anticipated for full conservation costs. Indeed, this may already be expected following recent NHMF awards, depending on how much conservation work is covered by the funding for RRS Discovery, Vigilance, SS Shieldhall (see case study), Glenlee (see case study) and Unicorn, and whether subsequent Heritage Fund applications are anticipated from them.

Secondly, **is NHMF funding going to be restricted to the NHF? We have assumed that this is likely to be the case**, given NHF's role as identifying and listing vessels of particular historical significance. However, there were **calls from stakeholders for owners of vessels on the wide register to be able to make the case for NHMF support. The scale here is potentially vast** – if the same proportion of vessels on the register is at risk as on the NHF (c. 25%) this would mean a total of 300-350 ships. But 70% of ships on the register are privately owned, reducing the number to around 100 that might be able to look to the Heritage Fund for support.

Thirdly, the stock of ships in current community use will continue to require regular operational and maintenance support. **Tying all available NHMF and Heritage Fund resources into saving vessels 'at risk' would severely disturb the health of this existing set of ships and organisations**, many of which are delivering community benefit in already difficult and straitened circumstances. Regular maintenance work should be within the capabilities of most community-focussed owners to manage, through volunteer involvement, supporter appeals and small-scale grant applications to other funders. However, we believe the

Heritage Fund needs to consider how best it can approach the evident sector need for support for **periodic repair work that is beyond the capacity of volunteer-led organisations** to achieve, as well as potential repeat applications for such work: typically, this is the 'out of water' repairs to hulls which will always need to be done every five to ten years. Finding an approach to doing so would over time be a saving to the sector, ensuring vessels are not left until they reach an at-risk state before coming in for much more costly conservation works, and so will be of long-term benefit to the Heritage Fund as well. Of course, any such projects should also include community activities, and not be restricted to conservation work.

“ The ideal would be small grants to keep on top of repairs, bigger grant every few years for major below water line stuff. Instead ... the system makes us wait until massive repair is needed. Then go in for huge grant of £500k to £2m. More, more modest sums. (stakeholder interview)

Fourthly, both the Heritage Fund and NHS-UK may want to consider how they can be **more responsive to escalating project costs and the inherent unknowns associated with what lies beneath the outer fabric of a historic ship**, and therefore what additional restoration costs might be incurred. More guidance on contingency planning and how contingencies could be met through follow-on project funding would be helpful.

7.2 Three questions of principle in determining future support to the sector

If the broader needs of the maritime heritage sector are to be genuinely addressed, **a full suite of funding approaches will be needed**, across NHMF, the Heritage Fund and – potentially – through a Heritage Fund strategic initiative. To decide the right balance of priorities and strategies across these, we believe that **three questions of principle need to be resolved first**.

7.2.1 Getting in early?

NHMF is dedicated to heritage at risk; and the new Heritage Fund strategy has a greater focus on heritage at risk as well. However, complete concentration on risk can have unintended consequences in creating incentives for heritage to be left until it has deteriorated so much as to be eligible for funding. There is a clear argument for 'getting in earlier', before vessels deteriorate to such an extent that they become at risk.

Though we agree this is not appropriate for NHMF, we believe that the Heritage Fund should send a **clear signal to owners of vessels that they should apply to the Heritage Fund before vessels deteriorate** to such an extent that expensive 'at risk' funding is the only option.

7.2.2 The role of the National Historic Fleet?

NHMF funding is reserved almost entirely for vessels on the NHF; likewise, a large proportion of Heritage Fund support goes to the

NHF. NHF designation is thus used to identify valued heritage most in need of support. However, **our research has identified that the current NHF is under review and still retains some inconsistent entries** from when it was formed.

There are several potential responses to this:

- Secure the resources to complete the review fast, either via DCMS, Heritage Fund or other grant givers with an interest in the sector such as the Pilgrim Trust and Garfield Weston Foundation.
- Significantly reduce the NHF to a much more tightly defined set of vessels representing the national historic fleet. It would then be more realistic to think of stabilising and bringing into good condition any of these that are at risk.
- Accept that NHF is not the last word on significance, and not relying on it as the only marker of national significance.

This is crucial – if funding is focussed entirely on the NHF (especially a more tightly defined set) it is not inconceivable to think of a combination of NHMF stabilisation funding and a special Heritage Fund strategic initiative being able to bring most of vessels on it into good condition – e.g., all of the 34 vessels on the Priority65 set that are in public/community ownership.

Stakeholder views on this issue were split – some wanted a smaller set, others felt this would concentrate resources into the hands of too small a group of owners and deprive others worthy of

support. NHS-UK believes that, though it would be possible to compile a tighter grouping of vessels (based on the highest scoring craft for each functional grouping), the wider NHF has proved a more effective and recognisable tool to raise sector profile than the earlier lists.

Our view is that identifying a smaller national collection is likely to be highly contested, will obviate the need for community engagement, and will lead to an over-concentration of resources if it is used to prioritise funding.

As the NHF review is still underway, we think **there is a case for NHMF showing greater flexibility towards funding vessels on the wider register for the moment** – if owners can make a case for national importance and outstanding heritage interest as per the current NHF criteria. However, this should be a ‘meantime’ **interim policy** until the full review of the registers is complete, **and we urge the relevant potential funders** – perhaps through a joint package – **to agree the resources for NHS-UK to complete the review work as soon as possible.**

7.2.3 Private owners?

The point consistently made by private owners – that they have no source of funding and are the custodians of important national heritage – is well made. However, we are assuming (and agree) that there will be no change in either NHMF or Heritage Fund policies on only funding heritage that is publicly accessible and generates public benefit, and that this cannot be assumed with private ownership.

In this context, there are however potential routes to community and voluntary sector models of organisation that are open to private owners, and it should be considered how these could be highlighted and encouraged for private owners seeking funding.

7.3 Summary of recommendations for NHMF, the Heritage Fund and a potential strategic initiative

Based on the above, our recommendations for NHMF, the Heritage Fund and NHS-UK are summarised below.

7.3.1 NHMF

- Given all of the evidence about the scale of need assembled through this research, we **recommend that a ‘watching brief’ should be kept on the priority vessels** at most risk, and that this should be regularly updated by NHS-UK, through a regular review of the risk assessment process it initiated in 2023, in close and regular communication with NHMF/ the Heritage Fund. To help begin this, we have provided the NHMF/ the Heritage Fund with the list of the ‘Priority65’ vessels we identified as currently being most at risk, through the analysis we carried out of the data assembled by NHS-UK between September and October 2023 (see Section 4).
 - To support ongoing balance within the NHF, we recommend that **analysis of the vessels on this ‘watching brief’ with regard to vessel function, use, ownership and age should be maintained**, and set against the current makeup of the NHF and the NHMF/the Heritage Fund funding track record. To support this, we have provided NHMF/ the Heritage Fund with an initial breakdown of the current Priority65 list, the full NHF and past NHMF/the Heritage Fund funding, which can be built on going forwards.
- We believe that the set of vessels on the NHF is a useful tool for distinguishing the ships of pre-eminent national importance and should remain the basis for NHMF to judge this criteria. However, **as an interim measure** only, whilst the registers review is being completed – we think that NHMF should be **prepared to fund vessels that are not on the NHF**, where they are at serious risk of loss and can demonstrate national / regional significance, especially if it enables the NHMF to keep a balance across the funded portfolio re. function, ownership and use. This meantime policy should be adopted only until the full registers review has been completed.
 - NHMF should remain committed to its existing policy of only funding for a small set of purposes i.e., **emergency stabilisation works; salvage; the cost of acquisition; and transport costs to a new, safe location**. We believe a fourth purpose should be added to these: **the costs of deconstruction and recording** where no other option exists to save a vessel.
 - NHMF should **adopt the guidance recommended above**, as an additional tool in a step-by-step assessment

of cases, beginning from the first approach through to a full application. We believe this will help enable a fuller discussion and sharing of issues involved in a case, from early considerations through to plans for full conservation, between the vessel owner, NHMF and NHS-UK.

7.3.2 The Heritage Fund

- We believe that the Heritage Fund should continue to have **less focus on ‘at risk’ than NHMF and be open to vessels on the wider register**, with owners not needing to make the case for national significance, but a more general sense of **community value** instead.
- As well as large-scale conservation work, the Heritage Fund should consider how best to accommodate the need **for smaller-scale funding to cover periodic repairs works** which are beyond the realistic capacity of community organisations to meet through volunteer help, supporter appeals and applications to smaller grant makers. It should be clear this is **not for routine maintenance work**, but might, for example, typically cover the costs of more expensive out-of-water repairs to hulls. These applications should always include, in addition to conservation work, ideas for community activities, audience development, and developing organisational capacity.
- As one potential mechanism for distributing this repair funding, the Heritage Fund should explore the possibility

of a **partnership arrangement, with grants allocated through the existing NHS-UK Small Grants Scheme**. This could be similar to the [places of worship resilience funding scheme](#), which Heritage Fund has previously run.

7.3.3 NHS-UK

Based on our findings, we also believe there are some recommendations that may sit better with NHS-UK than with NHMF or the Heritage Fund:

- We strongly recommend that NHS-UK should **complete the review of the NHF**, and maintain it, and that a renewed effort to secure a funding package that would enable it to accomplish this to a clear timescale should be undertaken.
- Given the **various comments about sector guidance in different forms**, NHS-UK may want to consider how it can address this demand, through making its existing documents more widely available (e.g., in digital format), adding supplementary specific guidance (e.g., on sourcing of materials, on marine timber) and/or through creating a panel of experts or ‘mentoring scheme’ to promote further knowledge sharing within the sector. For example, some sector members called for the ‘Conserving Historic Vessels’ document to be digitalised to allow for wider circulation.

7.4 A maritime Heritage Fund strategic initiative?

Finally, we have considered ideas for a dedicated Maritime Heritage strategic initiative, to be delivered within the Heritage Fund's current 10-year strategic plan period. Current strategic initiatives vary considerably in terms of financial commitment; however, we have considered here what an investment of around £25m could achieve.

Within such a scenario, one option would be to bring all of the public/ community-owned vessels on the Priority65 into good condition (or as many as possible). If the Heritage Fund does decide to commit funding to bringing as many of the 'at risk' vessels on the NHF into good condition, a ship-by-ship plan could be detailed, with the data collected through this research providing a good basis. Ring-fencing funding within a maritime heritage strategic initiative would encourage applicants to come forward with more confidence. However, we do not feel this would be the best use of a strategic initiative. Ring-fencing for a set of prioritised ships would run the risk of rushed, over-costed conservation work, without adequate development of community engagement and long-term viability. There would be considerable resentment amongst owners who 'missed out' on what would be seen as a one-off, not to be repeated opportunity.

Instead, we feel it would be better to continue with the current policy of encouraging owners to come forward through the existing NHMF and Heritage Found routes as and when they need funding for conservation – including emergency works, rather than forcing

a large number of vessels through a repairs programme in one concentrated go.

We therefore **recommend that a strategic initiative should be broader and pick up on many of the other ideas which have come through the research** – from 'ships in place', to skills/workforce development, sector collaboration, etc. As such, it would also be an opportunity for the Heritage Fund to provide valuable support to the sector beyond conservation and capital funding.

We suggest that two ideas in particular have emerged strongly through this research. More research would be needed to develop either or both of these ideas, but the research clearly shows that both would have strong sector support.

7.4.1 Workforce / training

As highlighted in the previous sections, lack of available skills and training facilities has consistently been raised as an issue, and the sector and country-wide extent of this issue indicates that it would benefit from being addressed by a comprehensive, structural measure, which could potentially be supported through a strategic initiative (with one stakeholder calling for a 'national strategy').

For example, it could be addressed by formally linking an extensive training programme, funded via the strategic initiative, into all funded conservation/ maintenance projects. NHS-UK and the Heritage Fund could also extend their roles as co-ordinators of skills-sharing within the sector – e.g., by putting new applicants and projects in touch with previously funded organisations who

could provide access to their workforce and skills on a consulting basis.

Interviewees and survey respondents made a range of further, more or less ambitious suggestions, including:

- Creation of a repository of artisanal skills
- Creation of a coordinated skills-sharing programme
- Creation of affordable training courses and apprenticeships – e.g., considering the model of the Pioneer Sailing Trust, which used a Heritage Fund grant to support the set-up and delivery of a new apprenticeship training programme (Heritage Engineer Technician).
- Creation (together with partner institutions) of a ‘Centre of Excellence’ for industrial heritage conservation training, leading to industry qualifications.

Given the important role of volunteers for the sector, there may also be reason to consider how training for regular volunteers could be included within such a strategic initiative. One stakeholder suggested creation of a ‘national bank of volunteers with specific skills’ who could be called upon to work on different projects; others suggested targeted training opportunities. Relatedly, a way to raise interest in the sector and related professions early on, as well as to provide social benefits, was suggested in the shape of funding support for the creation of ‘youth and volunteer experience programmes’, which could offer work experiences, skills training and volunteering opportunities for young people. This echoes NHS-UK’s Skills for the Future project,

which delivered 26 training placements for young people in conserving, operating and maintaining vessels. It may be worth drawing on some of the learning from this project when considering how best to create ongoing skills support for the sector.

At this point, the notion of tying in skills development via the existing grant funding streams seems sensible; however, more research and consideration would be required to identify the best approach for what is a structural, sector-wide issue.

7.4.2 Ships in Place

Tying in with the many comments around the lack of workplaces for historic vessels, as well as linking into and following on from the Heritage Fund’s current Place Scheme, a strategic intervention could support a broader ‘ships in place’ scheme, which would incorporate investment in local maritime heritage facilities such as heritage docks, harbours, boatyards and/or wharves as well as visitor facilities, interpretation and community engagement, alongside vessels associated with the place.

This ties in with the Heritage Harbours project currently being developed in partnership between NHS-UK, Historic England and the Maritime Heritage Trust, which flags the importance of infrastructure for historic vessels, encourages the presence of regional boat and ship types and creates the potential to integrate these with tourism and community-based initiatives. The project is currently in its infancy and will require further investment going forward ([Heritage Harbours | National Historic Ships](#)).

In this way, the connections between the ships and the place could become the entry points into the heritage and history of communities, facilitating conversations across and between places – a wider web of maritime communities. Ships are ideally placed to do this – where they were built, where they traded, who worked on them, whose lives they touched. At the same time, this could:

- serve to alleviate the strong need for appropriate workplace and docking facilities for historic vessels.
- promote the provision of ‘appearance money’ for ships to attend or participate in e.g., festivals, exhibitions or museum events. This is a well-established source of income but could be extended.
- address questions around health and safety at some yards, through a focus on facilities and infrastructure.

These components could even be combined in an ambitious, multi-faceted programme of funding for historic boatyards. The closest example from the research is the Windemere Jetty Museum, where funding to safeguard historic ships was accompanied by investment in the facilities and skills needed to conserve them. Over time, this has created a collection which can sustain visitor interest, including both static and operational boats. The experience gained by the organisation has both provided an extra source of consulting income, and a resource which other maritime heritage organisations have been able to benefit from.

Windemere Jetty Museum’s was a large grant - £12.5m from Heritage Lottery in 2011 following £465,596 from NHMF in 2006. But the basic model of creating projects which combine

investment in infrastructure with conservation work, leaving a legacy of skills and experience, could be replicated at a lower grant level in places around the coasts of England, Scotland, Wales and Northern Ireland. Schemes of, for example, £3 to £5m could fund boatyard works, conservation work to three / four vessels (with a requirement that at least one of these be on the NHF ‘at risk’ list); as well as providing training and community activities. Perhaps discounted rates could be offered for private owners of vessels, for the duration of the project, in order to pump-prime an expanded scale of maintenance activity at the boatyards, which would then help sustain them into the future. A £25m scheme would therefore be enough to support up to eight places – one each in Scotland, Wales, Northern Ireland and the north-west, south-west, south-east, east and north-east of England.

Heritage Harbours as a small-scale research project initiated by NHS-UK has already reviewed the potential at seven harbours ([Heritage Harbours Research Project](#)), but more research would be required to fully develop this idea. One thing to consider, for example, would be how to accommodate for other vessels who may subsequently continue to require financial support to use these spaces. Learning from the experience of existing related schemes, both current and past, should be considered e.g. such as Heritage Action Zones, the Coastal Communities Fund, the new Heritage Fund ‘Heritage Places’ scheme, as well as Heritage Harbours.

8. Case Studies

8.1 Tall Ship Glenlee



Image source: NHS-UK

Key characteristics	Detail
Construction date and location	1896, Port Glasgow
Original function	Cargo vessel
Vessel type	Steel-hulled three-masted barque
Current ownership name & type	Tall Ship Glenlee Trust / Charity
Current location	Glasgow Harbour

8.1.1 The vessel's history up until now

Glenlee was built by Anderson Rodger & Company for a Glasgow shipping company. The steel-hulled three-masted barque was launched in 1896 as a wind-driven cargo ship, designed to carry large loads, cheaply over long distances. She was sold and renamed to Islamount three years later, continuing to trade bulk cargo such as tea, cocoa, cinnamon and spices around the world until 1919. After a brief period under Italian ownership, she was sold to the Royal Spanish Navy in 1922, renamed once more to Galatea, and used as sail training ship for almost half a century. After a few years as a shore-based training school in Ferrol, in 1981, she was laid up and abandoned in Seville Harbour, leading to significant deterioration in her condition and a decision to scrap her in the early 1990s. However, after being discovered by a British naval architect as being Clyde-built and a rare example of that period, she was returned to Glasgow in 1993, with support from NHMF through a repatriation grant of £50,000. Clyde Maritime Trust re-registered the vessel under her original name, Glenlee, and led on her restoration, supported by the Heritage Fund with a £1.46m grant.

During the course of the Glenlee's history she underwent a series of adaptations. The first engines and a generator were fitted under her brief Italian ownership. While being used as training ship by the Spanish Navy, further additions were made, including accommodation facilities for 300 cadets. In 1981, the underwater hull was re-plated at the drydock in Ferrol, before the vessel was completely de-rigged down to a hulk. The six-year restoration by the Clyde Maritime Trust after her return to Glasgow saw the ship

rebuilt (apart from the hull). All changes made to the ship by the previous owners were removed.

8.1.2 The vessel today and future plans

Today, Glenlee is the only steel square-rigged cargo vessel remaining in the whole of the UK, and one of just five such Clyde-built vessels remaining in the world. Known as The Tall Ship at Glasgow Harbour, she is owned by the Tall Ship Glenlee Trust (formerly Clyde Maritime Trust) and used as a museum ship, located in front of the Glasgow Riverside Museum, bringing to life mercantile, maritime and shipbuilding traditions. The Glenlee Trust is in receipt of regular funding from Glasgow City Council.

Since the restoration in the 1990s, the Glenlee has been undergoing regular maintenance, including annual rigging inspections and treatments and dry docking once every 10 years. However, the Covid pandemic caused significant delays to the planned maintenance programme and anticipated dry dock repairs. Not only was the ongoing maintenance interrupted during the Covid lockdowns, but fundraising efforts aimed at supporting the dry docking could not take place as planned. As a result of these delays, the deterioration of the vessel progressed faster than it otherwise would have, causing additional concerns.

In 2022, Glenlee was awarded a £1.8m grant by NHMF for maintenance work on the cargo hold, decks and rigging to bring the ship back to a standard where it could safely be towed to the dry dock. Once these preparation works are complete, further funds of approximately £2m will be required to cover the costs of

the maintenance and repairs to the exterior of the hull when the ship is out of the water at the dry dock. The Trust has been in discussion with Heritage Fund about a forthcoming application for this in the next couple of years.

In addition to the delays to the maintenance and repair programme, the Covid pandemic also brought significant challenges to the Trust's operational funding. Around one third of the Trust's income is made up commercial activities (including visitor spending at the ship's café and shop, as well as from events, such as weddings or corporate hires). All of these sources of income, along with visitor donations, were interrupted during the pandemic, and visitor numbers are still approximately 30% below the pre-Covid annual figures of 200,000.

Moreover, the Trust is in its final year of a 10-year funding agreement with Glasgow City Council (which remained a fixed £221,000 per annum during this period, accounting for another third of the Trust's income). While the details of a new funding agreement are currently uncertain, the City Council has indicated that there will no increase in funding, while also introducing a charge for utilities at £30-40,000 (currently included) – corresponding to – in real-terms – a significant decrease.

Each year, the Trust needs to raise approximately £200,000 to address the gap between the ongoing costs of ship maintenance and the engagement and learning programme, and the income generated from regular grant funding and commercial activities. In 2021, a £90,000 grant from Museums Galleries Scotland's Recovery programme helped bridge some of the gaps in

operational funding, while last year the sale of several assets that had been gifted to the Trust supported the organisation.

However, there remain concerns over the long-term sustainability of the business model. It is very hard to receive funding for ongoing maintenance work of ships – amounting to approximately £250,000 annually for the Glenlee – or their operational costs (here, of roughly £400,000 per annum). Moreover, there is increasing competition for the limited amount of funding. For example, after a string of successful applications from a funder, the Trust recently received feedback that “despite our high-quality applications, the funder has to share the opportunities more widely and we can’t rely on future applications being successful” (Development Director). Finally, historic ships don’t always sit easily within funding criteria: while some vessels (on land) are classed as buildings and can apply to organisations such as Historic Environment Scotland, this is not the case for water-based ships like the Glenlee.

Recognising this, the Board of Trustees appointed a Development Director in 2022 to draw up a Development Strategy, with a view to increasing self-generated income and decreasing reliance on public funding. Discussions are also ongoing at Board level as to whether an admission charge for visitors could be introduced²², possibly as soon as in the first half of 2024 (although this might lead to a projected reduction in visitor numbers of up to 60% on

currently levels). Further options include staff restructuring and closure periods.

As part of the recent application to the NHMF, the Trust had also applied for an additional £2m to create an endowment fund, which would help pay for ongoing maintenance. This supplementary application was developed with an external investment advisor and, according to the Development Director of the Trust, “we made a really strong case for it”. However, unfortunately, the additional request for the endowment fund was not granted.

8.1.3 Key learnings and advice

At vessel level:

- **Drawing on organisational strengths:** the Glenlee Trust is confident that they can draw on their good reputation as visitor attraction and museum, and high customer satisfaction, to further develop the offer (e.g. the Trust is considering a possible membership scheme alongside the possible introduction of admission charges, and to further enhance the interpretation of the ship by investing in (waterproof) display cases for artefacts)
- **A strategic approach to development and fundraising:** including a clear and realistically deliverable and resourced development plan

²² When the Glenlee first opened as a visitor attraction, an admission charge was in place. However, since access to the ship is through the – freely accessible – Riverside Museum, the admission charge was felt to put off visitors from visiting the vessel as well. Therefore, entry to the Glenlee is currently free.

- **A need to develop a more sustainable business model:** including the development of long-term vehicles for funding ongoing maintenance costs (e.g. through an endowment) or a change in business model (e.g. possible introduction of an admission charge)

And at sector level:

- **A requirement for more support for smaller organisations** with the significant administrative requirements of NHMF funding – something the Trust struggled with (e.g., because of the paperwork required, the project manager to lead on the Glenlee’s initial works could not be appointed until more than a year after the funding was confirmed)
- **A need to reconsider the notion of ‘significance’ amongst historic ships**, recognising that there are too many ships requiring support for the limited public funds available – perhaps inspired by World Heritage Sites assessment, and with particular focus given to rarity, age, the ‘strength of the story’ of a vessel, but also the likely costs of long-term care.

The information in this case study came from an interview with Fiona Greer, Development Director, The Tall Ship Glenlee

8.2 LV91 Helwick Lightvessel



Image source: [Swansea Museum](#)

Key characteristics	Detail
Construction date and location	1937 in Dartmouth
Original function	Service Vessel (Lightvessel)
Vessel type	Lightvessel
Current ownership name & type	Swansea Museum / Local authority museum
Current location	Swansea

8.2.1 The vessel's history up until now

The LV91 Helwick Lightvessel, known as 'Helwick', spent much of its life warning ships about the Helwick Sandbank in the Bristol Channel. She was built for Trinity House by Philip and Son Ltd of Dartmouth in 1937. She was deployed on various stations, her first being the Humber from 1937 to 1942. On 3rd April 1942, the steamer Maurice Rose collided with her, causing damage. She was hit again in the same year, on 1st September by the steamer Armathia. LV91's final station was Helwick, off Worm's Head, for the last six years of her working life between 1971 – 1977. On her retirement, the decommissioned Helwick was acquired by Swansea Museum.

Like nearly all lightships, she was not self-propelled, being towed to each station by a tug. Her diesel engines were used to generate electricity to power the light and to make compressed air to operate the foghorn. The lightvessel could carry two masters and nine crew. The crew rotated every four weeks, with only seven on board at any time. Due to the vessel having two masts, there was no room to build a helicopter landing platform, so reliefs were carried out by sea until her retirement.

8.2.2 The vessel today and future plans

Today, the Helwick is part of Swansea Museum's wide and varied collection that includes social history, ethnography, other industrial heritage, such as a tram shed, and its floating maritime collection. The Helwick represents a rare surviving vessel through which to tell the story of Welsh maritime history.

She is located in front of the National Waterfront Museum in the Maritime Quarter of Swansea. Until a few years ago, the vessel was open to the public and school groups and received, at one point, 15,000 visitors per year. However, due to her current condition, there is now no public access to the Helwick and she can only be seen from the pontoon and dockside.

Her level of originality is high, with hull fabric, structures and fittings as built. The fact that the Helwick “has not been chopped and changed’ to be re-purposed” is part of what makes her so unique, according to the General Manager of Swansea Museum. Work on the vessel has been limited to preservation by maintenance, focused on paintwork, and scheduled dry dockings to check hull thickness (the last dry docking took place in 2013/14 and costed a total of £110,000 for the Helwick and its tugboat Canning). Since then, there has been a general degradation of the vessel’s appearance and damage to some internal fabric due to water ingress. According to the General Manager of Swansea Museum, the Helwick “looks awful at the moment”.

Shortly before the Covid-19 pandemic, Swansea Museum started requesting quotes for dry docking, but the lockdown put a halt to this process. Ongoing maintenance also could not be carried out within Covid-guidelines, resulting in further deterioration. Following the pandemic, Swansea Museum secured £170,000 support through Swansea Council’s post-pandemic Economic Recovery Fund. However, when new enquiries were made to arrange the dry dock repairs, the price quote was twice that amount.

Seeking to raise this additional amount, Swansea Museum applied to NHMF. The bid to NHMF included a plan to repair the boat to a level where it can be opened up to the public, even if at a smaller scale than previously. The idea was to train up a number of volunteers to help with the day-to-day maintenance of the vessel, conducting some archival research, improving the interpretation and running some guided tours for the public. The income from the guided tours would also contribute towards the annual maintenance costs of approximately £5,000, supporting overall resilience. However, when NHMF requested an updated dry docking cost estimate, the quote had gone up to £240,000 per vessel (for the Helwick and the Canning, the tugboat required to take her to the dry dock). According to the General Manager of Swansea Museum, this astonishing cost increase was the likely reason for NHMF’s decision not to award any support.

Following the failed NHMF bid, Swansea Museum has been considering a range of different options, including the transfer of the vessel to a different ownership model, i.e. that of a Trust. They had some initial interest from a number of individuals and a small group to create a Trust; however, according to the General Manager: “You have to start a trust when you are at a high point with funding. The people were only interested if the Council committed to providing them with the necessary funds. When they realised that there is no budget, they all pulled out.”

A decision has now been reached, with Swansea Council committing to the Helwick and seeking to invest in her repairs. Nonetheless, “considering the significant pressures on the Council in other areas, and the bad settlement they had from the Welsh

Government, this is a hard sell” (General Manager). Therefore, Swansea Museum is considering to re-submit a bid to NHMF to help with the repair costs in the near future.

8.2.3 Key learnings and advice

The case of the Helwick highlights a range of lessons to be learnt, including the:

- **Importance of skilled staff:** while the Helwick is “built like a tank” – perhaps the main reason for her survival to-date – vessel maintenance by skilled staff is crucial. For instance, a previous technician without the appropriate knowledge and training, had failed to regularly change the vessels’ anodes, leading to faster degradation of the vessel overall. A recent staff change has helped stabilise the vessel’s condition.
- **Specific challenges of local authority-owned vessels:** including a more limited range of fundraising opportunities, but also public perceptions that make it more challenging to set up friends’ groups (“there is a perception that local authorities should not need to rely on volunteers but pay for staff”).
- **Significant increase of costs** for repairs (e.g. dry docking), as well as ongoing maintenance, including due to environmental considerations (“at one point the Marina was a blue flag area, so you can’t just pour a bit of oil on vessel parts to keep them running”).
- **Importance to understand the value of maintaining historic vessels:** there is an intrinsic value (“You should look after the

heritage for its own sake – even if you don’t value it today, it may be of value to the next generation.”), but vessels like the Helwick also contribute to economic regeneration by increasing footfall and dwell-time in the area.

- **Need for short-term interventions or incentives to avoid loss of local authority-owned vessels:** According to the General Manager of Swansea Museum, the precarious financial situation of many local authorities puts into doubt the future of many vessels, like the Helwick: “without short-term interventions from NHMF, or incentives for Councils to keep these vessels going, we risk losing these kinds of vessels.”

The information in this case study came from an interview with Barry John Hughes, Swansea Museum Manager

8.3 The Daniel Adamson, 'The Danny'



Image Source: The Independent

Key characteristics	Detail
Construction date and location	1903 in Birkenhead
Original function	Canal Tugboat
Vessel type	Steam tugboat
Current ownership name & type	Daniel Adamson Preservation Society / Charity
Current location	River Weaver

8.3.1 The vessel's history up until now

The Daniel Adamson, affectionately known as "The Danny", is a historic steam vessel. Originally built in 1903, this beautifully restored steamship is a testament to the golden age of steam navigation.

Commissioned by the Shropshire Union Railways and Canal Company, the Daniel Adamson was constructed in what is now Cammell Laird shipyard in Birkenhead, England. The vessel was originally named Ralph Brocklebank and was renamed in 1936 after Daniel Adamson, a prominent industrialist and visionary who played a crucial role in the development of the Manchester Ship Canal, a significant inland waterway connecting Manchester to the Irish Sea. The vessel served as a tugboat and towed barges along the Manchester Ship Canal and River Mersey for much of its early years. Its robust steam engine and distinctive design were characteristic of the vessels from that period, reflecting the engineering prowess of the early 20th century.

During the 1930s, the Daniel Adamson underwent modifications, evolving into a luxurious river cruise vessel. As time passed, ownership of the vessel shifted, and it encountered the looming threat of neglect and deterioration. However, in 2004, a hope emerged with the establishment of 'The Daniel Adamson Preservation Society'. Formed by a passionate group of enthusiasts with access to a dry dock, the society embarked on a mission to save the historic steamship. After conducting a thorough hull survey, initial concerns regarding the vessel's

condition were alleviated, prompting the society to commit to the ambitious restoration project.

8.3.2 The vessel today and future plans

Today, the Daniel Adamson stands as a floating and cruising museum and a living piece of history, offering visitors a chance to step back in time and experience the magic of steam-powered travel along the River Weaver, Manchester Ship Canal and River Mersey, often mooring in the Royal Albert Dock in Liverpool. Its beautifully restored interiors showcase the elegance of modern art deco, with polished brass, curved wooden panelling, and vintage furnishings. The vessel plays host to various events, cruises, and educational programmes, allowing people to appreciate the rich maritime heritage and the technological advancements of the past. She also attracts history enthusiasts, maritime lovers and individuals seeking a unique experience.

The journey to restore The Danny was a labour of love undertaken by dedicated volunteers, who invested eleven years of their time and expertise, making the most of the skills and resources at their disposal. However, in 2015, a significant turning point occurred when The Danny was awarded a generous grant of £3.8m from The National Lottery Heritage Fund. This substantial funding injection played a pivotal role in enabling the comprehensive restoration of the vessel to its present splendour and in ensuring that future generations can continue to enjoy her.

The Danny no longer receives support from capital grants and is primarily sustained through the revenue generated from passenger

trips, conducting approximately 36 cruises annually. With a primary focus on chartering, they dedicate a significant amount of time operating on the River Weaver. However, the considerable operational expenses must be carefully managed. In addition, navigating inland waterways comes with specific infrastructure challenges, such as bridge closures, which can have severe financial repercussions for the Trust and erode audience confidence. In a notable instance, in 2023, the Sutton Weaver Swing Bridge malfunctioned, putting the organisation at risk of losing up to £20,000 in trip sales due to the unforeseeable bridge failure that was beyond their control.

While static hire for tours and events presents a significant financial avenue for the vessel, raising awareness about its functional versatility as an alternative venue for events remains an ongoing challenge. To generate additional income, the Trust has set up a members scheme, whereby supporters can donate money each month. Fortunately, the Trust also receives valuable in-kind support in the form of a winter mooring, workshop, and restroom at the Seaforth Dock system in Liverpool.

Despite facing challenges, the Trust actively participates in a range of educational initiatives, including the 'Maritime Heritage, Maritime Futures' project. This endeavour seeks to enlighten young individuals about maritime heritage while highlighting career opportunities in the field to address skills gaps. Collaborating with Peel Holdings, The Canal and River Trust, Svitzer and other stakeholders in the maritime sector, the Trust is committed to this educational endeavour. This intergenerational project has not only created opportunities for young people but also supports the

reduction of isolation in older generations that volunteer at The Danny.

Looking ahead, the Trust aims to allocate resources towards a marketing and fundraising campaign to enhance awareness of the vessel, as well as generate funds for the upcoming boiler examination through public funding initiatives such as Crowd Fund. They are keen to build on their current financial model and develop corporate sponsorship offerings, which can support the ongoing vessel operation and maintenance.

8.3.3 Key learnings and advice

At vessel level:

- Importance of skilled staff: the trust has a strong resourceful group of volunteers who are highly skilled and dedicated to the project.
- Significance of funding: a significant cash injection through capital funding was able to lay the foundations for future organisational growth and vessel preservation, which is now sustained through a mixed-income model managed by the society.
- Infrastructure issues: external factors can be detrimental to the heritage maritime project, therefore organisations need to be resourceful and adaptable

And at sector level:

- There is a requirement for more ‘conservation-centric’ funding: this is to aid general vessel conservation and basic repairs

The information in this case study came from an interview with Andrea Ward, Director, Daniel Adamson Preservation Society

8.4 Cervia



Image source: NHS-UK

Key characteristics	Detail
Construction date and location	1946
Original function	Tug
Vessel type	Empire class intermediate size Tug
Current ownership name & type	Thanet Council, Local Authority
Current location	Ramsgate Harbour

8.4.1 The vessel's history up until now

During the Second World War, approximately 144 intermediate-sized tugs were built between 1941-1946 for the Ministry of War Transport. Cervia (then named Empire Raymond) was completed on 30 April 1946 by Alexander Hall & Co. Ltd, Aberdeen, based on the design of the Foremost of 1928. She was handed over to Townsend Bros Ferries for onward delivery. In December 1946, Empire Raymond was sold to William Watkins Ltd, a London tug company, and renamed Cervia.

For two years, she was employed on towing duties between ports on both sides of the English Channel, before moving to be based at Gravesend. In February 1950, an amalgamation of towing companies put her ownership under Ship Towing (London) Ltd, but she retained her Watkins colours. On 26th October 1954, she was assisting with the undocking of the P.&O. liner Arcadia, stern first, when, to avoid collision with another vessel, Arcadia put her engines ahead and pulled the Cervia sideways, so that the tug capsized and sank, with the loss of her master and four crew. She was raised two days later and taken to Ramsgate (where Watkins had a repair yard) for a refit.

In January 1969, further rationalisation of companies made Cervia part of London Tugs Ltd. In 1971, Cervia was laid up at Sheerness and was sold the following year. After a refit, she returned to towing service in 1974, working in the North Sea and elsewhere on coastal towing. International Towing Ltd. was formed and owned several tugs based at Ramsgate. She remained in service with that company until 1983, her final duties being as a port tug for the

new cross-channel ferry service at Ramsgate, assisting in adverse weather conditions.

Cervia was finally laid up at Ramsgate and, in July 1985, was put into the care of the Ramsgate Maritime Museum, run by the East Kent Maritime Trust. She was refitted and repainted in the Watkins colours, berthed in Smeaton's historic dry dock, and opened to visitors as part of the museum, located at the Clock House in Ramsgate Harbour. In the mid-1990s, her engine was restored to full working order.

When the East Kent Maritime Trust failed, the Steam Museum Trust, formed in 1991 and operator of the Ramsgate Maritime Museum, took over her care and upkeep from 2009, with several years of intensive cosmetic restoration works above the water line inside and out, before being opened to the public. In December 2018, however, Cervia partially sunk after a small area of internal hull rust corrosion caused a leak. A concrete patch was fitted, and the boat was refloated and subsequently opened to the public again. Post-Covid, the Steam Museum Trust also ran into trouble and was unable to maintain a commitment to the Maritime Museum, which had suffered water ingress and damage. The Cervia was put up for sale in 2019 and in 2022, the Trust published a declaration of intent to deconstruct the vessel, if alternative arrangements could not be found.

The Steam Tug Cervia Preservation Trust was set up by a group of volunteers from Gravesend with a view to acquiring the vessel with support from NHMF and transferring it to a new home in Gravesend, where Cervia was based for many years and where

the fatal accident happened in 1954. However, when the submission to NHMF failed in 2023, this plan fell through.

Following receipt of Levelling Up funding, Thanet Council in late 2023 took over the ownership of the Clock House and Ramsgate Maritime Museum with a view to refurbishing the site and establishing a new heritage hub. With this came ownership of the Cervia, which remains at Smeaton's Dry Dock. The vessel is now under management of Thanet Council Harbour Master and Marine Operator for Ramsgate harbour, Matthew Kenney, who is working alongside the Council's Regeneration team on a number of projects across the site.

8.4.2 The vessel today and future plans

Cervia has been in Ramsgate since 1983 and is well known to locals, and Matthew credits support from several volunteer organisations for much of the work undertaken to maintain the vessel in recent years. However, Cervia is not in a good condition and desperately in need of major restoration. Much of the hold bottom is filled with concrete to stop leaks in the steel hull. She is moored in a shallow berth of 3.5 to 4m, so is sitting on a silt shelf, meaning that she would never fully submerge, even if the hull was compromised.

Following their unsuccessful NHMF bid, the Steam Tug Cervia Preservation Trust has lost momentum; moreover, Matthew Kenney says that Cervia is currently in no fit state to be transferred to Gravesend any time soon, as the Trust hopes to.

In the meantime, a new group of volunteers have come together as the 'Save the Cervia' Trust, founded by one of the members of the board of the Steam Tug Cervia Preservation Trust. The new Trust's core aim is to bring Cervia back into a fit condition, with the ultimate ambition of reopening the vessel to the public as part of the new heritage hub at the Clock House. The volunteer team is growing and enthusiastic, and has started a new fundraising campaign, both via Facebook donations and, more recently, the sale of Cervia mementos. A group of five or six members go on board every week to undertake essential maintenance.

While the Council does not have sufficient funds to fully restore the vessel, it has recently supported the volunteers in making the vessel safe to access (volunteers were previously unable to access the inside of the vessel): asbestos present throughout the vessel has been removed; the electrics, deemed unsafe, have been replaced; and new lighting installed. The volunteers are currently in the process of removing and replacing the vessel's decking and have also repainted the roof.

Matthew Kenny sees his role as keeping Cervia afloat and safe until funding is secured. However, he acknowledges that this may not be soon. Ultimately, the plan is that while the Council will continue to own Cervia, the new Trust will run it, though the Council may gift Cervia to the Trust if they prove to be robust.

8.4.3 Key learnings and advice

At vessel level:

- Tug boats are built to do tough work and this strength in build is reflected in their longevity.
- They are interesting boats with lots of subsystems, which require (but also have the potential to attract) a range of engineering skills needed in volunteers.

And at sector level:

- Cervia highlights the challenges of costly vessels in local authority care. Local authorities, though they may act as custodians, in many cases do not have the resources to operate costly heritage facilities such as complicated vessels in need of maintenance and conservation.
- The multiplicity of stakeholders involved in Cervia is not uncommon. It has both had an impact on Cervia's state in recent years and makes the task of ensuring Cervia's future challenging: at present, Matthew Kenny cannot access expertise available to bigger museums, and is reliant on a group of local volunteers and Council decisions.

The information in this case study came from an interview with Matthew Kenney, Harbour Master and Marine Operator for Ramsgate harbour.

8.5 SS Great Britain



Image source: SS Great Britain

Key characteristics	Detail
Construction date and location	Launched 1843, Bristol
Original function	Passenger Vessel
Vessel type	Steamship
Current ownership name & type	SS Great Britain Trust / Charity
Current location	Bristol

8.5.1 The vessel's history up until now

The SS Great Britain holds a significant place in maritime history, as a revolutionary vessel that paved the way for modern passenger shipping. Designed by the renowned engineer Isambard Kingdom Brunel for the Great Western Steamship Company (GWSC), this steamship was a marvel of 19th-century engineering and innovation. Launched in Bristol in 1843 the SS Great Britain was a turning point in the history of ship design, combining large size, iron construction, the screw propeller and a balanced rudder for transatlantic voyages. Its innovative design marked a departure from traditional wooden ships, signalling a new era in marine architecture, and its groundbreaking design and technological advancements set the stage for the future of ocean travel. Built initially as a transatlantic liner, its crucial role in connecting Britain with the Americas was cut short after only seven voyages when it ran aground in Dundrum Bay in 1846. This was a commercial disaster for the GWSSC and cut short later New York runs. Sold, repaired and refitted, it became commercially successful as an emigrant steam clipper to Australia, carrying thousands of passengers to the new world.

The Australia run, which continued until 1876, moved the ship off the stage of cutting-edge marine engineering and in 1881 her engines were removed and she became a windjammer cargo ship carrying coal from South Wales to San Francisco. In 1886, storms off Cape Horn badly damaged the SS Great Britain and forced its Captain to seek shelter in the Falkland Islands, where the vessel was abandoned and used as a storage hulk until 1937, when it was towed to Sparrow Cove and scuttled. In the late 1960s, a

remarkable campaign was launched by Ewan Corlett to rescue the SS Great Britain and restore it to its former glory. The ship was successfully salvaged and towed back to Bristol, England in 1970, to the dock where it was originally built.

8.5.2 The vessel today and future plans

Today, the SS Great Britain is owned by the SS Great Britain Trust and is a well-preserved museum ship and Bristol's No.1 tourist attraction, offering visitors a chance to explore its decks and learn about its storied history. It is berthed at the Great Western Dockyard, where the vessel was originally constructed.

When the ship returned to Bristol in 1970, the Great Britain Project as it was then known was managed and run by volunteers.

However, significant changes occurred in the 1990s, when the museum transformed itself into a professionally-run, independent museum and initiated a comprehensive, long-term conservation strategy in collaboration with the University of Cardiff and external conservators, supported by the Heritage Lottery Fund. One of the most noteworthy outcomes was the establishment of a 'glass sea' around the ship's waterline and the introduction of an advanced dehumidification system. Installed in the early 2000s, this system aims to minimise corrosion of the iron hull. To oversee the proper functioning of the system, in 2018 the Trust appointed a full-time Ship's Conservation Engineer. This role is augmented by ongoing research conducted by the Engineering faculty at the University of Bristol, whose students are analysing topics such as the dynamics of hull movement and airflows around the ship. Additionally, the Trust is actively engaged in research aimed at identifying and

adopting more cost-effective and environmentally sustainable ways of operating the gas-powered dehumidification systems.

The extensive conservation work undertaken since the 1970s has been to return the SS Great Britain to its original Victorian appearance and become a museum ship – it has never been the Trust's intention to relaunch SS Great Britain and sail it again.

Visitors can walk through various parts of the ship, including the engine room, passenger quarters, and cargo holds, providing a comprehensive view of 19th-century maritime life. The SS Great Britain site also features exhibitions and displays related to the ship's construction; its role in transoceanic travel; and in the Being Brunel museum, the innovations introduced by Isambard Kingdom Brunel, that can inspire engineers and entrepreneurs of the future.

The Trust has observed a shift in focus among a new generation of visitors, showing increasing interest in learning about passengers, crew and their stories, rather than solely concentrating on the ship's technology. This shift is evident in collaborative projects like the Arts and Humanities Research Council (AHRC)-funded 'Exchange Project', which aims to bolster community research initiatives. Working with the local Hannah More School, parents became community researchers, delving into the ship's history, passengers, and crew by exploring the original archives and museum collection objects. The SS Great Britain's emphasis on a story-driven interpretation for a broader audience is growing, and its robust community and school programmes receive substantial support from visitor revenue and public funders, including Arts Council England.

Although the SS Great Britain is an independent museum and receives external funding for major projects, most of its revenue is generated from visitor income, retail and corporate hospitality, such as events and training days. In 2023, it welcomed 145,000 visitors. The organisation has a workforce of around 70 staff members and nearly 200 volunteers who play a crucial role in supporting the museum's daily operations and enhancing the visitor experience. The trust primarily relies on its own technical services team and specialist contractors for specific vessel maintenance and conservation projects. In 2023, the Trust was granted £700,000 from Arts Council England's MEND Fund, which was granted to renew the wooden deck in environmentally-friendly timber. One significant point was raised, which was the lack of external funding which focuses specifically on the conservation of vessels and basic repairs to keep the vessel going. Conservation-specific funding is rare and highly competitive in both the maritime heritage and wider IMT heritage sector.

While SS Great Britain stands as a success story, the project has confronted significant challenges and risks throughout its journey. Museums and heritage organisations increasingly have to grapple with substantial uncertainties arising from external factors beyond their control, including the impact of events such as Covid-19 and the Ukraine war. Escalating energy and material costs, challenges posed by the cost-of-living crisis, and the overarching issue of climate change further contribute to the complexities faced. In Bristol, there are also localised factors such as heightened risk of flooding, and the implementation of a low emission zone, which

while a positive measure for reducing city-wide pollution, has become a perceived deterrent for some visitors.

8.5.3 Key learnings and advice

At vessel level:

- Drawing on organisational strengths: the Trust has developed from a volunteer-led organisation into a professional visitor attraction, aided by a track record in fundraising for capital projects; strong customer focus; imaginative programming, which has given it long-term financial stability.
- Strategic approach to conservation: including the creation/delivery of a robust conservation strategy using industry professionals
- Providing a substantial learning programme, with place-based themes and story-driven interpretation to appeal to a wider audience. SS Great Britain is adapting to contemporary interests in human stories to capture the imagination of visitors.
- Creating and nurturing a sustainable workforce: relatively few people leave the organisation. Staff and volunteers feel it is a great place and location to work in.

At sector level:

- There is a requirement for more sources of 'conservation-centric' funding, to aid general vessel conservation and basic repairs; this need can be extended further to include curatorial and collections-based funding to support the core role of the

Trust in conserving and making maritime heritage more accessible.

The information in this case study came from an interview with Tim Bryan FMA, Director of Brunel Institute / SS Great Britain

8.6 Medusa



Source: [HMS Medusa](#)

Key characteristics	Detail
Construction date and location:	1943, Poole
Original function:	Harbour Defence Vessel
Vessel type: Harbour Defence	Motor Launch
Current ownership name & type:	The Medusa Trust / Charity
Current location:	Haslar Marina, Gosport

8.6.1 The vessel's history up until now

Medusa, originally named HDML 1387, was built in 1943 as a harbour defence vessel at the R A Newman and Sons shipyard in Poole, Dorset. She was equipped with two Gardner 8L3 diesel engines and a Gardner 1L2 auxiliary, along with armaments such as a 2-pounder gun, a 20mm Oerlikon, twin Vickers 'K' machine guns, and depth charges. For submarine detection, she was fitted with Type 134 ASDIC and a Type 286 radar.

Commanded by Temporary Sub-Lieutenant Maurice Liddiard, RNVR, throughout her wartime service, Medusa initially engaged in convoy escort duties in the Western Approaches. Later, she joined the 149th HDML Flotilla based at Portland and participated in Exercise Fabius 1, a rehearsal for the D-Day landings conducted by American forces at Slapton Sands, Devon.

During the D-Day landings, Medusa played a pivotal role, arriving off Omaha Beach the night before the invasion. She remained on station for 30 hours, serving as the Navigational Leader for approach channel 4, marking the entrance to a narrow-swept channel through the German minefield. Following D-Day, Medusa was stationed in Scotland, where she escorted minesweeping flotillas out of Granton. In October 1944, she was transferred to the 185 Auxiliary Minesweeping Flotilla based on the Medway.

In May 1945, Medusa journeyed to Ostend and then IJmuiden, where she accepted the surrender of German occupying forces. She navigated the North Sea Canal to Amsterdam, becoming the first allied ship to do so, and was present in the city for VE Day on May 9th.

After the war, Medusa underwent several re-designations and changes in roles. She served as Fast Despatch Boat (FDB) 76 allocated to Cardiff University and Bristol before being temporarily designated HMS Thames whilst in London. Later, she became Seaward Defence Motor Launch (SDML) 3516 and eventually a Hydrographic Survey Vessel with the pennant number A 323, receiving the name HMS Medusa in 1961. In 1968, after 25 years of service, Medusa was sold by the Admiralty, deemed suitable only for scrapping. However, she was purchased by a group led by Mike Boyce, and painstakingly restored over 18 years. The Medusa Trust was formed in 2002 to take ownership and conduct further restoration.

8.6.2 The vessel today and future plans

Today, Medusa remains in the National Historic Fleet, symbolising an enduring piece of naval history. All the major structural components, engine, mechanical and electrical systems remain original to Medusa, spanning approximately two generations. However, the hull planking has undergone significant replacement. Originally, Medusa and similar vessels were intended to be teak-planked, but due to limited teak availability, mahogany and occasionally other materials were used for subsequent planking. Despite the superior craftsmanship, by 1943, the quality of materials had declined. The planks were designed for a five-year operational lifespan and Medusa's longevity posed a dilemma when she reached 60 years of age. One option was to preserve every remaining original material, which would entail removing her from the water and storing her indefinitely. The alternative was to

sacrifice some original components to ensure the continued operational capability of one vessel from her class, which is how she operates today.

Medusa struggled to secure a berth, finding herself on an unused jetty temporarily before being displaced. Eventually, she found a spot in the number one basin of Portsmouth, near HMS Victory, but the lack of a stable berth caused volunteer numbers to dwindle. Moving to Southampton further depleted the volunteer group, as most were based in Portsmouth. In the mid-1990s, efforts were made to rebuild the volunteer group, improving standards. Securing a permanent berth in Gosport increased operational capabilities. However, the challenges of an ageing vessel began to emerge, prompting discussions about her future.

Between 2004 and 2009, the trust undertook a restoration project, structured as a training initiative for young people. Vital components essential for Medusa's continued existence include financial resources, people power, and a permanent docking facility. In 2003, the Trust was awarded almost £1m by the Heritage Fund to fund the major refit. The trust requires a minimum of £20,000 annually to sustain Medusa as a growing enterprise. The primary expense each year is the berthing fee (although the trust benefits from a substantial reduction owing to its charitable status), closely followed by fuel costs.

In terms of financial sustainability, the trust receives a few regular donations each year and as a coded vessel, they engage in occasional chartering activities. However, the aim is not to operate as a full-fledged business, constantly generating revenue. Instead,

the primary objective is to maintain a balanced budget. They typically undertake around half a dozen charters annually, striking a balance between financial sustainability and avoiding excessive strain on both the vessel and the volunteer team. Very occasionally, film opportunities arise, which provide a token financial buffer.

Since berthed in Gosport, the Medusa's volunteer group has expanded again, now boasting comprising 45 individuals, with 20 actively participating regularly and conduct the majority of vessel maintenance. The trust maintains engagement with a broader audience through routine newsletters and receives support from organisations like the Worshipful Company of Shipwrights.

While there have not been numerous setbacks during the journey, the trust has identified its primary risk as the potential loss of its berth in Gosport, following the acquisition of Haslar Marina from a family company to a group. Despite being secure at present, there remains an element of uncertainty. The other concern, as always, revolves around maintaining the vitality of the volunteer group. It has been observed that young individuals tend to enjoy visiting once, treating it as a singular experience before moving on to the next. Many volunteers tend to join the group upon retirement.

The trust has been actively engaged in fundraising efforts beyond its usual activities, particularly considering the upcoming 80th anniversary of D-Day. Medusa, as far as their understanding goes, stands as the sole surviving operational UK vessel that directly participated in the landings rather than merely being present during D-Day events. There are plans to sail her back to France

for commemorative purposes. Their annual schedule typically includes a lengthy deployment, either to France or the Channel Islands, lasting around three weeks. This year, they are intensifying their fundraising endeavours to cover the substantial fuel costs, estimated at around £5,000, for this voyage, given the current high fuel prices.

The trust depends heavily on a limited number of individuals, resulting in a disproportionate amount of work falling on specific members. To address this issue, the trust is implementing a more structured approach to ensure a fair distribution of responsibilities.

8.6.3 Key learnings and advice

At vessel level:

- When considering the preservation of the original material versus the regular operation of the vessel with resilient material and structural integrity, a compromise becomes necessary.
- A balanced approach has been effective in financial sustainability and preserving both the vessel and the volunteering team.
- Finding security in a permanent berth can be difficult but is paramount to the success, to ensure organisational stability and access to a dedicated community of volunteers.

At sector level:

- Grants specific to annual historic vessel maintenance are required.

**The information in this case study came from an interview
with Alan Watson, Chairman and Captain of HMS Medusa**

8.7 Steam Tug John H Amos



Source: [NHS-UK](#)

Key characteristics	Detail
Construction date and location:	1931 Paisley Scotland
Original function:	Tugging in River Tees
Vessel type:	Steam Paddle Tug
Current ownership name & type:	Medway Maritime Trust / Charity
Current location:	Pontoon Portal Narvik in River Medway Kent

8.7.1 The vessel's history up until now

John H Amos (JHA) was the last paddle tug built in Great Britain for civilian owners, with a sister ship in San Francisco. She was built in 1931 for the River Tees Commissioners. As the builders were declared bankrupt before completion, the liquidators completed the build to a higher specification by using available materials that were in the yard. However, it was soon discovered that the boilers they used could not supply enough steam for the large diagonal compound engines. A maximum speed of only 11 knots was achieved instead of the intended 13 knots. Among other modifications that were made, an extra steam container was therefore added to each boiler.

John H Amos had a certificate for 130 passengers. Her shallow draft was well suited to the River Tees and although inefficient as a deep-water tug, she saw good service supporting all waterborne movements on the River.

In the late 1960s, when the vessel was retired from use with the River Tees Commission, Stockton Council assumed responsibility for her, but after the local government reorganisation of 1974, the new council did not wish to continue with this. According to Martin Stevens, the following thirty years have largely been “filled with multiple attempts to get help, most of which were in vain, and desperate attempts to save the vessel from the easy option of demolition.” When Stockton Council announced no longer being able to care for JHA, the Medway Maritime Museum²³ heard of her

²³ Formed in 2001 with the help of founding trustee Dr Robert Prescott

impending fate and negotiated to buy the vessel. With due civic ceremony and much attention from the media, JHA was towed by the steam tug Cervia to Chatham as part of a proposal to establish a living museum in the Medway. JHA, Medway Queen and Arethusa were moored at Gun Wharf – at that time still a disused part of the Royal Navy Dockyards – with plans for their inclusion in the museum. However, the land was subsequently bought by Lloyds of London for development, which meant that the museum proposals were no longer viable. As Martin Stevens puts it, “we have been moving on ever since, with the overriding priority to find a safe haven for all historic ships”.

JHA was moved to Anchor wharf in the historic dockyard and then to an unprepared berth, where she sank. In November 1999, the National Historic Ships Committee included the JHA in their "Core Collection" as a vessel of "pre-eminent National Significance" and among the most worthy vessels for preservation. Two years later, ownership of the JHA was transferred to the Medway Maritime Trust. The first funding came from the PRISM Fund at the Science Museum and Martin Stevens on the transfer of ownership. Further funding has since been received from the Heritage Fund (project planning grant), NHS-UK and Rochester Bridge Trust and help in kind from G.P.S Marine.

In January 2008, JHA was prepared for lifting onto a giant pontoon at Chatham, the Portal Narvik, which became her home whilst restoration took place. Since then, due to lack of resources for ongoing maintenance, the vessel has been in a state of disrepair; however, she is out of the water and safe.

8.7.2 The vessel today and future plans

Today, the Medway Maritime Trust continues to explore options for the future of the JHA. Full restoration to working condition is not considered to be practical at this stage. A dry land location is being sought with restoration up to a standard where visitors can appreciate vessel and volunteers can maintain a status quo condition.

In the meantime, the vessel is moored in the Medway River on a huge pontoon, itself the bottom of HMS Narvik, which belongs to Martin Stevens, Chairman of the Medway Maritime Trust alongside two other trustees. Lifting the vessel onto the pontoon would have cost over £100,000, as it involved one of the world's biggest floating cranes, but Martin found a way around this by having it done on a quid pro quo basis. Martin says the Trust is “trying to stay active” but is meeting a lot of apathy. He pays £125 a month out of his own pocket to have the pontoon moored in the Medway River. This is a concessionary rate, but he feels that Peel Ports, the local port authority, would like to see the pontoon gone and have all extraneous shipping moved from the Medway. In the past years, a few other groups have offered to take on the John H Amos, but Martin is dubious after a past experience with Steam Launch Belle, which he rescued from Hull – a partnership with a person who offered to make the Belle a ‘national treasure’ with serious funding resulted in the boat being taken back to the West Country. After a period of noncommunication, Martin learned that it had been scrapped.

For the last 15 years, Martin Stevens has been trying to get Sheerness Historic Dockyard (which is within the Sheerness dockyard, owned by Peel Ports) back into action. Peel Ports became the Competent Harbour Authority with responsibility and powers in the Medway River when they purchased Sheerness and Chatham Docks from previous owners Mersey Docks and Harbours. Martin thinks storage ashore at the Dockyard is the best chance that the John H Amos has of surviving. The dockyard comprises two dry docks and a Grade 1 listed Boat Store along with several Grade 2/ 2* listed houses. The boat store is the first example of the skyscraper technology and was built by the Royal Navy in 1856-60 to store small boats. One of the dry docks is potentially operational, whereas the other would require work to the stonework. It would be a major heritage development to get the dry docks and the greater dockyard back into use, and the proximity of Chatham Historic Dockyard, just a few miles upriver, may make it harder to justify. However, despite its heritage, Peel Ports have shown little interest to date in allowing further access to the site, whilst accepting that the historic area of the Royal Naval Dockyard has no place in the functioning of the modern port.

If and when the time comes, it is expected that lifting John H Amos onto the shore at Sheerness, along with creating a support frame and accessways, may require a similar amount of capital as lifting onto the Narvik pontoon did. Martin hopes that he may be able to broker a deal between the Commercial operator of Gillingham Marina and Peel Ports, but at present is unsure whether Peel Ports will support this. As of February 2024, Medway Maritime

Trust is in negotiation with Sheerness Historic Dockyard to find a way forward.

8.7.3 Key learnings and advice

- The case study highlights that the preservation of vessels such as the John H Amos often comes down to the tenacity of strong characters, who are willing to give up many hours as well as personal funds.
- Vessels quickly slip into a state of major disrepair where full conservation may no longer be realistic, if not regularly maintained.
- Finding a permanent, appropriate berth for vessels such as the John H Amos, who are destined for a future as a 'static vessel', is a significant challenge.

The information in this case study came from an interview with Martin Stevens, Chairman of the Medway Maritime Trust

8.8 SS Shieldhall



Source: [NHS-UK](#)

Key characteristics	Detail
Construction date and location:	1954-1955 Glasgow
Original function:	Transportation
Vessel type:	Steamship
Current ownership name & type:	Solent Steam Packet Ltd / Registered society
Current location:	Southampton

8.8.1 The vessel's history up until now

The SS Shieldhall was launched in 1955 by Lobnitz & Company in Scotland and began its career as a sewage treatment vessel, serving the city of Glasgow for over three decades. During this time, it played a crucial role in managing urban waste. Its construction and advanced steam-powered engines were representative of the era's engineering proficiency.

SS Shieldhall continued a longstanding tradition initiated during the First World War. This tradition involved Glasgow's sludge vessels offering complimentary day trips down the river to disadvantaged families, as well as wounded or disabled ex-servicemen and women, during the summer months. This meant that the vessel was built with a large saloon and facilities to accommodate up to 80-day passengers on trips down the Clyde.

In 1976, following 21 years of dedicated service on the Clyde, SS Shieldhall was decommissioned and in 1977, was acquired by the Southern Water Authority. Following some minor alterations, SS Shieldhall was repurposed to shuttle sludge from Marchwood, Millbrook, and Woolston in Southampton to a location south of the Isle of Wight for five years, commencing in 1980. Nonetheless, the surge in fuel prices and operational costs prompted the decision to withdraw the vessel from active service. Consequently, she was once again laid up in July 1985.

A dedicated group of enthusiasts formed the Solent Steam Packet Ltd, which was established as an Industrial and Provident Society to oversee the ownership, preservation, and operation of the ship. Later, it transitioned into a Community Benefit Society, and in

2020, a new registered charity called the 'Steamship Shieldhall Charity' took over responsibility for fundraising while ownership remained with Solent Steam Packet Limited.

8.8.2 The vessel today and future plans

Located in a popular spot along the Solent, the SS Shieldhall enjoys high visibility, allowing for interaction with passing vessels through salutes and the blowing of the whistle. There are an average of 4,000 visitors per year on 25 sailing trips. Occasionally, the ship ventures beyond the Solent, returning to her home port of Glasgow and participating in events such as the Dordrecht Steam Festival in Holland. Additionally, Shieldhall has been featured at the International Festivals of the Sea in Bristol and Portsmouth.

Today, the SS Shieldhall serves as a reminder of past maritime achievements, embodying the innovation and craftsmanship of its time. Its preservation ensures that future generations can learn from its history. Steam power significantly contributes to the enduring appeal of the vessel, with its prominent triple-expansion engines and accessible boiler room offering visitors a comprehensive view of the ship's inner workings, providing a fully immersive experience onboard. All organisational management, maintenance, and operation of Shieldhall are carried out by unpaid volunteers. Over the years, these volunteers have dedicated

significant effort to maintaining the ship's seaworthiness. They also crew the ship during excursions.

Nearly £2m support from the National Lottery Heritage Fund has aided various projects, including the restoration of the saloon, funnel repair and plate work on the ship side, equating to around £700,000 for the more structural elements of restoration. Furthermore, the trust purchased a 20-foot container converted into a welcome terminal, which has been an integral addition to the project.

Since 1998, the society has secured a total of 14 grants under the stewardship of project manager Graham Mackenzie, who coordinated these grants and ensured their successful implementation. Among the notable contributors are the National Lottery Heritage Fund (via a DCMS Culture Recovery Fund grant²⁴) and the NHMF, which provided essential funding for repairing hull damage.

In 2011, significant corrosion was discovered in some of the hull frames within the engine-room, along with pitting corrosion affecting areas of hull plating. Consequently, the ship's passenger certificate for 2011 was revoked. This discovery played a pivotal role in prompting the successful grant request to the NHMF for extensive hull repairs.

It marked a challenging period, with an uncertain future looming. However, collaborative efforts with the Maritime and Coastguard

²⁴ The Heritage Fund, in partnership with Historic England, distributed DCMS Culture Recovery Fund grant money to the heritage sector, based on criteria set by DCMS.

Agency (MCA) surveyor led to the development of a plan for temporary repairs, coupled with the initial stage of the Heritage Fund grant. In 2011/12, the trust was awarded close to £2m from the Heritage Fund. This collective endeavour enabled the resumption of sailing in 2012, following extensive repair work carried out by dedicated volunteers, which “demonstrated a very strong volunteer base that we have and continue to enjoy”.

One major factor in keeping an operational ship in first-class condition is the annual survey by the MCA, which comes at a cost. The society is struggling to keep up with the ongoing commercial costs for dry dock maintenance and explained that they “are at the mercy of commercial pressures”. Furthermore, there are limited grants that support vessel maintenance and this is an area which the society would like to see addressed by relevant funders and National Historic Ships.

The situation is exacerbated by the surge in fuel prices, which have doubled since the onset of the COVID-19 pandemic. Consequently, the Society has tapped into its financial reserves and reached out to its members for assistance in covering the annual docking expenses, which are between £100,000-£250,000 per year. Failure to secure adequate funds would render the ship inoperable. This would have an adverse affect on the ship’s fabric and ultimately, survival.

Volunteers are instrumental in maintaining the ship and managing organisational operations, totalling approximately 100 individuals within the ship's Society (currently solely run by volunteers) and attracting individuals from as far as Shetland. Whilst the team has

attracted some younger members, most volunteers are nearing the end of their working careers or are already retired.

The Society has expanded its educational and training initiatives, collaborating with Southampton City College to provide work placement opportunities for students interested in marine engineering. This partnership has proven successful in introducing younger generations to maritime heritage. However, it poses challenges as some young individuals are drawn to the experience but eventually pursue careers at sea, leading to their departure from society. Moreover, the Society aims to enhance its community engagement initiatives and expand its business development efforts. To achieve this, it is in the process of drafting another grant proposal to hire qualified personnel dedicated to advancing these objectives.

Tremendous support is received from the port operator, Associated British Ports. They offer a peppercorn rent for the berth, which is now secured under a 10-year lease. The value of this concession is substantial, potentially saving tens or even hundreds of thousands of pounds if the commercial rate were applied. Whittaker's, the fuel bunkers supplier, delivers fuel free of charge. Exxon Mobil, the fuel provider, applies the minimum marketing rate for the fuel, similar to what they offer to large cruise ships. While there is no direct financial support from any entity, the support received in kind is significant and should not be underestimated. The Society is keen to adopt a greener strategy where fuel is concerned.

8.8.3 Key learnings and advice

At vessel level:

- Steamboats hold a strong allure, drawing numerous steam enthusiasts who revel in the vessel's charm. The SS Shieldhall offers visitors the opportunity to explore the boiler room and immerse themselves fully in the experience and feel connected to its history and ingenuity.
- While the volunteering team remains proactive in the upkeep and operation of the vessel, the case study highlights the importance of individuals at the centre, playing a pivotal role in fundraising and project management for significant restoration endeavours.
- The Society acknowledges the significance of fostering broader community involvement and is in the process of formulating a strategy to facilitate engagement with schools, colleges, and other organisations.
- The case study highlights the significant value of (regular) in-kind donations to historic vessels, beyond financial donations.

At sector level:

- One major factor in keeping an operational ship in first-class condition is the annual survey by the MCA, which comes at a cost. The Society would like to see more sector input into addressing commercial pressures, which pose a great threat to the future of historic ships.

- Maintenance grants should be made available amongst proactive historic vessel custodians to support annual dry dock and general maintenance costs. The Society would like to see this addressed by relevant funders and National Historic Ships.
- The industry could assist in tackling escalating fuel expenses and offer more environmentally friendly solutions.

The information in this case study came from an interview with Graham Mackenzie, Voluntary Project Manager on SS Shieldhall.

8.9 LCT 7074 (Landfall)



Source: [NHS-UK](#)

Key characteristics	Detail
Construction date and location:	1940
Original function:	Landing tanks on French beaches for D-Day
Vessel type:	Landing Craft Tank
Current ownership name & type:	National Museum Of The Royal Navy / Non-departmental public body
Current location:	The D-Day Story Museum, Southsea

8.9.1 The vessel's history up until now

In the late 1930s, consideration was given to the provision of shore-to-shore tank carriers and landing craft. The first tank landing craft, designated LCT Mark I, was built at R&W Hawthorn, Leslie and Co Limited on the Tyne and launched in November 1940. Incorporated in her design were several novel features including a front-loading ramp, hinged just above the waterline, and a hull in the form of a double-floating dock, enabling the vehicles in the hold to be concealed from view and protected from the weather by the side tanks, from which a canvas cover was suspended. Motive power was provided by a Paxman diesel engine.

Progressive modifications were introduced and, over time, 235 LCT Mark 3's were completed, including 71, which were built to slightly modified plans during the winter of 1943-44. Among these was LCT 7074, built like the others by Hawthorn, Leslie and Co, and powered by American Sterling Admiral petrol engines. She was launched without ceremony in April 1944, then completed and commissioned shortly afterwards. With a crew of 2 officers and 10 ratings, she sailed for the River Orwell under the command of Sub Lt John Baggot RNVR. She joined the 17th LCT Flotilla at Great Yarmouth, then steamed onwards to Felixstowe to prepare for the build up to D-Day. The backbone of the invasion fleet, LCTs, which could carry up to eleven Sherman tanks, were manned mainly by British crews and transported almost all the tanks, heavy artillery and armoured vehicles that landed in Normandy. The 17th LCT Flotilla was part of Assault Group L2, LCT Squadron "H" of the Eastern Task Force, which supported the British landings, and

LCT 7074 carried troops and ten Shermans to Normandy, successfully landing nine of the tanks on Gold beach.

For several months after the invasion, the vessel was consistently engaged in ferrying troops, supplies, vehicles and ammunition to ports across the Channel in support of the Allied Forces advancing across northern Europe, continuing in this role well into the autumn of 1944. At the end of the war, the ship was re-named NSC L (19) and, although work was started to convert her into an emergency repairs ship for service in the Far East, this was abandoned with the end of hostilities in the Pacific.

De-commissioned, in 1948 she was presented to the Master Mariners' Club of Liverpool and adapted to become their club ship. With her name changed again to Landfall, she occupied a prominent position on the Liverpool waterfront, before being purchased by commercial interests to be turned into a riverfront nightclub. Towards the end of the 1990s, the vessel was acquired by the Warship Preservation Trust and, after minor restoration works, was moored alongside other historic vessels in this fleet at East Float Dock, Birkenhead, until January 2006, when the Trust went into liquidation.

In 2014, with a £916,000 grant from the National Memorial Heritage Fund (NHMF), Landfall was salvaged by the National Museum of the Royal Navy (NMRN) and transported to Portsmouth on a dockship. In March 2019 it was reported that the vessel would be conserved in time for the end of the 75th anniversary year of the D-Day landings, thanks to a subsequent grant from the Lottery Heritage Fund of £4.7million. Landfall is the

only known World War II tank-landing craft left in the UK and is believed to be one of only ten left in the world.

8.9.2 The vessel today and future plans

In August 2020, renamed to her original name, LCT 7074 finally arrived at her new home, as a static display outside The D-Day Story museum in Portsmouth. The D-Day Story museum is located on Portsmouth's seafront – one of six museums run by Portsmouth City Council with assistance of the Portsmouth D-Day Museum Trust, who provide fundraising facility and an education officer. Visitors to the museum enter by walking around LCT 7074, which is permanently ashore under a dramatic purpose-built raincover roof. Inside the vessel are two tanks of the type that LCT would have carried during WW2. LCT 7074 was the winner of National Historic Ships UK's Martyn Heighton Award for Excellence in Maritime Conservation 2021.

LCT 7074 belongs to the NMRN but is on long-term loan to the D-Day Story Museum, run by Portsmouth City Council. The NMRN are responsible for its maintenance and include the vessel as part of their collection. Ownership by the NMRN means that LCT 7074 benefits from their resources and critical mass of expertise and skills: NMRN has over 15 vessels located at different sites across the country. This includes three major ships located at their sites in Portsmouth (Warrior, Victory and M33), with a further three submarines (Alliance, Holland and X 24) and two coastal forces craft located at the museum's site in Gosport. The museum also has responsibility for frigate Trincomalee, based at their Hartlepool site, and HMS Caroline in Belfast.

NMRN receives national funding, but 80% of its income is from ticket sales, which were drastically affected during Covid. In the three years since Covid, it has received funding of £10 million. In 2012 it received endowments from the Royal Navy and Gosling Trust to the value of £25m specifically for the work on HMS Victory, which also received funds from the National Lottery Catalyst Endowment Fund. Many of NMRN's ships have complicated funding arrangements, which have to be respected when allocating resources.

Each of NMRN's vessels has a preservation plan, with tasks prioritised depending on need. However, Deputy Executive Director of Museum Operations Andrew Baines highlighted the constant tension between the needs of the museum's conservation plans, other stakeholders (e.g., former Navy members and practices and current curatorial and preservation needs and standards) and the need for "sensitive curation" to avoid gradual replacement of original material. Across all its vessels, the museum has a decision-making matrix, in order to make decisions around which ships require prioritisation. Factors include:

- Works required and estimated costs
- Risk of total loss
- Preservation or conservation
- Return to water or static exhibit
- Story of the ship and relevance to history
- Availability of funding
- Availability and cost of specialist skills

It is accepted that there is not enough cash to preserve all ships and NMRN has turned down vessels that it doesn't have capacity to curate. Crucially, within its portfolio, it is essential that not all ships are modified to create the same experience, but that each exists as a unique visitor experience.

Within this wider context, LCT 7074 is a relatively simple vessel to maintain. It was built for a single purpose, as a large square steel box with a propulsion system and minimal crew facilities. It is flat bottomed, so requires no complicated support structure ashore, and it has relatively good disabled access. After its £5m refurbishment in 2019, it is in very good shape structurally and its only current maintenance issue is replacement of a winch.

The 75th celebrations of D-Day in 2019 provided bumper income for all the Portsmouth sites, and it is hoped that this year's 80th and subsequent 85th anniversaries will maintain interest in LCT7074.

8.9.3 Key learnings and advice

- In particular in a context of multiple vessels located in proximity as exhibits, the case study highlights the importance considering how each vessel can create a unique visitor experience. Connected to this, the case study highlights the importance of context:
 - each ship has "its time", such as, in the case of LCT 7074, a recent increase in interest due to the anniversaries of D-Day

- Interest in what might not ostensibly be an attractive or visually interesting vessel can be enhanced by contextualising the vessel – in this case, through the addition of authentic tanks and placement next to a relevant museum, which presents a story that has popular appeal.
- The case study highlights the significant sums required for successful conservation, with nearly £7m required to return a large but simple vessel to static condition.
- In this context, the vessel’s ownership by a substantial organisation which can benefit from critical mass in terms of bringing in skills and expertise (including for fundraising) is of considerable value.

The information in this case study came from an interview with Andrew Baines, Deputy Executive Director of Museum Operations at the National Museum of the Royal Navy.

8.10 Brixham Trawler Leader



Source: [NHS-UK](#)

Key characteristics	Detail
Construction date and location:	1892 Galmpton, Devon
Original function:	Fishing Boat
Vessel type:	Brixham Trawler
Current ownership name & type:	Silvery Light Sailing Trust / Charity
Current location:	Nielsons Yard Gloucester, but returning to Bangor N.I. soon

8.10.1 The vessel's history up until now

Leader was built in 1892 at A. W. Gibbs' yard at Galmpton, Devon. She fished in UK waters until 1907, when she was sold to Swedish owners. She operated on Sweden's west coast until 1970, when she became a sail training vessel for the Swedish Cruising Club. In 1985, she moved to the west coast of Scotland where, as 'Lorne Leader', she was used for sailing holidays and charter for ten years. In 1996, she was brought home to South Devon and operated from Dartmouth until 1999, when she became part of the fleet of Trinity Sailing at Brixham - at 105 feet and 110 tonnes, the largest and oldest of the four boats owned by Trinity Sailing. However, Trinity Sailing announced it would be going out of business at end of the 2019 sailing season.

8.10.2 The vessel today and future plans

In March 2022, registered education charity Silvery Light Sailing Trust, based at Newry Harbour, Northern Ireland, announced that they had received a National Lottery grant of £244,975 for the acquisition of Leader, alongside expansion of their traditional boat building skills workshop and community sailing programmes. She was brought to Newry Harbour to much public acclaim at the end of March 2022. There is a strong historical connection to the area – over 100 Brixham trawler designs were built in the River Liffey south of Newry, the last one at Tyrrells in Arklow. All these traditional yards are gone and with them all the boatbuilding skills.

Sail training for both Northern Ireland (NI) and the Republic of Ireland (ROI) was historically provided by The Ocean Youth Trust,

who operated Sail Training Vessel Lord Rank, and Coiste an Asgard, who operated Asgard 2. Both were modern vessels, but Asgard sank in 2008 and Lord Rank ran aground in 2010, thankfully with no loss of life. Today, in the ROI, Dublin-based Sail Training Ireland receives a small government grant, operating the 60ft timber ketch Brian Boru for sail training. Sail Training Ireland plays an important role in managing trainees and training mentors across the whole island. The Brian Boru operates under the rules of the Irish Marine Survey office (MSO), whilst Leader operates under the UK Maritime Coastguard Agency (MCA). Sail Training Ireland will work in partnership with Silvery Light Sailing Trust with the aim of continuing sail training in ROI and NI. Leader operates their professional crews under RYA Yachtmaster schemes as in the UK, but those qualifying for their Yachtmaster Training in Ireland are also covered by EU regulations. This means that the organisations have a panel of RYA-qualified crews to cover both vessels.

The Trust has begun a programme of conservation on the Leader. Last year, it renewed all Leader's rigging. When they put Leader into the dry dock to repair the caulking, it became clear that more extensive repairs were required with a full recaulking and replacement of some of the planks. In the absence of available funding, John secured an interest-free philanthropic loan to cover the £90,000 of work required until they can raise the funds this year once Leader enters service. Currently, she is back in England at Tommi Nielson's Yard in Gloucester, where she is having new planks fitted to the stern and deck. John thinks that this will put her

in the best condition she has been in the last 50 years, with regard to her timbers.

There is plenty left to do – Trust chair John Murphy describes the vessel's galley as "pure seventies special", with "a huge generator that runs a toaster". It has been decided to remove the gas installation for safety reasons and top rate Victron chargers are being installed. The boat also needs a new radar. There are several electrical bugs and the skipper's cabin needs replacing. They plan to spend £130,000 this year, with £80,000 on the hull and deck caulking and £50,000 to spend down below on the refit. The vessel will be coded for 12 passengers and three or four crew with a professional skipper mate, bosun and cook.

The Trust has great ambitions for the ship, with plans for it to become the best sail training experience available, with a clean and spotless galley, lifejackets worn by all aboard, and led by a qualified skipper. They aspire to be the "happiest and best ship available". They hope the home port will be in Bangor, where Leader received a big welcome and which has a big marina with lots of commercial assets. The harbour is also talking about making a visitors berth suitable for classic ships.

John is aware of the scale of the task ahead. The big challenge is to get sponsorship, then bursaries and apprenticeships paid for by training organisations. However, the Trust is well equipped to support these challenges: it has excellent marketing to support the task, led by a professional marketer, and the treasurer is a naval architect, while one of the trustees is a qualified Thames Barge skipper. And John believes there is a huge public enthusiasm for

this offer: 2,300 people visited on the first open weekend at the Belfast Maritime Festival last year. Moreover, the Trust have identified a need for maritime apprentices to gain firsthand seagoing experience, as well as a need more broadly to inspire young people with opportunities in a sea going career – something that sail training schemes for youth development can provide.

The Trust has applied to the Ireland Fund (a grant scheme supporting not for profits' cross-border schemes) and have applications into the NI government but have been waiting for two years for the government to sit, before a decision on these applications can be made. One of these is to the Shared Island Civic Society Fund, a community development fund that promotes practical North-South cooperation and engagement through civic societies. Silvery Light Training hopes to attract bursaries to fund young people on both sides of the border to participate in sail training opportunities.

8.10.3 Key learnings and advice

- Leader is now in the hands of a very enthusiastic, energetic and capable team with clear plans for her future use and a business plan. However, funding from government, the Heritage Fund and commercial sponsorship will nevertheless be required for these plans to come to fruition.
- Leader's current conservation programme reflects the lack of skills and facilities available in the sector, which is requiring vessels to travel large distances to receive conservation work

The information in this case study came from an interview with John Murphy, Vice Commodore of the Cruising Association of Northern Ireland; Chair of Atlantic Youth Trust and Silvery Light Sailing Trust.

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