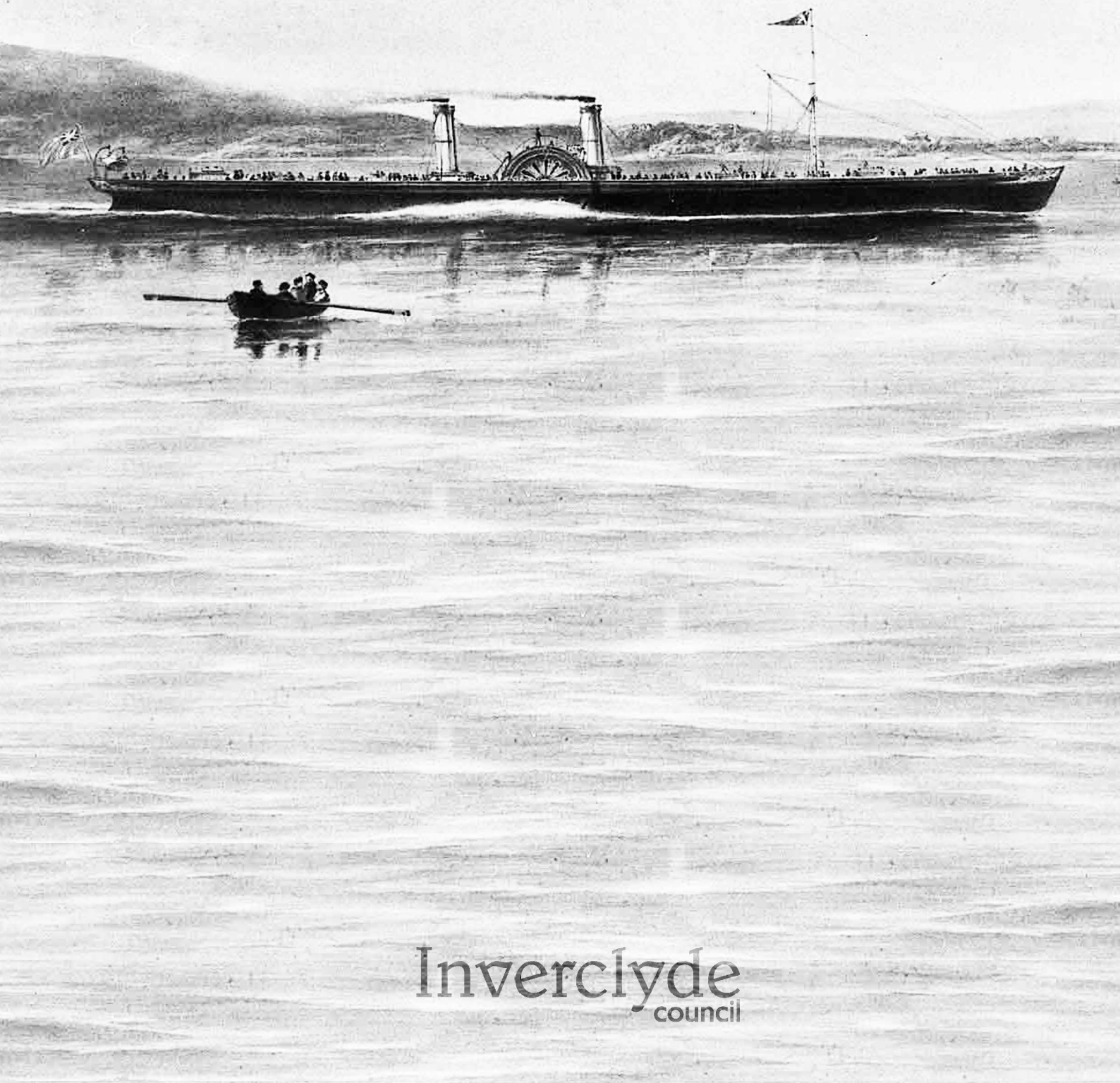


HISTORIC MARINE PROTECTED AREA



HISTORIC MARINE PROTECTION AREAS IN INVERCLYDE	
LOCATION	HES REFERENCE
I	
Iona I	HMPA8

Historic Marine Protected Area	
Site Name: Iona 1, Gourrock	
Alternative Name:	
Grid Reference: 226182 678499	
Monument Type: Shipwreck	
Date Recorded: 26 October 2016	HES Reference: HMPA8

Boundaries of Historic Marine Protected Area

The area of sea within a distance of 90 metres of position latitude 55° 58'.076 north, longitude 04° 47'.194 west.

NB. Geographic co-ordinates are defined with reference to the World Geodetic System 1984 (WGS84)

Description

The Scottish Ministers are satisfied that designation of the *Iona I* Historic MPA is desirable for the purpose of preserving a marine historic asset of national importance which is located within the area. The wrecked vessel is believed to be that of the Clydebuilt paddle steamer *Iona I*, which sank after collision off Port Matilda, near Gourrock, the Upper Clyde Estuary in October 1862. The remains lie at a depth of approximately 27m below chart datum around 100m southeast of the Whiteforeland Buoy, within the Firth of Clyde shipping navigation channel off Gourrock.

Statement of National Importance

The wreck of *Iona I* is of national importance as the well-preserved wreck of a Clydebuilt 19th-century passenger paddle steamer purchased by Confederate agents to run the blockade of Southern ports during the American Civil War. Although deteriorating in condition, the wreck is relatively undisturbed and retains its form to a significant degree. The extent of structural survival and potential for buried archaeological deposits mean that this wreck can enhance our understanding of 19th-century Clydebuilt paddle steamers and Scotland's role in the American Civil War. Around this time, the Clyde shipping industry came to dominate worldwide ship production, making a major contribution to the prosperity and international influence of Scotland and Great Britain during the industrial period. Clyde paddle steamers played a key role in transforming travel and commerce on the West Coast of Scotland and more widely. Famed for their speed, some 300 Clyde-built ships were purchased by Confederate agents to run the blockade of Southern ports. As one of very few surviving paddle steamer wrecks and the only example of a blockade runner to survive within the confines of the Clyde where the vessel was built and operated initially as a passenger steamer for a period of 7 years, *Iona I* makes a significant contribution to the cultural landscape of the Clyde basin. Our understanding of Clyde paddle steamers and Scotland's role in the American Civil War would also be much diminished if this site was to be lost or damaged.

As this marine historic asset is located close to a major shipping channel it is expected that designation will help to promote the national importance of the site, foster its understanding, and encourage responsible management by sea-users and authorities with statutory undertakings.

Intrinsic characteristics

The wreck of *Iona I* survives partially intact, lying upright and on an even keel, oriented approximately SW – NE with the vessel's bow probably at the NE end. Although the condition of the vessel's metal hull is deteriorating due to corrosion and other processes and some artefacts have been removed by souvenir hunters, the wreck is relatively undisturbed as the wreck has only been subject to limited salvage in the 1950s. Amidships, the wreck retains the vessel's original form to the upper deck level. Here, elements of the boilers, paddle and crankshaft assemblies, the oscillating engines and associated features survive *in situ* (Wessex Archaeology 2009). Such features are rarely preserved on wreck sites in British waters. At either end of the vessel there is significant potential for well-preserved buried structure, and archaeological deposits such as remains of the ship's cargo and personal effects belonging to the crew. Archaeological investigation could enhance our understanding of the design and construction of fast passenger steam vessels for which the Clyde yards became renowned during the mid-19th century. There are opportunities to study approaches to iron hull construction which afforded strength to withstand vibration and the weight of heavy machinery amidships (Fenwick and Gale 1998: 140-2); and the quest for speed through design of longer hulls in proportion to beam and ever more efficient and powerful steam engines.

In 1862, *Iona I*'s turn of speed and shallow draught made her an obvious target for Confederate agents during the American Civil War who were scouring the Clyde for vessels to run 'armaments in - cotton out' to Charleston and Wilmington from Bermuda and the Bahamas. Before departure, she was stripped of her fittings, underwent hull reinforcement and was painted grey. Speed trials followed and then, loaded with coal and general stores, *Iona I* departed Glasgow on 2 October 1862 for Nassau, New Providence, Bahamas. Off Fort Matilda, near Gourock, *Iona I* collided with the *Chanticleer* and sank, together with the great load of coal piled on her decks for the first leg of her outward passage to Madeira. There was no loss of life. There is potential for archaeological studies to identify evidence of the hull reinforcements, alterations and provisioning of the vessel made prior to her intended transatlantic voyage. In the Board of Trade inquiry following her sinking, an independent surveyor claimed that these reinforcements would have been insufficient had she encountered rough weather in the Atlantic ocean (Graham, 2006; 112).

Contextual characteristics

Built in 1855 by Thomson's of Finnieston and Govan, *Iona I* is an early and famous example of the Clydebuilt paddle steamers which helped to propel the Clyde shipbuilding yards to world-wide steamship-building pre-eminence during the mid-19th-century. The passenger paddle steamer played an important role during the Victorian era, along with the railways, in revolutionising transport on the west coast of Scotland and creating opportunities for leisure through improved access away from Glasgow to coastal resorts 'doon the water'. The Clydebuilt *PS Waverley* (built 1946) represents the world's last sea-going vessel. Although there are around 78 recorded losses of paddle steamers in Scottish waters, very few wrecks survive to any significant degree. The wreck of *Iona I* is one of a small group of Clydebuilt paddle steamers wrecked within the confines of the Clyde Estuary, in this case close to the yard at Govan where *Iona I* was built and within the waters of the Firth of Clyde where she operated as a passenger vessel for around 7 years. As such, the wreck of *Iona I* significantly enriches the cultural landscape of the Clyde coast.

Iona I's secondary use to run the blockade of Southern ports during the American Civil war enhances her significance. The clandestine trade in Clydebuilt ships became increasingly important to Clydeside: around 27 yards, employing around 25,000 men, were building blockade runners by 1864 to meet demand, and 300 or so Clydebuilt vessels are known to have been acquired during the 1860s by Southern agents. Blockade-running was a risky business and around 1864, the odds of a blockade-runner being captured or destroyed were about one in six on any given voyage (Lebergott 1981:872). Few examples survive. The only

other recorded example in British waters is that of her sistership *Iona II*, also built by Thomson's yard and acquired to run the Confederate blockade before she was wrecked off Lundy Island, Bristol Channel in 1864, in transit to Kingston, Jamaica. The wreck of *Iona II* is designated under the Protection of Wrecks Act 1973. There is potential to compare both vessels and to study them against blockade runners lost on the American Atlantic seaboard such as the Clydebuilt *Montana*, lost Bermuda, 1863 (see <http://www.conservation.bm/montana/>) and the Liverpool-built *Denbigh*, lost 1865, Galveston Bay, Gulf of Mexico (Barto Arnold et al., 2001). Such comparative studies could further enhance our understanding of Scotland's role in the American Civil War.

Associative characteristics

There is a rich documentary record to support understanding of the remains of *Iona I* and associations with important figures in the history of Clyde commerce. James & George Thomson of Finnieston and Govan was a shipbuilder of advanced vessel designs at a time when Clydeside yards were competing to build faster vessels; indeed, races between ships were common in the course of their daily rounds. With a top speed of 17 knots, *Iona I* achieved considerable fame as a fast and well-appointed passenger steamer. She operated on the Clyde section (from Glasgow to Ardrishaig) of the 'Royal Route' from Glasgow to the Highlands, so named after a journey made by Queen Victoria. Following her loss, the Greenock Advertiser in October 1862 referred to *Iona I* as 'Queen of the Clyde'. There are also associations with important figures in the clandestine blockade-running trade, including *Iona I*'s new owner and noted violent sympathiser of the Confederate cause - David McNutt of the Glasgow firm McLeash & McNutt. The loss of *Iona I* in 1862 was widely reported at the time. Furthermore, blockade-running during the American Civil War resonates with the national consciousness – for example the fictional but glamorous character of Rhett Butler in *Gone with the Wind* was an infamous blockade runner. There are also links with the present generation of west coast passenger ferries as *Iona*'s owners David Hutcheson & Company, were the predecessors of the well-known ferry company Caledonian Macbrayne.

Preservation Objective

The preservation objectives for the *Iona I* Historic MPA and the marine historic asset are:

1. to minimise loss of the marine historic asset within the area;
2. to minimise deterioration of site condition of the marine historic asset;
3. to prevent the removal, wholly or partly, of the marine historic asset from within the *Iona I* Historic MPA, except where the Scottish Ministers are satisfied that this is desirable for the purpose of making a significant contribution to the protection of the marine historic asset or to knowledge about marine cultural heritage; and
4. to prevent the commercial exploitation of the marine historic asset for trade, speculation or its irretrievable dispersal other than provision of professional archaeological or public access which is consistent with preservation objectives a, b, and c.

Preservation Objective Description

Preservation objectives for a Historic MPA serve to guide the management of these important sites according to the specific needs of individual areas. The preservation objectives for the *Iona I* Historic MPA are focused around minimising loss of marine historic assets *in situ* and minimising deterioration of site condition due to man-made activities (see Table 2). Additional objectives have been included in order to set out those instances where the recovery of

marine historic assets (in whole or part) may be acceptable and to restrict commercial exploitation of marine historic assets for trade or speculation.

In formulating objectives that are practicable for this Historic MPA, Historic Environment Scotland has drawn on baseline information about the survival of marine historic assets, site condition and risk from the results of archaeological investigations undertaken by Wessex Archaeology (2009). Changes in site condition and survival will be monitored on a periodic basis and a register of this information retained by Historic Environment Scotland. The preservation objectives for the Iona I Historic Marine Protected Area will also be kept under review.

Objective	Current indicator status and descriptor	Detail in relation to baseline position
<p>To minimise loss of marine historic assets <i>in situ</i></p>	<p><i>Survival 41-60%</i> - ie. we estimate 41-60%% extent of survival by comparing the quality and integrity of <i>in situ</i> remains with what evidence exists relating to the marine historic asset in its original form</p>	<p>The size and shape of the site, as defined by the geophysical evidence approximates an elongated oval measuring approximately 56m long by a maximum of 15m wide, orientated roughly south-west to north-east. The visible wreckage appears to be contained within an area of roughly 470m². The central 25m of the wreck is the best preserved part of the site, where the vessel survives to upper deck height, with boilers, paddle and crankshafts, fragments of paddlewheel, and (probably) engines, funnel bases and associated pipework surviving <i>in situ</i> (Wessex Archaeology 2009). To the NE of the upstanding midships section, the line of the hull can be traced and transverse bulkheads are visible; to the SW there are few if any upstanding features but there is significant potential for buried elements of the vessel to survive, including structure and archaeological deposits relating to the vessel's construction and use. Two distinctive mounds of the ship's coal are visible on the NE and SW sides of the midships section.</p>
<p>To minimise deterioration of site condition of marine historic assets</p>	<p><i>Extensive problems</i> -ie. widespread evidence of deterioration or damage affecting 50% or more of the asset. This could be caused by one or more factors, such as erosion or deterioration affecting structures, leading to severe structural problems or collapse.</p>	<p>The wreck lies on a gradually sloping bank of sand and gravel at a general depth of 27m, in a relatively sheltered location with currents of up to 0.6m predicted at spring tides. Although no evidence of sedimentary deposition or erosion was observed at the time of archaeological assessment in 2008, anecdotal reports indicate variable sediment levels over the site, with features becoming exposed then covered again, possibly on a seasonal basis. These mobile sediments are likely to originate from the river catchments of the upper Clyde estuaries (Firth and Collins 2002). Evidence of active corrosion and mechanical degradation has been observed of the ferrous hull plating and boilers, leading to structural collapse, with anecdotal reports confirming significant deterioration to the paddlewheels during the last 10-15 years.</p>

Management

Designation of the Iona I Historic MPA places a duty on public authorities with functions capable of adversely affecting marine historic assets to carry out those functions in a way that best furthers or, where this is not possible, least hinders the stated preservation objectives. To fulfil this duty, public authorities have to consider and implement changes in the way they carry out their functions to deliver benefits for/ minimise adverse effects on the *Iona I* Historic MPA, taking advice from Historic Environment Scotland.

- When preparing local development plans; marine plans; and fisheries management plans relevant to this location, as well as other programmes, policies and strategies, public authorities must take account of the preservation objectives for the *Iona I* Historic MPA.
- Competent authorities with responsibilities for issuing authorisation for all developments and licensable activities (for example, through marine licensing; planning permission; issuing of seabed leases) within and outwith the boundaries of the protected area must consider impacts on the preservation objectives for the *Iona I* Historic MPA, taking advice from Historic Environment Scotland. Decisions must also be taken in accordance with the relevant marine plans and policies.
- Where their functions or acts which they intend to undertake may significantly hinder the achievement of the preservation objectives for this Historic MPA, public authorities will be required to Historic Environment Scotland. Historic Environment Scotland has 28 days to respond and public authorities must have regard to advice or guidance given by Historic Environment Scotland.

Operational Advice for the Proposed HMPA

The following advice is intended to enable sea-users and public authorities to prioritise beneficial management of activities that might otherwise hinder the preservation objectives for the *Iona I* Historic MPA. The seabed within this area preserves archaeological remains that represent a finite, non-renewable resource, the survival of which could be affected by a complex interplay of processes originating from sources that may be naturally occurring (e.g. chemical, biological or physical factors) or man-made (Historic Scotland 2012a, 8). Table 2 indicates which key pressures are known currently although there are additional pressures which could hinder the preservation objectives were they to occur. In summary, this site is considered most vulnerable to the following impacts from man-made operations:

Direct Impacts

physical damage/ loss/ alteration arising from:

- a) collision/ abrasion by construction/ extraction activities; commercial fishing operations which impact on the seabed (particularly demersal trawling); anchoring/ mooring of vessels within the protected area, particularly commercial vessels; and
- b) the selective removal of artefacts and/ or excavation of sediments by diving/ salvage/ archaeological operations within the protected area.

Indirect Impacts

alteration/ loss of marine historic assets arising from any construction/extraction/ dumping at sea/ commercial installation operations in the vicinity which might exacerbate erosion of sediments or result in significant changes to seabed biology/ water chemistry within the protected area. No impacts on setting are envisaged.

Operations

Historic Scotland's Strategic Heritage Management Team will be pleased to provide detailed operational advice where impacts are anticipated on a case by case basis. The basis for this advice is set out in the table below.

Operational advice following HMPA designation

Construction/ extraction/ dumping within the protected area

As the wreck is considered highly vulnerable to such activities and the spatial footprint of this protected area is small, developers and sea-users will normally be advised on heritage grounds to plan developments in a way that completely avoids the area and precludes any direct impacts. However, there may be cases where installation of scientific monitoring equipment is desirable to support the preservation objectives, subject to permissions.

Construction/ extraction/ dumping at sea/ operation of commercial installations in the vicinity

Proposals for such activities in the vicinity (e.g dredging to deepen or maintain shipping channels) should carefully assess likely impacts on hydrodynamic processes and any seabed biology /water chemistry over the protected area and, where appropriate, consider ways to mitigate the impacts concerned. Significant impacts on the 'setting' of the marine historic asset from shoreline/ marine developments in the vicinity are not anticipated at this time.

Recreational diving, bathing, within the protected area

Although recreational diving on the site is not an issue from a heritage point of view, it is discouraged by Clydeport because of the wreck's location in a narrow channel, where frequent shipping movements take priority. Should permissions be granted by Clydeport for diving to take place, no artefacts should be recovered nor the wreck damaged or disturbed in any way. Anyone who does visit the wreck is encouraged to provide a brief report about their visit to Historic Environment Scotland, to assist in monitoring this important wreck.

Scientific and archaeological investigation of marine historic assets within the protected area

Subject to the comments above on diving access to the site, non-intrusive scientific/ archaeological survey work can take place and dissemination of information and knowledge is encouraged. However, intrusive activities, including archaeological excavation, sediment sampling or the recovery of objects of historic interest are subject to marine licensing: you should discuss your project at an early stage with Historic Environment Scotland, and you will probably need to apply to the Marine Scotland Licensing Operations Team (MS-LOT). MS-LOT will take advice from Historic Environment Scotland about whether these activities should proceed, subject to conditions.

Boating, vessel traffic, including anchoring and laying of moorings

Vessel traffic within the narrow channel is subject to management by Clydeport but no special vessel restrictions through the area are required on heritage grounds. Use of anchors and laying of moorings should be avoided within the protected area to avoid impacts to the wreck and in any case, anchoring and mooring within the shipping channel is prohibited by Clydeport within the narrow channel. Berths for large commercial vessels are located 1km east of the site

Commercial fisheries

Demersal techniques within the protected area must not be used as they are likely to cause catastrophic damage. As there is a risk of snagging creel lines on exposed features, and potentially of destabilising sediment deposits, the use of creels should also be avoided within the protected area. In any case, Clydeport does not allow these activities within the narrow channel.

Further Reading

Published references

Barto Arnold III J, Oertling T J, Hall, A W 2001, The Denbigh project: test excavations at the wreck of an American civil war blockade-runner. *World Archaeology*, 32.3, 400-41

Davies, K 1980, *The Clyde passenger steamers*. Ayr

Duckwork C L D, and Langmuir G E 1937, *Clyde river and other steamers*,

Brown, Son & Ferguson Ltd., Glasgow.

Duckwork C L D, and Langmuir G E 1987, *West Highland Steamers* (4th edition, first published in 1935), Brown, Son & Ferguson Ltd., Glasgow.

Fenwick, V and Gale A 1998, *Historic Shipwrecks: Discovered, Protected and Investigated*. Charleston.

Graham, E J 2006, *Clydebuilt: The blockade runners cruisers and armoured rams of the American Civil War*, Birlinn Ltd.

Lebergott, S 1981, Through the blockade: the profitability and extent of cotton smuggling, 1861-1865. *Journal of Economic History*, 41.4, 867-88

Moir P, and Crawford I 2004, *Clyde Shipwrecks* (3rd ed.)

Online resources (due to website changes during the period of consultation – these web addresses may be subject to change).

Historic Environment Scotland Policy Statement 2016 Copy available at <https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/historic-environment-scotland-policy-statement/>

Historic Environment Scotland 2015, Guidelines on the Selection, Designation and Management of Historic Marine Protected Areas - copy available at <https://www.historicenvironment.scot/media/2829/historic-mpa-guidelines.pdf>

Historic Environment Scotland 2016 – Historic Marine Protected Areas leaflet – copy available at <https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=fe248e27-0c19-4e4e-8d65-a62d00a2ce6a>

Scottish Government, 2010, Making the most of Scotland's seas – copy available at <http://www.scotland.gov.uk/Publications/2010/04/01085908/2>

Wessex Archaeology, 2005, *Iona II*, Lundy: Designated Site Assessment: Full Report, June 2005, Unpublished Report Ref 53111.03z.

Wessex Archaeology, 2008, *Iona II*, Off Lundy Island, North Devon, Designated Site Assessment, Archaeological Report, December 2008, Unpublished Report Ref. 53111.03mmm.

Wessex Archaeology, 2009, *Iona I*, Inner Clyde Estuary, Scotland, Undesignated Site Assessment, Archaeological Report, March 2009, Unpublished Report Ref. 53111.02q-6a. Copy available at <http://orapweb.rcahms.gov.uk/wp/00/WP000733.pdf>

Wessex Archaeology, 2012, Characterising Scotland's marine archaeological resource. Prepared by Wessex Archaeology for Historic Scotland, January 2012. Ref: 76930.04 Copy archived with RCAHMS and available at <http://canmore-pdf.rcahms.gov.uk/wp/00/WP000720.pdf>

Historic Environment Scotland records the site as Canmore ID 102456 <https://canmore.org.uk/site/102456/iona-i-tail-of-the-bank-upper-firth-of-clyde>