



Marine  
Management  
Organisation

## **Environmental Impact Assessment Consent Decision Report**

**Marine Works (Environmental Impact Assessment)  
Regulations 2007 (as amended)**

**The Garden Bridge  
MLA/2016/00048**

**29 July 2016**

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# 1. Introduction

## 1.1 Purpose of the report

This is the Environmental Impact Assessment (“EIA”) consent decision report for a proposed new pedestrian bridge, known as the Garden Bridge, crossing the River Thames between Temple Underground Station and Queen’s Walk in London (“the Project”). The Garden Bridge Trust (“the Applicant”) applied for a marine licence under Part 4 of the Marine and Coastal Access Act 2009 (“the 2009 Act”) on 9 February 2016.

The purpose of this report is to provide an overview of the proposed Project; detail the consultation carried out with advisors and the public; and to record the Marine Management Organisation’s (“MMO”) evaluation and conclusions.

## 1.2 Decision

Based on the advice and evidence received, the MMO concludes that EIA consent for the project should be given. The MMO has conducted an assessment into the environmental impacts and concludes that adequate mitigation measures have been agreed to minimise the potential impacts of the Project. The Project will be regulated by conditions attached to the marine licence together with those secured in the planning permissions.

# 2. Marine Licence Application

## 2.1 Project details

The Project includes a proposed new pedestrian bridge crossing the River Thames between Temple Underground Station and Queen’s Walk in London. The Bridge will be approximately 360m in length and vary in width between approximately 6m and 33m. The site includes land on the North Bank of the Thames near Temple Underground Station, including the northern foreshore of the Thames, and land on the South Bank incorporating The Queens Walk and the southern foreshore of the Thames.

The Project also includes the relocation of HQS Wellington, currently moored at the western end of Temple Stairs, approximately 38m downstream. The relocation will require the installation of new mooring dolphins, access ramps and floating platforms to access the vessel in its new position. The existing dolphins and ramps will be removed making the new position permanent. Due to the shallow water level around the ship some dredging is required. The Project also includes the relocation of Crown River Cruise berths.

The detailed methods for each activity will be set out in section 4 of the marine licence and / or will be attached as schedules. This will include the following:

- Garden Bridge Off-Shore Permanent Piling Works Risk Assessment and Method Statement;
- Garden Bridge On-Shore Permanent Piling Works Risk Assessment and Method Statement;
- Construction Logistics Plan;
- Garden Bridge - Bridge Pier Scour Protection Dredging Method Statement;
- HQS Wellington Relocation Method Statement;
- HQS Wellington Piling Method Statement; and
- HQS Wellington Dredging Method Statement.

The main alternatives considered by the Applicant were:

- Architectural and structural design;
- Height of the bridge;
- Materials;
- Landing area and access;
- Landscape;
- Lighting;
- Ecological design;
- Relocation of vessels;
- Scour protection;
- Construction works site; and
- Construction access routes.

Further detail on the Project, including the scheme, the site and surroundings, and assessment of impacts can be found in the Environmental Statement (ARUP, Environmental Statement in accordance with Marine Works EIA Regulations (2007) as amended, 3 February 2016) (“ the ES”).

## 2.2 Statement of need

The objectives of the Project are:

- To create a new pedestrian crossing over the River Thames in central London that would contribute towards an increase in north-south movements across the River Thames by foot;
- To contribute towards improving the quality of the pedestrian environment and public realm in central London that would support an increase in walking across central London as a whole;
- To improve transport connectivity, efficiency and resilience for the South Bank area by providing a direct connection to the London Underground network at Temple;
- To support the economic development of areas adjoining the bridge on both sides of the River Thames and to help bring forward development;
- To support central London's visitor and tourist economy; and
- To create a new public open space and garden in central London.

### 3. Legislative and Policy Framework

A marine licence is required, under Part 4 (Chapter 1) Section 66 of the 2009 Act, for the following parts of the Project:

- Construction of the new pedestrian bridge (including scour protection around the concrete piers);
- Dredging around the bridge piers for installation of the scour protection;
- Relocation of the four moorings from the Crown River Cruises;
- Dredging for the new HQS Wellington berth area; and
- Structures, such as moorings and pontoons, for the relocation of HQS Wellington.

Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment ("the EIA Directive") aims to protect the environment and the quality of life by ensuring that projects which are likely to have significant environmental effects by virtue of their nature, size or location are subject to an EIA before permission is granted. The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) ("the Regulations") transpose the EIA Directive into UK law for marine licence applications.

On 20 November 2015 the MMO and the Applicant agreed pursuant to Regulation 5 of The Regulations that the proposed development would require an EIA. On 9 February 2016 the Applicant submitted the ES, and relevant information, to the MMO in support of an application for a marine licence under Part 4 of the 2009 Act.

This EIA consent decision has been undertaken in conjunction with the following:-

- Regulation 21, of the Regulations, which state that the appropriate authority must apply the provisions of Schedule 5 in relation to each representation it receives, pursuant to the statement referred to in regulation 16(2)(g); and
- Regulation 22, of the Regulations, which set out how an appropriate authority must reach its EIA consent decision.

The Schedule 5 process has been followed in relation to representations made by members of the public, pursuant to the statement referred to in regulation 16(2)(g). The MMO is of the opinion that all of the representations, as set out in section 5 of this report are capable of being dealt with under Schedule 5 and are relevant to the EIA consent decision (para 2(1)).

Having considered the requirements of the process under Schedule 5, the MMO's view is that:

- none of the representations are capable of being addressed by an arrangement (para 3(1)); and,
- none of the representations give rise to a dispute of fact that needs to be resolved (para 4(1)(b)) and therefore it is not appropriate to instigate an inquiry or appoint an expert to report to the MMO.

Accordingly the MMO considers each of the representations fall within para 4(3)(a) of Schedule 5 and the MMO must have such regard to the representation as it considers appropriate. Where insignificant weight has been attached to a factor this is clearly set out within the relevant sub-paragraphs in section 5 of this report.

The Project was granted planning permission under the Town and Country Planning Act 1990 (as amended) ("the 1990 Act") by Westminster City Council ("WCC") and the London Borough of Lambeth ("LBL") in December 2014. In deciding on the granting of planning permission, regulation 3(4) of The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 required the local planning authorities to take the environmental information in to consideration. A copy of the ES (Garden Bridge Trust, Garden Bridge Planning Application, Environmental Statement, Volume 1, May 2014) ("the 2014 ES") was also submitted to the MMO to inform our assessment of the entire project. Further applications, under the 1990 Act were determined favourably by WCC, on 22 December 2014, and The City of London Corporation ("CoLC") on the 24 September 2015, for the relocation of HQS Wellington.

### **3.1 Water Framework Directive (Council Directive 2000/60/EC)**

The Project is located within the Thames Middle water body. This is classified as a



heavily modified water body. Its current status is 'Moderate' and the objective is to achieve Good Ecological Potential (GEP) by 2027.

The Applicant has undertaken a Water Framework Directive ("WFD") assessment in which mitigation has been proposed, and incorporated, into the scheme design to minimise potential impacts from the different scheme components. The mitigation measures can be found in the 2014 ES (Tables 11 and 14 of Appendix A11).

As part of the MMOs consideration, consultation was undertaken with the Environment Agency ("EA"). The EA did not raise any concern with regard to the WFD assessment. The MMO is satisfied that, based on the advice and evidence received, there will be no significant impacts to the water body, as a result of the Project.

### **3.2 Waste Framework Directive (Council Directive 2008/98/EC)**

The consideration of waste was scoped out of the ES during the EIA process, due to the relatively small amount of waste that will be generated during construction and operation of the Project. The MMO is satisfied with this decision. The Applicants' Waste Management Plan ("WMP") was approved by LBL, on 15 February 2016, and WCC, on 7 April 2016. The Applicant has also prepared a Site Waste Management Plan ("SWMP"). The SWMP will be updated throughout the lifetime of the project in line with the requirements of the Site Waste Management Plans Regulations 2008. Copies of the WMP, Code of Construction Practice ("CoCP") and SWMP were submitted to the MMO as part of the marine licence application.

The MMO is satisfied that the CoCP Part A, CoCP Part B, SWMP and WMP adequately manage the storage, re-use and disposal of waste from the Project during construction and operation.

Additionally, dredging is required as part of the Project. The maximum volume to be dredged (including dredging tolerances) will be less than 1750m<sup>3</sup>. The Applicant has considered the disposal of dredged material under the Waste Hierarchy. Sediment analysis results showed that the sediment to be dredged was above Cefas Action Level 2 for a number of determinands and, therefore, not suitable for re-use, recycling or recovery. The dredged material is therefore to be disposed of at a licensed terrestrial site.

The MMO is satisfied that, based on the advice and evidence received, the Applicant has adequately applied the Waste Framework Directive.

### **3.3 The Conservation of Habitats and Species Regulations 2010 (as amended)**

European sites are those designated under The Conservation of Habitats and Species Regulations 2010 (as amended) ("Habitats Regulations") as Special Protection Areas ("SPAs"), Special Areas of Conservation ("SACs") or Sites of Community Importance ("SCIs").

The designated sites near or adjacent to the Project are;

- Wimbledon Common SAC, and Epping Forest SAC. This site is situated approximately 9km from the Project; and
- Lee Valley SPA and Ramsar site. This site is situated approximately 8km from the Project.

The MMO consulted Natural England (“NE”) who did not raise any concern in respect of the Habitats Regulations. The MMO is satisfied that, based on the advice and evidence received, it can be excluded that the application will have a significant effect on any SAC, SPA or Ramsar site, either individually or in combination with other plans or projects.

### **3.4 Marine Conservation Zones**

Section 116 of the 2009 Act provides powers to the Secretary to State to designate Marine Conservation Zones (“MCZs”) with the aim of contributing to the achievement of a network of ecologically coherent and well-managed marine protected areas. Achieving this aim will make a major contribution to achieving good environmental status in the UK's seas, as required by the Marine Strategy Framework Directive.

The MCZ near or adjacent to the Project is:

- The Thames Estuary Recommended MCZ. This site is currently on hold pending the requirement for additional evidence and, therefore, a formal MCZ assessment will not be required.

The MMO is satisfied that, based on the advice and evidence received, there will be no potential for hindrance to the conservation objectives for which an MCZ has been designated.

### **3.5 Wildlife and Countryside Act 1981 (as amended)**

Sites of special scientific interest (“SSSIs”) are protected by law to conserve their wildlife or geology. The Wildlife and Countryside Act 1981 (as amended) ensures that SSSIs are protected and managed effectively.

The Project is not within, or adjacent to, any SSSIs. The nearest SSSIs from the Project are:

- Hampstead Heath Woods - approximately 7km;
- Barn Elms Wetland Centre - approximately 7.5 km;
- Epping Forest - approximately 7.5km;
- Wimbledon Common - approximately 9 km; and

- Walthamstow Reservoirs - approximately 10km..

The MMO consulted Natural England (“NE”) who did not raise any concern in respect of SSSIs. The MMO is satisfied that, based on the advice and evidence received, the Project is not likely to damage any of the flora, fauna or geological or physiographical features for which the SSSI site is designated.

### **3.6 Site of Importance for Nature Conservation and UK Biodiversity Action Plan**

The Project is located in a local Site of Importance for Nature Conservation (“SINC”) and the adjacent mudflat habitat along the River Thames is protected by the UK Biodiversity Action Plan (“BAP”) as a priority habitat.

Mitigation is included within the ES to protect the local environment. As an additional mitigation measure, to ensure the river bed is returned to its previous state, the following condition will be placed on the marine licence.

- The intertidal area must be returned to a profile similar to its original state. To verify this, a baseline (photographic or other method) survey must be undertaken prior to the commencement of the licensed activities. A further repeat (photographic or other method) survey must be undertaken no later than 10 working days after the licensed activities have been completed. Both surveys must be submitted to the MMO within 10 working days of the survey data being collected.

During consultation NE advised that the Applicant should ensure that these are taken into consideration, and should aim to conserve and enhance biodiversity at the site of the Project. NE also advised that the applicant must liaise with the local planning authority regarding any sites of local importance.

The MMO is satisfied that, based on the advice and evidence received there will be no significant impacts to local SINC’s or BAP priority habitat.

### **3.7 Marine Policy Statement**

The UK Marine Policy Statement (“MPS”) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. The MMO must make licensing decisions in accordance with the MPS and marine plans (where in place), unless relevant considerations indicate otherwise (in which case the MMO must state its reasons).

There is currently no marine plan in place for the area of the Project. The applicant provided evidence within the marine licence application setting out how the Project is in line with the MPS. The MMO considers that, based on the advice and evidence received, the applicant has adequately demonstrated that the Project is in accordance with the MPS.

### 3.8 National Planning Policy Framework

The National Planning Policy Framework (“NPPF”) sets out the environmental and social planning policies for England, and applies as the Project is linked to a terrestrial development. Consideration has been made via local planning authorities and subsequent planning permissions granted (see Section 3).

The MMO is satisfied that, based on the advice and evidence received, the Applicant has adequately considered relevant national, regional and local terrestrial planning policy as set out in the Garden Bridge Planning Statement produced by Garden Bridge Trust in May 2014, and HQS Wellington Planning Statement produced by Adams Hendry Consulting Ltd in July 2015.

## 4. Consultation Exercise

This section summarises consultation undertaken by the MMO in relation to the Project.

### 4.1 Consultation Bodies

As part of its consideration of the proposed Project, the MMO consulted the bodies listed below in Table 1. The relevant responses have been detailed within this decision report and the full responses are provided in Annex 1. The Centre for Environment, Fisheries and Aquaculture Science (Cefas) provided technical advice as the MMO’s scientific advisors.

Table 1. Consultation bodies

Organisation	Response Received
Natural England (“NE”)	Yes
Ministry of Defence (“MoD”)	Yes
Historic England (“HE”)	Yes
Environment Agency (“EA”)	Yes
Maritime and Coastguard Agency (“MCA”)	Yes
Crown Estate (“CE”)	Yes
The City of London Corporation (“CoLC”)	No
Greater London Authority (“GLA”) / Mayor of London	No
Westminster City Council (“WCC”)	Yes
London Borough of Lambeth (“LBL”)	No
London Borough of Southwark (“LBS”)	No
Transport for London (“TfL”)	No
MMO Coastal Office - Eastern	Yes
Royal Yachting Association (“RYA”)	Yes

Kent and Essex Inshore Fisheries and Conservation Authority ("KEIFCA")	Yes
The Corporation of Trinity House of Deptford Strond ("TH")	Yes
Port of London Authority ("PLA")	Yes
Royal Society for the Protection of Birds ("RSPB")	No

## 4.2 Responses from Consultation Bodies

Consultation ran from 9 March 2016 until 20 April 2016. Two additional responses were received outside of the deadline on 6 May, from EA, and 24 May, from KEIFCA, which were taken in to account. All consultation bodies will be provided with a copy of the marine licence for their information.

Of the consultees that responded none objected to the Project. However a number of conditions were proposed, and those that were deemed appropriate will be placed on the marine licence.

## 4.3 Public Consultation

The MMO has followed the requirements of regulation 21 and Schedule 5 of the Regulations in dealing with representations arising from public consultation. In accordance with Regulation 16(1)(b) the MMO instructed the Applicant to carry out public consultation, which involved advertising the Project. The Application was advertised in the *Evening Standard* and *Metro* on 15 and 22 March 2016, respectively.

The notice allowed for representations to be made to the MMO within 42 days from 15 March 2016. However, it came to our attention that our online marine case management system was experiencing technical difficulties on 23 and 24 April 2016; and therefore not allowing members of the public to upload representations. As such the MMO extended the consultation period for the public by two working days, until 28 April 2016. No further representations were received after the public consultation period closed.

All public representations received up to 28 April 2016 are included in Annex 2. The responses have been redacted to remove names and contact details. In total 20 representations were received; all, of which, objected to the Project.

The MMO considered representations that were relevant, and specific to the marine licence application. Responses were then received from the Applicant that addressed the relevant representations. The Applicants responses to the representations and our additional queries are presented in Annex 3.

## 5. Evaluation

This section only details specific areas of the ES and the marine licence application (including supporting documentation) where there were public representations made during the consultation process (as per Section 4.3). It sets out the key concerns of the public representations; the advice and evidence received throughout the marine licensing process; and the subsequent conclusion. It should be noted that this section includes both evaluation of the construction and operational phases of the Project.

With regards to all other areas (i.e. where no public representations were made) the MMO agrees with the conclusions within the ES and the marine licence application (including supporting documentation). Any concerns raised by consultation bodies were addressed with the conditions that were proposed.

The public representations fall within the following seven overarching categories that were considered in the ES:

- Transport (Section 5);
- Air quality (Section 6);
- Noise and vibration (Section 7);
- Socio-economics (Section 8);
- Terrestrial ecology (Section 9);
- Aquatic ecology and Water (Sections 10, 11 and 12); and
- Visual (Section 15).

The public representations that did not fall specifically within any category in the ES can be found in Section 5.8.

### 5.1 Transport

#### 5.1.1 Concerns around transport in the local area

Public representations were received in relation to the potential significant impacts affecting transport in the local area. This related to the vehicles used during the construction phase; and the added pressure to bus and taxi services in the area during the operational phase.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The ES concludes that impacts to transport will not be significant. A Construction Logistics Plan (“CLP”) was a planning condition from both LBL and WCC in granting planning permission for the Project. An assessment on the traffic on local roads was approved by both local authorities. Appendix H of the approved CLP concludes that HGV movements are low for most days during construction. There are several peak days where this increases but these are limited to approximately 20 movements during the construction programme.

Once the Project is completed, and open to the public, it will be subject to several control measures which fall under the Operations Management Plan (“OMP”), including a Coach and Taxi Management Plan.

The MMO is satisfied that, based on the advice and evidence received, the terrestrial transport impacts have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that impacts on transport in the local area will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

### **5.1.2 Concerns around closure of Temple underground station**

Public representations were received in relation to the Temple underground station being closed.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

Construction of the north and south landings will be undertaken between April 2017 and October 2018. Some closures of Temple underground station will be required during construction (for example during installation of the north bridge section and the setup of temporary deck support in front of Temple Place) when the station will be closed to passengers (trains would still pass through). The ES concludes that the temporary closure of Temple underground station for short-term construction works is not significant.

The MMO is satisfied that, based on the advice and evidence received, the project will not significantly impact Temple underground station.

### **5.1.3 Concerns that the Project is not a transport solution due to certain restrictions**

Public representations were received in relation to the Project not being a transport solution, due to the amount of restrictions on both users and bridge opening times.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.



The 2014 ES states that a new footbridge in this location will help connect the city and make it an easier place to walk around. It is one of thirteen new crossings proposed, with nine of these in the east. The footbridge will be free to access and open to the public throughout the year, from 6am until midnight, in line with other London parks and gardens. The footbridge will only close on a maximum of twelve days per year for fundraising and community events. It concludes that the project will have a significant beneficial effect on pedestrians.

The MMO is satisfied that, based on the advice and evidence received, restrictions on transport have been adequately assessed in the ES, and the MMO considers that the restrictions are not significant.

#### **5.1.4 Concerns around navigation in the River Thames**

Public representations were received in relation to the potential significant impacts to navigation on the River Thames in-combination with other river and construction activities.

The ES concludes that with control measures implemented the risk for all navigation hazards, related to the construction of the Project, would be low as reasonably practicable, which is similar to the baseline navigation risk.

The Navigational Risk Assessment (“NRA”) lists the temporary control measures to be implemented during construction, such as:

- PLA broadcast a notice to mariners (every 30 minutes);
- Routine Harbour service patrols to ensure contractors are complying with temporary works licence conditions;
- Stakeholder education;
- Regular (weekly) meetings and liaison with PLA;
- Marking of structures and navigation lights on temporary structures;
- Marking of works vessels;
- Local vessel traffic control where the main navigation channel is reduced to below a predetermined level;
- Closures of the Inside Southern Channel;



- Closure of the Inside Southern Channel when the temporary bridge support is supporting the south section of the third arch;
- Minimising the time the barges are moored or operating in the Authorised Channel; and
- Barge movements restricted outside peak traffic periods and around low water.

Additionally the Construction and Cumulative Navigational Risk Assessment (“CCNRA”) lists additional risk control measures, such as:

- Introduction of local traffic control, at pre-agreed thresholds, when the extent of the construction work dictates;
- Setting of the maximum number of works sectors that may be closed to navigation at any one time;
- Establish temporary navigation lights and signage (e.g. Tiger Boards) to mark the construction site hazards;
- Adjust the construction methodology and the design of the temporary works so that the southern navigation passage is available two hours either side of high water whenever possible and at least whenever the full width of the main navigation channel is closed;
- Include mooring arrangements in the design of the temporary works;
- Establish exclusion areas under any part of the bridge where construction work is taking place unless a crash deck or other arrangement to prevent dropped objects is installed; and
- Institute river closures for the major bridge span lifts.

The CCNRA takes all fourteen construction phases of the Project into consideration; and concludes that, subject to implementation of risk control measures identified in this report, no individual navigation hazards will exceed acceptable levels of safety, as mandated by the PLA.

The controls listed above will be applied to mitigate the construction impact and, therefore, navigation safety should not be compromised. However, the impact of these controls on the navigation capacity of the Thames would have a low to medium impact on the capacity of the Thames to accommodate additional barge traffic. To ensure any potential impacts on navigation are mitigated and managed

appropriately, a River Transport Management Plan must be submitted to and approved by the MMO prior to the commencement of works.

The MMO consulted the PLA, as the relevant local harbour authority. In this case the local harbour authority is the PLA. The PLA advised that they have no objection to the application on navigational safety grounds or relating to conservancy of the tidal River Thames.

The MMO also consulted with TH, as the general lighthouse authority. TH advised that they have no objection to the application and, that as the bridge is a two pier design with one large centre span, most traffic would be able to navigate under the proposed structure. TH advised that navigational markings should be in accordance with other bridges over the River Thames.

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on navigation in the River Thames.

### **5.1.5 Concerns around the potential 24 hour closure of the River Thames**

Public representations were received in relation the PLA stating that 24 hour closure of the river is not viable and yet plans suggest that this would be the case.

The ES states an estimated six full river closures will be required during the period from the fourth quarter of 2017 to the second quarter of 2018. The ES also states that it will be necessary to partially close the river for a few continuous days on occasion, and reduce the navigation channel to general shipping. To ensure any potential impacts on navigation are mitigated and managed appropriately a River Transport Management Plan must be submitted to and approved by the MMO prior to the commencement of works.

The PLA advised that they have no objection to the application on navigational safety grounds or relating to conservancy of the tidal River Thames.

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on navigation, specifically with regards to the river closures.

### **5.1.6 Concerns around movement of large vessels in River Thames**

Public representations were received in relation to the bridge having to be evacuated every time large vessels pass.

The ES states the geometry of the bridge has been designed to:

- maintain a minimum clearance of approximately 12.6m above Mean High Water (“MHW”) for the main navigational channel of the River Thames; and

- maintain a minimum clearance of approximately 11.9m above MHW for the secondary navigational channel located to the south of the main navigation channel.

The maximum height of the bridge deck is 18.2m Above Ordinance Datum (AOD). A clearance of approximately 13.0m above MHW is proposed at the centre of the bridge span.

The PLA advised that they have no objection to the application on navigational safety grounds or relating to conservancy of the tidal River Thames.

TH also advised that most traffic would be able to navigate under the proposed structure. TH also advised that navigational markings should be in accordance with other bridges over the River Thames.

Based on advice and evidence received, there is no evidence to suggest that the bridge would need to be evacuated in the event of a large vessel passing. However, to ensure any potential impacts on navigation are mitigated and managed appropriately a River Transport Management Plan must be submitted to and approved by the MMO prior to the commencement of works.

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on navigation, specifically with regards to movement of large vessels.

### **5.1.7 Proposed conditions on marine licence**

The following conditions are those specific to the issues raised in sections 5.1.4, 5.1.5 and 5.1.6, and will be placed on the marine licence:-

- A River Transport Management Plan, including details of proposed Notices to Mariners, must be submitted to the MMO at least 6 weeks prior to the commencement of the licensed activities. The licensed activities must not commence until written approval is provided by the MMO.
- HM Coastguard (<mailto:nmcccontroller@hmcg.gov.uk>) must be notified prior to commencement of activities. The MMO must be sent a copy within 7 days of the issue of this notification.

## **5.2 Air quality**

### **5.2.1 Concerns around air quality**

Public representations were received in relation to the potential significant impacts affecting air quality during both the construction and operational phases; from construction plant and delivery vehicle movements, to increases in bus and taxi numbers dropping tourists off to visit the footbridge.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The 2014 ES concludes that dust arising from the demolition, earthworks, construction and trackout would not be significant. The CoCP includes control measures for the level of dust risk, the effects of construction-related dust, and concludes that these emissions would not be significant.

The COCP Part B includes a dust risk assessment; the installation of receptors to measure air quality; a monitoring and reporting system (which includes automatic notifications in the event of exceeding the thresholds); and the methods to minimise dust and emissions during works.

Additional mitigation measures described in CoCP Part B secure the following mitigation measures:

- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials that have a potential to produce dust from site as soon as possible, unless the materials are being re-used on site. If they are being re-used on-site they must be covered;
- Cover material stockpiles where applicable, to prevent wind whipping;
- Prevent burning of any materials on site;
- Limit speed on site; and
- Prevent dust-contaminated run-off water from the site.

With regards to the public transport network, during the operational phase, the 2014 ES states that at all time periods, and for all modes, the net increase in passengers would be less than 1 person per service. As a result there would be a not significant effect on all modes of transport.

The MMO is satisfied that, based on the advice and evidence received, the air quality impacts have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that air quality will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

## **5.3 Noise and vibration**

### **5.3.1 Concerns around noise and vibration**

Public representations were received in relation to the potential significant impacts from noise and vibration during both the construction phase, from construction plant

and delivery vehicle movements, and operation phase, from the increased numbers of tourists.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The ES concludes that impacts from airborne noise from road based construction traffic, barges on the river, piling, and cofferdam works will not be significant.

Vibration impacts on physical assets have been assessed as not significant with the implementation of the Construction Noise and Vibration Mitigation strategy (“CNVMS”). The CNVMS sets out the process for monitoring and reporting on noise matters to the local authorities; the receptors that have been identified north and south of the river; and the noise levels that will be used to manage the process.

A CLP was required as a planning condition from both LBL and WCC. The CLP assessed the traffic on local roads and was approved by both local authorities.

The MMO is satisfied that, based on the advice and evidence received, the noise and vibration impacts have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that noise and vibration will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

## **5.4 Socio-economics**

### **5.4.1 Concerns around carbon footprint**

Public representations were received in relation to the potential significant carbon footprint from the Project; and that the methods of construction and methods of raw material extraction are unethical.

During the consultation period the MMO did not receive any comments or requested mitigation measures from consultation bodies regarding this topic.

As such, to fully understand the potential impacts, the MMO have reviewed the Energy Statement submitted by the Applicant. We also note that the Project’s energy assessment process followed the structure of the Energy Hierarchy; but due to the unique nature of the bridge, no energy or carbon emissions target is defined. The MMO notes that Table 1.2 of the Energy Statement outlines specific policy and how the project is compliant with that policy regarding carbon targets.

The MMO is satisfied that, based on the advice and evidence received, the carbon footprint and construction methodology of the Project is acceptable.

### **5.4.2 Concerns around waste management**

Public representations were received in relation to the potential significant impacts to waste management in the area caused by increased numbers of tourists, and

number of bins, on the proposed footbridge.

During the consultation period the MMO did not receive any comments or requested mitigation measures from consultation bodies regarding this topic.

As per section 3.2, the consideration of waste was scoped out of the ES during the EIA process due to the relatively small amount of waste that will be generated during construction and operation of the Project. The Applicants' WMP was approved by both the LBL and WCC.

The MMO is satisfied that waste management will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

#### **5.4.3 Concerns around anti-social behaviour**

Public representations were received in relation to the bridge potentially attracting antisocial behaviour.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The 2014 ES states that the design of the proposed development has considered crime and safety issues known in the area, and the design process has included consultation with the Metropolitan Police Service and British Transport Police. Additionally, the Garden Bridge has been designed to maximise opportunities for natural surveillance and the lighting strategy supports good natural and CCTV surveillance during the hours of darkness. Consideration has also been given to the location of seating, planting and areas to dwell to reduce perceived crime and safety risk.

An Operational Management Plan ("OMP") has been submitted as mitigation; assessment and control, of which, will be undertaken by WCC and LBL.

The MMO is satisfied that, based on the advice and evidence received, the impacts from anti-social behaviour have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that anti-social behaviour will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

#### **5.4.4 Concerns around funding of the project**

Public representations were received in relation to the project having funding issues; including the knock on effect to the local councils (i.e. whether there is funding for contingency in case of delays in construction) and that the Applicant is not a competent body.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The MMO notes that the funding of the project is the Applicant's responsibility. Additionally, the MMO is obliged to assess the Project as it is proposed. It is therefore considered appropriate to attach insignificant weight to this factor.

#### **5.4.5 Concerns around the requirement for Garden Bridge and public consultation**

Public representations were received stating that the majority of London does not want the Project and that the public consultation was not open and fair. This includes questions over the legality of the procurement process and concerns that the Applicant has not been transparent throughout the process.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The MMO is content that it has followed the process, in relation to public consultation, under the Regulations and the 2009 Act.

The MMO notes that procurement process is the Applicant's responsibility. Additionally, the MMO is obliged to assess the Project as it is proposed. It is therefore considered appropriate to attach insignificant weight to this factor.

#### **5.4.6 Concerns around the lifespan of the footbridge**

Public representations were received in relation to the footbridge only having a 125 year lifespan.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The MMO notes that the lifespan of the footbridge is the Applicant's responsibility. Additionally, the MMO is obliged to assess the Project as it is proposed. It is therefore considered appropriate to attach insignificant weight to this factor.

#### **5.4.7 Concerns around quality of life**

Public representations were received in relation to the area of London being already too busy, and the Project would impact on quality of life in the area.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The ES concludes a permanent beneficial significant effect in relation to tourism. Once fully operational, the Applicant estimates that the bridge will attract an additional 7 million users per annum and that this will only result in 3 million additional visitors that currently visit the area.

This increase will be mitigated and managed through the Pedestrian and Cycle Management Plan and the CLP to be approved by WCW and LBL.



The MMO is satisfied that, based on the advice and evidence received, the impacts on the quality of life have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that the socio-economic impacts will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

#### **5.4.8 Concerns around local recreation**

Public representations were received in relation to the potential significant impacts to local walks and recreational and open space.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The ES states that the Project will provide a new high quality open space in an area of relative deficiency. It also states that the Project would provide a significant area for recreation and leisure; and is expected to attract tourists and visitors to London. The ES concludes that this would provide a permanent, significant beneficial effect.

The MMO is satisfied that, based on the advice and evidence received, the impacts to local walks and recreational, open, space will not be significant.

### **5.5 Terrestrial ecology**

#### **5.5.1 Concerns around flora and fauna**

Public representations were received in relation to the potential significant impacts to the flora and fauna of the surrounding area. The representations range from the direct removal of trees from the footprint of the bridge, to the indirect impacts that the construction and operation of the bridge would have on the surrounding area.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

Controls have been defined in CoCP Part A to avoid significant effects on terrestrial ecology as a result of construction activities. These include provisions for tree protection, pollution and dust control, and the minimisation of habitat loss.

The ES stated that on the north bank four trees will need to be felled (two on the northern footway and two on the southern footway of Victoria Embankment) together with the removal of a newly planted tree. Pruning works will also be required to two trees in Temple Gardens, which is part of Victoria Embankment Gardens, six trees on Victoria Embankment and one tree on Temple Place. On the south bank and the new south landing building ten trees on The Queens Walk and 18 trees on the existing grassed area will need to be felled. Three new trees will be planted on the Queens Walk as agreed with LBL. A further 270 trees will be planted on the bridge. Pruning works will be undertaken on 13 trees on the Queen's Walk and two on the ITV/IBM walkway. The loss of trees would be permanent, but through the provision of a greater number of trees on the bridge deck, some of which would be of a greater



ecological value than those lost, the effect would be significant and beneficial at the site level.

The MMO is satisfied that, based on the advice and evidence received, the impacts on flora and fauna of the surrounding area have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that terrestrial ecology impacts will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

## **5.6 Aquatic ecology and Water**

### **5.6.1 Concerns around riverine environment and water quality**

Public representations were received in relation to the potential significant impacts to the riverine environment, including impacts to water quality.

A WFD Assessment was undertaken by the Applicant, which concluded, “this scheme will not deteriorate the WFD status of the affected water body nor prevent it from achieving GEP in 2027.” Consultation was undertaken with the EA who did not raise concerns with regards to the WFD assessment.

In order to mitigate and control impacts on the riverine environment, including impacts to water quality, conditions will be placed on the marine licence (see section 5.6.5).

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on the riverine environment, including impacts to water quality.

### **5.6.2 Concerns around construction materials**

Public representations were received in relation to the materials to be used in construction not being suitable for use in the marine environment.

The ES outlines the specific potential for impacts due to the copper-nickel alloy bridge cladding leaching into the river, causing mortality or injury. However, it concludes that no mitigation is needed and the residual effect is not significant.

In order to mitigate and control impacts on impacts to the marine environment from construction materials, conditions will be placed on the marine licence (see section 5.6.5).

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on the marine environment from construction materials.

### **5.6.3 Concerns around hydrology**

Public representations were received in relation to the potential significant impacts to the hydrology of the area if the bridge was constructed.

The ES concluded no significant effects on the change of river flow, change of flow in the main navigational channel, and risk of scour from the Project.

The EA has requested a condition to monitor and mitigate scour and accretion processes. This had been added to the marine licence in the form of a requirement for a Scour, Accretion, Monitoring and Mitigation Plan to be submitted to, and approved by, the MMO prior to the commencement of works.

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact on the hydrology of the area.

#### **5.6.4 Concerns around the impacts of dredging**

Public representations were received in relation to the relocation of the HQS Wellington requiring dredging.

HQS Wellington will be moved downstream approximately 38 metres to facilitate the construction of the Project. Given the shallow water level, dredging is required. The maximum volume to be dredged (including dredging tolerances) will be less than 1750m<sup>3</sup>.

The ES and 2014 ES both conclude the effect, and residual effect, of dredging as not significant. Additionally, sediment analysis was undertaken which led to the determination that the dredged material would need to be disposed of to a licensed terrestrial site.

In order to mitigate and control impacts to the marine environment from dredging, a condition will be placed on the marine licence stating that all dredging must be undertaken using a closed bucket excavator.

The MMO is satisfied that, based on the advice and evidence received, there is suitable mitigation in place to prevent a significant impact from dredging activities.

#### **5.6.5 Proposed conditions on marine licence**

The following conditions are those specific to the issues raised in sections 5.6.1, 5.6.2, 5.6.3 and 5.6.4, and will be placed on the marine licence:-

- A Scour, Accretion, Monitoring and Mitigation Plan (SAMMP) to monitor and manage potential scour on both the bridge and flood defences, must be submitted to the MMO at least 6 weeks prior to the commencement of licensed activities. The licensed activities must not commence until written approval is provided by the MMO. The SAMMP must include pre, during and post construction monitoring. The details of the scheme should include type, trigger levels, mitigation measures, and frequency of monitoring.
- All dredging must be undertaken using a closed bucket excavator.

- Dredging activities must not take place between 1 June and 31 August inclusive.
- Soft start procedures must be used for all percussive piling works, regardless of when the works (i.e. time of year) are undertaken. Soft-start procedures must be used to ensure incremental increase in pile power over a set time period until full operational power is achieved. The soft-start duration must be a period of not less than 20 minutes. Should piling cease for a period greater than 10 minutes, then the soft start procedure must be repeated.
- Only coatings and treatments can be used that are suitable for use in the marine environment.

## 5.7 Visual

### 5.7.1 Concerns about visual impact

Public representations were received in relation to the potential significant impacts regarding certain views along the river. These concerns related to the amendment of the skyline, the adjustment of the aspect of surrounding buildings and vistas, and impacts on views of designated heritage assets.

During the consultation period the MMO did not receive any comments or requested mitigation measures from consultation bodies regarding this topic.

The ES makes reference to the fact there may be temporary effects on visual receptors during construction. This can be attributed to:

- use of construction plant (including cranes);
- presence of cofferdams, campsheds, and piled decks for construction of the bridge, road and river based construction transport;
- provision of welfare facilities, removal of trees along the North and South banks; and
- presence of hoardings and lighting of construction site.

A visual impact assessment has been undertaken, with over 20 viewpoints taken into consideration. The assessment was also undertaken in different scenarios. This included both day time and night time views. This concluded that the following viewpoints are considered to be significantly adversely affected:

- River Prospect 16A.1: View north-east from the South Bank: outside Royal National Theatre – axial to Somerset House, to St Paul’s Cathedral;

- Viewpoint 16: View north from the walkway between the IBM building and ITV Studios;
- Viewpoint 17: View north from the South Bank opposite the walkway between the IBM building and ITV Studios: and
- Viewpoint 18: View north-west from Gabriel's Wharf viewing platform.

The adverse impact identified in the ES will be mitigated by the creation of new views of heritage assets from the bridge. Therefore, the ES concludes that the residual impact on the identified receptors will be temporary, not significant or permanently beneficial.

HE referred the MMO to their consultation response to LBL and WCC during the planning process. HE stated that the introduction of the Project; the detailed design, and the approaches to it from the river bank will change; but not cause harm to the setting of, and views to and from, designated heritage assets.

The MMO is satisfied that, based on the advice and evidence received, the project will not significantly impact visual receptors.

## 5.8 Other relevant matters

### 5.8.1 Concerns around wind climate

Public representations were received in relation to the health and safety issues regarding the wind climate on the bridge, in terms of impacts to humans and fauna.

During the consultation period the MMO did not receive any comments or requested mitigation measures from consultation bodies regarding this topic.

Wind climate was scoped out of the EIA process as it was considered that the project would not significantly impact the pedestrian level wind environment. The MMO's Scoping Opinion for the Project can be found on the MMO's public register (reference MLP/2013/00279).

The MMO is satisfied that, based on the advice and evidence received, wind climate was correctly scoped out of the EIA and does not require further consideration.

### 5.8.2 Concerns around health and safety

Public representations were received surrounding concerns that there would be health and safety issues in relation to the removal of trees on the south bank, specifically with regards to how the root system has interacted with the trenches that they were planted in.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The ES stated that on the north bank four trees will need to be felled (two on the northern footway and two on the southern footway of Victoria Embankment) together with the removal of a newly planted tree. Pruning works will also be required to two trees in Temple Gardens, which is part of Victoria Embankment Gardens, six trees on Victoria Embankment and one tree on Temple Place. On the south bank and the new south landing building ten trees on The Queens Walk and 18 trees on the existing grassed area will need to be felled. Three new trees will be planted on the Queens Walk as agreed with LBL. A further 270 trees will be planted on the bridge. Pruning works will be undertaken on 13 trees on the Queen's Walk and two on the ITV/IBM walkway. In addition, pruning works are required to a number of trees to allow for establishment of welfare facilities, hoarding, use of a luffing crane and access to the site. Works will be undertaken in accordance with the Arboricultural Method Statement approved by LBL in December 2015.

The final OMP will be submitted to WCC and LBL for approval 6 months prior to the opening of the bridge. Assessment and control, of which will be undertaken by WCC and LBL.

The MMO is satisfied that, based on the advice and evidence received, the health and safety issues have been sufficiently assessed, and the mitigation measures identified are adequately secured. The MMO is satisfied that the health and safety issues will be managed appropriately by the local planning authorities under the terms of the planning permissions granted for the Project.

### **5.8.3 Concerns around planning permissions**

Public representations were received questioning the fact that planning permission has been granted, as there are outstanding conditions to discharge for that planning consent.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The details of the planning permissions are set out in Section 3. The MMO would refer to the relevant local planning authority in respect of the planning permissions granted. It is therefore considered appropriate to attach insignificant weight to this factor.

### **5.8.4 Concerns around statutory processes and ownership of Garden Bridge**

Public representations were received questioning how the project has been rushed through various statutory processes through pressure from those connected with the project, and that controls have been circumvented. Concerns were also raised regarding the bridge being privately owned.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The MMO has followed the process as outlined in the Regulations and the 2009 Act within a suitable timeframe.

The MMO notes that the ownership of the bridge is the Applicant's responsibility. Additionally, the MMO is obliged to assess the Project as it is proposed. It is therefore considered appropriate to attach insignificant weight to this factor.

#### **5.8.5 Concerns around no alternative sites being considered.**

Public representations were received in relation to no other sites being considered.

During the consultation period the MMO did not receive any comments from consultation bodies regarding this topic.

The MMO notes that the location of the bridge is the Applicant's responsibility. Additionally, the MMO is obliged to assess the Project as it is proposed. It is therefore considered appropriate to attach insignificant weight to this factor.

## **6. Cumulative Impacts**

The cumulative impacts of the project, as a whole, have been assessed within the ES. The MMO agree with the conclusions of the ES that the Project will not have a significant cumulative impact with other 'plans' or 'project' in the vicinity of the works.

## **7. Decision**

Based on the advice and evidence received, the MMO concludes that EIA consent for the project should be given. The MMO has conducted an assessment into the environmental impacts and concludes that adequate mitigation measures have been agreed to minimise the potential impacts of the Project. The Project will be regulated by conditions attached to the marine licence together with those secured in the planning permissions. The MMO has taken into account all material considerations, and has complied with its duties under regulations 21, 22, and Schedule 5 of the Regulations.