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Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
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08 July 2020

Dear Sir/Madam,

**The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (“MW Regulations”). Request for Screening Opinion in relation to the works and improvements associated with Windmillcroft Quay.**

An EIA screening request was submitted to the Planning Authority (Glasgow City Council GCC) on 10th April 2019. A response from GCC was received on 5<sup>th</sup> July 2019 confirming that EIA **is required** for the development (see attached ‘Windmillcroft Quay Decision Letter’, GCC Ref: 19/01117/SCR). The response concluded that a formal Environmental Assessment should be undertaken to evaluate “the potential impact on the River Clyde and the characteristics of the potential impact”. The accompanying Screening Checklist was provided on 18<sup>th</sup> December 2019 (see attached ‘Windmillcroft Quay Screening Checklist’).

We are mindful that the works also fall under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (MW Regulations) as amended. Therefore, on behalf of the Glasgow City Council Development and Regeneration Services Project Management and Design Team (DRS-PMD), I am writing to request a Screening Opinion from the Marine Scotland Licensing and Operations Team (MS-LOT), in accordance with Part 2 of the MW Regulations to determine whether an Environmental Impact Assessment (EIA) is required in relation to works at Windmillcroft Quay, Tradeston, Glasgow.

## EIA Screening Process

In accordance with Regulation 10 of the MW Regulations, a request for a screening opinion must be accompanied by the following:

- a description of the location of the proposed works, including a plan sufficient to identify the area in which the works are proposed to be sited;
- a description of the proposed works, including in particular:
  - a list of all of the regulated activities which are proposed;
  - a description of the physical characteristics of the proposed works and, where relevant, works to be decommissioned; and
  - a description of the location of the proposed works, with particular regard to the environmental sensitivity of geographical areas likely to be affected;

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Contains *sensitive* information

- a description of the aspects of the environment likely to be significantly affected by the proposed works; and
- a description of any likely significant effects, to the extent of the information available on such effects, of the proposed works on the environment resulting from either, or both, of the following:
  - the expected residues and emissions and the production of waste, where relevant;
  - the use of natural resources, in particular soil, land, water and biodiversity.

A request for a screening opinion may, in addition to the information required in accordance with paragraph (2), also be accompanied by a description of any features of the proposed works or proposed measures envisaged to avoid or prevent significant adverse effects on the environment.

For the purposes of the MW regulations, the Proposed Scheme includes land reclamation from the sea which falls under **1 (e) of Schedule 2 of the MW Regulations**, of which the threshold is 'all works' as confirmed by MS-LOT via email correspondence dated 6<sup>th</sup> April 2020 and 3<sup>rd</sup> June 2020. Schedule 3 of the MW Regulations sets out the selection criteria for screening of Schedule 2 works under the following headings:

- Characteristics of works;
- Location of works; and
- Characteristics of the potential impact.

The Sections 1-4 of this letter consider the Proposed Scheme in the context of these selection criteria. In addition, the site boundary plan has been provided in Appendix A.

## 1. Proposed Scheme

The existing quay wall at Windmillcroft Quay is in a poor condition and has previously undergone stabilisation works at an historic failure zone. The Proposed Scheme consists of a piled quay wall offset into the River Clyde approximately 12m from the existing wall, over a distance of approximately 337m, further stabilising the quay wall whilst also offering an extended usable public space and improved riverside access.

Reference should be made to appended drawings ATK-WMCQ-ZZ-DR-C-0100; ATK-WMCQ-ZZ-DR-C-0101 and ATK-WMCQ-ZZ-DR-C-0102.

The Proposed Scheme will comprise a double skin cofferdam sheet piled wall, with two levels of anchors spanning between the piled walls to provide stability. The space between the sheet pile walls will be filled with a free draining granular material with the remaining land take to the rear of the new wall comprised of engineering fill. For sections between the residential properties, the wall will return to single sheet piled construction with a restraint system formed in the available garden space of the properties.

At the eastern extent of the wall, adjacent to the Tradeston Bridge, the quay wall will comprise of a traditional single sheet pile retaining wall with a tie rod restraint system and supporting anchor wall buried within the extended boundary (see ATK-WMCQ-ZZ-DR-C-0100). A similar detail will be provided at the Western side adjacent to the Kingston Bridge. Minor demolition works will be required at both the east and west tie-in points in addition to partial demolition of the existing wall along its full length to permit construction of the quay wall restraint systems and allow formation of the surface paving. A new cope beam will be formed on top the quay wall frontage once all piles have been installed.

Exact construction methods remain an unknown as these will be based on Contractor preference. As such, and based on past experience, it may either involve the use of marine plant or, the formation of bund in front of the existing wall to permit land-based piling.

The quayside surfacing will consist of medium quality paving to align with adjacent sites, with intermittent shrubbery and tree areas and improved lighting columns.

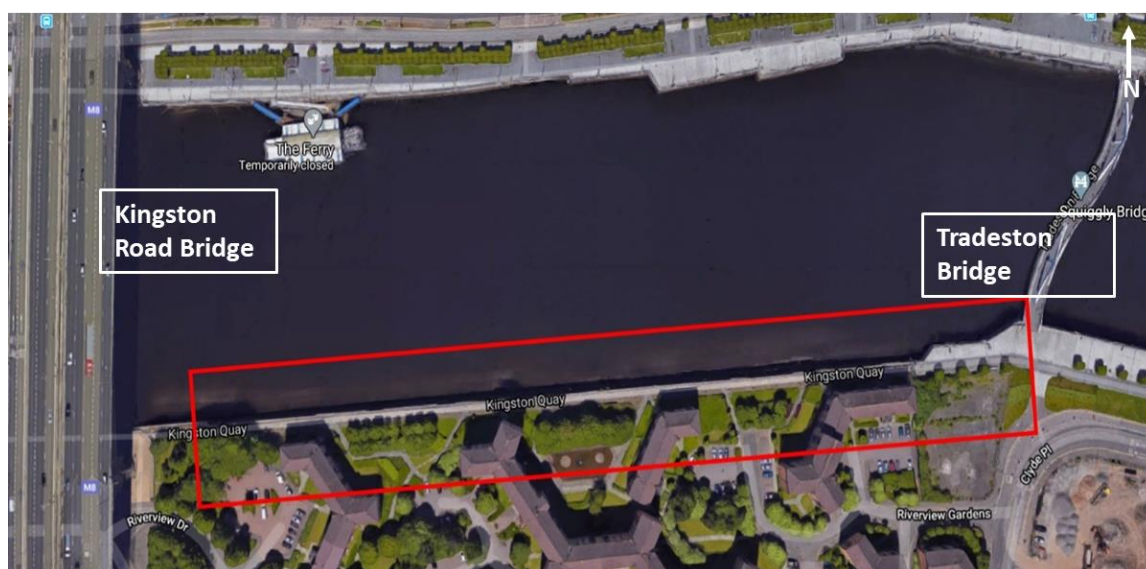
Construction of the Proposed Scheme will result in the production of small quantities of general waste. Onsite reuse of materials will be carried out where possible and is likely to include materials derived from the demolition of existing infrastructure, including the cope stones and masonry brick. It is expected that the main material imports will be aggregate fill, concrete and steel. The cope beams that will be broken out of the existing wall, at the eastern and western boundaries, during the demolition of the wall will be reinstated. The masonry brick which has been used as part of the existing stabilisation of the collapsed wall may be suitable for use within the landscaping.

The Proposed Scheme extends partially into the River Clyde and partially into private amenity land owned by the residential properties located along the full length of the quayside and has a total footprint of approximately 0.6 hectares. 0.4 hectares of this will be reclaimed land in front of the existing quay wall (based on 12m x 337m).

The anticipated construction duration is potentially 17 months, with construction expected to commence August 2021.

## 2. Proposed Scheme Location

The Proposed Scheme is located in the centre of Glasgow at Windmillcroft Quay on the southern bank of the River Clyde. Windmillcroft Quay is situated between the Tradeston Bridge to the east and the Kingston Bridge to the west. Tradeston Bridge is a pedestrian bridge connecting Tradeston and the Broomielaw. Kingston Bridge to the west, is an elevated single span road bridge over the River Clyde carrying the M8 motorway (See Figure 1).



**Figure 1 – Site Location (Site boundary noted by red box)**

To the south of the Proposed Scheme are residential properties known as Riverview flats. The walkway adjacent to the River Clyde at Windmillcroft Quay is privately owned by the residents of Riverview flats but is currently fenced-off and not accessible by members of the public. There is a partially collapsed section of quay wall which has been stabilised using stone from the quay wall and other fill material to form a crater feature. This area has also been fenced-off to prevent unauthorised access. On the opposite bank of the river are office buildings in the International Financial Services District (IFSD). There are also numerous small businesses, offices and residential properties in the surrounding area.

## 3. Baseline Environment

### 3.1. Environmental Designations

There are no statutory international or national environmental designations within 5km of the Proposed Scheme. The closest marine designated site is the Inner Clyde Estuary Special Protection Area (SPA) (designated for overwintering populations of redshank *Tringa tetanus*) located approximately 9km west of the Proposed Scheme.

The River Clyde is a locally designated Site of Importance for Nature Conservation (SINC), the river is also zoned as natural/semi-natural green space – open water.

The Proposed Scheme is not within a Conservation Area, with the nearest being 120m to the north, on the opposite side of the River Clyde.

The River Clyde Corridor of Wildlife and Landscape Importance is described as being immediately adjacent to the River Clyde, however, the exact location of this non-statutory designation is not specified in the data sourced from Glasgow Museums Biological Records Centre (GMBRC).

### 3.2. Ecological Constraints

An Ecological Constraints Assessment (ECA) of the Proposed Scheme was conducted by Atkins in February 2018. As part of the ECA, a walkover survey was conducted by two experienced ecologists in February 2018. This covered all land in and adjacent to the site, including land up to 50m from the boundary of the site. The River Clyde, river wall and stone revetment were not surveyed due to access restrictions.

#### 3.2.1. Notable Species

Table 1 outlines the notable species identified through, the ECA (including walkover survey) and addition desk studies.

**Table 1: Notable Species**

| Species            | Desk Based/Survey results  |
|--------------------|--|
| Great Crested Newt | No records of great crested newt were provided by GMBRC.<br>The desk study did not identify any water bodies within 500 m of the Site boundary other than the River Clyde. Great crested newts are considered unlikely to be present within the Site, as the River Clyde does not offer suitable habitats. As such, this species is not discussed further.   |
| Badger             | Four records of badgers provided by GMBRC.<br>No evidence of badger presence was identified within the Survey Area during the walkover survey.<br>The majority of habitats present in and adjacent to the Proposed Scheme (hardstanding areas, roads, buildings) are unsuitable for badger to build setts or forage. Small areas of vegetation and amenity grassland offer low suitability for badgers to commute, forage or build setts. However, the Proposed Scheme is isolated from other suitable habitat in the wider area and subject to high levels of human disturbance. As such, it is considered that badgers are unlikely to be present at the Site and this species is not discussed further. |
| Bats               | Low potential for the presence of roosting bats given the highly urbanised character at the Proposed Scheme.<br>Due to the urban nature of the Site, much of the immediate surroundings offer limited opportunities for foraging and commuting bats. However, habitats such as the River Clyde offer some suitability for bats to commute and forage. The Site is subject to high levels of street lighting and disturbance from traffic and human activities, reducing the suitability for bats to roost within and adjacent to the Site.   |

|                |   |
|----------------|---|
|                | Given that the works are limited to the river edge only, no direct impacts to bats are anticipated.   |
| Birds          | <p>Records of sixty-seven notable bird species were provided by GMBRC. These records include twelve species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (WACA-Sch1), twenty seven species identified as Red or Amber Birds of Conservation Concern (BoCC Red/Amber), thirty six Annex listed species on the Birds Directive 2009/147/EC (DirA1/2.1/2.2), twenty one species listed on the Scottish Biodiversity List (SBL) and three species on the Glasgow Local Biodiversity Action Plan (LBAP). The exact location of the majority of the records cannot be confirmed because the location information has been provided as two figure OS Grid References. However, given the species recorded (including numerous wetland bird species) many of the records are likely to be associated with the River Clyde.</p> <p>However, there is low potential for the presence of nesting birds given the highly urbanised character of the site.</p> |
| Water vole     | Two records of water vole were provided by GMBRC. However, the heavily engineered banks and isolated nature of the habitats on the Site are not considered to be suitable habitat for water voles. As such, this species is not discussed further.  |
| Otter          | Eight records of otter were provided by GMBRC. One sighting of otter in the River Clyde was made in 2012, approximately 300m to the north west of the Site. The River Clyde provides a suitable corridor for otter to commute and forage. The Site offers negligible suitability for otters to rest and shelter due to its open nature and high level of human disturbance. Otters are unlikely to attempt to access the Site due to the engineered quay walls and unfavourable habitat offered by the Site.  |
| Fish           | There are no known sensitive areas for migratory fish in 1km of the Proposed Scheme. Data from the GMBRC does not include any records for protected species in the River Clyde. The species records include a small number of old records of stone loach and minnow (associated with the River Kelvin). The two most recent records from 2014.  |
| Marine Mammals | <p>Marine mammals are occasionally present in the River Clyde. Data from the GMBRC records include the following observations:</p> <ul style="list-style-type: none"> <li>• Common dolphin (<i>Delphinus delphis</i>) – 1 record in 1982 1.8km from the Proposed Scheme.</li> <li>• Common porpoise (<i>Phocoena phocena</i>) – 1 record in 2011 (2.6km from the Proposed Scheme).</li> <li>• Common seal (<i>Phoca vitulina</i>) – 2 records both 1997 (likely same individual) (closest adjacent to the Proposed Scheme)</li> <li>• Grey seal (<i>Halichoerus grypus</i>) – 7 records. One in 2010, six in 2012 (feeding) (closest location approximately 1km from Proposed Scheme)</li> <li>• Northern Bottlenose Whale – 1 record in 2009 (stranded) (900m from Proposed Scheme)</li> <li>• Risso's dolphin (<i>Grampus griseus</i>) – 1 record in 2008 (1.5km) (apparently disoriented by Glasgow Vets)</li> </ul>   |

|   |  |
|---|--|
| <p>Invasive Non-Native Species (INNS)</p> | <p>Numerous records of invasive terrestrial plant species were provided by GMBRC. These included Himalayan balsam, giant hogweed, hybrid knotweed, giant knotweed, Japanese knotweed and 14 different species of invasive Cotoneaster. The exact location of these records cannot be confirmed because the location information has been provided as two figure OS Grid References. Several rhododendron and cotoneaster plants were identified within the planted areas of the Site.</p> <p>The Carpet Sea Squirt (<i>Didemnum vexillum</i>) has been recorded in the Firth of Clyde in 2009 and 2010, however it has not been recorded in the River Clyde itself.</p> <p><i>D. vexillum</i> is a filter feeding marine invertebrate which forms large colonies carpeting hard structures on which it grows, both natural (e.g. seaweed, rocks, boulders, stones and dead shells etc.) and manmade (e.g. boat hulls, pontoons, dock piling, creels, ropes and tyres etc.), down to a depth of 80m. Colonies can be pale orange, cream or off-white and can quickly form extensive, thin (2-5mm) sheets<sup>1</sup>.</p> <p><i>D. vexillum</i>'s association with marinas indicates that the most likely method of dispersal is through hull fouling and boat movements over various distances in initial contamination, rather than natural dispersion.</p> |
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### 3.3. Water

The River Clyde, in the vicinity of the Proposed Scheme, is contained by several man-made structures. Water levels at this location are influenced by both the tide and the response of fluvial watercourses upstream.

#### 3.3.1. Flood Risk

Scottish Environment Protection Agency (SEPA) flood mapping data indicates that the Proposed Scheme contains areas where there is a low likelihood of surface water flooding and a high likelihood of coastal flooding from the River Clyde<sup>2</sup>. The remediated section of wall (historic failure) and crater is partially submerged during high tides.

On review of the SEPA flood risk mapping:

- The site lies in the medium likelihood (0.5% annual exceedance probability) for coastal flooding;
- The mapped extent does not cover the proposed development site for fluvial flooding;
- The site lies outside the low likelihood (0.1% annual exceedance probability) for surface water flooding;
- The site lies in the low likelihood (0.1% annual exceedance probability) for ground water flooding. It should be noted that the SEPA ground water mapping identifies where groundwater could influence the duration and extent of flooding from other sources. It does not show where groundwater alone could cause flooding; and
- Reviewing the Scottish Flood Defence Asset Database, there is no recorded flood defences in the vicinity of the development.

On review of Coastal Flood Boundary (CFB) data, the 0.5% AEP extreme tide level range from between 4.96m and 4.99m AOD taking the closest extreme water levels point upstream and downstream of the development. Ground levels for the Proposed Scheme are 4.5m AOD and indicating that areas of the Proposed Scheme would be at risk of flooding at the 0.5% AEP tidal event.

#### 3.3.2. Water Quality

None of the water bodies in the vicinity of the Proposed Scheme have classified WFD status.

<sup>1</sup> GB non-native species secretariat. Carpet Sea Squirt, *Didemnum vexillum*. Available Online: [<http://www.nonnativespecies.org/factsheet/factsheet.cfm?speciesId=1209>].

<sup>2</sup> Scottish Environment Protection Agency, Flood Maps Online, <http://map.sepa.org.uk/floodmap/map.htm> [Accessed 21/05/2020]

There are several openings through the existing wall that indicate drainage may exist that discharges out into the river.

No bathing water quality sampling locations are active in the wider area.

There are no shellfish waters in the wider area.

Reviewing the SEPA River Basin Management Planning interactive mapping, the Proposed Scheme site is located in the Clyde Estuary - Inner (inc Cart) (ID: 200510) and is considered as a transitional water body with an overall condition classification as 'moderate'. The future object is to achieve a 'good' overall status by 2027.

### 3.3.3. Geomorphology

The River Clyde, at the location of the Proposed Scheme, has been extensively modified through realignment and constraining giving an artificial channel form (see Figure 2). Furthermore, the presence of the tidal weir creates a barrier between freshwater and saltwater reaches of the watercourse. Therefore, the watercourse has low sensitivity to geomorphological disturbance.



**Figure 2: View of the River Clyde at the location of the Proposed Scheme**

### 3.4. Waste/Contaminated Sediments

There are no registered waste landfill sites in 250m of the Proposed Scheme. It is understood that Riverview flats, are built on the infilled former Kingston Dock and associated access channel. The exact infill material is unknown, and may potentially contain historic contamination sources, however, no excavation is proposed in this area and risk of mobilisation is considered to be low.

### 3.5. Noise

The Proposed Scheme runs through highly urbanised areas and is therefore subject to frequent noise disturbance.

### 3.6. Climate & Air

The Proposed Scheme will contribute GHG emissions to the atmosphere primarily through the embodied carbon of the steel sheet piles and concrete but also as a result of emissions due to transportation of materials to site and machinery/plant/barge use.

There is an Air Quality Management Area, located 60m to the north for the City Centre of Glasgow<sup>3</sup>.

### 3.7. Heritage

The nearest Listed Building is the Warehouse (Category B, Reference: LB33501) at Clyde Place 150m to the east of the Proposed Scheme. As there are no recorded heritage assets within the site or immediate surrounds this topic is not discussed further.

### 3.8. Noise

The Proposed Scheme site is in a heavily built-up area in the centre of Glasgow, located close to the M8 road bridge.

### 3.9. Navigation

There are relatively low levels of use on the River Clyde at the location of the Proposed Scheme due to the presence of a weir at Glasgow Green and limited headroom of the bridges down river of the Proposed Scheme including the Clyde Arc. The river is used infrequently by high speed tourist boats, and the lifeboat launch at Glasgow college. The current width of the River Clyde at the Proposed Scheme is approximately 120m, and 90m to the 'The Ferry' (floating restaurant/bar) this will reduce approximately by 12m.

### 3.10. Other Existing/Planned Works

Live planning applications for development in the vicinity of the Proposed Scheme include:

- an application for use of vacant lot on Morrison Street (south of the Riverview flats) as a temporary car park (19/00466/FUL); and
- an application for the erection of a mixed-use development located at Anderston Quay and Warroch Street (18/02825/MS) on the opposite side (north side) of the river to the west of Kingston Bridge.

Nearby development sites in the vicinity of the Proposed Scheme site include:

- on the opposite side (north side) of the river to the west of Kingston Bridge, a consented application relating to the erection of a mixed-use development at Cheapside Street and Piccadilly Street (18/01809/FUL); and
- an application relating to the repair and repainting of the 2<sup>nd</sup> Caledonian Railway Bridge south of Glasgow Central Railway Station (18/03619/LBA) east of the Proposed Scheme.

Immediately to the east of the Proposed Scheme, there is an active construction site for mixed-use development at Tradeston Quay (16/02357/DC, plus further MSC applications). The development area at Tradeston Quay potentially overlaps due to Contractors constructing the development utilising some of this area for sites compounds. It is anticipated that there will be limited to no interaction between the two schemes during construction, due to differential between project start and completion timescales.

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<sup>3</sup> Glasgow City Council, City Centre Air Quality Management Area (2010)  
<https://www.glasgow.gov.uk/CHttpHandler.ashx?id=32491&p=0> Accessed [21/05/2020]



## 4. Potential Environmental Effects

The Proposed Scheme is in a heavily built-up area in the centre of Glasgow and notwithstanding the River Clyde and nearby residential properties, environmental receptors are largely absent.

**Table 2: Characteristics of Potential Impact**

| Topic                      |                           | Discussion   | LSE |
|----------------------------|---------------------------|--|-----|
| Environmental Designations |                           | There are no statutory environmental designations that will be affected, and the site is of limited ecological importance.<br>No significant environmental effects on ecological receptors are anticipated given the absence of sensitive receptors at the site and immediate surrounds (see ecological constraints).  | No  |
| Ecological Constraints     | Great crested newts (GCN) | GCN are considered unlikely to be present within the Site, as the River Clyde does not offer suitable habitat.   | No  |
|                            | Bats                      | The location of the Proposed Scheme is subject to high levels of street lighting and disturbance from traffic and human activities, reducing the suitability for bats to roost within and adjacent to the Proposed Scheme.<br><br>Avoidance of night-time working, and directional low-level lighting will be used to avoid disturbance to bats.   | No  |
|                            | Birds                     | Most of the habitats in the vicinity of the Proposed Scheme (amenity grassland, hardstanding areas) have low suitability to support the notable bird species highlighted by the desk study. However, the stone revetment, buildings and vegetation/trees within the Site have the potential to support common species of nesting birds.<br><br>To minimise any potential effects on ecology the following measures will be employed: habitat loss will be minimised and measures taken to reduce the loss of trees, planted vegetation and grassland; storage of materials and equipment will be restricted to existing hard standing;; any works affecting bird nesting will completed outside nesting bird season (1 <sup>st</sup> March and 31 <sup>st</sup> August).<br><br>If any vegetation clearance or building works are required in this time period, a check for nesting birds by an ecologist should be undertaken no more than 24 hours prior to clearance. If any nests are found, an appropriate buffer zone should be put in place around the nest until the chicks have fledged and the nest is no longer active. | No  |
|                            | Otter                     | Given the suitability of the River Clyde for otter to commute and forage, night time working will be avoided where possible (i.e. from half an hour before sunset to half an hour after sunrise) to avoid disturbing foraging otters. If this is not possible and work is required at night, directional,  | No  |

|  |                                    |  |       |
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|  |                                    | low level lighting is used and pointed away from the watercourse at the works area only. This will minimise disruption to commuting routes and foraging areas of otters.   |       |
|  | Fish                               | Piling operations may cause disturbance to common fish species in the River Clyde. However, these impacts will be small scale and temporary in nature.<br>It is expected that a temporary bund <b>may</b> be put in place which will enable works to be undertaken out of the water column.  | No    |
|  | Marine Mammals                     | Although there is the potential for marine mammals to be present in the River Clyde adjacent to the works, these are limited with only thirteen records from 1982-2012. Where possible works undertaken within the River Clyde will be avoided.<br>Regardless of construction methods used, marine mammal mitigation measures will be used. The contractor will perform a visual sweep of the area to confirm no cetaceans are visible. In the unlikely event that cetaceans are observed all work will stop and soft-start procedures will be implemented once the cetacean is clear of the Site.<br><br>The design of the Proposed Scheme will allow opportunities for cetaceans to travel along the watercourse both throughout the works on completion of the Proposed Scheme.   | No    |
|  | Invasive Non-Native Species (INNS) | A full survey for invasive species will be carried out prior to construction commencement.<br><br>If in-channel works are required all equipment and machinery used in the river throughout construction should be checked carefully for the presence of INNS.<br><br><i>Construction Activities which may carry a biosecurity risk:</i> <ul style="list-style-type: none"> <li>• Use of vessels or equipment from locations where <i>D. vexillum</i> has been recorded;</li> <li>• Movement of vessels, equipment, etc. from the construction site to other areas;</li> <li>• Use of vessels from locations outside the local water body;</li> <li>• Importing materials/equipment to site;</li> <li>• Creation of new hard substrate that may be colonised, and;</li> <li>• Maintenance, survey or other post-construction operations that involve vessels or equipment coming into contact with the new quay wall.</li> </ul> | Minor |

|       |            |  |       |
|-------|------------|--|-------|
|       |            | <p><i>D. vexillum</i> is unlikely to be present on every vessel/equipment at all times, however, in line with recommendations in the Scottish Government Code of Practice on Non-Native Species, a precautionary approach will be taken for materials/equipment used.</p>  |       |
| Water | Flood Risk | <p>Potential flood risk to the site during construction and operation is considered to be the only potential impact of the Proposed Scheme based on the Screening Opinion from Glasgow City Council.</p> <p>Potential impacts during construction may include:</p> <ul style="list-style-type: none"> <li>• Risk of flooding of the site during the construction phase from coastal flooding, fluvial flooding;</li> <li>• Contamination of surface water due to mobilisation of soils, and accidental spills from construction plant or materials;</li> <li>• Direct contamination of surface water quality due to contaminants from construction and the associated collection in the surface water drainage;</li> <li>• Potential impacts on water quality through suspended sediments associated with any dredging activity; and</li> <li>• Potential changes to water quality and chemistry associated with contaminated sediments, should they be present, being mobilised during any dredging activity.</li> </ul> <p>Potential impacts during operation may include:</p> <ul style="list-style-type: none"> <li>• The site would be at risk of flooding at the 0.5% AEP from Firth of Clyde and may be at risk from fluvial flooding from the River Clyde;</li> <li>• Sea level rise will increase the frequency of flooding to the proposed development;</li> <li>• Loss of conveyance capacity of the River Clyde, as the proposed development footprint extends from the originally quay alignment and extends into the watercourse, and the associated displacement of flood water; and</li> <li>• Any surface water flooding is likely to have an adverse impact on the operation of the site and so surface water runoff will require to be managed such that it will not increase the risk of flooding at the proposed development site or land within the surrounding area.</li> </ul> <p>Modelling of the River Clyde is currently being carried out to create a baseline flood model which will be used to analyse potential flood risk associated with the Proposed Scheme.</p> | Minor |

|  |                              |  |       |
|--|------------------------------|--|-------|
|  |                              | In addition, a Flood Risk Assessment will be undertaken to quantify the flood risk to the development and surrounding areas.   |       |
|  | Water Quality                | <p>The following potential impacts to water quality have been identified:</p> <ul style="list-style-type: none"> <li>• Contamination of surface water due to mobilisation of soils, and accidental spills from construction plant or materials;</li> <li>• Direct contamination of surface water quality due to contaminants from construction and the associated collection in the surface water drainage;</li> <li>• Potential impacts on water quality through suspended sediments associated with any dredging activity; and</li> <li>• Potential changes to water quality and chemistry associated with contaminated sediments, should they be present, being mobilised during any dredging activity.</li> </ul> <p>The construction of the quay wall, particularly the filling of the void between sheet piles and back filling to the original quay wall, has the potential to result in sedimentation of the River Clyde (although it is noted that the wall structure should be closed-off prior to filling thereby neutralising the risk). Piles will be driven through the riverbed to limit disturbance and mitigation in the form of a silt curtain could be utilised in the containment of disturbed sediment during the pilling works. There is also the potential for fuel spills during construction and Guidelines for Pollution Prevention (GPPs) will be followed to minimise the potential for any accidental spills.</p> | Minor |
|  | Waste/Contaminated Sediments | Although there are no records relating to landfill sites within 250m of the Proposed Scheme, the infilled Kingston Dock area beneath Riverview flats has the potential to contain historic contamination. Considering that the Proposed Scheme will not entail excavation in this area, the potential for mobilisation of historic contamination is considered to be low. However, during construction if evidence of ground contamination is detected then immediate preventative action will be taken in accordance with the GPPs.   | No    |
|  | Air Quality                  | <p>The construction of the Proposed Scheme has the potential to cause air pollution from plant and vehicle engine emissions and dust generation from earthmoving. It is not considered that emissions would be of a magnitude that could significantly impact the nearby Air Quality Management Area.</p> <p>Best practice measures will be implemented to minimise dust generation and vehicle and plant emissions, e.g. through shutting-off idle machinery and monitoring for dust pollution and limiting to work in windy conditions, as well as appropriate storage of materials and management of any temporary stockpiles.</p>  | No    |

|                                |   |    |
|--------------------------------|---|----|
| Climate – Greenhouse Gas (GHG) | At every stage of the design development and construction phase, opportunities will be sought to reduce the quantities of material used. The waste hierarchy will be adhered to, with reuse of material on site and local sourcing of materials, where possible, in order to reduce GHG emissions.  | No |
| Noise                          | During construction there is the potential for noise and vibration effects due to the close proximity of residential buildings. This will be mitigated through agreeing working hours with Glasgow City Council's Environmental Health Officer, monitoring noise and vibration levels and potentially erection of temporary noise barriers, if required.<br><br>Any negative impact would have a short-term and reversible effect.  | No |
| Navigation                     | Construction of the Proposed Scheme is unlikely to cause navigability issues due to the low levels of river traffic and the substantial width of the river at this location.  | No |
| Cumulative                     | There is the potential for cumulative effects resulting from the effects of the development of the Proposed Scheme in combination with other developments within the surrounding area (identified above) Cumulative effects could include dust nuisance, noise and vibration, and traffic generation during construction. However, with site specific mitigation in place effects are not anticipated to be significant, moreover, there is insufficient information on the timing of construction of the other developments and no indication that construction will be concurrent with the Proposed Scheme. | No |

## 5. Conclusion

The Proposed Scheme comprises a piled quay wall offset into the River Clyde extending approximately 12m from the existing quay wall over a distance of approximately 337m along the river. It will provide public space and improved riverside access for pedestrians and other non-motorised users.

No significant environmental effects on heritage assets or ecological receptors are anticipated given the absence of sensitive receptors in the site and immediate surrounds

Although there is potential for construction noise and vibration effects, these can be mitigated through a suite of measures including agreeing appropriate working hours with GCCs Environmental Health Officer in advance of construction commencement and monitoring noise and vibration levels during the construction phase, as well as adoption of best practice construction methods and potentially erection of noise barriers, if required.

The risk of pollution incidents, including accidental spillages and sedimentation, potentially affecting the water environment (the River Clyde) can be mitigated by the construction process and strict adherence to the GPPs, respectively.

Flood modelling is currently being carried out to inform the scheme detailed design and work will be reported as part of the Flood Risk Assessment which will accompany the marine licence and planning application submissions.

Based on the above information and the decision from GCC, the changes of the site due to the Proposed Scheme may result in environmental effects significant enough to warrant evaluation of a formal Environmental Assessment relating to the potential impact on the River Clyde.

As Scoping Report is currently being produced, the scope of which has been determined by the screening checklist which identified potential impacts on the Water Environment. Specifically, the River Clyde SINC was identified as a sensitive receptor with relation to flood risk. All other topics were deemed to have no likely significant effects and therefore have been scoped out.

Our preference would be for the scoping report to be issued to GCC and MS-LOT in parallel to avoid duplication of works.

Should you require any further details please contact [abi.cowing@atkinsglobal.com](mailto:abi.cowing@atkinsglobal.com).

I look forward to receiving MS-LOT screening opinion in due course.

Yours faithfully,



Abi Cowing  
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