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Issued by email only

1 July 2020

Dear Sirs,

**Orkney Islands Council Harbour Authority (OICHA) – Enhancements to Kirkwall Pier and Harbour  
Request for Screening Opinions**

We write on behalf of our Clients above to formally request individual screening opinions under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 for the above named project.

As required by Paragraph 10 of the above Regulations we have provided a pack of information for this project (attached) which includes:

- a description of the location of the development, including a plan to identify the land;
- a description of the proposed development, including of the physical characteristics of the proposed development;
- a description of the location of the proposed development, with regard to the environmental sensitivity of the area and any potential significant environmental effects; and
- a description of any features of the proposed development, or proposed measures, envisaged to avoid or prevent significant adverse effects on the environment where possible.

The information provided is drawn from the recent Orkney Harbours Masterplan Phase 1 (March 2020), Strategic Environmental Assessment (SEA) Environmental Report (June 2019), and associated Habitat Regulations Assessment (HRA) (January 2020) and Supplementary information for the Habitats Regulations Appraisal Appropriate Assessment (AA) (undated) prepared by Intertek, and additional desk study by EnviroCentre. If copies of these documents would assist your appraisal please contact [cfleming@envirocentre.co.uk](mailto:cfleming@envirocentre.co.uk) and copies shall be issued to you.

We have also copied this communication to Orkney Islands Council as there is also a requirement to screen this project under The Town and Country Planning (Environmental

Impact Assessment) (Scotland) Regulations 2017. We have also therefore made a separate request to Orkney Islands Council for a screening opinion which you have also been copied in to.

If you have any questions related to the information provided, please contact the undersigned.

Yours sincerely  
**for EnviroCentre Ltd**

(issued electronically)

**Dr. Campbell G. Fleming**  
**Executive Director**

**Dr. Ian Buchan**  
**Principal Environmental Consultant**

Enc: Supporting pack of information for Kirkwall Pier and Harbour

CC: Orkney Islands Council

# 3 Kirkwall Pier and Harbour

## Information to Support a Screening Opinion

### 1.1 Plans

The general location of this project within Orkney is shown on Drawing No. 673702-001.

A plan is also provided showing the project location within the local area. This is contained in Drawing No. 673702-004.

An illustrative layout of the planned development prepared by Arch Henderson is also attached.

### 1.2 Project Description and Local Sensitivities

- New multi-purpose quayside infrastructure.
- Waterfront development and marina expansion.
- Improvements to quayside area and traffic management.
- Improvements to fish landing areas.

#### 1.2.1 Location

Kirkwall Pier sits within the heart of Orkney's largest settlement, offering a picturesque waterfront looking out to sea and accommodating a diverse range of users and activities.

It is the hub for inter-isle ferry routes to the Outer North Isles and Shapinsay and home to the largest marina in Orkney; it is a key port for the inshore fishing fleet, the aquaculture sector and the marine supply chain in general, with many commercial boats operating out of Kirkwall.

Smaller cruise liners sit alongside at Kirkwall whilst larger ones tender in passengers to a pontoon in the Basin; the pier is frequently used for small boat repair on the quayside.

#### 1.2.2 Description

##### Kirkwall Pier

The plan for Kirkwall Pier is focussed on improving usability and efficiency of berths and quayside infrastructure, improving safety and better management of traffic and pedestrian movements.

Core proposals comprise new quayside infrastructure, a waterfront development area and marina expansion, as well as improvements to traffic management and facilities on the quayside.

##### New multi-purpose quayside infrastructure

200m of new multi-purpose quayside will be constructed to the north of the existing pier, with water depth of -6.5m Chart Datum (CD). The main purpose is to create lay-by berths for the inter-isle ferry fleet; it could also be utilised for fishing, cargo or slightly larger cruise ships than can currently be accommodated at this location (e.g. up to 130m LOA).

Waterfront development and marina expansion waterfront development area (circa 2.75 hectares) will be created through reclamation shoreside of the marina, for a range of uses/ facilities: this could be marina facilities, marine leisure club facilities, boat storage, repair/chandlery provision, tourist/travel information, seating, retail, café or parking. The marina can be doubled in size, with 95 additional berths. Some could be dedicated for residents, visiting yachts (and particular sizes thereof) or commercial boats.

It should be noted that as a design principle it will be attempted to balance any dredging or cut into the land with construction and/or reclamation requirements. Disposal of dredging material will be avoided as far as possible.

### **Improvements to quayside area and traffic management**

The entire layout of Kirkwall Pier, in terms of buildings, facilities and traffic management will be reviewed and remodelled. It is anticipated that some buildings will be demolished or moved, or that there may be new buildings or facilities constructed. The marshalling and parking areas, and designated routes for vehicles and pedestrians will be reviewed and re-designed, cognisant of changes in harbour infrastructure and potential new configuration of ferry vessels and services. This should also include a strategy for improved signage.

### **Improvements to fish landing areas**

Working with key stakeholders in the fishing industry, improvements are planned for the fish landing area at Kirkwall. One option is to relocate the pilot boats and/or RNLI vessels away from this area, freeing up additional quayside for landing, as well as consideration of possible options opposite the crane shed, e.g. removal of railings, changes in traffic management and possible installation of pontoons. The RNLI vessel could sit at the east side of the main pier, for example.

## **1.2.3 Construction Timing**

It is anticipated that the construction at Kirkwall Harbour will take up to 22 months.

## **1.2.4 Local Sensitivities**

This section notes some of the local sensitivities apparent from a high level desk based review. Further information on known sensitivities is provided in Section 1.3 below.

### ***Designated Areas***

#### ***Site of Special Scientific Interest***

- None within the vicinity of the proposed development.

#### ***Special Protection Areas***

- North Orkney pSPA (located within pSPA boundary)
  - Supports important wintering populations of seven species of marine birds as well as important breeding populations of red-throated diver.
- Rousay (Approximately 17km north)
  - Rousay SPA is designated for four species of breeding seabird populations

#### ***Special Areas of Conservation***

- Faray and Holm of Faray (Approximately 25km north)

- Faray and Holm of Faray are two uninhabited islands which support a well-established grey seal breeding colony.

### *Marine Protection Area*

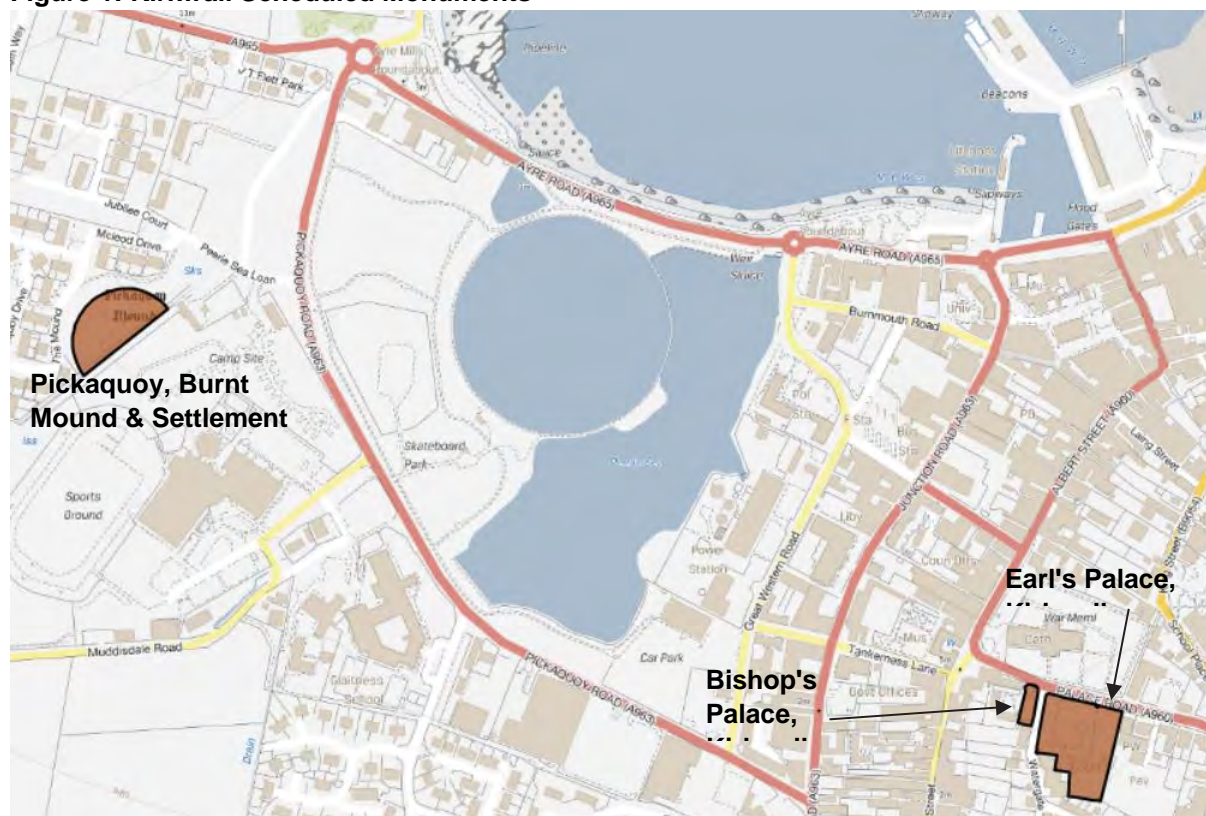
- Wyre and Rousay Sounds (Approximately 14km north)
  - Wyre and Rousay Sounds MPA are noted for maerl beds and seaweed communities which thrive on the sandy seabed.

### **Archaeology and Cultural Heritage**

In addition to the two Listed Buildings, there are three Scheduled monuments (Figure 1)

- Pickaquoy, Burnt Mound & Settlement
- Bishop's Palace, Kirkwall
- Earl's Palace, Kirkwall

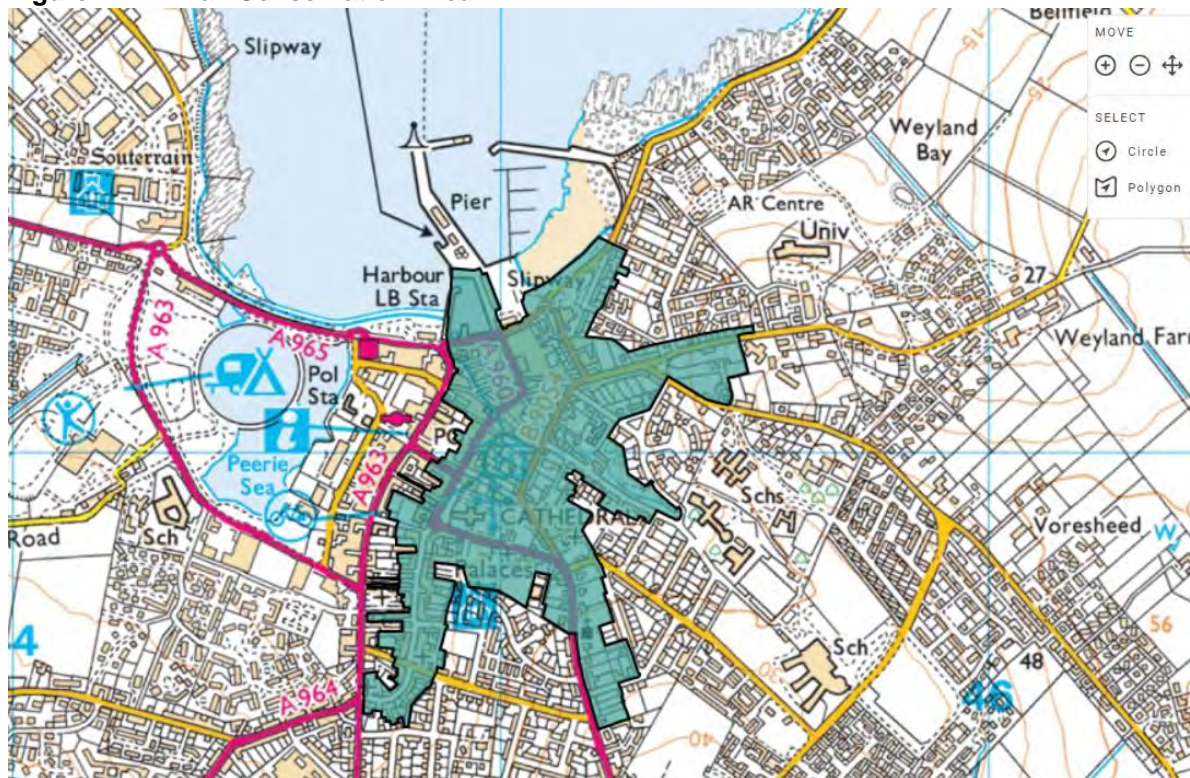
**Figure 1: Kirkwall Scheduled Monuments**





Part of the Kirkwall Harbour is located within the Kirkwall Conservation Area (Figure 2)

**Figure 2. Kirkwall Conservation Area**



### Canmore Points (Terrestrial and Maritime)

Compiled and managed by Historic Environment Scotland, Canmore contains over 320,000 records and 1.3 million catalogue entries from all its survey and recording work, as well as from a wide range of other organisations, communities and individuals who are helping to enhance this national resource<sup>1</sup>.

Figure 3 illustrates Canmore Points associated with Kirkwall Harbour.

Along with several listed buildings located on Cromwell Road which overlook the development site there are two listed Buildings within the vicinity of the proposed development as listed below.

- Kirkwall Harbour Light (Old) is a listed building
- Kirkwall Harbour is a "Listed Building"

<sup>1</sup> <https://map.environment.gov.scot/sewebmap/>

Figure 3. Canmore points (terrestrial): Kirkwall





## Canmore Point Maritime

### Wrecks

Mary Traill: Kirkwall Harbour, Bay Of Kirkwall, Orkney. The vessel was stranded at the back of Kirkwall Pier (1897).

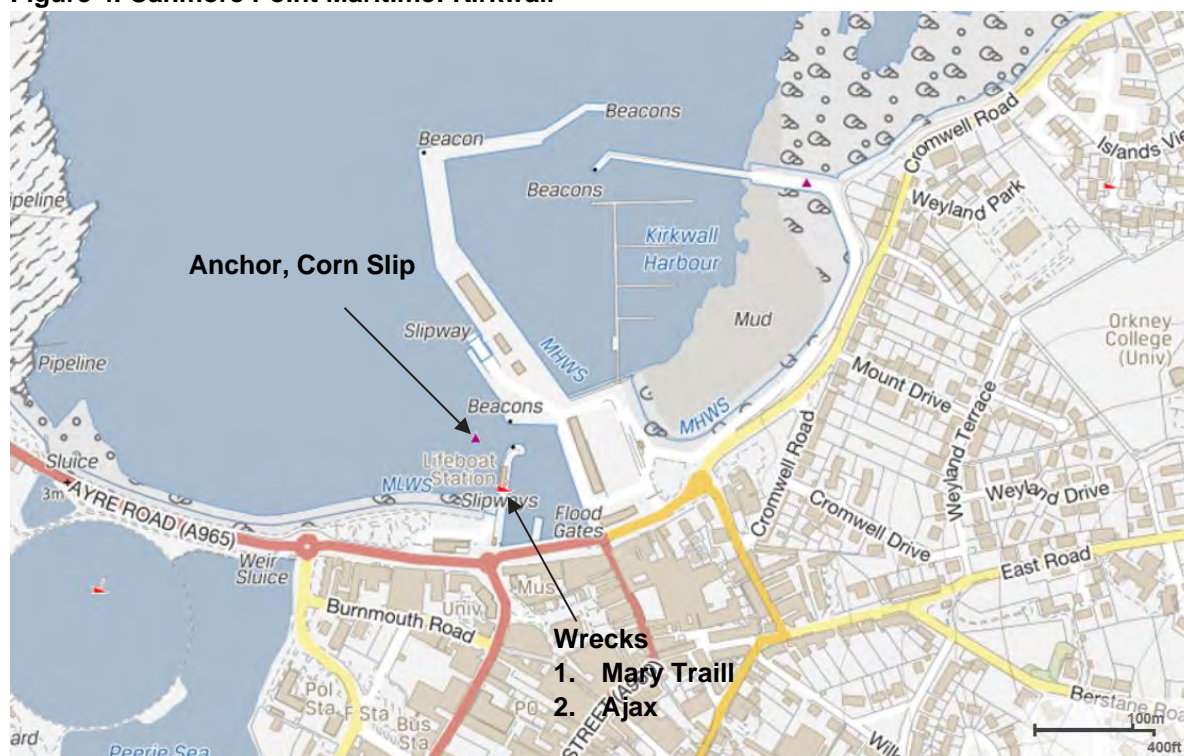
Ajax: Kirkwall Harbour, Bay Of Kirkwall, Orkney. The vessel stranded at Weyland, Kirkwall Bay (1845)

### Anchor, Corn Slip

An anchor was recovered from Kirkwall Bay during dredging works in 2011 and brought ashore at the Corn Slip, Inner Basin, Kirkwall Bay.

The precise location of the find was undetermined but local mariners stated that it came up from "where they were dredging". Information from Orkney Islands Council (C. Sutherland 2012) indicates that the dredged area measured just over 1.26 ha and covered 'Kirkwall Inner Basin and Approaches'. A plan of the dredged area was provided by OIC and this has been used to create a polygon for the find. The location of the find was either within the Inner Basin itself, or from the area to the north of the Shapinsay Slip and west of the pier.

**Figure 4. Canmore Point Maritime: Kirkwall**



### Air Quality

Previous Review and Assessment have determined there is no need for detailed assessment and no air quality management areas have been declared in Orkney Islands Council's area<sup>2</sup>.

### Water Quality

From the SEPA website the local coastal waterbody is classified as good as shown below.

ID	Name	Heavily Modified	Artificial	Year	Classification
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<sup>2</sup> [https://www.orkney.gov.uk/Files/Environmental\\_Health/2008\\_Air\\_Quality\\_Report.pdf](https://www.orkney.gov.uk/Files/Environmental_Health/2008_Air_Quality_Report.pdf)



ID	Name	Heavily Modified	Artificial	Year	Classification
200234	Kirkwall	N	N	2018	Good

### 1.2.5 Information Arising from Previous Consultation

During the preparation of the SEA, HRA and AA for the Orkney Harbours Masterplan Phase 1 consultation was undertaken by OICHA through Intertek. Whilst we have not reproduced these documents here, we have reviewed the responses from the Statutory Consultees and distilled what we consider to be the key points:

- Early communication with all stakeholders is recommended to identify potential issues and appropriate mitigation as early as possible.
- Protection of designated Sites (SPA/ SAC) and associated features to ensure the development does not undermine the Conservation Objectives, and hence site integrity of the site.
- Any permanent loss of foraging habitat would require more detailed consideration at project level, informed by both ornithological and benthic surveys.
- With regard to the River Basin Management Plan the Kirkwall coastal water body (ID: 200234), this water body is already classified as "Good". However, there are various proposals outlined in the plan including land reclamation that will have an impact of the morphological classification of the relevant waterbody. This should be given consideration at the EIA stage to ensure there is sufficient capacity in the receiving environment to prevent a deterioration.
- Kirkwall harbour is category B listed and the improvements to the fish landing area in the basin may therefore require listed building consent; we recommend consultation with the planning department regarding this issue. *'...we [Historic Environment Scotland] are content that significant adverse impacts on the setting of assets in our remit in the vicinity of the proposals are unlikely.'*
- There is the potential for reclamation works to damage or destroy unknown or undesignated marine historic environment assets. A survey to identify potential assets may be required and further mitigation if assets are identified. Historic Environment Scotland note there are a large number of wrecks recorded around the Orkney Islands which have not been designated as scheduled monuments, protected areas or controlled sites, as well as undesignated terrestrial archaeology should be included.
- An existing level of light is present at Kirkwall Harbour; however, this aspect would require more attention at a project level to assess specific impacts associated with light.
- Requirement for a Flood Risk Assessment at the planning phase.
- With regards to the works proposed for the Orkney Harbours Masterplan Phase 1, SEPA would note that such development is generally considered to be a 'Water Compatible Use' in line with their Land Use Vulnerability Guidance, which is SEPA's interpretation of national planning policy and duties and requirements under relevant legislation. As such, they would be unlikely to object on flood risk grounds.
- SEPA *'...welcome the reference in the SEA to "Undertake Water Framework Directive (WFD) Assessment for all developments.'*
- After construction landscaping, re-vegetation and habitat enhancement should be undertaken in line with appropriate guidelines" and for waterfront development in Kirkwall to "Improve experience in terms of visual amenity/sense of place.

Further comments (dated 22/07/2019) were received from Orkney Council Development Management Department. The key points from this correspondence are provided below:

- There is potential for an impact on the character, appearance and setting of Cromwell Fort and several listed buildings located on Cromwell Road within the Kirkwall Conservation Area. Scale of impact would depend on proposed end uses (i.e. marina facilities, boat storage etc) and how this would improve the visual amenity of the Conservation Area.

- Leisure facilities (i.e. tourist information, retail, cafe) are acceptable in principle however the area designated for this is outside Kirkwall Flood Defenses. Flood risk is a potential constraint depending on the sensitivity of the end uses.
- Reclamation is currently aspirational until a development brief is prepared;

### **1.3 Aspects of Environment Potentially Affected and Potential Mitigation Measures**

The table below provides commentary on each of the environmental topics considered with information on:

- Local setting and any key features known;
- Potential effects of development; and
- Any mitigation, avoidance or enhancement measures that could be implemented.

Topic	Potential Effects	Context and Observations	Potential Mitigation
Air	Dust emissions during construction	Urban location with receptors immediately adjacent to the main site.	CEMP contains standard construction site dust suppression techniques. Readily mitigated.
Air	Air quality and reduce emissions of key pollutants during construction and operation	Degradation of air quality impacting local communities and ecological receptors, through emissions from construction traffic and plant.	There are no Air Quality Management Areas (AQMA) in Kirkwall and air quality is good. Air quality is unlikely to be significantly degraded by construction traffic and plant.
Biodiversity, Flora and Fauna	Avoid damage to the biodiversity, flora and fauna within the vicinity of the Orkney Islands	Avoid degradation of water quality during construction and operation through small accidental release of fuel and associated impacts on flora and fauna	<p>The following good practice guidelines shall be adhered to and incorporated into the CEMP:</p> <ul style="list-style-type: none"> <li>• GGP 5: Works and maintenance in or near water;</li> <li>• PPG 6: Working at construction and demolition sites;</li> <li>• PPG 7: Safe Storage – The safe operation of refuelling facilities;</li> <li>• GPP 21: Pollution and incident response planning; and,</li> <li>• GPP 22: Incident response – dealing with spills.</li> </ul> <p>Operational Management Plan which includes the above in order to minimise likelihood of spills.</p>
Biodiversity, Flora and Fauna	Habitat Loss	Loss/disturbance of habitat due to reclamation on shoreline and new deep-water pier.	<p>Future ecological/ biodiversity assessment(s) should include;</p> <ul style="list-style-type: none"> <li>• Mitigation of any potential impacts.</li> </ul>

Topic	Potential Effects	Context and Observations	Potential Mitigation
Biodiversity, Flora and Fauna	Noise and visual impact.	Noise and visual impact resulting in disturbance to marine mammals and birds	<ul style="list-style-type: none"> <li>Compared to other activities that generate underwater sound, dredging is within the lower range of emitted sound pressure levels. While it is clear that dredging sound has the potential to affect the behaviour of aquatic life in some cases, injury in most scenarios should not be a concern, or should be preventable. It is very unlikely that dredging-induced sounds will lead to any population level consequences, although harm to individuals will not be overlooked.</li> <li>If piling is to be undertaken, piling will not commence if marine mammals are detected within the mitigation zone or until 20 minutes after the last visual detection. If any marine mammals are detected they will be tracked to ensure they have left the mitigation zone before they advise the crew to commence piling activities</li> <li>A soft-start will be employed, with the gradual ramping up of piling power incrementally over a set time period until full operational power is achieved. The soft-start duration will be a period of not less than 20 minutes. This will allow for any marine mammals to move away from the noise source.</li> <li>When piling at full power this will continue if a marine mammal is detected in the mitigation zone (as it is deemed to have entered voluntarily).</li> </ul>
Biodiversity, Flora and Fauna	Marine Mammal Collision during constructions	Increased marine traffic leading to an increased risk of collision with marine mammals	Develop a Marine Mammal Protection Plan to assess and manage the risks of causing injury or disturbance to marine mammals (cetaceans and seals), as a result of construction and operations.



Topic	Potential Effects	Context and Observations	Potential Mitigation
			Orkney Harbour Authority implements speed restrictions on vessels approaching and within Kirkwall Harbour and will continue to do so throughout construction and operation.
Biodiversity, Flora and Fauna	Increased operational marine traffic leading to an increased risk of collision with marine mammals, noise and visual impact resulting in disturbance to marine mammals and birds and degradation of water quality through small accidental release.	Increased operational activity.	Operational Management Plan including (among others): <ul style="list-style-type: none"> <li>• GGP 5: Works and maintenance in or near water;</li> <li>• PPG 7: Safe Storage – The safe operation of refuelling facilities;</li> <li>• GPP 21: Pollution and incident response planning; and,</li> <li>• GPP 22: Incident response – dealing with spills.</li> </ul>
Biodiversity, Flora and Fauna	Introduction of new invasive species into the Orkney Islands.	Minimising the spread of Non-Native Species.	Works will be undertaken in line with the Scottish Governments “Non-native species: code of practice <sup>3</sup> (2012)”
Climatic Factors	Increase in greenhouse gases emissions and the Port’s carbon footprint.	Construction and operational activities leading to increased greenhouse gas emissions, adding to existing carbon footprint.	It is considered that the proposed development would not result in a significant effect upon climate given the nature of the development.  Any increase in emissions created during either construction or operation is likely to be negligible, and pollution and emissions control would be discussed within a detailed Construction Environmental Management Plan (CEMP) and Operational Management Plan.

<sup>3</sup> <https://www.gov.scot/publications/non-native-species-code-practice/>

Topic	Potential Effects	Context and Observations	Potential Mitigation
			Discussion of the vulnerability of the project to climate change is primarily concerned with the water environment, including flood risk. A flood risk assessment will be undertaken as part of the environmental assessment
Cultural Heritage	Potential damage to or loss of heritage features including maritime heritage.	Development will be located in the vicinity of the Kirkwall Conservation Area.  Sympathetic development of the area will ensure impacts on the conservation area are kept to a minimum.	A cultural heritage assessment will be undertaken to ensure minimal impact on Cultural Heritage/ archaeological assets. Limited change to cultural setting are anticipated as a result of the extension to existing facilities.
Landscape	Changes to the landscape/seascape character and visual amenity in the vicinity of the area.	Alteration to seascape due to extension of quayside and new waterfront development.  Minimal impact on visual amenities to local populations and recreational users as the project is within an Urban Development landscape area. However, shore views for residents will be affected	Design mitigation will be employed to help ensure that the proposed development integrates positively with its landscape setting within an existing harbour environment.
Material Assets	Promote the sustainable use and management of material assets.	Proposal will be protecting and enhancing existing assets and ensuring sustainable use.	There is no mitigation proposed.
Material Assets	To meet the objectives of the Zero Waste Plan.	Additional waste created due to construction.	The CEMP will include a Site Waste Management Plan.

Topic	Potential Effects	Context and Observations	Potential Mitigation
			Existing waste plans will continue to be in place during the operational phase.
Population and Human Health	Protect and improve human health and wellbeing through	Degradation of air quality on local communities, through dust and emissions during construction.	The CEMP will contain standard construction site dust suppression techniques.
Population and Human Health	Improve safety record of the harbour and improve safety for the sea users.	This is a safety issue which will be addressed during the construction phase and operation.	Kirkwall Harbour operating procedures will be maintained during construction.  During construction contractors will adhere to Construction Method Statements, CEMP and Risk Assessments. There is no additional mitigation proposed.  There is no additional mitigation proposed.
Soil	Potential impacts on coastal processes, leading to changes in wave climate and leading to coastal erosion (direct, long-term and irreversible).	This is unlikely to occur due to the foreshore substrate in the area being mainly rock platform.  Reclamation of the shoreline would lead to land use change. There is no mitigation proposed.	Maintain or improve soil quality and prevent any further degradation of soils.
Water	Protect and enhance the state of the water environment.	Potential degradation of water quality during construction and operation.	Potential degradation of the water environment would be managed by the CEMP and Operational Management Plan.
Water	Suspended sediments as a result of dredging.	Potential re-suspension of contaminated seabed sediments from dredging operations impacting water quality.	There will be a requirement to undertake a Best Practicable Environmental Option (BPEO) assessment for the dredging and disposal or reuse of material from the proposed development.

Topic	Potential Effects	Context and Observations	Potential Mitigation
Water	Flooding	Potential flooding as a result of construction works and, depending on end use, post construction.	A flood risk assessment will be undertaken to determine likely flooding effects.





Legend



Approximate Capital Project Location

Do not scale this map

Client

Orkney Islands Council Harbour Authority

Project

OICHA Capital Projects Screening Exercise

Title

Capital Project Locations

Status

FINAL

Drawing No.  
673702-001

Revision  
-

Date  
28 May 2020

Drawn  
JP

Checked  
CF

Approved  
CF

Scale

1:50,000 @A3

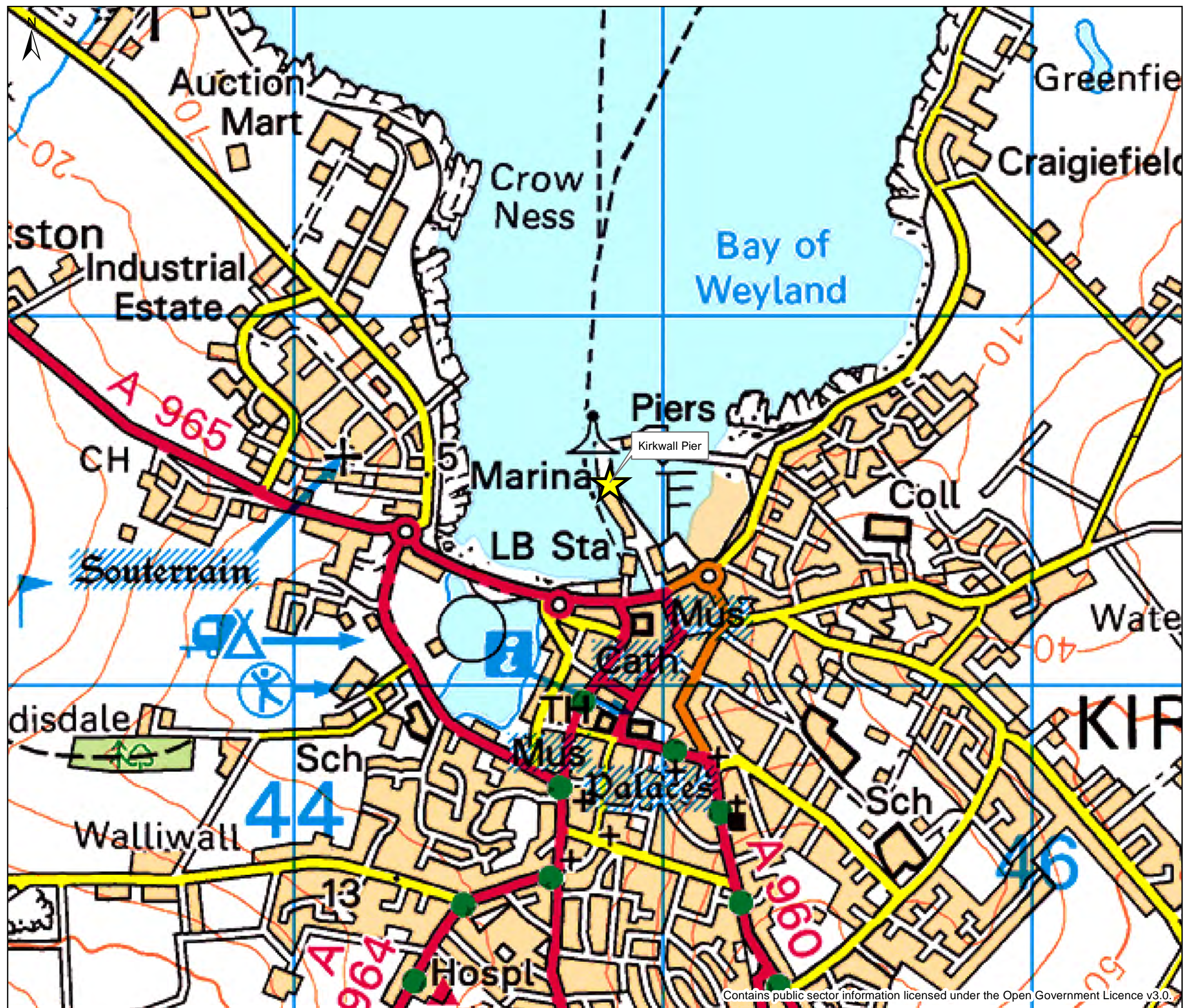
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Rev	Date	Amendment	Initials
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**Legend**

-  Approximate Capital Project Location

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**Client**  
Orkney Islands Council Harbour Authority

**Project**  
OICHA Capital Projects Screening Exercise

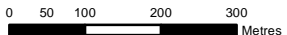
**Title**  
Capital Project Locations:  
Kirkwall Pier

**Status**  
FINAL

<b>Drawing No.</b> 673702-004	<b>Revision</b> -	<b>Date</b> 28 May 2020
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# KIRKWALL PIER



**Harbour Dredging:**  
Area dredged to  
-6.5m CD to allow  
deeper draft vessels  
access to Kirkwall  
quays

