Our ref 673702/CGF/008
Telephone [Redacted]
E-mail cfleming@envirocentre.co.uk

Marine Scotland
Licencing Operations Team
375 Victoria Road
ABERDEEN
AB11 9DB

Issued by email only

1 July 2020

Dear Sirs,

Orkney Islands Council Harbour Authority (OICHA) – Expansion of Hatston 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 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 Hatston

CC: Orkney Islands Council

4. Hatston

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. 673702-005.

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

1.2 Project Description and Local Sensitivities

1.2.1 Location

Hatston terminal is Orkneys largest commercial pier, is Scotland's longest deep-water commercial berth and is located just outside Kirkwall.

The original pier was built in 2002 and the 160 metre extension was completed in 2013. The longest berth is 385 metres and offering 10.5 metre draft. In total there is 884 metres of quay side available for multi-purpose use.

1.2.2 Description

Hatston Pier and Terminal

Hatston Pier and Terminal is Orkney's primary commercial terminal and link south to Aberdeen and north to Shetland.

This multi-purpose infrastructure has been hugely successful in accommodating a range of operational activities including the largest cruise ships, renewable energy, ferries, oil and gas and cargo/ livestock.

The plan for Hatston is focussed on reducing conflicts between users and operational activity and enabling growth across a range of economic sectors. Seasonal lack of availability of berths due to cruise with a resultant year round constraint on other vessel use would be resolved and the plan also considers how freight and traffic can be handled more efficiently and effectively.

Core proposals comprise a significant extension to the existing pier and expansion of landside area through reclamation to futureproof availability of sufficient land for harbour operations.

Multi-purpose deep water quayside infrastructure

The existing outer quay would be extended by 300m (with water depth of -10m CD) and there would be a 125m inner berth. There will be substantially more quayside available both for the existing pier and the extension.

Circa 7.5 hectares of additional land would be made available for harbour-related operations through reclamation.

The design of new infrastructure here will be futureproofed so as to accommodate future provision and storage of alternative (less polluting/carbon-free) fuels and provision of shore power to smaller vessels where viable.

With the additional quay length and laydown area, and an ex-pipe fuel supply and storage facility, Hatston would be able to accommodate oil and gas supply operations.

There is scope to create new aquaculture facilities such as a harvesting/processing plant with quayside access, as well as other supply chain activities.

A boatyard with an undercover facility could be developed: this could be a small scale facility handling the smaller leisure, fishing and aquaculture boats (e.g. up to 100 tonnes) or a larger commercial facility incorporating a boatlift adjacent to the new pier infrastructure capable of handling vessels up to 800 tonnes.

A facility in close proximity to the quay could be developed for handling renewable energy devices as well as sufficient laydown area.

With regard to the storage of alternative fuels in the future careful consideration will be required regarding the location of such storage and any potential negative impacts on harbour-related operations and activity, particularly the lifeline ferry services which operate out of Hatston.

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.

Reconfiguration of marshalling areas, parking and access

This will reduce conflicts between different users and uses. Areas for car and freight marshalling will be reconfigured and there will be better defined pedestrian routes to and from the quayside: for example, to the long stay car park and the main road. There is also potential for the reconfigured pedestrian access within the harbour area to connect to the proposed coastal path identified within the Kirkwall Urban Design Framework (KUDF).

Options to promote sustainable transport will be explored at feasibility stage, such as the provision of electric vehicle charging points, electric bicycles, electric vehicles as part of car pooling schemes and linkages with existing and future walking and cycling networks.

New passenger reception facility

In the future there may be a need to refurbish and/or extend the existing facility that caters for both ferry and cruise passengers on the quayside.

1.2.3 Construction Timing

It is anticipated that the construction at Hatston will take 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 in 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.
- Rousey (Approximately 15km north)
  - Rousay SPA is designated for four species of breeding seabird populations

Special Areas of Conservation

- Faray and Holm of Faray (Approximately 23km 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 12 km north)
  - Wyre and Rousay Sounds MPA are noted for maerl beds and seaweed communities which thrive on the sandy seabed.

Archaeology and Cultural Heritage

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[1].

Canmore Point Terrestrial
'Earth-house, Saverock - This 'Subterranean Chamber' was accidentally discovered near the shore about a mile NW. of Kirkwall. Nothing of it is now visible, but in 1848 it was excavated by Thomas with the assistance of Petrie (G Petrie 1873) and the following particulars are drawn from the published account (F W L Thomas 1852)".(Here follows a very full description)."An enormous quantity of the bones of domestic animals, mostly sheep, were scattered about the place, as well as pieces of deer-horn and a large bone of a whale. There was a considerable deposit of shells, mainly perishable, with oyster and scallop. Three rude implements of bone were found, and among the debris there was a good deal of the ash of fuel, with, at one place, a deposit of a very bright brick-red clay. Petrie includes it in his list of brochs (G Petrie 1873)'

[1] https://map.environment.gov.scot/sewebmap/

Kirkwall, Hatson, Galt's View

ORCA was commissioned by Orkney Islands Council to undertake an archaeological watching brief during the excavation of geo-technical survey pits on land off Galt's View, Hatston, Kirkwall at National Grid Reference (NGR) HY 43559 12940 (hereinafter referred to as 'the Site'). The geotechnical survey was undertaken to assess ground make-up and to locate utilities prior to the proposed development of the Site as a lay-down area.

No deposits or material of archaeological significance were identified.

Burnt Mound near Saverock

There is a burnt mound near Saverock about midway between the earth-house (ORK.102 SW 6) and the public road.

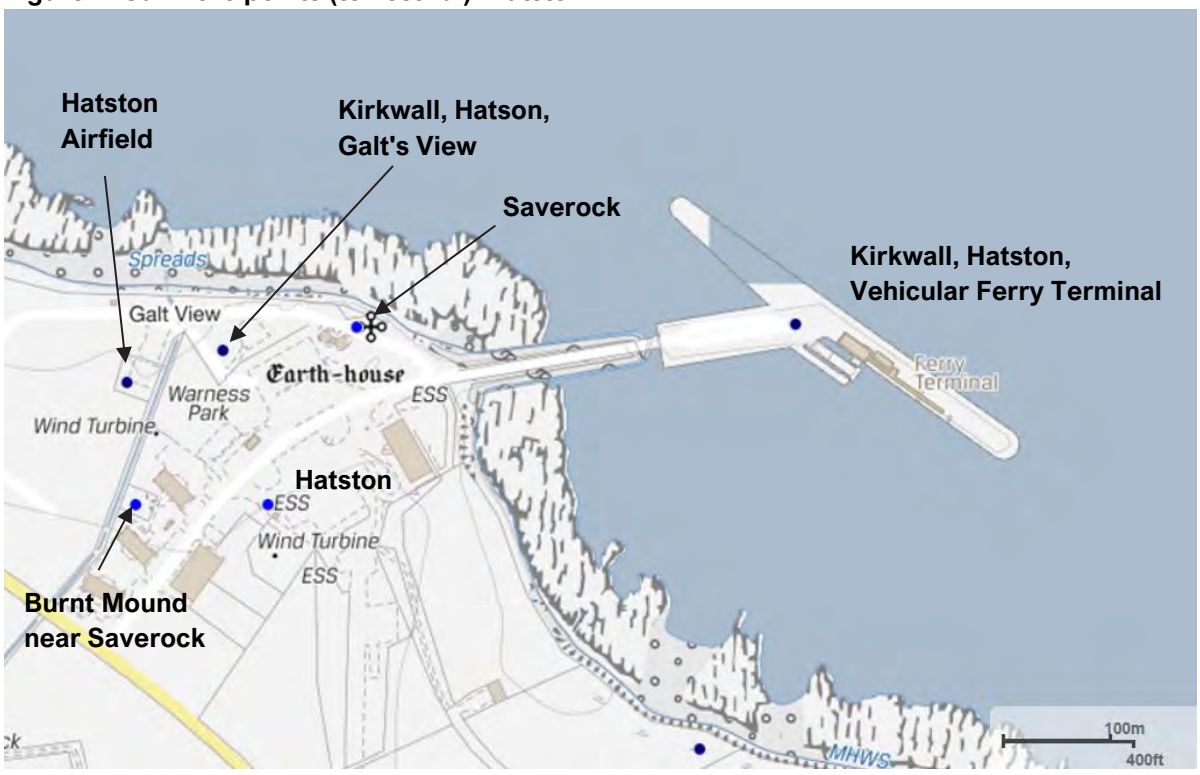
This mound is 2.0m. high and is situated on the disused Hatston aerodrome, at HY 4348 1280. It is grass covered and appears to be undisturbed except for a shallow trench that has been dug across it. This trench shows the surface of the mound to be composed of fire blackened earth and small burnt stones.

Hatston

When making road improvements there were found and noted 'buildings, corbelled with straight walls and rounded corners; Skaill knives etc. - typical of Skara Brae'.

Figure 1 illustrates Canmore Points associated with Hatston

Figure 1. Canmore points (terrestrial): Hatston



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[2].

Water Quality

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

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 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.
- An existing level of light is present at Hatston, however, this aspect would require more attention at a project level to assess specific impacts associated with light.
- It is recognised that at Hatston part of the proposal includes the construction and operation of a fuelling depot comprising 2 x 3000 tonne bunded tanks. Such a facility would fall within COMAH as a Lower Tier establishment. Prior to construction and operation the Harbour Board / operator will need to contact the COMAH Competent Authority (CA) to discuss their needs. Similarly, any LNG/LPG bunkering hub/storage facility (e.g. that proposed for Flotta) is likely to be captured under the COMAH Regulations and require the production of a Pre-Construction Safety Report.
- 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.
- There are records of wrecks in the surrounding area and therefore mitigation in the form of survey work and potentially further mitigation may be required. 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.
- 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.
- A Controlled Activities Regulations (CAR) construction site licence will be required for management of surface water run-off from a construction site, including access tracks, which:
    - is more than 4 hectares,

[2] https://www.orkney.gov.uk/Files/Environmental_Health/2008_Air_Quality_Report.pdf

- is in excess of 5km, or
- includes an area of more than 1 hectare or length of more than 500m on ground with a slope in excess of 25?

- SEPA *'…welcome the reference in the SEA to "Undertake Water Framework Directive (WFD) Assessment for all developments*.'

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	Rural location with limited receptors; No receptors immediately adjacent to the main site; and Degradation of air quality is likely to be localised, but not to a significant extent.	Construction Environmental Management Plan (CEMP) contains standard construction site dust suppression techniques. Readily mitigated.
Air	Traffic emissions during operation	As above	
Biodiversity, Flora and Fauna	Habitat Loss	Loss/disturbance of habitat due to reclamation on shoreline and new deep-water pier.	Proposals shall include mitigation of any potential impacts.
Biodiversity, Flora and Fauna	Avoid damage to the biodiversity, flora and fauna within the vicinity of the Orkney Islands	Degradation of water quality during construction and operation through small accidental release of fuel and associated impacts on flora and fauna	The following good practice guidelines shall be adhered to and incorporated into the CEMP: • GGP 5: Works and maintenance in or near water; • PPG 6: Working at construction and demolition sites; • PPG 7: Safe Storage – The safe operation of refuelling facilities; • GPP 21: Pollution and incident response planning; and, • GPP 22: Incident response – dealing with spills. Operational Management Plan which includes the above in order to minimise likelihood of spills.

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	• If piling is to be undertaken, pilling 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 • 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. • 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).
Biodiversity, Flora and Fauna	Marine Mammal Collision	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. Orkney Harbour Authority implements speed restrictions on vessels approaching and within Hatston Harbour and will continue to do so throughout construction and operation.
Biodiversity, Flora and Fauna	Habitat Loss	Loss/disturbance of habitat due to reclamation on shoreline and new deep-water pier.	Future ecological/ biodiversity assessment(s) should include; • Mitigation of any potential impacts.

Topic	Potential Effects	Context and Observations	Potential Mitigation
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[3] (2012)"
Climatic Factors	Minimise 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. 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	Prevent damage to or loss of heritage features including maritime heritage.	There is no known maritime heritage within the proposed development or in close proximity. There are several terrestrial cultural heritage assets within proximity of the proposed development.	Detailed photographic recording of terrestrial assets can be carried out in advance in order to mitigate its loss by record.
Landscape	Alteration to seascape due to extension of existing facilities.	Minimal impact on visual amenities to local populations and recreational users.	Design mitigation will be employed to help ensure that the proposed development integrates positively with its landscape and coastal setting within an existing harbour setting.

[3] https://www.gov.scot/publications/non-native-species-code-practice/

Topic	Potential Effects	Context and Observations	Potential Mitigation
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.
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.	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.
Soils	Maintain or improve soil quality and prevent any further degradation of soils.	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.
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	Flooding	Potential flooding as a result of construction works	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.	Revision	Date
673702-001	-	28 May 2020
Drawn	**Checked**	**Approved**
JP	CF	CF

Scale
1:50,000 @A3
0 255 510 1,020 1,530 Metres

Rev	Date	Amendment	Initials
-	-	-	-

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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:
Hatston

Status
FINAL

Drawing No.	Revision	Date
673702-005	1	28 May 2020
Drawn	**Checked**	**Approved**
JP	CF	CF

Scale
1:10,000 @A3
0 50 100 200 300 Metres

Rev	Date	Amendment	Initials
1	17/06/20	Minor change to location	FC

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Arch Henderson 1919

HATSTON

0 25 50 75 100 150 200 250m

Provide Deeper Approach at Hatston Pier (-10.0m CD)

Seabed area dredged to -10.0m CD to allow safer approach onto new extended berths

Hatston Extension
Multi Purpose Pier Infrastructure

Extension to quay shown at 300m long, with 125m long inner berth and possible fixed ramp facility
Inner berth to have fuel delivery facility, and other berths with fuel export facilities.

N

100m
300m
30°
-10
25m
ULSTEIN UT742
'NORMAND INSTALLER' 124m x 28m
Fuel Import
Fuel delivery to berths
'Solway Fisher' 85.3m x 17.2m
Fixed Ramp
25m
125m
-5

Reclaim Shoreline to create multi-use laydown / work area, roads etc (Area 4.57Ha)

Pedestrian Route: Long stay car park to ferry terminal

Reclaim Shoreline to create marshalling area, parking, storage etc (3.0 Ha)

Public Access / Parking

Freight, marshalling area, storage etc

Fuel delivery to/from berths

Fuel Facility: 2x3000T Fuel tanks and bunds, receipt and delivery pipework / pumps