Scrabster Ola Pier Extension

EIA Screening Request

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Contents

1 Introduction

The re-development of the Ola Pier within Scrabster harbour on the north coast of Caithness is proposed by Scrabster Harbour Trust in order to provide additional capacity for the anticipated future use of Scrabster Harbour, particularly cruise ships and attracting further energy related vessels. The development will involve both marine construction and dredging works below Mean High Water Springs (MHWS), as well as construction works above Mean Low Water Springs (MLWS). A Marine Licence will be applied for to consent the works to be conducted below MHWS.

Works above MLWS will be consented under the Scrabster Harbour Order (Vehicle Ferry Terminal&c.) Order Confirmation Act 1972 which grants permission to the Trustees of the Harbour of Scrabster to *"maintain, renew, enlarge alter and reconstruct temporarily or permanently, the works or part thereof."*

A formal Screening Opinion is requested from Marine Scotland under regulation 10(1) of the Marine Works (Environmental Impact Assessment (EIA)) Regulations 2017 ('EIA Regulations'); to determine whether an EIA will be required to support the Marine Licence application for the proposed re-development of the Ola Pier within Scrabster harbour.

This report provides the information requested under Section 10 of the EIA Regulations, in order to assist in the consideration of these requests, and inform the corresponding screening opinion, namely a description of:

- The location of the proposed works;
- The proposed works;
- The environmental sensitivities of the geographical area;
- The aspects of the environment likely to be significantly affected by the proposed works;
- The likely significant effects; and
- The features of the proposed works or proposed measures envisaged to avoid or prevent significant adverse effects on the environment.

It is not considered that the proposed Scrabster Ola Pier extension development constitutes a Schedule 1 Development, as defined in the regulations. However, the total footprint of the proposed development is approximately 5.4Ha this is inclusive of the Dredge area 3.9Ha, Pier Development 1.3Ha and the construction compound 0.2Ha, as such is likely to be classified as Schedule 2 Development under section 10(g) and hence may require an EIA, subject to an assessment against Schedule 3 of the EIA Regulations.

2 Location

Scrabster is located on the north coast of Caithness and has a grid reference centre point of ND10437 70310 (Figure 48.01). Scrabster is situated 1½ miles north west of Thurso the largest town in Caithness and provides a ferry link to Orkney and is ideally situated for access to the Atlantic Ocean and the North Sea.

Scrabster Harbour falls within the boundaries of the Highland Council. The Harbour is shown in (Figure 48.02) and the development is delineated in (Figure 48.02.B), the Ola pier is situated

within the centre of a busy operational harbour, further background information is provided in Appendix 1.

3 Characteristics of Development

The existing Ola Pier was constructed in 1972. It incorporates a 100m long berth face to the south west, a linkspan and a further 115m berth which was utilised by the Orkney ferry prior to the Queen Elizabeth pier being constructed in 2003. The north-east side of the Ola Pier currently has no berthing ability due to a 5-foot sea protection wall. Due to the age of the Ola Pier it is in need of upgrade, the redevelopment aims to ensure the ongoing structural integrity of the Pier while also providing additional berthing for use, particularly by oil and gas supply vessels and cruise ships.

The Scrabster Ola Pier Extension is still to be designed but is likely to comprise of the following main components (Figure 48.03):

- Removal of the Old Linkspan and reclamation (Reclaim 2) of the space left to provide laydown and an appropriate berthing face, the reclamation area will be approximately 700m^2 (Infill).
- Installation of a new pile wall to the south-west, south and north-east of the existing pier to improve the berthing structure.
- Reclamation (Reclaim 1) of approximately 1,600m^2 behind the proposed north-east quay wall to widen the pier.
- Dredging to allow large vessel access on the north-east side of the quay to a depth of -9m covering an area of approximately 39,000m^2.

- A Secondary and additional option would see the south-west quay wall (South West Quay Option 2) continue in line with the existing pier and a thereafter tie in with a new south-east pile wall.
- Reclamation (Reclaim 3) of approximately 1960m^2 behind the proposed extended south-west quay wall to widen the pier.

3.1 Project Phases

3.1.1 Construction

3.1.1.1 Pier Extension and Reconstruction

The existing pier will be extended with a new Quay wall being installed in line with the existing North-east quay and extending towards the foreshore. A new quay wall will be installed along the inner section of the south-west quay and along the front of the old Link span. The Southern end of the quay will also have a pile wall installed to tie in with the North-east quay wall. This will require driving steel piles into the underlying rock head. A steelwork bracing frame will then be installed to tie the piles together, the existing North-east Quay sea protection wall will be de-constructed and if suitable re-used for infill. The Linkspan shall be removed along with the concrete suspended deck which again if suitable shall be utilised for infill. The reclaimed areas will be infilled with aggregate and thereafter topped with a reinforced concrete slab which may be poured in situ. Bollards, surface drainage with oil/silt interceptors, lighting and power will be installed.

It is not known at this time what type of fendering will be utilised on the quay walls, but it is envisaged that adequate fendering will be installed to the appropriate standard for the vessels that are expected to use the berths.

3.1.1.2 Dredging

Dredging will be undertaken to allow berthing of vessels on the north-east side of the Ola Pier and to allow for their manoeuvres in the harbour. The dredge material will be analysed to determine its suitability for reuse as infill material in the reclamation phases, if it is deemed to be unsuitable for reuse it will be disposed of at Dredge Disposal Site FI008 (58.635, -3.496).

3.1.2 Operation

As the project is a re-development and extension of an existing pier it will allow larger cruise ships to berth avoiding the need for them to anchor in the bay and utilise tenders which is safer and more convenient for passengers, it is expected that this will increase the ports attractiveness and increase the volume of cruise ships which are likely to berth bringing more added benefits for the local economy. It will also provide added deep-water berthing for oil & gas supply vessels operating to the west of Shetland and reduce their need to travel to east coast ports and therefore reduce their transit times.

It is not expected that maintenance dredging will be required during operation, as this is not required for other berths/channels in the harbour.

3.1.3 Demolition/Reinstatement

A degree of demolition of the existing pier is required to facilitate the proposed works. The volumes of demolished material will be minimised through design. However, where required, it is anticipated that the affected infrastructure will be removed and where possible reused or recycled.

As an operational port, there are no future plans to discontinue use of this site. Therefore, it is not considered necessary to plan for demolition and reinstatement works for closure of this site.

4 Known Sensitivities

4.1 Designated Sites

Table 1 details the Statutory Nature Conservation Designations Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA), proposed Special Protection Area (pSPA), Special Area of Conservation (SAC) and Ramsar sites within 20km of the proposed development. Those unlikely to be affected by the development due to their location and/or associated designated features, are shown in grey.

Table 1: ***Statutory Nature Conservation Designations within 20km of the Development Site [1].***

Site	Designation	Distance Direction	Feature Category/Feature
Holburn Head	SSSI	0.5km NE	Designated for Maritime cliff (Coastal) and Silurian – Devonian Chordata (Earth Sciences)
Pennylands	SSSI	0.8km S	Designated for Non-marine Devonian and Silurian – Devonian Chordata (Earth Sciences)
River Thurso	SSSI SAC	2.7km SSE	Designated for Flood-plain fen (Wetlands) and Vascular plant assemblage (Vascular plants) Atlantic Salmon (*Salmo salar*)
Newlands of Geise Mire	SSSI	3km SSW	Designated for Valley Fen (Wetlands)
Weydale Quarry	SSSI	6km SSE	Designated for Silurian – Devonian Chordata
Loch Lieurary	SSSI	6.5km SSW	Designated for Basin Fen (Wetlands)
Ushat Head	SSSI	7km W	Designated for Maritime Cliff (Coast)
Westfield Bridge	SSSI	8km SW	Designated for Fen Meadow and Lowland calcareous grassland (Lowland Grassland)
Dunnet Head	SSSI	8km NE	Designated for Guillemot (*Uria aalge*) and Seabird Colony Breeding Birds and Maritime Cliff (Coast)
Loch Calder	SSSI	9km SSW	Designated for Greenland white-fronted goose (*Anser albifrons flavirostris*), greylag Goose (*Anser anser*) and Whooper Swan (*Cygnus Cygnus*) (non-breeding) (Birds)
Broubster Leans	SSSI SAC	11km NE	Designated for Breeding bird assemblage (Birds) and Hydromorphological mire range (Wetlands) Very wet mires often identified by an unstable "quaking" surface
Dunnet Links	SSSI	11km E	Designated for Coastal geomorphology of Scotland (earth sciences) and Sand dunes (Coast)

Site	Designation	Distance Direction	Feature Category/Feature
Loch of Durran	SSSI	11km SE	Designated for Transition grassland (Wetlands) and Vascular plant assemblage (Vascular plants)
Loch Scarmclate	SSSI	13km SSE	Designated for Base-rich loch (Freshwater habitats) and Greylag goose (*Anser anser*) (non-breeding) (Birds)
Loch Caluim Flows	SSSI	13.5km SW	Designated for Blanket bog (Upland Habitat), Breeding assemblage, Dunlin (*Calidris alpine schinzii*) breeding, Golden plover (*Pluvialis apricaria*) breeding and Greenshank (*Tringa nebularia*) breeding (Birds)
Sandside Bay	SSSI	14km WSW	Designated for Sand Dunes (Coast)
Loch Heilen	SSSI	14.3km ESE	Designated for Mesotrophic Loch (Freshwater habitats), Greenland white fronted goose (*Anser albifrons flavirostris*), Greylag goose (*Anser anser*) and Whooper Swan (Cyg*nus Cygnus*) non-breeding (Birds)
Banniskirk Quarry	SSSI	15km SSE	Designated for Silurian – Devonian Chordata
Beinn Freiceadain and Ben Dorrey	SSSI	15km SW	Designated for Subalpine dry heath and Tall herb ledge (Upland habitat)
Achanarras Quarry	SSSI	16km SSE	Designated for Non-marine Devonian and Silurian – Devonian Chordata (Earth sciences)
Loch of Mey	SSSI	16.5km ENE	Designated for Breeding Bird assemblage, Greenland white fronted goose (*Anser albifrons flavirostris*) non-breeding (Birds) and transition grassland (Wetlands)
Loch Watten	SSSI SAC	16.5km SE	Designated for base-rich loch (Freshwater habitats), Greylag goose (Anser anser) non-breeding (Birds) and Open water transition fen (Wetlands) Naturally nutrient-rich lakes or lochs which are often dominated by pondweed (Freshwater habitats)
Spittal Quarry	SSSI	17.5km SSE	Designated for Silurian – Devonian Chordata (Earth sciences)
East Halladale	SSSI	17.5km SW	Designated for Breeding Bird assemblage, Dunlin (*Calidris alpine schinzii*) and Golden plover (*Pluvialis apricaria*) breeding (Birds) and Blanket Bog (Upland Habitat)

Site	Designation	Distance Direction	Feature Category/Feature
Stroupster Peatlands	SSSI	19.5km ESE	Designated for Blanket Bog (Upland Habitat) and Oligotrophic loch (Freshwater habitats)
North Caithness Cliffs	SPA	425m– 6km NE 13km WSW	Designated specifically for Peregrine (*Falco peregrinus*) and Common guillemot (*Uria aalge*), as well as for Breeding bird assemblage for the following species: Fulmar (*Fulmarus glacialis*), Kittiwake (*Rissa tridactyla*), Puffin (*Fractercula arctica*), Razorbill (*Alca torda*).
Caithness Lochs	Ramsar SPA	6.5km–16.5km SW to ENE	Designated for Greenland white fronted goose (*Anser albifrons flavirostris*), Greylag goose (*Anser anser*) and Whooper Swan (*Cygnus Cygnus*) non-breeding (Birds)
Caithness and Sutherland Peatlands	Ramsar SAC	13.5km-19.5km SW to ESE	Designated for Breeding Bird assemblage, Greylag goose (*Anser anser*), Dunlin (*Calidris alpine schinzii*) breeding (Birds) and Blanket Bog (Upland Habitat) Blanket Bog, Depressions on peat substrates, very wet mires often identified by an unstable "quaking" surface and Wet heathland with cross-leaved heath (Upland Habitat) and Acid peat-stained lakes and ponds, Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels (Freshwater Habitats) and marsh saxifrage (*Saxifraga hirculus*) (Vascular plants) and Otter (*Lutra lutra*) (Mammals except marine)
Pentland Firth	Proposed SPA	19.5km NE	Designated for Common guillemot (*Uria aalge*) (Breeding), Arctic tern (*Sterna paradisaea*) (breeding), Arctic skua (*Stercorarius parasiticus*) (breeding), and breeding seabird assemblages.

4.2 Biodiversity – Terrestrial

European otters (*Lutra lutra*) have been identified in and around Thurso bay [2], it should be noted the main area of sightings are within the River Thurso and its's estuary by Thurso east, due to the range of the otter (*Lutra lutra*) it is appropriate to consider them as there are two areas of rock armour either side of the existing Ola pier that provide suitable habitat for lay-ups and couches. They are afforded protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

4.3 Biodiversity – Ornithology

There are 158 species of bird recorded as utilising the area within a 5km radius of the site [2]. However, the construction area itself is not considered particularly suitable for breeding terrestrial birds. Within the North Caithness cliffs SPA, which is within 500m of the construction site (Table 1), Peregrine (*Falco peregrinus*) reside and are a designated species of the SPA as there are 6 pairs nesting, representing at least 0.5% of the breeding population in Great Britain [18].

The North Caithness cliffs SPA is also designated specifically for Common guillemot (*Uria aalge*), as well as being designated for having an internationally important seabird assemblage. The cliff ledges and stacks around the designated coastline provide suitable habitat for breeding seabirds. During the breeding season the SPA supports over 110,000 seabirds, including Fulmar (*Fulmarus glacialis*), Kittiwake (*Rissa tridactyla*), Puffin (*Fractercula arctica*), Razorbill (*Alca torda*). The seabirds will also be using surrounding waters for foraging, resting and preening. Whilst these ecological receptors may not be nesting within the proposed construction site, due to their proximity to the site and their potential use of the nearby waters they are included in this screening report.

4.4 Biodiversity – Marine

The waters around Scrabster harbour are utilised by numerous marine mammal species, including both cetaceans and seals, marine mammals are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Eight species of cetacean are regularly encountered in the region and a further three species occur less frequently [3]. In addition, breeding populations of both grey (*Halichorerus grypus*), and common seals (*Phoca vitulina*) are present in the Pentland Firth [4].

Various fish species are likely to be in the waters surrounding Scrabster harbour notably Thurso Bay which is on the migration route for Atlantic salmon to the River Thurso SAC. Otters (Section 4.2) may be found within the marine environment as well as the terrestrial environment.

Limited information on the benthic ecology within the area means that the sensitivity of this is unknown, however the habitat is likely to be disturbed due to normal harbour operations and hence not of the highest quality. Benthic ecology has conservatively been considered as a sensitivity within this screening report.

4.5 People

The nearest residential property is 200m from the proposed development area and is situated on the A9 trunk road within the harbour area, immediately next door is the Ferry Inn offering limited number of rooms, a restaurant and a bar. There are 6 further properties that are

progressively further from the development site leading out of Scrabster in a south westerly direction starting at 300m distance extending to 400m. Holburn Head lighthouse is 400m away in a north easterly direction from the development site and is now a residential property. There is one property that is elevated (40m) to the north west at 280m. The main Hamlet of Scrabster is situated 550m to the south west of development site and is elevated by 40m. There are a number of small business's situated closer to the development however these serve the port and not consider to be sensitive receptors.

5 Potential Effects

5.1 Construction

Table 2 provides a description of the likely effects resulting from the proposed Ola Pier Redevelopment on the environment resulting from the use of natural resources and the expected residues and emissions. Additionally, it outlines the sensitivities as detailed in Section 4 and proposes mitigation measures for any effects that could have a potential impact on the environment.

Table 2: Construction Effects and Sensitivities

	Sensitivities (Section 4)	Source	Potential Effect (no mitigation)	Proposed mitigation
Use of Natural Resources				
Use of Material (e.g. steel)	No Local Sensitivities Climate Change Contribution	Construction of infrastructure	YES	Efficient use of resources A proportion of the steel will be from recycled sources.
Use of Land and Soil	None	Infill material Aggregate / Concrete	NO	No mitigation required
Use of Water	None	Construction water requirements	NO	No mitigation required
Biodiversity / Land-Take	Biodiversity – Terrestrial – Otters Biodiversity - Marine	Removal of habitat, associated with rock armour removal and dredging.	YES	Preconstruction Survey. If an otter holt, layup or couches are identified a European Protected Species (EPS) licence will be sought and appropriate mitigation put in place. Dredge area minimised to that required for operational purposes.
Residues and Emissions				
In-Air Noise and Vibration	People Biodiversity – Land	Plant and vessel movements Piling	YES	Works conducted in line with current practice for noise and vibration control on construction and open sites [5].

	Sensitivities (Section 4)	Source	Potential Effect (no mitigation)	Proposed mitigation
				Alternatives to pneumatic impact hammer utilised where possible e.g. vibro piling or socket cutting. Loudest activities limited to day time whenever practicable.
Under Water Noise and Vibration	Biodiversity - Marine	Piling Dredging Plant and vessel movements	YES	Marine mammal observation and/or Passive acoustic monitoring protocols; aligned to Joint Nature Conservation Committee (JNCC) guidelines [6]. EPS license gained if disturbance is likely. Alternatives to pneumatic impact hammer utilised where possible e.g. vibro piling or socket cutting.
Air Emission - Dust	People Biodiversity - Land	Material handling and storage Plant movements	YES	Dust Management in line with existing guidelines [7,8].
Air Emission - GHG and Climate Change	No Local Sensitivities Climate Change Contribution	Plant and vessel movements Electricity use Intrinsic material use	YES	Plant, vehicles and vessels well maintained. Optimised material usage. Reuse and recycling of materials.
Emission to Marine Water	Biodiversity – Marine Biodiversity - Ornithology	Sedimentation from dredging and piling Risk of unplanned emission resulting from: • Oil/ fuel storage and handling • Silt water run off • Waste materials • Concrete and cement use	YES	Use of precast concrete where possible. Works conducted in line with standard best practice and existing guidelines – • Storage and handling [7,9,10,11,12,16,17] • Waste management [7,13] • Surface water management [7,10,17] • Cement management [7] • Dredging [13]
Emission to Land	Biodiversity - Land	Risk of unplanned emission resulting from: • Oil/ fuel storage and handling • Cement washings • Silt water run off	YES	Works conducted in line with standard best practice and existing guidelines – • Storage and handling [7,9,10,11,12,17] • Waste management [7,13] • Surface water management [7,10,17]

	Sensitivities (Section 4)	Source	Potential Effect (no mitigation)	Proposed mitigation
		• Waste materials		• Cement management [7]
Emission to Surface Water Bodies	None	Risk of unplanned emission resulting from: • Oil/ fuel storage and handling • Cement washings • Silt water run off • Waste materials	NO	No mitigation required
Light Emissions	People Biodiversity – Land Biodiversity – Marine Biodiversity - Ornithology	Plant/Vessel lights Light for construction	YES	Standard best practice in line with existing guidelines on lighting [14,15] and nuisance management [7].

Terrestrial species (including otters) and the various species of birds that utilise the area may be impacted by the in-air noise, dust emissions, emissions to land such as unplanned releases and light emissions. These impacts will be reduced through aligning practices with:

- BS 5228 1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites [5];
- Working at construction and demolition sites: Pollution Prevention Guidance (PPG) 6 [7];
- Guidance on the assessment of dust from demolition and construction [8];
- Coastal and Marine Environmental Site Guide (C584) [17];
- Safe Storage and disposal of used oils: Guidance for Pollution Prevention (GPP)8 [9];
- Use and design of oil separators in surface water drainage systems: PPG 3 [10];
- Above ground oil storage tanks: GPP 2 [12];
- Drums and intermediate bulk containers: PPG 26 [11];
- Light and lighting - Lighting of work places: BS EN 12464-2:2014 [14]; and
- Health and Safety in Ports (SIP009) – Guidance on Lighting [15].

Additionally, pre-construction surveys will be conducted to identify nests or otter holt, layups or couches, to allow appropriate mitigation and licences to be put in place prior to construction.

The waters around the Scrabster and the Pentland firth are utilised by numerous marine mammal species, including both cetaceans and seals. These have the potential to be impacted by the utilisation of the marine environment during development, light emissions, under-water noise and vibration, and potential emissions to the marine environment. These impacts will be reduced through aligning practices with the guidelines outlined above and:

- Good practice guidelines for ports and harbours operating within or near United Kingdom (UK) European marine sites [13];
- Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise [6]; and
- Works and maintenance in or near water: GPP 5 [16].

Hydrocarbon separators will be installed as part of the upgrade to the terminal. This will improve the current surface water management by providing protection against oil spillages and result in a positive impact on the environment.

During the re-development of the Scrabster Ola Pier extension people using the Ferry Inn, the small collection of residential properties to the west, the small Hamlet of Scrabster that overlooks the existing quay have the potential to be affected. This may occur as a result of in-air noise and dust emissions. These impacts will be reduced through dust and noise management aligned with standard practices and guidelines outlined above.

Scrabster Harbour Trust will ensure that the contractor produces and instigates a suitable construction environmental management plan (CEMP) to ensure appropriate mitigation is implemented.

5.2 Operation

Table 3 provides a description of the likely effects resulting from the proposed operation of the proposed Ola Pier Redevelopment on the environment resulting from the use of natural resources and the expected residues and emissions. Additionally, it outlines the sensitivities as per Section 4 and proposes mitigation measures for any effects that could have a potential impact on the environment.

As the project is a redevelopment of an existing pier, emissions during operation are not expected to constitute a significant change from the baseline conditions. Table 3 therefore only discusses the operational effects associated with the increase capacity of the harbour.

Table 3: Operational Effects and Sensitivities

	Sensitivities (Section 4)	Source	Potential Effect (no mitigation)	Proposed mitigation
Use of Natural Resources				
Use of Material (e.g. steel)	None	Slight increase in use of materials required for maintenance, not significant.	NO	Efficient use of resources
Use of Land and Soil	None	Infill material recycled material Aggregate / Concrete	NO	No mitigation required
Use of Water	None	Slight but not significant increase due to potential additional vessels.	NO	No mitigation required
Biodiversity / Land-Take	Biodiversity – Land Biodiversity - Marine	None	NO	No mitigation required
Residues and Emissions				
In-Air Noise and Vibration	People Biodiversity - Land	Slight increase in noise may result from an increase in vessel numbers and associated onshore traffic, not significant.	NO	No mitigation required
Water Noise and Vibration	Biodiversity - Marine	No significant increase from current conditions.	NO	No mitigation required

	Sensitivities (Section 4)	Source	Potential Effect (no mitigation)	Proposed mitigation
Air Emission - Dust	People Biodiversity - Land	None	NO	No mitigation required
Air Emission - GHG and Climate Change	None	Additional Traffic, Electricity Use Increase in vessel movements to the port. Potential reduction in fuel usage associated with reduced transit length by the oil and gas supply vessels. These will cancel out any additional movements and potentially lead to an overall reduction in GHG emissions.	YES (potentially positive)	Encourage oil and gas supply vessels to utilise the harbour instead of east coast ports reducing their overall transit journeys.
Emission to Marine Water	Biodiversity – Marine Biodiversity - Ornithology	Sedimentation from maintenance dredging. Dredging expected to be a very infrequent activity as not required elsewhere in the Harbour.	NO	Standard best practice in line with existing guidelines on waste management and dredging [13].
		The installation and use of hydrocarbon separators for surface water run off prior to any discharge occurring.	YES (positive)	Positive effect Standard best practise in line with existing guidelines on hydrocarbon separators [10]
Emission to Land	Biodiversity - Land	None	NO	No mitigation required
Emission to Surface Water	None	None	NO	No mitigation required
Light Emissions	Biodiversity – Land Biodiversity – Marine Biodiversity - Ornithology	Increased lighting with larger surface area on the pier extension.	YES	Standard best practice in line with existing guidelines on lighting [15,17].

As the project is an upgrade of an existing pier, emissions during operation are not expected to constitute a significant change from the current conditions.

However, 3 positive effects will result from the development of this project that will be evident during its operation. These include:

- The installation of a hydrocarbon separator system prior to discharge of surface water, reducing risks to water quality;
- Reduced transit times for oil & gas supply vessels from west of Shetland, therefore reducing emissions and associated carbon footprint; and
- Anticipated increase in cruise ship traffic resulting in a financial benefit to the local community.

The waters around Scrabster and the Pentland Firth are utilised by numerous marine mammal species, including both cetaceans and seals. These have the potential to be impacted during the operation of the extended Ola pier, primarily through emissions to the marine environment and the increase in lights required for the larger area. These impacts will be reduced through aligning practices with the guidelines outlined above and:

- Good practice guidelines for ports and harbours operating within or near UK European marine sites [13];
- Light and lighting. Lighting of work places. Outdoor work places: BS EN 12464-2:2014 [17]; and
- Health and Safety in Ports (SIP009) – Guidance on Lighting [15].

Terrestrial species (including otters) and the various species of birds that utilise the area may also be impacted by the increase in light pollution resulting from the larger area. These impacts will be minimised through operating in line with the previously mentioned guidelines.

6 Summary

The Scrabster Ola Pier Extension is required to ensure the ongoing engineering integrity of the pier and to accommodate larger vessels which may operate from this facility. This development requires; dredging, pier extension and reconstruction and installation of fendering. These activities require the use of natural resources and will result in emissions which without mitigation may affect sensitive receptors in the areas including the nearby people, ornithology, marine, and terrestrial biodiversity.

During construction, there is a potential to have significant effects, however standard environmental good practice mitigation will be effective in reducing these to below significant levels. Scrabster harbour trust will ensure that the contractor produces and instigates a suitable construction environmental management plan (CEMP) to ensure appropriate mitigation is implemented.

The Scrabster Ola Pier Extension is an upgrade of an existing harbour which will allow the accommodation of larger vessels, this will provide both socioeconomic benefits to the area and potentially reduce the carbon footprint of the oil and gas supply boat sector.

7 References

1. Scottish Natural Heritage (2017). Sitelink. Retrieved from: https://gateway.snh.gov.uk/sitelink/searchmap.jsp#
2. National Biodiversity Network (NBN) (2017). NBN Atlas: Explore Your Area. Retrieved from: https://records.nbnatlas.org/explore/your-area
3. Reid, J., Evans, P., & Northridge, S. (2003). Atlas of Cetacean distribution in north-west European waters. *JNCC*, Aberdeen, UK.
4. Special Committee on Seals, (2016). Scientific Advice on Matters Relating to the Management of Seal Populations: 2016. Retrieved from: http://www.smru.st-andrews.ac.uk/research-policy/scos/
5. British Standard Institute (2014). BS 5228 1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites. Noise.
6. JNCC (2010). Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise. *JNCC*, Aberdeen, UK.
7. Environmental Agency, NIEA & SEPA (2012). Working at construction and demolition sites: PPG6. *Environment Agency*, Bristol, UK.
8. IAQM (2016). Guidance on the assessment of dust from demolition and construction: Version 1.1. *IAQM*, London, UK.
9. NIEA, SEPA & Environmental Agency (2017). GPP8: Safe Storage and Disposal of Used Oils
10. Environment and Heritage Service, SEPA & Environment Agency (2006). Use and design of oil separators in surface water drainage systems: PPG 3. Environment Agency, Bristol, UK.
11. NIEA, SEPA & Environmental Agency (2011). Drums and intermediate bulk containers: PPG 26. *Environment Agency*, Sheffield, UK.
12. NIEA, SEPA & Natural Resources Wales (2017). Above ground oil storage tanks: GPP 2. Retrieved from: http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/
13. ABP Research & Consultancy Ltd (1999). Good practice guidelines for ports and harbours operating within or near UK European marine sites. ABP Research & Consultancy Ltd, Hampshire, UK.
14. BS Institute (2014). Light and lighting. Lighting of work places. Outdoor work places: BS EN 12464-2:2014. *BS Institute*, London, UK.
15. PSS (2010). Health and Safety in Ports (SIP009) – Guidance on Lighting. *PSS*, London, UK.
16. Natural Resources Wales, NIEA, & SEPA (2017). Works and maintenance in or near water: GPP 5.
17. Budd, M., John, J., Simm & M. Wilkinson (2003). Coastal and Marine Environmental Site Guide (C584). CIRIA, London, UK.
18. JNCC Website. Retrieved from: http://jncc.defra.gov.uk/page-1857-theme=default

8 Glossary

Acronym	Definition
ABP	Associated British Ports
BS	British Standard
CEMP	Construction Environmental Management Plan
EIA	Environmental Impact Assessment
EIA Regulations	Marine Works (Environmental Impact Assessment) Regulations 2017
EPS	European Protected Species
GPP	Guidance for Pollution Prevention
IAQM	Institute of Air Quality Management
JNCC	Joint Nature Conservation Committee
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
NBN	National Biodiversity Network
NIEA	Northern Ireland Environmental Agency
PPG	Pollution Prevention Guidance
pSPA	Proposed Special Protection Area
SAC	Special Area of Conservation
SEPA	Scottish Environmental Protection Agency
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
UK	United Kingdom

Appendix 1- Background Information

Scrabster Harbour

YOUR GATEWAY TO THE NORTH

Background Information

1. Scrabster Harbour Trust was founded in 1841. Scrabster is the most Northerly mainland commercial port in the UK. Scrabster Harbour is an independent Trust Port governed by its own legislation. The port is operated commercially by the Trust which, although not publicly funded, is accountable to the wider community and to harbour users. As a self-financing business, it operates like any commercial concern and is dependent on cash flow and profits for its successful operation. The Trust Port status also means all surpluses are reinvested in the maintenance and development of the port to ensure that it meets the requirements of users.

2. Scrabster Harbour is an established multi-purpose / multi-user commercial port. The portfolio of activities includes the lifeline ferry link to Orkney, fishing, cruise, oil & gas, renewables, fish cargo from the Faroes, general cargoes, leisure and property. In 2017 there were 2,219 vessel arrivals at port, the total vessel tonnage amounted to 8.480 million. Scrabster is the UK's fourth largest fish landing port. In 2017 fish and shellfish product valued at more than £30 million was landed at Scrabster. In the same period a total of 146,332 passengers and 52,435 vehicles passed through the port using the lifeline ferry service to and from Orkney. An additional 5,000 cruise passenger also visited the port.

3. Development of Scrabster is viewed as one of the significant opportunities to prepare a sustainable economic future for the Caithness & North Sutherland area beyond the decommissioning of the Dounreay Nuclear plant. The harbour has seen considerable investment and development over the last two decades. The largest recent projects being the £17.4 million redevelopment of the Old Fishmarket Pier (OFP) completed in 2013.

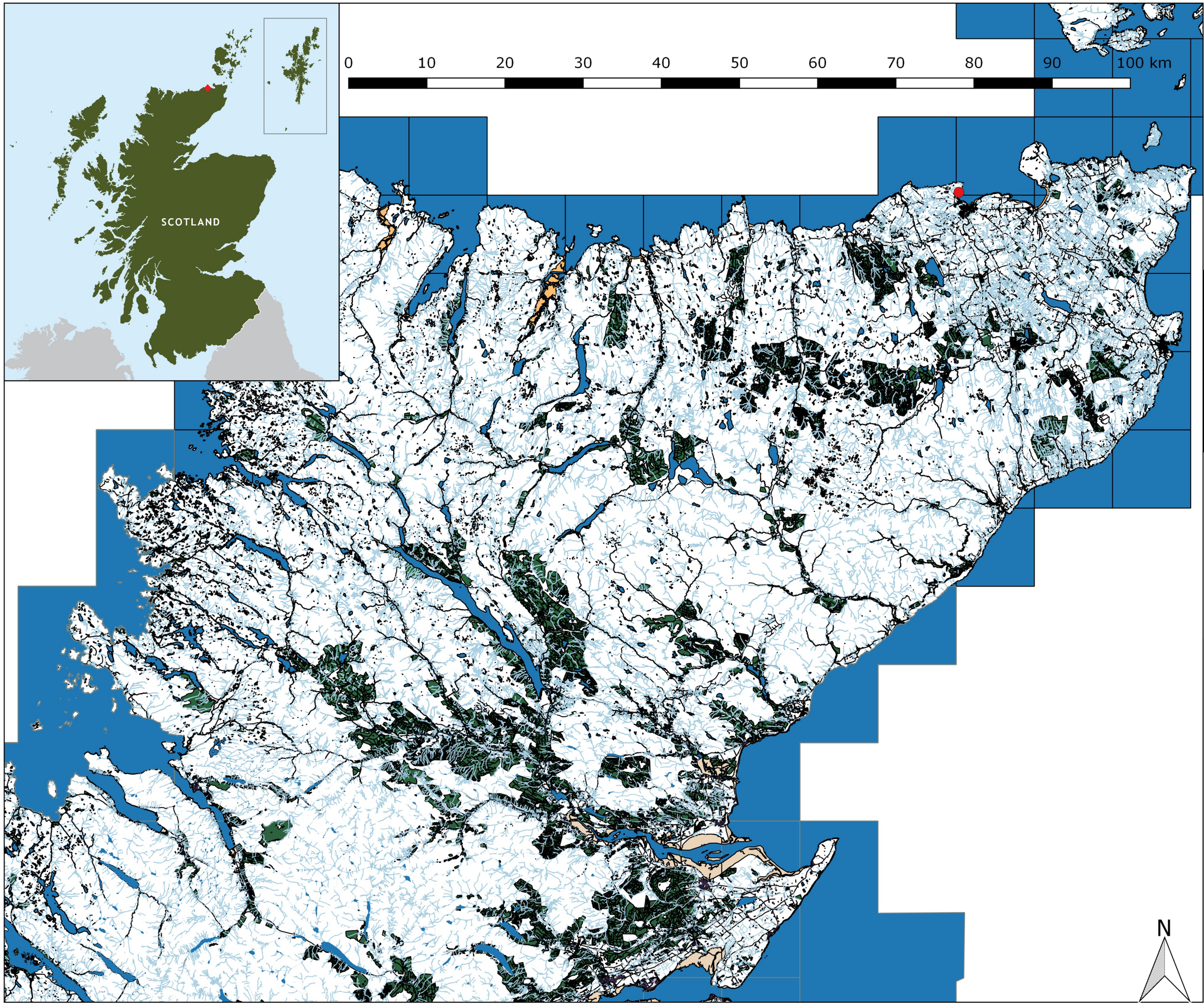
4. The subject of this screening request, the planned redevelopment of the Ola Pier has similarities with OFP project.
   - It is a project within the existing working harbour area and the construction methodology is likely to be very similar.
   - It is the redevelopment/ refurbishment of an existing pier rather than creation of a new pier
   - The boundaries of the harbour remain unaltered particularly the boundary to the North Caithness Cliffs Special Protection Area (SPA). It is our understanding that the birds forming the designated interest of the SPA feed almost exclusively at sea, and nest on the cliffs. Given that existing harbour activities (ferry, cruise and cargo) occur closer to the SPA, disturbance effects from the project appear unlikely.

An EIA was not required for the OFP development. However information was prepared to inform an Appropriate Assessment in 2010. The report addressed the impact of the proposed OFP project on the River Thurso SAC (Atlantic Salmon) and consideration of European Protected Species (cetaceans).

The report reflected a dialogue which started with a request for an earlier screening opinion Initially Scottish Natural Heritage concerns, in addition to Atlantic Salmon and Cetaceans, were the birds in the North Caithness Cliffs Special Protection Area (SPA), otters, and in the wider environment seals and basking sharks. However following submission of detail regarding the type and duration of the construction activities, the birds and the otters were removed from the scope. With regard to seals and basking sharks it was considered that the mitigation measures for cetaceans would also cover this area.

5. Scrabster Harbour Trust commissioned an independent Economic Impact Assessment report in 2017, which found the harbour currently generates £25 million gross value added (GVA) in Caithness and supports over 400 jobs. The figures show an increase from 339 jobs to 403 jobs since the last economic assessment in 2009, underlining the growing role of the Harbour to the Caithness economy. GVA has also increased from £14.6 million in 2009 to £24.8 million in 2016, a 70% increase. The total economic output of the port is calculated at £48 million.

YOUR GATEWAY TO THE NORTH



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Title: Scrabster Location.

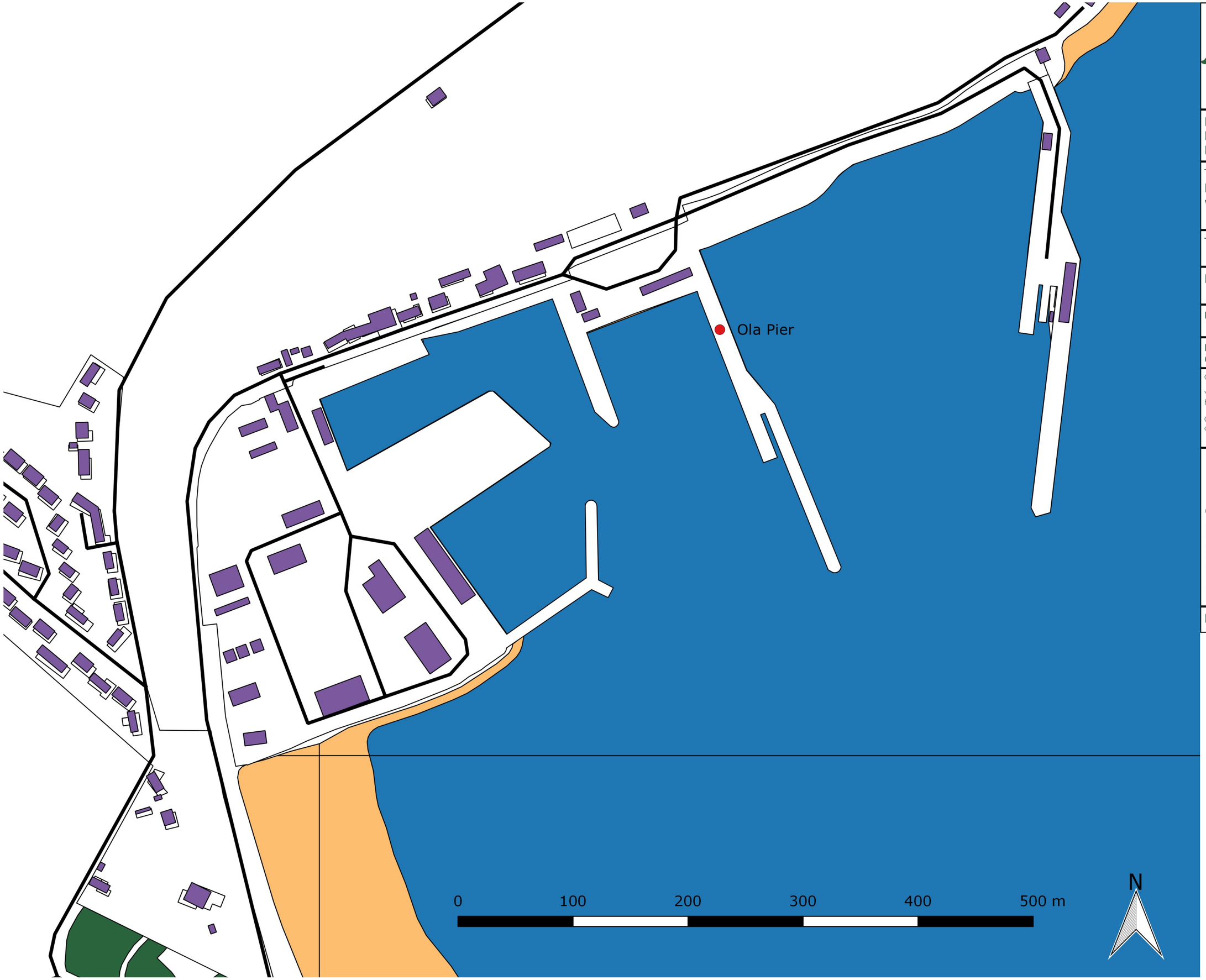
Drawing No: 48.01

Page 1	Rev No: 1	Drawing Date: 22/11/2017

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Scrabster Location
- Inland Waters
- Foreshore
- Towns\Villages
- Tidal Water
- Woodlands
- Roads



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Title: Scrabster Harbour.

Drawing No: 48.02

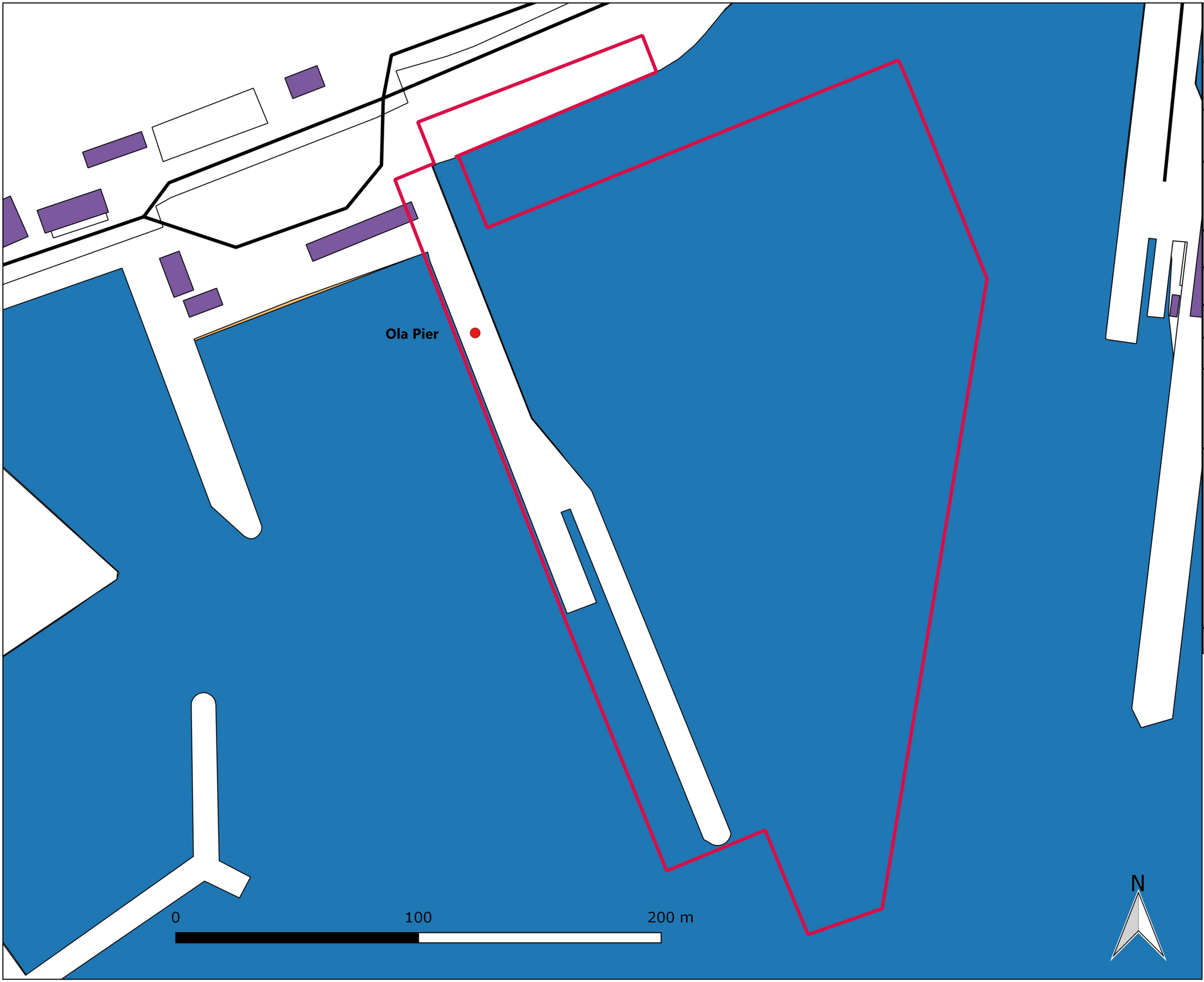
Page 1	Rev No: 1	Drawing Date: 08/01/2018

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Ola Pier
- Roads
- Buildings
- Woodland
- Foreshore
- Tidal Water

Drawn By: Innes Beaton



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Title: Scrabster Harbour Red Line Boundary

Drawing No: 48.02.B

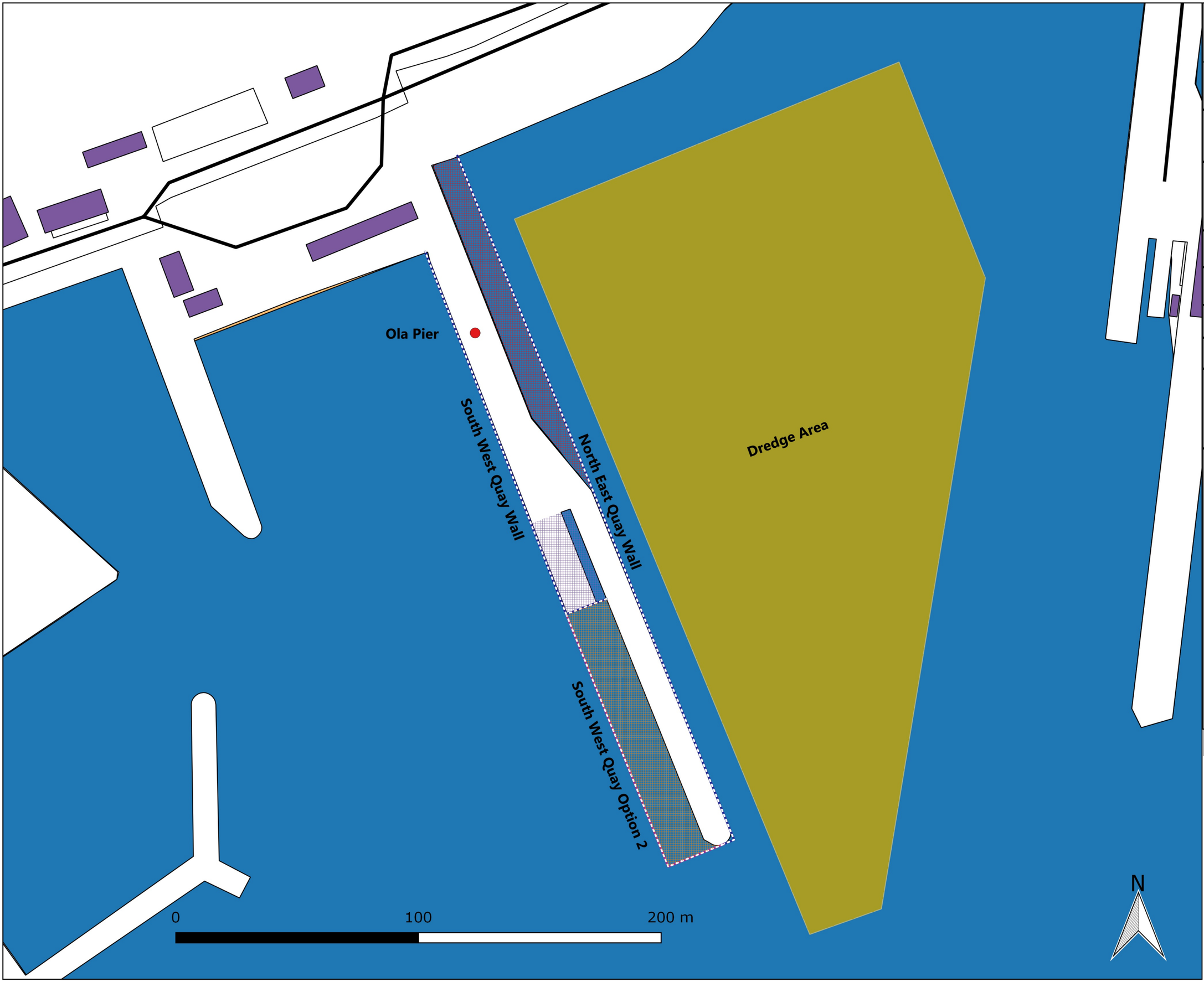
Page 1	Rev No: 2	Drawing Date: 18/01/2018

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Ola Pier
- Red Line Boundary
- Roads
- Buildings
- Woodland
- Foreshore
- Tidal Water

Drawn By: Innes Beaton



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Title: Scrabster Harbour Ola Pier Plan

Drawing No: 48.03

Page 1	Rev No: 3	Drawing Date: 22/01/2018

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Ola Pier
- Roads
- Buildings
- Foreshore
- Tidal Water
- NE Quay Wall
- SW Quay Wall
- SW Quay Wall 2
- Dredge Area
- Reclaim 1
- Reclaim 2
- Reclaim 3

Drawn By: Innes Beaton