

HABITATS REGULATIONS APPRAISAL PROFORMA

A: SCREENING

1. GENERAL DETAILS

Name of Competent Authority

Aberdeen City Council

2. SITE DETAILS

2a. Name of Natura site affected

1. River Dee SAC

2b. European qualifying interest(s) & current status

1. River Dee SAC: Otter (Favourable Declining), Freshwater pearl mussel (Unfavourable No change), Atlantic salmon (Favourable Maintained)

2c. Conservation objectives for qualifying interests

1. Conservation objectives for River Dee SAC

To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained, and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species, including range of genetic types for salmon, as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species
- Distribution and viability of freshwater pearl mussel host species
- Structure, function and supporting processes

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3. PROPOSAL DETAILS

3a. Proposal Title

Greyhope Road West Embankment

3b. Details of proposed operation (including location, timing, methods)

Replacement of an approximately 100m long section of deteriorated pitched stone revetment lining with a rock revetment between the north verge of the Greyhope Road carriageway and the adjacent foreshore.

Works will include:

- excavation on the beach and construction of revetment toe
- removal and breakup of damaged pitched stone lining
- benching of embankment and creating new slope with imported fill
- installation of filter geotextile over new slope
- installation of rock filter layer and rock armour layer to full height of revetment/embankment (broken up pitched stone lining incorporated into lower layer of rock armour)
- installation of new drainage gullies and manholes in road and replacement of existing headwalls with a single headwall structure
- replacement of missing sections of tubular steel fencing

Method and Sequence

This outline method statement covers the marine works required for the revetment. It does not detail road, road drainage or fencing works as these are outwith the foreshore area and are normal to road maintenance and repair/upgrade activities. The contractor will be required to develop a full and detailed method statement prior to construction, and this will require the acceptance of Aberdeen City Council.

Revetment Sequence

In order to prevent unplanned movement or collapses of the existing revetment lining and tidal erosion of the embankment, the contractor will be required to schedule their work to cover these issues. This will require the contractor to work on shorter sections of the embankment at any one time and these are not likely to be longer than approximately 10m in length.

It is likely that kerbing and drainage works will follow completion of the revetment construction, but it is possible that some of these works could be progressed when tidal conditions restrict access to the foreshore.

Demolition and Excavation

This will be by mechanical plant most likely working on the foreshore but possibly also from the road. The existing concrete lining will be broken up into sizes approximately matching the rock armour to be imported and this will be set aside nearby on the foreshore.

Excavation and benching of the embankment slope will be carried out by an excavator on the foreshore. Excavated soil (sands, gravel, silts) will be taken by dumper truck along the foreshore to the base of the coastal embankment east of the site on the foreshore for disposal. This material shall then be spread to blend into the surrounding landscape and left to vegetate naturally.

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Excavation of the beach for the toe trench will be carried out by an excavator on the foreshore. Beach material (sand, gravel, boulders, rocks) excavated will be set aside on the foreshore for later backfilling.

Imported Fill

This will be brought to site by lorry and will likely be taken from the lorry and placed by excavator directly to the embankment. Compaction of the fill will be carried out in 500mm deep layers and will likely be by means of an excavator on the foreshore with a compactor plate attached.

Geotextile laying

This will likely be paid-out from the road level from a roll supported by an excavator and laid to the new surface of the compacted fill slope.

Drainage Layer and Rock Armour

a 200mm thick layer of 63-180mm coarse graded rock will be laid over the geotextile this will likely be placed from a lorry to the slope by an excavator on the road but spreading may be assisted by an excavator on the foreshore.

Rock Armour of weight 150 – 450kg will be placed by plant on road from lorries directly to the revetment and this process may be supported by an excavator on the foreshore to further manoeuvre rocks into place. The rock armour will be laid in two layers and the first layer will incorporate the broken-up remnants of the demolished pitched stone lining.

Details can be seen on drawings SFC-1123-DR- 001 to 006

Material excavated from the beach will be replaced to maintain existing shore levels after construction of the toe. Surplus material will be spread on the beach.

Works expected to be progressed in between July and November 2019

Site location shown below.

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Site Location



4. Is the proposal directly connected with or necessary to the nature conservation management of a European site?

NO

5. Is the proposal (either alone or in combination) likely to have a significant effect (LSE) on a European site?

YES

1. Screening the Proposed Development

Nature of Effects	Yes	No	Not Sure	Comments
Will the proposal increase development pressures or		•		
• require water abstraction outwith approved level?		•		
• cause siltation?	•			No operational siltation. During construction, there may be some minor clouding of water when tide inundates site for the first time immediately after excavation and rock placing works.
• discharge effluent or other pollutants?	•			No discharges, but possibility of: - fuel/oil leakage during plant operations - possible cement spillage during headwall construction (although this will be above Mean High-Water Springs - MHWS)
• affect capacity of waste water treatment facility?		•		
• undertake waste treatment works?		•		
• involve waste management works affecting N2K site?		•		

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<ul style="list-style-type: none"> involve infrastructure development affecting N2K site? 	•			The proposed rock revetment will extend further onto the foreshore than the existing pitched stone revetment.
<ul style="list-style-type: none"> increase deposition of air pollutants affecting N2K site 		•		
<ul style="list-style-type: none"> cause disturbance to species (e.g. noise and visual)? 	•			Potential short-term noise disturbance from plant activities during construction.
Will the proposal affect the aquatic environment or	•			Possible risk of pollution/siltation as above during construction.
<ul style="list-style-type: none"> affect protected site(s) located upstream/downstream? 				As Above
<ul style="list-style-type: none"> affect protected site(s) located near river bank/river? 				As Above
<ul style="list-style-type: none"> affect protected site(s) located near an estuary? 				As Above
<ul style="list-style-type: none"> have any other hydrological links to the site? 		•		
Will the proposal affect mobile species or		•		
<ul style="list-style-type: none"> have any ecological links with the protected sites/species? 	•			<p>Previous rock filling work in this area required an EPS licence to infill an otter holt. There are no further viable holt locations in this section of embankment. (see documents provided) The proposed installation may provide some increase in potential habitat to otters.</p> <p>Migrating Salmon could be impacted by temporary siltation following excavation works.</p> <p>There are no Fresh Water Pearl Mussels (FPM) in the vicinity of the work site due to the water being brackish. However, FPM within the River Dee SAC depend on migratory salmon which may be affected as discussed above.</p>
<ul style="list-style-type: none"> affect migratory species and/or birds? 		•		
Will the proposal increase recreational pressure or		•		
<ul style="list-style-type: none"> attract local visitors to the protected site? 		•		
<ul style="list-style-type: none"> attract external visitors to the protected site? 		•		
Will the proposal affect sites along/around the coast or		•		
<ul style="list-style-type: none"> be located in the same coastal cell as N2K site? 		•		
<ul style="list-style-type: none"> be part of the same coastal ecosystem? 		•		
<ul style="list-style-type: none"> interact with different coastal processes affecting N2K site? 		•		
Will the proposal have in-combination effect with other projects	•			
<ul style="list-style-type: none"> have in-combination effects with another proposal or plan? 	•			The revetment is adjacent to an industrialised area including Aberdeen Harbour, fuel storage facilities, oil industry activity, fish processing, office buildings etc. The embankment supports the Greyhope Road

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				<p>carriageway which is used by all types of vehicles including HGVs. The area is popular with walkers, cyclist and dog walkers. Greyhope Road leads to various public car parks. The works may impact on these activities during the construction period but not likely to have any impact on qualifying species.</p> <p>Nigg harbour development is ongoing but this will not be accessed from the north end of Greyhope Road. Supporting documentation advises that there will still be sufficient alternative potential otter rest sites in the area.</p> <p>There are no fresh water pearl mussels in this part of the SAC (in the harbour) due to the brackish water environment.</p> <p>Some minor temporary siltation may occur during high tides following excavation activities. This could, in combination with the Nigg Harbour Development, impact on Salmon</p> <p>No particularly noisy construction techniques such as sheet piling are proposed.</p> <p>Minor Residual Effects (MREs) are therefore likely.</p>
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B: APPROPRIATE ASSESSMENT (AA)

6a. Undertake Appropriate Assessment (AA) of the implications for the site in view of its conservation objectives.

Siltation during construction

During construction, there may be some minor clouding of water when tide inundates site for the first time immediately after excavation and rock placing works. Siltation can impact directly on salmon and indirectly on fresh water pearl mussel.

Potential for Pollution

No discharges, but possibility of:

- fuel/oil leakage during plant operations
- possible cement spillage during headwall slab construction (although this will be above Mean High-Water Springs - MHWS).

Pollutants can impact on all qualifying features directly or indirectly.

Construction involves infrastructure development affecting N2K site

This project will extend the footprint area of the existing revetment further onto the foreshore area. However, as the structure will change from sealed pitched stone to open placed rock, this will likely be of benefit to otters. This will not impact on salmon or fresh water pearl mussel. See location Plan Drawing SFC-1123-DR-001 for footprint area.

Disturbance to species

There may be short-term noise disturbance from plant activities during construction. Noise can impact on otters.

Effect on mobile species

Previous works at this site (October 2018) required an EPS licence to rock fill a hole in the existing embankment which had been previously identified as an Otter holt. A further otter holt was also identified approximately 600-700m west of the site. Construction activities and associated noise can impact on otters as well as causing habitat loss.

Salmon could be impacted directly by siltation (as above).

Fresh water pearl mussel depend on presence of Salmon and could be impacted indirectly by siltation (as above).

In-combination effects with another proposal or plan

As above, the proposed works could result in minor temporary siltation which in combination with the Nigg Bay Harbour Development could impact on Salmon directly and fresh water pearl mussel indirectly.

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6b. Mitigation or modifications required to ensure adverse effects are avoided & reasons for these.

Siltation

Only material excavated from the beach will be re-deposited here with surplus being spread over the foreshore. Any material excavated from the embankment above the existing foreshore level may contain silt and this will be disposed of either at the coastal embankment above Mean High Water Springs level or taken off-site for disposal. This will prevent contact with sea water.

Some minor temporary siltation/dischouration of the watercourse may result from tidal contact with recently disturbed sand and newly placed rock armour. This is expected to be minimal as the work will extend along the embankment in short sections not expected to be more than 10m in length at any one time.

Pollution of watercourse

Contractor will be required to use plant which is free of fuel/oil/fluid leakages and will have spill kits on site at all times.

No refuelling or storage of fuel will be allowed on the foreshore.

The contractor will be required to detail their proposed measures for prevention of pollution within their Environmental Management Plan.

All in-situ concrete work will be above and inland of the MHWS line and will be contained so as to prevent leakage or accidental spills. Any concrete spills/splashes outside shuttering, will be cleared up and prevented from contact with the foreshore and water environment.

Construction involves infrastructure development affecting N2K site

This project will extend the footprint area of the existing revetment further onto the foreshore area. As can be seen in drawings, a significant proportion of this extended footprint area will be below the existing beach level.

The structure will change from the existing sealed pitched stone, to open placed rock armour. This will likely be of benefit to otters. The extension of the footprint area will not impact on salmon or fresh water pearl mussel.

Disturbance to species/mobile species

- Plant activities on the foreshore will be limited to periods during low tide conditions.
- The contractor will be required to work progressively along the length of the proposed revetment in stages of up to approximately 10m to maintain stability of the embankment during the works. This will limit the area being worked at any one time.
- No particularly noisy plant (such as pile driving equipment) is required for this project.
- The contractor will be required to utilise plant which is in serviceable condition with functioning silencing measures where appropriate.
- There shall be no disturbance to Salmon or FWPM other than mentioned above.
- Otter are known to be present in the SAC but SNH has advised that these are not likely to be in high enough numbers for this project to cause significant disturbance. The contractor will be required to have an ecology survey carried out by an appropriately qualified ecologist prior to commencement of the works and to follow guidance or recommendations given. This will identify any constraints in relation to protected species and invasive flora.

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Environmental Management Plan (EMP)

Prior to construction the contractor will be required to submit an EMP for acceptance by Aberdeen City Council. This will detail the contractor's management process, procedures and controls to be put in place to mitigate any environmental and ecological risks and impacts of construction activities.

6c. Can it be ascertained that the proposal will not adversely affect the integrity of the site?

We consider that it has been ascertained that with the proposed mitigation implemented, the proposal will not adversely affect the integrity of the site.

Note: Seek advice from SNH as required at this point

7. Advice received from SNH in relation to plan or project

Insert any advice and/ or conclusion provided by SNH.

If SNH have disagreed with any part of the HRA then make required changes and return to this section. Only once SNH are in agreement (with proof of this provided in this section) can you continue to section 8.

8. Tracking Checklist/ Sign off

Date LDP HRA checked	Not required for this proposal
Date SNH consulted	
Date any other organisations consulted e.g. Dee Salmon Fishery Board, SEPA, Marine Scotland	Marine Scotland – 3/4/19 Aberdeen Harbour Board 21/11/18
Signature (author)	[Redacted]
Name and Job Title (author)	James Howden - Engineer
Date (author)	01/5/19