



Kilfinichen Pier Development: Non-Technical Summary



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Contents

1	Introduction	1
2	Project Description	2
2.1	Project Need.....	2
2.2	Consideration of Alternatives.....	2
2.3	Project Location and Elements	2
2.4	Construction.....	3
2.5	Operation	3
2.6	Maintenance.....	4
2.7	Decommissioning.....	4
3	Statutory Context & Policy	4
4	Methodology	5
4.1	Consultation	5
4.2	Cumulative Impacts	5
5	Benthic Ecology	6
6	Ornithology.....	7
7	Otters.....	8
8	Schedule of Mitigation.....	9
9	Conclusion.....	9

1 Introduction

The Ardmeanach Peninsula on the Isle of Mull contains approximately 1,075Ha of commercial timber plantations, and is only accessible accessed by a single-track public road. Currently, it is not possible to export the timber from this region, since the peninsula's road infrastructure is deteriorating, and is no longer suitable for the heavy goods vehicles used to transport timber. No existing marine export routes are accessible without the use of the road network. As a result, the forestry plantations cannot be harvested, and will soon become over-mature, leading to a significant reduction in the commercial value of the timber.

As such, Kilfinichen Estate propose to construct a timber loading pier, to allow timber cargo vessels to berth on the Ardmeanach peninsula. The proposed development is in the immediate vicinity of the forestry plantations, thus allowing export of the harvested timber by sea, with minimal reliance on the public road network.

The proposed Kilfinichen Pier Development will include the following components:

- The construction of the previously consented 0.67Ha timber stacking area, to facilitate stockpiling of timber prior to loadout onto timber transport vessels;
- A 140m long rock armoured causeway, with a 60m long hammerhead, surfaced with a 6m wide track providing access to the loadout pier;
- A 40m long access bridge, linking the causeway to a floating pier; and
- A pre-existing pontoon which will be moved and incorporated in the causeway design.

Under the Marine (Scotland) Act 2010, construction of the Kilfinichen Pier Development requires a Marine Licence. Hence Kilfinichen Estate is applying for a Marine Licences under the Act for the Pier Development. Due to the nature of the development and its potential to have a significant effect on the environment, an Environmental Impact Assessment Report (EIAR) is required to support the Marine Licence application, under the Marine Works (Environmental Impact Assessment (EIA)) (Scotland) Regulations 2017.

This non-technical summary summaries the main findings of the EIAR. The full EIAR can be viewed and obtained in the following locations:

- A paper copy is available in a covered box at:
The Old Post Office, Tiroran, Kilfinichen, Isle of Mull, PA69 6ER.
- An electronic copy is available for download from the Kilfinichen Estate website:
www.kilfinichen.com.

2 Project Description

2.1 Project Need

The Ardmeanach Peninsula on the Isle of Mull contains approximately 1,075Ha of commercial timber plantations, and is only accessible by a single-track road, the B8035. The B8035 is in a deteriorating condition, and Argyll and Bute Council have deemed the road infrastructure unsuitable for use by timber lorries, prohibiting any timber haulage on the road. Of particular concern is the road between Ardvergnish and the crossroads, where the road 'floats' on peat. There is a real risk that this stretch could fail completely, leaving residents stranded. As a result, it is currently not possible to export timber from the commercial plantations, and the plantations will soon become over-mature. This means that that the harvested trees will be too big to be processed by saw-mills, and will have to be chipped or pulped instead, dramatically reducing their value.

Therefore, Kilfinichen Estate need to construct a timber loading pier, in order to facilitate the timber export from the Ardmeanach Peninsula by sea. The proposed location for the Kilfinichen Pier Development will provide access to sheltered water of a depth that can accommodate timber cargo vessels, adjacent to Kilfinichen Estate's previously consented proposed timber stacking area and lies within close proximity of the timber plantations. As such, construction of this development will allow export of commercially harvested timber by sea, while reducing the reliance on the public road network.

2.2 Consideration of Alternatives

The option of upgrading the B8035 to accommodate timber haulage was considered. However, the length of the road requiring upgrades is so great that this option is not financially viable. Even if the road was upgraded, the use of the B8035 by timber lorries would give rise to significant congestion on this single tracked road. There are no other option for exporting timber from the Ardmeanach Peninsula, which do not require extensive use of the public road network.

Alternative construction techniques were also assessed, including the use of piled structures, and rock revetment causeways to form the loading pier. The use of marine piling brings significant environmental impacts on marine mammals and fish, through underwater noise emissions. As such, a rock armoured revetment design was selected, in order to remove the requirement for piling. This option also facilitates the re-use of the rock spoil that will be generated during the construction of the onshore stacking area, thus increasing efficiency and reducing waste.

2.3 Project Location and Elements

Kilfinichen is located in the centre of the Ardmeanach Peninsula on the west coast of the Isle of Mull. The proposed pier development site lies on the north site of Loch Scridain, immediately to the south of the B8035. The Kilfinichen Pier development falls within the boundaries of the Argyll and Bute Council. The proposed location of the pier is within the immediate vicinity of the 1,075Ha of timber plantation located on the Ardmeanach Peninsula, to the North, East and West of the development.

The Kilfinichen pier proposal constitutes of the following elements:

- **Stacking area:** A 0.67Ha onshore timber stacking area will be created to allow stockpiling of timber prior to loadout onto timber cargo vessels. An access track will connect the stacking area to the B8035, via a bellmouth junction. The stacking area is also connected to the causeway. The stacking area is subject to an existing planning consent.
- **Causeway:** The rock armoured causeway will be 140m long, with 60m long L-shaped hammerhead, the L shape design provides protection and access to the relocated pontoon. The causeway will provide access to the access bridge and floating pier. Rock extracted during construction of the timber stacking and access road bellmouth area will be used for the construction of the causeway.
- **Access bridge and floating pier:** The 40m access bridge and floating pier will be brought to the site pre-fabricated. The access bridge and pier is a self-contained floating structure which will be connected to the end of the causeway. The bridge and pier are designed to allow easy disconnection from the causeway, so that this resource can be shared with the Pennyghael timber loading facility.
- **Pontoon:** The existing pontoon at the site will be retained and incorporated into the causeway design. A pre-fabricated 12m access bridge will be installed to allow access to the pontoon from the causeway.

2.4 Construction

Rock extracted during the creation of the stacking area will be used to construct the causeway, with the rock being placed and compacted, working from the shoreline, outwards. As causeway construction progresses, rock armour will be placed to protect the structure. Upon completion of the causeway, the surfaced track will be created, and the various furnishings installed.

Once the causeway is complete, the pre-fabricated access bridge and pier will be brought to the site by sea, and connected to the causeway.

The existing pontoon will be floated into position next to the causeway and secured to the seabed and rock armour. The pre-fabricated bridge will then be lifted into place and attached.

2.5 Operation

The development will allow shipping of approximately 376,000 tonnes of timber per harvest cycle, by sea, from all forestry blocks on the Ardmeanach Peninsula. The pier will transport approximately 9,250 tonnes of timber per year. Timber will be delivered from the forest by road and stockpiled in the stacking area, prior to being loaded onto vessels for onward transport by sea. Harvesting operations of the current crop at Kilfinichen are anticipated to start in 2019.

During non-harvesting periods, it is anticipated that the access bridge and floating pier will be disconnected and moved to another location.

2.6 Maintenance

Maintenance to the Kilfinichen Pier development will be required over time. However, these repairs are not envisaged to be of scale that require specific assessment, and so were scoped out of the EIA.

2.7 Decommissioning

There are no future plans to discontinue use of this site, with the Crow Estate Scotland lease running for 99 years. It is not considered necessary to plan or assess for demolition and reinstatement works for closure of this site in the EIA.

3 Statutory Context & Policy

Construction activities carried out below Mean High Water Springs (MHWS) require a licence from Marine Scotland Licensing Operations Team under the Marine (Scotland) Act 2010. All but the timber stacking area and associated access to the Kilfinichen Pier Development are below the MHWS, hence a Marine Licence is required. Elements of the project above the mean low water spring require planning consent, this has already been granted by Argyll and Bute Council.

Schedule 1 of the Marine Works (EIA) (Scotland) Regulations 2017 provides a list of development types which require an EIA. Included in the list is:

8.(2) Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350 tonnes.

The design and sheltered location of the proposed development will allow vessels of up to 3,500 tonnes to load, and as such an EIA is required to be submitted in support of the application for a Marine Licence.

The Marine Licensing (Pre-application Consultation (PAC)) (Scotland) Regulations 2013 prescribe the marine licensable activities that are subject to pre-application consultation and, in combination with the Marine (Scotland) Act 2010, set out the nature of the pre-application process. The Kilfinichen Pier Development falls within Regulation 4(d) as a construction activity within the marine area that exceeds 1,000m² is required to go through the PAC process.

In addition, if it is determined that the construction activities associated with this development will likely affect European Protected Species (EPS) listed under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended); which includes otters, then an EPS Licence will be required.

The 2015 Scottish National Marine Plan lays out the Scottish Minister's policies for the sustainable development of Scotland's seas and provides General Planning Principles and sector-specific objectives and policies. The policies were considered as part of the EIA process.

4 Methodology

One of the main purposes of the EIA process is to influence and improve design through iteration. Environmental impacts have been considered throughout the project, from the development option stage through to the initial design stages of the project. Where possible, environmental considerations have been incorporated into the design.

A methodical and robust assessment of environmental impacts has been used across all chapters of the EIAR. The methodology considers a receptor's value or sensitivities, the magnitude of the impact, and through a matrix-based approach, whether or not the impact is significant. If the impact is above a defined threshold, then it is deemed to be significant and additional mitigation procedures are put in place where possible to reduce the potential impact.

In addition, it is assumed that standard construction practices, such as those outlined in Guidance for Pollution Prevention documents, have been applied in the assessment process and these are captured within the Schedule of Mitigation, in Chapter 8 of the EIAR.

4.1 Consultation

Under the Marine Licensing (Pre-application Consultation (PAC)) (Scotland) Regulations 2013 a public consultation was undertaken with a Pre-application Consultation Report produced for submission with the Marine Licence application.

A scoping report was submitted and opinion obtained from Marine Scotland with regard to the content of the EIAR. Additional dialogue was undertaken with Marine Scotland and Scottish Natural Heritage, to agree on the scope of the benthic surveys and approach to the otter assessment and mitigation.

The scoping opinion included a request for a Navigation Risk Assessment to be completed. A Navigation Risk Assessment has therefore been completed, and the resulting report has been provided with the Marine Licence application. The Navigation Risk Assessment will be a live document utilised through the lifetime of the development.

4.2 Cumulative Impacts

A review of terrestrial and marine developments within the Loch Scridain area was undertaken to identify potential cumulative impacts. Any identified potential cumulative developments were identified, discussed and assessed in the topic-specific chapters of the EIAR.

5 Benthic Ecology

In order to appropriately assess the potential effects on benthic ecology from the Kilfinichen Pier Development, the baseline condition had to be understood. This was achieved through literature review and a benthic survey. The benthic survey consisted of a desktop study, benthic video transects and grab samples. The videos, photos and grab samples were analysed to identify the benthic habitats and species present in the development area. Analysis of the nature of the sediments present in the grab samples was also conducted to inform the habitat classification.

A review of the water framework directive classifications identified that Loch Scridain is categorised as a sea loch which is not heavily modified or artificial. The overall status of Loch Scridain is classified as Good, with an overall Good ecological status and a chemical status of Pass. No current pressures on the waterbody were identified.

The benthic survey identified several habitat types, the majority of which were not of any conservation concern and no protected or invasive species were found. However, one habitat recorded as present within the development area is noted as being a Scottish Priority Marine Feature, this is '*Laminaria saccharina* and *Chorda* filum on sheltered upper infralittoral muddy sediment'. Identification and classification animals found in the grab samples showed a diversity of genus and species, including marine worms, and molluscs such as the blue mussel.

The construction of the causeway will result in benthic habitat loss of approximately 0.8Ha including complete loss of all identified habitat biotope complexes within the footprint of the causeway. However, the habitat loss is considered not to be significant in the context of the wider Loch Scridain benthic environment, as it only amounts to approximately 0.03% of the available habitat in Loch Scridain.

Potential introduction of Invasive Non-Native Species (INNS) via various routes associated with the proposed Kilfinichen Pier Development, including construction machinery and release of ballast water from vessels visiting the site. However, the risk of introducing an INNS is considered to be very low, and this effect was assessed as non-significant. This is because materials and equipment used in the construction of the development will be locally sourced. In addition, best practice INNS mitigation measures will be followed, including cleaning and inspection of plant and equipment, and the implementation of appropriate ballast water management systems, which further reduces or removes the risk of INNS introduction.

The impacts associated with a reduction of water quality were also considered. The assessment found that the implementation of standard best practice mitigation for preventing reductions in water quality, such as spill prevention and surface water management, make a reduction water quality unlikely. As such this effect was also found to be non-significant.

No cumulative effects with any other projects are predicted due to the distances involved.

Assessment of potential impacts arising from the development of the Kilfinichen Pier Development on the benthic community identified no significant effects.

6 Ornithology

In order to appropriately assess the potential effects on ornithological receptors from the Kilfinichen Pier Development, the baseline condition had to be understood. This was achieved through extensive literature review and a wintering bird survey. The wintering bird survey covered the proposed development area, plus a 500m buffer. Surveying was conducted in December 2017 and February 2018. Each survey involved two different survey methods, a walkover and a vantage point survey. The survey recorded all bird species, and target species were also mapped. Target species were those identified as being protected, or of conservation importance.

The Cnuic agus Cladach Mhuile Special Protected Area (SPA), designated for breeding Golden Eagles, is located adjacent to the development boundary. The wintering bird survey recorded a total of 41 bird species to be present in the vicinity, noting that 13 were of conservation importance, and should be taken forward for assessment, including a mixture of waders, waterfowl and seabirds, as well as terrestrial species. Herring gulls, and skylarks were the most commonly encountered species, and it was noted that that golden eagles were not recorded in the survey area during either visit. An assessment of the suitability of the survey area for breeding birds was also conducted, and found that while some breeding bird habitat was located within the survey boundary, the area within the development boundary did not provide valuable bird breeding habitat.

During construction, birds have the potential to be impacted through habitat loss, disturbance, reductions in water quality, and physical injury through interactions with plant and equipment. The construction of the causeway and stacking area will result in the loss of approximately 0.7Ha terrestrial, and 0.8Ha marine bird foraging habitat respectively. The assessment concluded that this habitat loss is non-significant for any species, in the context in the amount of comparable alternative habitat, available in the vicinity of the site.

The construction activities may result in some localised disturbance or displacement of birds around the development area. However, this will be temporary, and short lived, so was found not to be significant, as there is plentiful alternative habitat available locally for the birds to move into. When the effects of a reduction in water quality were considered, it was found that the implementation of standard best practice mitigation, reduces the risk of a reduction in water quality occurring to a level where the likely effects are not significant.

It is possible that the construction works could result in injury to birds, through direct interactions with the equipment. However, site operatives will remain vigilant for birds, and stop works or set up exclusion zones if necessary to protect birds. As such, this effect was not assessed to be significant.

No impacts on the Cnuic agus Cladach Mhuile SPA are anticipated. This is because the habitat loss will occur outwith the boundary of the SPA, no golden eagles have been observed in the vicinity of the site, and the area does not provide any suitable breeding or foraging habitat for this species.

No cumulative effects with any other projects are predicted due to the distances involved.

7 Otters

In order to appropriately assess the potential effects on ornithological receptors from the Kilfinichen Pier Development, the baseline condition had to be understood. This was achieved through extensive literature review and otter surveys, undertaken in 2014 and 2017. The 2014 survey covered 750m along the coast on either side of the existing boathouse, and along the entrance of watercourses in the vicinity of the proposed development. The 2017 survey was undertaken with particular reference to the proposed development, included a preliminary assessment of habitat suitability, as well as a field sign and vantage point survey.

The 2014 survey identified no evidence of otter activity or evidence to suggest the presence of holts or couches, suggesting otters were not active within the location at the time of the survey. However, the 2017 survey identified numerous field signs, and two potential holts. Holt 1 is on the eastern side of the proposed development while holt 2 lies to the west. Both holts are located between 200-300m of the proposed stacking area, but more than 300m from the causeway. The two holts showed extensive signs of use, which is unusual if used as natal holt. The survey also recorded the sighting of a least four individual otters (mother and two cubs and single adult male) during the two-day survey. Sightings of the male was recorded approximately 100m south west of the development site, the mother and cubs were identified approximately 150m east of the site. The literature review and surveys concluded that the coastal habitat within the region of Kilfinichen offers good quality habitat for otters.

Within 10km of the development the Mull Oakwoods Special Area of Conservation (SAC) designated for otter and western acidic oak woodland was identified. However, connectivity between the SAC and the development site is negligible as the designated area is located on the other side of the Ardmeanach Peninsula, with a coastal distance of in excess of 30km. As such no effects are expected.

The assessment found that the construction and operation of the proposed development activities may result in: disturbance and potential displacement for non-breeding and natal holts, marine habitat disturbance, shoreline and marine habitat loss, increased risk of injury through interactions with plant, materials and equipment, and potential reduction in water quality. The assessment identified several potentially significant impacts on otters in the absence of mitigation, specifically resulting from disturbance, interactions with plant and equipment, and barrier effects

In order to mitigate these potential significant effects, an Otter Protection Plan (OPP) has been developed. The OPP includes a pre-construction otter surveys, otter checks and watching briefs, appropriate material storage, speed limits, and the installation of a culvert through the causeway, allowing otters to cross the structure without having to go over or around it. After the implementation of the OPP, all potential effects on otters are reduced to non-significant. It is also noted that a European Protected Species License may be required, but this will be informed by the preconstruction surveys.

As such no residual significant effects on otters are anticipated, and no cumulative effects with any other projects are predicted due to the distances involved.

8 Schedule of Mitigation

Mitigation measures identified during the EIAR process have been compiled into the Schedule of Mitigation. As part of the EIA scoping process a number of topics were scoped out as they were unlikely to give rise to a significant effect, taking account of standard mitigation measures. The mitigation measures taken account of within the scoping report have also been incorporated into the Schedule of Mitigation to ensure that they are appropriately implemented, and no significant adverse effects occur.

The Schedule of Mitigation will be used to inform the task specific Risk Assessed Method Statements (RAMS), in order to ensure the mitigation measures identified through the EIA process are effectively implemented during the construction phase.

9 Conclusion

The Kilfinichen Pier Development will allow transport of harvested timber to processing plants from the Ardmeanach Peninsula on the west coast of the Isle of Mull. Currently, it is not possible to export the timber from this region, since the peninsula's road infrastructure is deteriorating, and is no longer suitable for the heavy goods vehicles used to transport timber. The development will consist of an onshore timber stacking area (planning permission already granted), a 140m long causeway with a 60m long L-shaped return, a 40m long access bridge and a floating pier. A pre-existing pontoon will also be incorporated into the causeway design.

The access bridge and floating pier will be detachable and is designed to be compatible with the existing timber loading facility at Pennyghael. As such, the bridge and pier can transported between Kilfinichen and Pennyghael, depending on where it is required, allowing the asset to be shared, improving resource efficiency.

The Environmental Impact Assessment Report (EIAR) has considered environmental effects associated with construction and operation of the pier. Consultation with statutory consultees, interested bodies and the local community, has informed the scope and content of the EIAR. Strategic alternatives to the current design have been taken into consideration in order to minimise the potential impact on the environment. The assessment presented in this EIAR is based on the information available at the concept design stage, but it is acknowledged that minor changes to design might occur.

The topic specific EIA chapters included benthic ecology, ornithology, and otters. Assessments were supported by conducting topic-specific surveys to understand the baseline conditions, for the assessment. The assessment identified that in the absence of mitigation, there is a potential significant effect on otters, resulting from disturbance, and interactions with material and equipment associated with both the construction and operation phases. An Otter Protection Plan (OPP) was therefore developed, in order to provide effective mitigation, and reduce the magnitude of the potential effects on otters. Following the implementation of the OPP, all potential residual effects on otters are reduced to non-significant.

All mitigation identified through the EIAR process has been incorporated into a Schedule of Mitigation for implementation through the construction and operational stages of the development.

In conclusion, provided appropriate mitigation measures are implemented, the proposed Kilfinichen Pier Development will not have any long-term permanent significant effects on the environment. The construction and operation of the proposed pier will bring benefits to the local economy. If the development were not to go ahead, the opportunity to harvest the peninsula's timber resources and utilise them as a sustainable resource may be lost.