



Coul Links 2022

Non-Technical Summary

Report date: 24th January 2022

Consultant: Richard Stuttard

1 Introduction

- 1.1 This Non-Technical Summary (NTS) document is a summary of the Environmental Impact Assessment Report (EIAR) that accompanies the proposal by communities for Coul Ltd (C4C), to submit a planning application for permission to construct and develop an 18 hole golf course with associated facilities (the Proposed Development), on land at Coul Links, near Embo, Sutherland and referred to as the 'Site'.
- 1.2 The Applicant, C4C is a not-for-profit company formed in January 2021 by a group of local people from the towns and villages of the Dornoch Firth. Their remit is to develop a new, environmentally sensitive, world-class golf course at Coul Links, Sutherland. C4C was formed in the belief that they represented the views of the majority of the people who live in East Sutherland. This belief was justified by the outcome of a local ballot conducted by CIVICA in June 2021 which attracted a 44.4% turnout from the entire electorate with almost 70% of the vote in support of C4C's aims.

2 Purpose of the EIA Report

- 2.1 STRI are appointed by the Applicant to undertake an Environmental Impact Assessment (EIA) of the Proposed Development in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations). The EIA Regulations set out the classes of development that require to be the subject of EIA if the scale and nature of the development has the potential for significant effects. The Proposed Development is considered a Schedule 2 development where the selection criteria are:
- Characteristics of the development.
 - Location of the proposed development.
 - Characteristics of the potential impacts.
- 2.2 EIA is the systematic process of identifying, predicting and evaluating the likely environmental effects of a proposed development. The EIA process undertaken and set out in the main EIA Report, which identifies the methodologies used to assess the beneficial and adverse environmental effects predicted to result from the construction and operation of the Proposed Development.
- 2.3 In addition, where appropriate, it sets out the mitigation measures designed to prevent and reduce adverse environmental effects. As required, an assessment of the residual effects expected to remain following implementation of the identified mitigation measures is also included within the document. A cumulative impact assessment is undertaken to determine whether the effects arising from the Proposed Development, are likely to be significant.

2.4 The EIA was undertaken by the following technical experts and specialists.

Technicality	Specialist
Ecology	Dr Andy McMullen
Ornithology	STRI Group / Alba Ecology / A9 Consulting
Access and Traffic	Systra
Planning	Ness Planning
Socio economics, tourism and recreation	Professor David Bell
Coastal geomorphology	Professor Ken Pye
Hydrology	Alan Bowey – Arcadis Consulting (UK) Ltd

3 Structure of the EIA report

3.1 The EIA Report comprises 3 volumes and involves the topics described in each chapter. It considers the effects of the Proposed Development during construction and operation of each of the topics included:

Volume 1 EIA Report. This contains the main environmental assessment text and provides an assessment of the likely significant effects as required by the EIA Regulations.

3.2 The EIA considers two phases of the Proposed Development:

Construction – a detailed assessment of the impact of the proposal during construction is assessed together with the methodologies proposed that will serve to limit adverse effects of the development.

Operation - a detailed assessment is provided of the management and post construction methodologies to be employed throughout the life of the Proposed Development.

3.3 The chapters within the EIAR are set out as follows:

- Chapter 1 introduces the Proposed Development and structure and content.
- Chapter 2 provides a detailed description of the site.
- Chapter 3 sets out the methodology for the EIA including its scope and justification for topics scoped out, the project objectives, site selection and consideration of alternatives.
- Chapter 4 describes the relevant planning policy framework and context.
- Chapter 5 assesses the potential effects on ornithology.
- Chapter 6 assesses the potential effects on habitats and ecology.
- Chapter 7 assesses the potential effects of hydrology and hydrogeology.
- Chapter 8 assesses the potential effects from transport and traffic.
- Chapter 9 assess the potential effects on cultural heritage.
- Chapter 10 assesses the potential effects on socio-economic, tourism and recreation.
- Chapter 11 assesses the potential effects on coastal geomorphology.
- Chapter 12 provides closing conclusions.

- 3.4 Volume 2 contains the figures and technical appendices supporting the EIA and Volume 3 contains the Non-Technical Summary (NTS).
- 3.5.1 Within each chapter, the existing conditions (baseline) is identified and the effects of the Proposed Development on these conditions is assessed (the potential effects). The potential effects are then assessed on a specific scale: negligible, minor, moderate or major. Significant effects are assumed if the effect is moderate or major. Mitigation measures are identified to address and avoid adverse effects.
- 3.6 Once established, an assessment was made of the effects of the Proposed Development on the existing conditions taking into account the proposed mitigation. The EIAR provides a summary of the mitigation measures for each topic included within the Schedule of Mitigation.
- 3.7 Effects that are considered to be significant are set out in the EIA Report together with the proposed mitigation. Table 2 (Section 3.5.2.1 of the EIA report) provides guidance on the sensitivity of a receptor and the magnitude of an impact.

4 Availability of the EIA Report

- 4.1 Hard copies of the EIA report can be obtained by contacting STRI. A charge of £800 will be made for copies of the Volumes – enquiries@strigroup.com
- 4.2 Electronic copies of the EIA report are available to view on the THC planning website using the allocated planning reference number. (eplanning@highland.gov.uk)
- 4.3 Any representations to the application should be made direct to The Highland Council via the Council's eplanning website, following the instructions and using the allocated planning reference number. (eplanning@highland.gov.uk)

5 Site Location and Description

- 5.1 The site is located at Coul, to the north of the village of Embo and some 4 km north of Dornoch. It comprises an area of coastal dune heath that runs parallel to the coastline. It includes an established ridge of dunes that define the east boundary and separate the site from the sandy beach. These run parallel to the coast and extend north to south in a linear pattern. To the north a further series of high dunes defines the north boundary although set back from the boundary with Loch Fleet. The total site area of the proposed site boundary is approximately 317.7 hectares. Of that, the total golf course development area comprises 14.7 hectares with 1.5 hectares only within the boundary of the SSSI being affected.
- 5.2 The central portion of the site, immediately west and south of the old railway line comprises improved pasture currently used for sheep grazing. The land in the southwestern portion of the site comprises rough pasture with patches of scrub, dune heath and woodland. The land between the coast and the route of the old railway line largely comprises a stable dune system with some areas of trees, scrub, bracken and felled woodland. This portion of the site is designated as being of international importance as part of the Dornoch Firth and Loch Fleet RAMSAR and of European importance as part of the Dornoch Firth and Loch Fleet Special Protection Area, and of national importance as part of the Loch Fleet Site of Special Scientific Interest (SSSI).

- 5.3 The SSSI is notified for its intertidal marine habitats (eelgrass beds and sandflats), its coastlands (saltmarsh and sand dunes), its native pinewood, its vascular plant assemblage, and its birds (breeding bird assemblage and non-breeding elder).
- 5.4 The site area comprises four distinct parts:
- Areas of dune heath including sand dunes and dune slacks.
 - Areas of farmed land predominantly used for grazing purposes.
 - Low lying ground to the south that is predominantly covered with bracken and dense swathes of grassland.
 - Area of birch woodland and gorse.

The site is currently accessed by a private road serving Coul Farmhouse and adjoins the local road network to the northwest.

- 5.5 The Proposed Development also includes the buildings and houses associated with Coul Farm. Coul farmhouse is not included within the application site and will continue in use as the main farm base. The existing associated outbuildings, including steading building, cottages and associated buildings will however be refurbished and developed to form golf related facilities including Clubhouse, pro shop, maintenance shed, staff facilities and office facilities. The main car park for the facility will also be located in this area using an existing area of hardstanding.

5.6 Proposed Development

- 5.6.1 The planning application seeks permission for the development of an 18-hole golf course, par 3 course and practice range together with associated infrastructure including access, parking and drainage facilities in addition to the change of use of the existing Coul Farm buildings to provide a Clubhouse, pro shop, member facilities and office accommodation.

This will be known as Coul Links Golf Course.

- 5.6.2 The Proposed Development will comprise of the following:

- 18-hole golf course
- Par 3 course
- Practice range
- Parking facilities
- Clubhouse
- Pro shop
- Office and staff welfare facilities
- Maintenance shed
- Member facilities
- Access road and parking facilities
- Infrastructure including drainage facilities

- 5.6.3 Significantly, the application site boundary includes a large area, the majority of which is contained within the designated SSSI and predominantly to the north, east and south of the proposed golf course boundary. The Proposed Development will enable the long-term effective management of this area in conjunction with the management of the golf course.

Appendix ES.1 provides a location plan for the development, whilst Appendix ES.2 shows the red-line boundary of the proposals.

The Site Masterplan is depicted in Appendix ES.3. A map detailing the location of the golf course in relation to the SSSI is presented in Appendix ES.4. Details of the Par-3 course are presented in Appendix ES.16

5.6.4 The approach the Team has adopted in delivering a revised proposal is guided by four key principles:

- Reduce the footprint of the development site, particularly within the designated SSSI boundary, by limiting intervention and change to the landscape and habitats it supports.
- Increase the extent and quality of the existing dune habitat.
- Maintain connectivity across the site by design changes to the golf course profile, reduced width of footpaths, limited intervention on fairways and paths and a conservation, biodiversity enhancing led approach towards management of the course. The course is dictated by the environment not the reverse.
- The course will enable the appropriate long term, fully funded, management of the SSSI, embracing the preferred methodologies promoted by NatureScot, working in partnership with them and delivering on Scottish Governments objectives for biodiversity enhancement.

5.6.5 The construction of the golf course will include:

- Creation of a new access road from the C1026;
- Removal of trees and shrubs of low ecological importance (subject to NatureScots input and approval);
- Limited shaping to form tees and greens;
- Installation of irrigation system to serve greens and tees only;
- Sowing of greens and tees only, with appropriate species;
- Restoration of existing buildings for golf Clubhouse;
- Refurbishment of existing buildings to accommodate golf course facilities;
- Restoration of existing building for golf course maintenance facility;
- Implementation of a Recreational Access Management Plan for the site.
- Installation of interpretation board(s) along public access paths.

5.6.6 The proposal will also bring biodiversity enrichment through the funding and implementation of a site-wide ecological management programme, to be produced in partnership with appropriate consultees including NatureScot and to achieve the following benefits:

- The expansion of high value habitat including some 3-4ha of dune heath
- The restoration of existing dune heath
- Remediation of 5.7ha of felled tree plantation
- The restoration and expansion of wetland habitat

5.6.7 A core element to the design concept for the proposed links course will be to minimise intervention of the existing topography and vegetation cover and to work with the existing features to determine the course layout. Only tees and greens will involve adjustment of the existing vegetation with all other areas involving mowing only, where appropriate.

5.6.8 The golf course footprint has been significantly reduced. The land-take of the golf course has reduced in size from 22.7ha to 14.7ha, a reduction of 35% compared to the previous application. In turn, habitat loss within the SSSI has been significantly reduced from 14.7ha to 1.5 ha, a reduction of 89%.

Fairways will no longer be formally constructed by cut and fill, grading, turf stripping and seeding as originally proposed. Instead, they will be created by working with the topography and 'working down' existing vegetation. Appendix ES.15 provides details of how holes will be developed.

- 5.6.9 The golf course layout has been amended to reduce impacts on habitats and species, and to work with the landscape features to reduce earth movement requirements. This in-turn delivers a reduced impact on:
- Lichens
 - Birds
 - Invertebrates
 - Lepidoptera
 - Fonseca's seed fly
 - Dune slacks
 - Dune heath

The proposal will involve the implementation of the long-term management of the area contained within the application site boundary, in accordance with a Management Plan to be agreed with NatureScot, SEPA and Highland Council.

- 5.6.10 There are a number of existing stone buildings located near Coul Farmhouse. These buildings were originally associated with the farm estate and were used either as accommodation or for agricultural purposes. They date to the 19th Century. The proposal is to seek the change of use of these buildings to provide facilities for the management and operation of the golf course. The use of these buildings avoids the need for any new build or to extend the built footprint within the area.
- 5.6.11 Photo montages and details of each specific building are provided in Appendices ES.6a – ES.6d. A site layout / survey of the existing buildings and structures are provided in Appendices ES.7 – ES.9.

5.7 Site selection and Design

- 5.7.1 The site will be developed to form an 18-hole golf course and associated facilities to create a world class facility with the intention that it be included within the world top 100 list of courses and to be at least within the top 20. For comparison, Royal Dornoch is regularly designated within the top 5.

Key to this is the requirement that the course be a true links course. Links courses have their historical beginning in Scotland. The proposed golf course is designed as a links course. The full success of the course will be determined because of its links location. Scotland has recently been confirmed as the world's Number 1 golfing destination, a significant milestone and one on which to build and develop the reputation for quality, world class golf courses. Scotland is the home of golf, with the historical development of the sport based on links locations. The preferred choice of play for golfers is a links course, as confirmed in the leading golf publications.

- 5.7.2 The design of the course has been amended when compared to the previous proposal. The course will avoid all but minimal intervention of the existing landform. Only tees and greens (amounting to 1.5 ha within the SSSI) will involve direct intervention and alteration. This is to ensure the surfaces meet the requirements of a playable surface suited to the world class facility proposed.

- 5.7.3 Tees and greens will be formed by removing the existing top vegetation, levelling the ground with a mix of sand and soil, sourced from borrow pits located adjacent to the site and creating a level and playable surface. Only these areas will be seeded with new grass. Only these areas will require addition of fertilisers and irrigation.
- 5.7.4 All other areas, including fairways, paths and areas of rough and semi rough will be achieved through mowing of the existing vegetation. The area of existing vegetation that is altered is therefore kept to an absolute minimum.
- 5.7.5 Site selection criteria include the following:
- Links location
 - Accessibility
 - Proximity to existing courses to create the cluster effect
 - Existing facilities
 - Infrastructure

The proposed site meets each of these criteria. It is close to existing courses, particularly Royal Dornoch, it is accessible by road, rail and air travel, it benefits from available connections to power, water and drainage, and has the advantage of existing buildings that can be repurposed and used to provide golf related facilities. The site benefits from proximity to existing hotels and visitor attractions making it a destination in its own right.

- 5.7.6 The EIA process requires consideration of alternative sites and different locations. The remit to deliver a world class golf course with the socio-economic benefits that the cluster effect can deliver, underpinned consideration of site alternatives. None offer this combination of advantages. The closest potential option is the site at Nigg, a former golf course, but is now allocated for industrial development in the Local Development Plan and has been excluded for any possible alternative use by Highland Council. It is not available as an option.

Other options included the dunes adjacent to Durness, the Struie at Royal Dornoch and land at Delnies near Nairn. None deliver the golf cluster sought nor provide the socio-economic benefits this course delivers for the area. None benefit from existing infrastructure or available buildings suited for conversion.

5.8 Consultation

- 5.8.1 Consultation is an important part of the EIA process. In order to inform the EIA, there has been ongoing discussion with statutory consultees, The Highland Council including Scoping and pre-application advice. In accordance with Regulations governing a major development, public consultation was undertaken on two separate occasions. This involved a public exhibition, face-to-face meetings and postal/email correspondence. In addition, a further on-line consultation was undertaken. Prior to the preparation of the EIAR, the Applicant arranged for a CIVICA ballot of all local residents within the nearby towns and villages. This resulted in positive feedback with the majority of respondents (70%) in favour of the development of a new course at Coul Links.
- 5.8.2 The consultation process is described in detail in the Pre-Application Consultation submitted with the EIA.

5.9 Comparison Assessment

5.9.1 This proposal is submitted only after a detailed and thorough assessment of the reasons for refusal of the previous proposal. These reasons for refusal have guided the changes now proposed and are summarised in the following two tables.

5.9.2 Course comparison identifies the proposed changes involved in the course development and operation

Table 1- Course Comparison

Topic	Proposed Course Layout	Original Course Layout	Percentage change
Site boundary	317.7 hectares	328 hectares	3.2% reduction in area
Course developed total site area	14.7 hectares (including roughs)	22.7 hectares (excluding roughs)	n/a
Area developed within SSSI involving stripped vegetation (Direct impact)	1.5 hectares	14.7 hectares	90% reduction in the area developed or altered within the SSSI
Areas of new grass seeding in SSSI	1.5 hectares	14.7 hectares	90% reduction in intervention and new seeding
Ground stripping in SSSI	1.5 hectares	14.7 hectares	90% reduction
Overall direct impact in SSSI	1.5 hectares	14.7 hectares	90% reduction
Outside SSSI direct impact	1.7 hectares	8.0 hectares	79% reduction
Fertiliser use	Applied to tees and greens only	Previous use involved fairways, tees, greens and paths	85% reduction
Irrigation requirement	Required for tees and greens only 10,000m ³ annually during grow-in 5,000m ³ annually during operation	Required for tees, greens and all new seeded areas. 30,000m ³ during grow-in 15,000m ³ during operation	80% reduction in irrigation of golf course
Width of paths	1.5m -1.8 metres	5 metres with excavation of ground and seeding required	70% reduction in width, 100% reduction in intervention and adjusted ground levels

Wildlife corridors for connectivity	Fairways designed with connectivity and broken up into sections to avoid fragmentation	Extended fairways continuous acting as potential barriers	
Construction traffic	Reduced requirement for HGV traffic, generally limited to construction of the new access road, drainage and conversion of existing buildings	Construction traffic required for the golf course, ground stripping and imported material and removal of stripped vegetation	28% reduction due to the establishment methodology
Edge effect on fairways and paths	Edge effect avoided and connectivity corridors created across mown areas including fairways and paths. Width reduction on paths to 1.8 metres reduces fragmentation. Angled mowing provides a graded edge avoiding the barrier of a sharp boundary between mown and unmown vegetation. New establishment methodology of mowing modifies the turf reducing edge effect and fragmentation and retains existing habitat.	All paths created and seeded with grass and mown. Fairways mown in part and roughs stepped edges.	100% reduction in edge effect throughout the course profile.

5.9.3 Scottish Ministers Findings

In their Decision Letter, Scottish Ministers determined that the proposal as previously presented was not capable of support. The decision noted that the overriding factors leading to that conclusion were based on the following matters (Table 2). The revised proposal introduces the Mitigation Proposed as set out in Column 3.

Table 2 – Ministers' conclusion of previous application plus proposed Mitigation.

Topic	Minister's Conclusion/concern	Mitigation Proposed
Coastal Processes and Climate Change	No adverse impact was anticipated	Coastal Chapter confirms that there remains no adverse effect.
Impacts on the Water Environment	No adverse impact anticipated	GWTDE – reduced impact due to reduced irrigation and excavation required. Drainage solutions accord with CAR Licence (issued).
Impacts on habitats and vegetation	Benefits to dune heath would accrue	Reduced site development area will reduce impact on dune heath. Re design of holes avoids the most sensitive high dune. Only tees and greens to be seeded and topography adjusted. Site area of development footprint within the SSSI reduced to 1.5 hectares.
	Likely overall effect on lichens would be significantly adverse	Avoidance of the most sensitive areas. Mowing rather than stripping fairways in the new proposal will create a diverse landscape mosaic for lichens grasses and mosses to thrive. Removal of gorse and birch woodland to the north and location of lichens previously identified will create opportunities for lichens to establish on bare sand. Mowing will enable favourable habitat for pioneer species to colonise.
	The impact on dune slacks would be significantly adverse	Irrigation requirement reduced from 30,000m ³ to 5000m ³ . Only tees and greens to be irrigated. Removal of invasive species,

		<p>particularly meadowsweet, will reverse the evident nitrification and raised humus debris to enable dune slacks to become exposed and favourable for use by birds.</p>
	<p>Impact on dune juniper likely to be significantly adverse</p>	<p>Course design has altered to avoid all areas of dune juniper. Dune juniper will be protected and none to be removed as a result of the proposed development.</p>
<p>Impacts on wintering and breeding bird assemblage likely to be significant adverse</p>	<p>Significant adverse effect on wintering and breeding birds due to disturbance and habitat loss</p>	<p>Course to be closed over the winter months and critical period November -April. Boardwalks removed to deter access and encourage alternative, less sensitive routes. Mowing grass will open up the grass sward, particularly to the south and east, encouraging ground nesting birds. Existing disturbance to birds through continued shooting to be reviewed and shooting rights terminated and in turn encourage over wintering within a safe habitat. Potential for borrow pits to be developed as new water bodies. Potential new habitats created, connectivity through the site created. Invasive plant species managed and removed to reveal favourable habitats for nesting and over wintering birds. Waders unaffected by the proposal with all holes avoiding the key areas at Loch Fleet and east coastal areas.</p>
<p>Impacts on invertebrates</p>	<p>Significant adverse effect on important invertebrate assemblage</p>	<p>The reduction in impacted dune heath is partly done by breaking up the fairways, allowing 'corridors' for connectivity, significantly reducing the risk of fragmentation. There will be no soil stripping on fairways and paths and graded mowing angles will remove the 'edge effect' previously a concern.</p>

Impacts on designated nature conversation sites	Impede the conservation and enhancement of the natural features of the SSSI	Proactive remediation in line with Nature Scot advice and with reference to the agreed protocol currently in place. Golf course will provide the mechanism for the long term management of the entire 348 hectares within the boundary of the SSSI. Golf staff will work in consultation with NatureScot to deliver a robust management plan, wholly funded by the golf course and providing winter employment for staff in turn bringing economic benefits to the area and locally based jobs. Staff will be trained and deliver a high standard in delivery of the agreed plan. The work to date has been of a poor standard and fails to achieve the end objective of a quality long term programme of mitigation.
	Contrary to the conservation objectives for SPA qualifying interests	Proactive approach towards enabling appropriate mitigation and removal of invasive species, improve dune slack environment, diverse habitats to encourage biodiversity. Work with the dune heath environment as a mechanism to deliver a course based on protecting the integrity of the dune system. Manage change as a co-ordinated approach with Nature Scot reflecting their agreed protocols as evidenced at Skibo, Coul etc.
	Adverse impact on overwintering birds protected under the Ramsar designation	Further survey work to identify species and improve dune slack environment to encourage overwintering birds. No play during the winter season.

		Removal of meadowsweet and other invasives to promote healthy dune slacks and improve bird habitats. Manage as proactive conservation not negative impact.
Impacts on public access and the enjoyment of the links	Moray Firth conservation objectives not compromised	Public access is maintained.
Other environmental impacts	Reduced negative impacts despite the potential to constrain unrestricted public access	n/a
Cultural heritage	Significant landscape and visual impacts would occur during construction	Given the nature of establishment in the new proposal no significant landscape impacts are envisaged. Any occurring would be short term and can be mitigated against through an appropriate phasing programme. No long-term adverse effects identified.
Traffic and transport	Unlikely significant effects	Reduced requirement for construction traffic due to reduced excavation requirements. Reduced requirement for maintenance vehicles in the longer term.

5.10 Topic Discussion

5.10.1 The issues considered during each study, and the measures that are proposed to mitigate against any adverse environmental impacts, are outlined in the following sections. Full details of the EIA for each topic are provided within the main EIAR.

5.11 ORNITHOLOGY

The Ornithology Technical Annex of the ES considers the potential impacts of the proposed development on the important ornithological receptors within the study area, during its construction and operation.

The baseline ornithological conditions were assessed through targeted field surveys in the winter and breeding season, of potentially important and legally protected bird species identified through desk-study and consultation. Surveys were undertaken during 2021 and 2022, with further surveys in 2015 and 2016 included within the ES for added depth of data.

The ornithological studies were conducted in two phases. The first was a desk study of historical information sources. The second was a series of targeted field surveys of potentially important and/or legally protected bird species within the study area. A total of 60 bird species were recorded during winter and breeding bird surveys.

Based on the desk study, designated site citations, habitats present and discussions with NatureScot, the likely important bird species were considered to be: (i) wintering SPA waterfowl and waders and (ii) breeding birds identified within the SSSI citation. Furthermore, whilst all bird species that were observed during ornithological surveys were recorded, NatureScot general guidance identifies three main important overarching bird species lists, of legally protected species and species of conservation importance:

- Annex I of the EC Birds Directive;
- Schedule 1 of the UK Wildlife and Countryside Act 1981 (as amended); and
- UK Red-listed Birds of Conservation Concern.

Loch Fleet SSSI

Of the Loch Fleet SSSI breeding bird assemblage, Ringed Plover were the only species confirmed to be breeding within, or within close proximity to the proposed development site in 2022, this species is considered to have low sensitivity, i.e. they occupy areas subject to frequent human activity/management and exhibit mild and brief reaction to disturbance events with no long-term adverse effects.

Having considered the potential impacts of proposed development on the breeding bird assemblage of the Loch Fleet SSSI and based on evidence collected, it can be concluded that there will be no likely significant effects on the qualifying features or site integrity.

Dornoch Firth and Loch Fleet SPA and RAMSAR site

Based on targeted surveys, six of the non-breeding bird species mentioned in the Dornoch Firth and Loch Fleet SPA and RAMSAR site citations, regularly occurred within Coul Links and adjacent to the development footprint. These were curlew, greylag goose, osprey, oystercatcher, teal and wigeon.

No golf course infrastructure is planned for habitat areas regularly used by wintering SPA species, so no direct adverse habitat loss of SPA bird habitat is predicted. The design layout deliberately crosses over, rather than goes through, the main north-south dune slack habitat at Holes 15, 16 and 17. Consequently, no direct or indirect, significant dune slack habitat loss is predicted.

The main way wintering teal and wigeon are likely to be affected by the proposed development is through the cessation of winter wildfowl shooting at Coul Links. This would lead to two immediate and significant ornithological benefits within the SPA.

- Teal and wigeon from the SPA would no longer be shot and killed, resulting in greater winter survival of both these species within the SPA. The predicted effect would be a reduction in direct mortality of SPA qualifying species.
- The disturbance to SPA wildfowl associated with wildfowl shooting throughout the winter would no longer take place (which causes the birds which are not shot to expend valuable energy looking for 'safe areas' elsewhere to rest and feed). Studies have shown that regular disturbance to wildfowl causes these birds to lose weight through increased energy use, resulting in lower fitness and overall winter survival, i.e. once shooting of the SPA wildfowl ceases, these birds will find sanctuary during the winter within the wetted dune slack habitats at Coul Links, rather than danger. The predicted impact would be a reduction in indirect mortality of SPA qualifying species.

Over time, it is considered highly likely that the population of wintering SPA wildfowl using the Coul Links part of the SPA, will increase substantially as the birds learn that Coul Links is neither dangerous nor disturbed (the current winter baseline conditions). Thus, the likely value of Coul Links for SPA wintering wildfowl is predicted to increase substantially in the long-term with the development of the golf course and its associated management due to the guaranteed cessation of wildfowl shooting coupled with a restoration programme within the dune slacks which are currently largely now dominated by meadowsweet. Consequently, significant beneficial impacts (of moderate magnitude) resulting from the cessation of winter wildfowl shooting within the Dornoch Firth and Loch Fleet SPA and RAMSAR site are predicted.

Potential uncertainty associated with this element of the proposed development, relates to the replacement of shooting related disturbance with potential golf related disturbance. The Applicant will close the golf course during the winter months when SPA birds use the wetted dune slack habitats at Coul Links. Based on ornithological monitoring, the dune slacks are typically wetted during the winter between December and the end of March. Thus, the golf course will be closed to golfers during these months and only be operational outside of these months (i.e. April-November). The rapid ingress of meadowsweet into the dune slacks in recent years does however limit access for birds in these areas. Therefore a management programme that focuses on meadowsweet reduction will significantly benefit bird populations during the winter months.

Committed Mitigation Measures and Residual Effects

The following mitigation measures related specifically to ornithology, are part of in-built design with the proposed development and are considered to be 'committed' mitigation measures:

- Cessation of winter wildfowl shooting.
- Closure of the proposed golf course during the winter.
- A public access plan that deliberately focusses public access away from potentially sensitive areas for important ornithological receptors.
- Closure of golf paths through the removal of bridge structures where practical during the period of course closure to limit public use of golf paths and minimise potential disturbance.
- Commitment to develop and implement a long-term management plan in conjunction with NatureScot and other relevant bodies in order to enhance opportunities for bird life.
- Potential, if requested by NatureScot, to be able to increase / amend water levels in the dune slacks
- Potential to create further areas of standing water, if deemed beneficial by NatureScot

There will be no significant adverse effects on the ornithological features of the Loch Fleet SSSI, or on wider countryside bird species.

There will be a moderate significant beneficial effect on the ornithological features of the Dornoch Firth and Loch Fleet SPA and RAMSAR site, due to the termination of winter wildfowl shooting.

6.0 ECOLOGY

The potential impacts of the proposed development on the ecology of the site and surrounding study area, during construction and operation were assessed.

The baseline ecological conditions were assessed through targeted field surveys of important and legally protected ecological receptors identified from a desk study and from the scoping opinions. The scope of the ecological assessment includes habitats, flora and fauna but excludes potential effects on birds.

The ecological surveys were conducted in two phases. The first was a desk study of historical information sources. The second was a series of targeted field surveys of potentially important and/or legally protected ecological receptors. The targeted field surveys included:

- **Phase 1 habitat Survey-** There were 26 broad habitat types identified (comprising 55 Phase 1 habitat codes) in the study area. In addition, many matrices were mapped, where two, or more habitats or communities were closely entwined. The most common habitat was neutral grassland which made up 32.4% of the study area. There were large areas of dune grassland and dune heath along with open dunes and dune-slacks. Woodland in the study area was consisted mostly of areas of semi-natural broad-leaved woodland.

National Vegetation classification (NVC) survey- There was a total of 101 NVC communities and sub-communities and matrixes found and described making in the study area a complex mix in this relatively small study area. The most commonly found NVC community was SD9b *Ammophila arenaria* – *Arrhenatherum elatius* dune grassland community, *Geranium sanguineum* sub-community. The next most commonly found NVC community was the MG6a – *Lolium perenne* – *cynosorus cristatus* community. „Other key NVC communities found in the study area included: MGh, MG7, H11, SD4, SD5, SD6, SD7, SD12, SD16, SD17, S19, W2, W10, W11 and W23.

Groundwater dependant terrestrial ecosystems (GWDTE)- Potential Groundwater Dependent Terrestrial Ecosystems (GWDTE) were identified during the NVC survey according to current Confor (Confor 2018. *Practice guide for forest managers to assess and protect Groundwater Dependent Terrestrial Ecosystems when preparing woodland creation proposals.*) & SEPA (Land Use Planning System SEPA Guidance Note 31. *Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems*) guidance. Their location-specific groundwater dependency is assessed because GWDTE are not always groundwater dependent, so their inappropriate consideration can cause unnecessary constraint. Assessment is based on the physical environment (geology, hydrology & topography) of the potential GWDTE as well as their floristics.

6.1 Potential Impacts on Designated Sites

The potential impacts on important ecological features of designated sites that could arise from the construction and operation of the proposed development were assessed with details provided in the accompanying schedule of mitigation (Supporting Document 2). These designated sites are:

- Loch Fleet SSSI (feature: eelgrass beds, sandflats, saltmarsh, sand dunes, native pine woods, vascular plant assemblage).
- Dornoch Firth and Loch Fleet RAMSAR site (feature: reefs, saltmarsh, intertidal mudflats and sandflats and sand dunes).

Several of the features mentioned in the Loch Fleet SSSI citation and the Dornoch Firth and Loch Fleet RAMSAR citation occur within and adjacent to the proposed development. Because RAMSAR sites in Scotland are protected and managed through the SSSI system, these will be dealt with through the SSSI.

Loch Fleet SSSI

The only SSSI citation feature assessed to be likely to be significantly and adversely affected by the construction and operation of the proposed development is dune heath. All remaining likely impacts are assessed to be not significant. Therefore, if the proposed development goes ahead as the available information indicates, the Favourable Conservation Status of the Loch Fleet SSSI will not be adversely affected.

After the committed mitigation is implemented, it is predicted that the residual impacts on dune heath are likely to be non-significant.

Bats

A bat roost and activity survey was undertaken around the Coul Farmhouse and Coul Farm steadings. A wider habitat transect survey for bats was also conducted across the study area.

Activity surveys identified that there was extensive activity from common pipistrelle, along with possible soprano pipistrelle and a small number of brown long-eared bats. In total four roosts were identified; three common pipistrelle roosts and a brown long-eared roost. All three species are common-abundant and found across the UK. Therefore, these species have been evaluated as locally important. Bats have been assessed as highly sensitive to disturbance within roost sites

The results from the transect surveys show that Coul Links was used by small numbers of common pipistrelle bats with the occasional soprano pipistrelle also being recorded. These bats were largely recorded on the western side of the site near the Coul Farm buildings and woodland areas, with no records being found on the dunes or dune-slacks. This suggests that the open dune area is not generally used by bats, and the western side of the study area is used by small numbers of bats providing moderately suitability habitat for bats.

Construction and operation of the proposed development has the potential to negatively impact bats directly or indirectly in two main ways through habitat loss (land-take) and loss of roost sites (potentially resulting in mortality).

Mitigation: A formal bat protection plan will be agreed with NatureScot and THC. Work will only commence on buildings when this plan is agreed and fully licenced. The mitigation in the Bat Protection Plan will include (and not be limited to):

- All buildings being treated as a 'roost', as it is highly likely that the existing roosts are socially linked, with bats moving between different locations.
- Updated surveys should be undertaken.
- Minimising scale and duration of impacts, undertaking work outwith sensitive times of year and maintaining new roost features in the same location, aspect and structure as currently present.
- Consequently, the likely effects of the potential development on bats are predicted to be not significant in the context of the EIA Regulations, i.e. there will be no detectable adverse regional or national population level impacts.

Fonseca's seed-fly

Targeted sweep net surveys were carried out across Coul Links to ascertain the presence or otherwise of Fonseca's seed-fly within the study area.

Fonseca's seed-fly is an endemic invertebrate known only to be found on the coastal sand-dune systems of east Sutherland. It is listed as a priority species on the UK BAP. Further, NatureScot highlighted this endemic species as of particular interest to the proposed development so little was known about it, including its potential occurrence within the Coul Links study area.

Of the several hundred flies recorded, four individuals were found to be Fonseca's seed-fly. The accreting front dunes are considered the most likely place for Fonseca's seed-fly mating and courting and were the location of the three female species found. These areas have been avoided through design, to minimise potentially important habitat loss for this species. A single male was found on semi-improved neutral grassland, this habitat has also been largely avoided by. However, it is unclear how important these and other areas are to Fonseca's seed-fly.

Insecticide or herbicide affecting areas where Fonseca's seed-fly mate and/or larva are within their food plants may result in death. However, based on previous experience, herbicides and insecticide are not likely to spill beyond the boundary of the tees, fairways and greens. Based on this assumption, an accidental potential pollution event is considered highly unlikely.

The proposed long-term guaranteed conservation management of Coul Links is likely to benefit Fonseca's seed-fly, if conservation managers know more about the species' lifecycle. Detailed research into the ecology of Fonseca's seed-fly is planned and will be used to inform long-term management at Coul Links. Consequently, the likely effects of the potential development on Fonseca's seed-fly are predicted to be not-significant in the context of the EIA Regulations.

Mitigation: Although non-significant effects are predicted on the Fonseca's seed-fly, important mitigation measures are committed to:

- Ensure large and important habitat areas for composite flowers at Coul Links are retained through design layout.
- Fund a PhD studentship or specialist dipterist research into the unknown, important elements of Fonseca's seed-fly ecology.
- Publish the findings of the research so that the ecology of the species is more widely understood and recognised.
- Commit to adjusting and targeting habitat management at Coul Links towards Fonseca's seed-fly favoured composite flowers (and other elements if necessary) in light of the research results.

Plants

The Loch Fleet SSSI citation lists vascular plant assemblage as a feature of the SSSI. The specific species mentioned are those found in pinewoods (found only outside of the study area) and a saltmarsh species, which was not recorded within the study area during the 2016 habitat survey. Therefore, the plant assemblage species recorded within the study area is not evaluated as being of national importance.

A number of notable botanical species recorded in the study area are listed on the UK BAP species list and/or the Scottish Biodiversity List. All these species, with the exception of juniper, have been scoped out from further assessment due to either their widespread occurrence in the UK, or their occurrence in habitats which will not be impacted by the development.

Juniper

Juniper was located in three separate locations within the dune grassland and within the dune heath. Two of these locations have been avoided by the design layout. However, one location, which was described as having 20-30 individual juniper is within the boundary of Hole 3 of the development footprint. This juniper will be avoided through micro-siting.

The likely effects of the potential development on juniper are predicted to be not significant in the context of the EIA Regulations.

Mitigation: Juniper will be avoided wherever possible during construction. The Ecological Clerk of Works will advise contractors of juniper's presence and they will be avoided wherever possible. Any juniper that will be unavoidably impacted by the development will be transplanted, into nearby suitable locations as advised by the Ecological Clerk of Works.

Lichens and fungi

Waxcap fungi within the study area have been assessed as regionally important, given their limited distribution. The sensitivity of waxcap fungi has been assessed as moderate-high, as they are considered relatively intolerant of disturbances such as changes to grazing regimes, herbicide/fungicide applications and nutrient enrichment.

Lichen assemblages have been included in the assessment as part of the dune heath assessment. The lichen species of particular interest - *Cladonia mitis*, has been assessed as regionally important. Its sensitivity is unknown but given the regional status and local distribution it has been assessed as probably moderate.

The likely effects of the potential development on both waxcap fungi and *Cladonia mitris* are predicted to be not significant in the context of the EIA Regulations. Furthermore, the proposed long-term guaranteed conservation management of Coul Links towards a shorter sward height (favouring dune heath over rank grassland) is likely to benefit *Cladonia mitris*.

Mitigation: The semi-improved grassland at Coul Links should be managed to promote and enhance waxcap fungi and *Cladonia mitris*. The waxcap fungi assemblage is reliant on the sward height being between 5 and 50cm. Scrub and tree regeneration have an adverse impact on the fungi assemblage. The grass sward management and the control on invasive species within the CLSMP will take into account waxcap fungi and *Cladonia mitris* and be agreed upon with NatureScot.

Further committed mitigation measures: The developers have committed to funding, implementing and delivering a long-term CLSMP post consent. This important document will be discussed, developed and agreed with NatureScot, be based around the relevant sections of the existing Loch Fleet SSSI Site Management Statement and aim to achieve favourable conservation status for the Coul Links part of the Loch Fleet SSSI.

As a starting point to help inform this document, an Outline Habitat Management Plan (See Appendix B.12) has been commissioned and developed and is submitted as part of this application. The document, completed by Dr. Andy McMullen covers a broad range of management recommendations and opportunities based upon the very latest survey information on the site.

It is the intention that the finalised CLSMP will cover the control of invasive species such as gorse, Rosebay willowherb, thistles, bracken, Scots pine, birch, willow and meadowsweet as well as grass sward management across the site. It will also consider the management of current areas of dune heath to maximise the biodiversity benefits and the management of grassland which surrounds dune heath to allow for the continued natural expansion of dune heath. Furthermore, it will include proposals for the restoration of the felled conifer plantation, which will incorporate dune heath restoration opportunities.

An important consideration within the CLSMP will be the expansion of dune heath within Coul Links. With extensive best practice guidance available to inform proposed heath expansion. Dune heath expansion has been successful on a number of golf courses in the UK in recent years including three which are at least partly within SSSIs. The proposed development is committed to ensuring no net loss of dune heath habitat at Coul Links and indeed, a small expansion in the dune heath resource is predicted during the life time of the proposed development through planned management.

Finally, the CLSMP will consider the expansion of management from SSSI area southwards to provide a consistent and joined-up management approach across the whole of Coul Links. Conservation management of this wider (non-SSSI) area of Coul Links will be agreed upon with NatureScot, implemented and funded by the developer for the lifetime of the golf course. This joined-up approach to the management of the whole of Coul Links will ensure that mitigation objectives such as the control of invasive species and grass sward management is effective and contiguous across the wider Coul Links area and not just within the SSSI.

7.0 HYDROLOGY AND HYDROGEOLOGY

An updated review of the hydrology and hydrogeology assessment has been undertaken to reflect the further reduction in impact following the new course development proposals. This review addresses the potential effects on surface water and groundwater from the proposed development and considers the potential effects to groundwater dependent terrestrial ecosystems (GWDTE), reflecting on the fact that there will be no fairway irrigation or drainage required in this project due to significant changes in construction methods and course operational practices when compared to the previous application. The temporal scope addresses the construction and operational phases of the proposed development.

The range of technical themes considered here include:

- Groundwater Dependent Terrestrial Ecosystems (GWDTE)
- Water Abstraction
- Foul Drainage
- Surface Water Drainage
- Engineering activities which may have adverse effects on the water environment
- Existing groundwater abstractions
- Earthworks and excavations
- Pollution prevention and environmental management
- Flood Risk

Overall, it is considered the substantial volume of information available from the many technical studies completed in support of the previous application remains pertinent and provides a robust basis from which to review and assess the implications of the current proposal.

It is noted that unmanaged, the construction and subsequent operation of the golf course development has potential to cause harm to the wider water environment and designated and non- designated GWDTE. As a result, and in view of this, a comprehensive programme of technical studies has been completed and which has interrogated and assessed the interrelationship of construction and operational threats from the golf course development on the wider water environment.

Risk- based review and assessment of these construction and operational threats has mainly been targeted to designated and non- designated GWDTE with management programmes developed, in outline, to remove and mitigate the potential for harm to these features. Nevertheless, the wider water environment provides primary important recharge for GWDTE features, and as a result, substantial effort has also been afforded to effectively inform construction and operational management programmes to preserve and protect the local and wider water environment.

Substantive technical studies have been advanced to support confident assessment of the local geology and hydrological and hydrogeological regimes affecting shallow and deep aquifers. Indeed, deep (bedrock) aquifers are considered most improbably affecting the seasonal variation of groundwaters observed within the body of the Dune Slacks, with these waters directly and wholly recharged by shallow groundwater regimes recharged by local surface waters and rainfall.

In addition, long term monitoring of the abstraction boreholes, which penetrate the underlying bedrock aquifer, has determined this (deep) waterbody has very little (if indeed any) seasonal variation. This recorded (deep aquifer) behaviour differs markedly from that observed within and recharging the Dune Slacks. In addition, recovery of the longer-term groundwater monitoring data gives confidence to reassessment of the pumping test data to plausibly conclude the likelihood of an interrelationship between the abstraction boreholes and Dune Slacks is most probably absent.

Nevertheless, construction and operational management plans will be developed to robustly and safely manage threats to the water environment, including GWDTE, with these programmes geared to ensure least risk outcomes for the water environment.

In conclusion, it is confirmed the substantive and comprehensively detailed technical studies previously completed for the previous (golf course) application remain pertinent and directly applicable to the current proposal.

8.0 Access, Traffic and Transport

The most identifiable traffic characteristics associated with the proposed development relate to the transportation of construction materials in standard Heavy Goods Vehicles (HGVs) during the construction phase and the general increase of traffic on the local road network once operational.

Table E.6 below predicts anticipated vehicle movement required during the construction process. It is important to note that predicted vehicle movements have reduced by some **37%** compared to the previous application, with one-way vehicle trips reducing from 382 to 241. It is also important to highlight that the vast majority of heavy vehicle movements will be concentrated in the vicinity of the proposed access road, buildings and car park, i.e. well outside of the SSSI.

Table E.6: Estimated No. of HGV Trips During Construction

Construction Task	Vehicle Type	Approximate No. of Loads
Access Road, new junction and widening to Embo Junction	44t (gross weight) HGV	144
Site Establishment	Low loader	5
Shaping	Skid steer	2
	8t Excavator	1
	Articulated dumper	1
	9t dumper	1
Mowing	3 machines	2
Internal Paths (Boardwalks)	20t (gross weight) HGV	8
	10t HGV	2
Clubhouse facility & car park	7.5t HGV	10
	10t HGV	5
	20t HGV	10
	32t HGV	10
	44t HGV	40
Total (one-way trips)	241	
Total (two-way trips)	482	

Assessment of significance

The sensitivity to changes in traffic levels of any given road segment is assessed by considering the existing residual capacity of the network. Where there is a high degree of residual capacity, the network may readily accept an increase in traffic and therefore sensitivity is considered low. Conversely, where traffic levels are high, there is little spare capacity and sensitivity to any change in traffic levels would be considered high.

The magnitude of traffic impacts is a function of existing traffic volumes, percentage increase and changes due to a development and the temporal distribution of traffic. Consideration has also been given to the composition of traffic. For example, LGVs effect the road system less than HGVs.

Construction Effects

Construction traffic associated with the proposed development comprise of construction workers and HGVs/LGVs. There is expected to be approximately 8-10 personnel working on site at any one time, however this would vary during the construction process. In general, work hours are expected to be between 7:30am to 7pm on weekdays and 7am to 1pm on Saturdays, meaning staff would generally arrive and depart outside peak hours (typically 8am to 9am and 5pm to 6pm).

Construction materials such as sand and topsoil will be sourced on-site and will therefore not require HGV transportation to the site.

Months 1 and 2 of the construction phase would feature 144 two-way HGV movements. Additionally, 5 construction workers would access the site daily, resulting in 10 daily two-way vehicle movements. When the vehicle movements associated with months 1 and 2 are averaged across a 5.5 day working week, there is a negligible increase in total traffic across all road links (3.1% at most). The increase in the proportion of HGVs is negligible along the A9, the A949 and the C1026 between the proposed site access and the Embo junction. There is however, a 12.7% increase along the C1026 north of Embo junction between the junction and the site access.

Severance

Non-negligible traffic increases are predicted on roads through residential settlements during the construction phase of the development.

The section of the C1026 accessed for the development is just over 200 metres in length and there are no properties located on either side of the route, therefore its sensitivity to severance is considered to be low. Additionally, the magnitude of change in HGV levels along the C1062 is considered to be negligible. When combining magnitude and sensitivity, it can be concluded that the effect would be not significant in accordance with the EIA regulations.

Driver Delay

Although some driver delay may be experienced when HGVs are accessing the site, it is expected that HGV movements will be spread out rather than being concentrated over short periods of time. Survey information indicates that traffic levels on the C1026 to the north of the Embo junction are less than half of that to the south of the junction which explains the higher percentage HGV impact figure expected to the north of the Embo junction.

The sensitivity of the road link to driver delay is considered to be low as there will only be the junction with the site access and the existing Embo junction where vehicles would be turning. There are no access points to properties and the road is not currently close to its theoretical capacity, therefore finding gaps in the traffic would still be achievable without causing any significant delays.

Pedestrian Delay and Amenity

The magnitude of change in HGV levels along the C1062 is considered to be negligible. As with severance, the sensitivity of the C1026 at the location of the development is considered to be low given that this section of the road does not pass through any large settlement areas.

Accidents and Safety

An annual PIA rate of 0.00009 for the vehicles associated with the development is estimated during the construction phase. While the magnitude of change regarding accidents is negligible, receptor sensitivity is always high. When combined, the effect can be classified as being of minor significance.

Dust and Dirt

HGVs have the potential to collect debris on their tyres when accessing the site, which could then be deposited on the road in the form of either dust or mud depending on weather conditions.

For the C1026, the magnitude of change is considered to be slight as standard good practice working methods will be put in place to minimise dust from vehicles. The sensitivity of the receptor is considered to be negligible and therefore, the overall significance of the environmental effect of dust and dirt is assessed as negligible and not significant in accordance with EIA regulations.

Operational Effects

Operational Traffic Generation

Assuming all tee off times are filled, then a “worst case” scenario of 360 two-way vehicle trips is generated by the proposed development per day (240 two-way by players and 20 two-way by staff). This scenario also assumes that all trips would be by single occupancy of vehicles which is unlikely, and not by alternative travel modes.

Operational Traffic Impact

When taking into account the two-way vehicle movements associated with the operational phase of the development, there is a moderate increase in total traffic on the C1062 North of the Embo junction. However, all other links have a negligible increase (less than 30%).

Severance

The magnitude of change in vehicle flows along the associated section of the C1062 is considered to be moderate, while the roads sensitivity to severance is considered negligible given that it does not pass through any large settlement areas. As a result, it can be concluded that there would be only minor / negligible effects.

Driver Delay

Current traffic levels on the C1026 are low at this location, at approximately 556 vehicles per day. Therefore, the relatively high percentage impact (65%) predicted for development traffic is as a result of the baseline flow being low.

The sensitivity of the road link to driver delay is low, as the road link is not close to capacity and therefore finding gaps in the traffic to turn onto the C1062 would still be very much achievable without causing any significant delays. As part of the development proposals, the road between the Embo junction and the development access junction is to be widened, creating a single carriageway link and therefore, will further reduce the chance of any driver delay.

Pedestrian Delay and Amenity

The magnitude of change in vehicle levels along the C1062 is considered moderate for the operational stage of the development, while the sensitivity is considered to be negligible given that the road does not pass through any large settlement areas. As a result, it can be concluded that there would be a minor / negligible overall effect to pedestrians.

Accidents and Safety

The annual PIA rate associated with the operational phase of the development is expected to be 0.0077. It is considered that the magnitude of change regarding accidents is negligible, but receptor sensitivity is always high. When combined, the effect can be classified as being of minor significance and not significant for the C1062 between the Embo Junction and the development access.

Dust and Dirt

The access road to the development will be surfaced, therefore there is very limited scope for dust and dirt to be deposited onto the public road network as a result of operational traffic.

Mitigation Measures

Construction Phase

A Construction Traffic Management Plan (CTMP) will help to mitigate any traffic related environmental impacts associated with the construction phase. Measures to be considered include:

- Until a length of 'made' road is available to avoid dust/dirt being transferred onto the wider road network, wheel and road cleaning and wet suppression methods should be employed.
- All contractors will be provided with a site induction pack containing information on delivery routes and any restrictions on routes.
- Restrict construction HGV traffic between the network peak hours which are generally 08:00-09:00 and 16:00-18:00 Monday to Friday if necessary.
- Staggered delivery schedules will allow avoidance of peak and unsociable hours
- The CTMP and control measures will be included within all trade contractor tender enquiries to ensure early acceptance/compliance with the rules that will be enforced on this project.
- The C1026 will be maintained on approach to the site to ensure it is in a clean and safe condition.

Operational Phase

Road widening has been proposed for the C1026 road between the site access and the Embo junction in anticipation that these improvements would mitigate any impacts that could occur as a result of increased traffic volumes during the operational phase of the development.

A Travel Plan (TP) provided as Appendix D.2 will present potential sustainable transport measures to be implemented and detail the monitoring and review process that will be undertaken to reduce the reliance on private car use.

In order to decrease the number of vehicle trips associated with the development, a shuttle bus service between Dornoch and the development has been committed to. It is envisaged that the shuttle bus could halve the impact of operational traffic on the local road network.

Residual Effects

Subject to the successful implementation of both a CTMP and TP, it is considered that any residual effects associated with the construction and operational phases will be negligible given that prior to mitigation, all effects are considered to be not significant.

9.0 CULTURAL HERITAGE

The Cultural Heritage Technical Annex of the ES considers the potential impacts of the proposed development on the important cultural receptors within the study area, during its construction and operational phases.

A total of 28 sites of cultural heritage interest were identified during the desk assessment and archaeological field survey carried out within the development boundary, while a further 42 sites were identified within 1 km of the development boundary.

The assessment of potential effects was conducted with reference to two areas - The Near Study Area and The Wider Study Area. The Near Study Area is that likely for potential direct and indirect effects to take place regarding the proposed development, while The Wider Study Area consists of sites that have no potential to be directly affected but may be subject to indirect effects. The Near Study Area consisted of the area within the proposed development boundary and sites within 1km, while The Wider Study Area extended to 3km from the edge of the development boundary.

Near Study Area

Statutory Designated Cultural Heritage Sites

One statutory designated cultural heritage site is located within the development boundary, that being the Listed Category B building of Coul Farmhouse. Within 1km of the development boundary there exists two scheduled monuments and eight listed buildings.

Prehistoric Sites

The area within the development boundary holds two previously recorded cultural heritage sites of potential prehistoric date. However, neither was located during the walkover survey.

To the north-east of Coul Farmhouse, a possible hut-circle has been recorded (Site 10), associated with the Bronze and Iron Ages. Some 190 m to the south-west of this, lies the location of a possible prehistoric cairn (Site 5), however a walkover survey confirmed that no clear remains of the cairn were visible.

Within 1 km of the development boundary, there exists seven sites of potential prehistoric date. These include previous findspots of urns (Site 66), flints (Sites 27 & 65), arrowheads and a stone axe (Site 54), a cairn (Site 49), a cairnfield and field systems (Site 1) and the remains of a chambered cairn (Site 38) which is also protected as a scheduled monument (SM5975).

Medieval Sites

The Medieval period appears absent from the visible archaeology within the development boundary. However, within 1 km of the boundary, three potential medieval sites exist, including the scheduled site of Skelbo Castle (Site 56, SM6225).

Post-Medieval and Modern Sites

The most numerous known sites within the development boundary are post-Medieval and modern.

Eight of the sites recorded within the development boundary relate to records of lost or wrecked sea vessels (Sites 12-19) dating primarily from the nineteenth century, however none of these sites were noted during the walkover survey.

Remains of the Dornoch Light Railway were noted in the form of the route itself (Site 26), the remains of Skelbo Station platform (Site 30), a small brick structure (Site 24) and a small quarry (Site 22).

In addition to the main Listed Category B Farmhouse (Site 11, LB604, HER No. MHG17065, NMRS No. NH89SW14), in the centre of the development area there also lies two cottages (Site 6) and a series of farm buildings to the north of the cottages (Site 9).

On the south-eastern fringes of the Coul Farm complex, four irregularly shaped cairns was present, spread over an area of approximately 100 m (Site 23). At the far north-western extent of the boundary a possible eighteenth-century bridge is present on the old Skelbo to Littleferry road (Site 32).

Within 1 km of the development boundary exists numerous and varied post-medieval and modern sites. These include the Listed Category B buildings at Skelbo (Site 69) and the listed category C and B buildings at Littleferry (Sites 66 & 62). On the southern side of Loch Fleet, the remains of the southern pier of the former Littleferry ferry is also present (Site 20).

Sites of Unknown Date

A series of three sites of unknown date were noted within the development boundary. These included the remains of two roughly circular structures located to the east of Coul Farmhouse (Site 8). No sign of either structure was noted during the walkover survey.

Within 1 km of the development boundary, there exists three sites of unknown date. These include a pebble tool recovered from the shore south-east of Embo (Site 39), a previous findspot of unknown nature at Littleferry (Site 67) and a midden of unknown date on the shore at Skelbo (Site 58).

Potential for Unknown Remains

The area within the development boundary and that within 1 km of it contains a wide variety of cultural heritage sites, reflecting the continuous use of and settlement within the area from the prehistoric period onwards. As a result, there is good potential that the development area could hold currently unknown buried archaeological remains, although this is most likely immediately inland from the line defining the edge of the raised beach. This currently corresponds to all land within the proposed development boundary around, to the west and south of Coul Farm.

The western half of the development consists of agricultural fields subject to ploughing, while the eastern half consists of a sand dune system. Due to the nature of these environments, they both have the potential to be holding currently unknown sub-surface archaeological remains.

Wider Study Area

Sites Within 1 km

Within 1km of the proposed development two scheduled monuments are located. These are Skelbo Castle (Site 56, SM6225), 800 m to the west of the development boundary and the remains of a prehistoric Orkney-Cromarty type chambered cairn (Site 38, SM5975) approximately 400 m south.

Eight listed buildings are located within 1 km of the proposed development boundary. To the west, lies the complex of the mid to later nineteenth century Skelbo Farm (Site 69, LB596, Listed Category B) while, to the south, lies the late eighteenth century listed category A Embo House (Site 43, LB24641).

Sites Between 1-3 km

Within 1km to 3km from the development boundary, there are four scheduled monuments. To the west lies the remains of Skelbo Wood Broch (SM 1885) while to the east, sits Glen Cottage prehistoric long cairn (SM5484). To the south lies the prehistoric Embo Street Cairn (SM1788).

Only one listed building lies within 1km to 3 km from the development boundary, that being the listed category B Earl's Cross House (LB24641).

Construction Effects

Potential Effects on Known Remains

Despite the design process avoiding direct effects on most of the known cultural heritage sites within the development boundary, potential direct effects were predicted on 14 sites.

The site of a cairn noted on early OS maps (Site 5) and the reported location of a hut-circle (Site 10) are located in areas to the east of the Coul farmstead buildings. Despite no obvious remains being visible on the surface, it is likely that sub-surface remains of these sites exist, particularly given the area does not appear to have been subject to intensive ploughing.

Small scale quarrying was visible at the site of the proposed cairn suggesting, if it is present, it may have been at least partially disturbed. This, in addition to Site 8, which comprises possible circular structures, lack any surface visibility and therefore the current level of the potential effect is *unknown* for both of these sites, although this could be *significant* if important sub-surface remains of these sites are present.

A series of four irregularly shaped cairns (Site 23) to the south of Coul Farm were recorded, however landscaping and drainage as part of the proposed development is only likely to affect part of the cairns equivalent to a *medium* potential magnitude of the effect.

The route of the light gauge railway track (Site 26) is crossed by fairways at several locations. However, the route of the railway is to be maintained as a public walkway, making the sensitivity of this receptor *low* and the potential magnitude of the effect *negligible*. Two disused quarries (Sites 22 & 28) located next to and that could be associated with the railway are considered to have a low sensitivity. While the magnitude of the potential effect is expected to be *slight* for Site 22 as it is located on the fringes of a proposed fairway, the magnitude of the potential effect for Site 28 is expected to be *substantial* due to its more central location.

The small brick structure (Site 24) located east of the railway, is proposed to be maintained and renovated into a tourist information signage point. Similarly, the farm buildings (Site 9) and cottages (Site 6) associated with Coul Farm will be maintained as part of the development. This is not likely to result in the potential adverse magnitude of effect being any greater than *slight* which, given these sites have a *low* sensitivity, would result in the level of the potential adverse effects being *negligible*.

To the north of Coul Farm are two possible oval shaped pits (Site 25), likely to be related to human activity due to their regular shape and depth. Unless the pits prove significant, the level of effect is unlikely to ever be greater than *minor* adverse.

A series of three wells (Sites 44, 47 & 68) were identified on early OS maps of the area that do not appear on modern maps and are not currently visible on the ground. There is potential that any landscaping and drainage associated with the proposed development could impact on sub-surface remains associated with the wells. If present, it is very unlikely their sensitivity would be any more than *low*. The potential magnitude of the effect is only likely to be *slight* due to the potential depth of any well remains. This would result in the level of the potential effect being *negligible*.

Operational Effects

Assessment of the 16 designated cultural heritage sites located both within the development boundary and within 3 km of it (Appendix F.2 and Appendix F.4) showed that 4 sites would have either no visibility or extremely limited views of the proposed development.

An adverse effect on the setting of Skelbo Castle (SM6225), Embo House (LB608, Listed Category A), Littleferry Pier and Boathouse (LB7107, Listed Category C) and Littleferry former Girnol (LB7020, Listed category B) was predicted. An adverse effect on the setting of Coul Farmhouse (LB604, Listed Category B) was predicted, while a beneficial effect of *minor* significance was also predicted on the Coul Farmhouse.

Cumulative Effects

Currently no other golf courses are present or known to be planned in the immediate vicinity of the proposed development, therefore, there are likely to be no immediate cumulative effects on the setting of cultural heritage sites. It is also unlikely that any additions to the development through its operational lifetime will result in any significant change to the setting of cultural heritage sites.

Committed Mitigation Measures

Mitigation of potential direct effects on most sites during construction of the development should be achievable through avoidance, by means of demarcating these sites with an appropriate buffer.

Mitigation is likely to involve pre-construction evaluation through trial trenching of all sites that cannot be avoided, and areas deemed sensitive to unknown remains. This will focus on all land west of the line defining the raised beach, roughly corresponding to that immediately around and to the west and south of Coul Farm. It is also important to note that if significant remains are uncovered during this mitigation, full archaeological excavation may be required to ensure preservation through record.

Mitigation of potentially undiscovered remains will also take the form of archaeological watching briefs during ground disturbance in areas deemed sensitive to the discovery of unknown remains.

10.0 SOCIO-ECONOMICS

The Socio-economic Annex of the ES has assessed the potential impacts of the development of Coul Links on the local and broader economy (local business, tourism, direct employment).

The vision for the site is to focus on the development of a top golf course with very limited on-site development. An important consequence of this approach is that it should stimulate significant new demand for existing businesses in the local area as well as creating opportunities for new businesses to be established. The following text summarises the conclusions drawn within this Annex:

- The Coul Links proposal is to create a links course that will be amongst the top golf courses in the world.
- Sited close to Royal Dornoch, Coul Links will create a cluster of high-quality golf provision in East Sutherland, facilitating skills development, joint purchasing etc. and therefore driving increasing returns.
- Links courses form a tiny group within the generality of golf courses but are regarded as the most natural form of the game. Inspired by Scotland's legacy of links courses, the "minimalist" group of golf architects have become synonymous with environmentally sensitive course designs that attract high rankings and therefore attract aspirational golfers.
- Royal Dornoch is of international importance. It is an aspirational venue for golfers from all over the world. Given the track record of the developer, Coul Links will quickly join it in the world's top 100 courses, making East Sutherland a stayover destination rather than a temporary excursion from a tour bus.
- There has been a worldwide increase in the demand for golf post-pandemic which has not been matched by a corresponding increase in the supply of golf courses. The demand for links golf has also grown significantly due to its unique features. The increase in supply of this iconic form of golf for which Scotland, the home of golf, is famous, has been very limited.
- The greater the level of excess demand, the less important are displacement effects. Building a new links course in the Highlands will have no effect on demand, for example, in Fife because supply cannot keep up with demand in either location.
- The construction phase of the project will generate around 77 job years in Scotland, with around 25 of these being in the local area.
- Initially one would expect around 17,000 rounds to be played on the course. Golfers would come from Europe, North America and the rest of the UK. Additional golf would be played on other local courses where there is excess capacity. Golf related employment will consequently rise by around 74 FTEs. Adding supply chain and income effects and allowing for 25% leakage of demand outside Scotland, Scottish GVA will increase by around £6m and employment by 131 FTEs. Employment in the hospitality sector will increase by around 160, taking the total increase to around 270 FTEs and the overall increase in GVA to £8m.

- Demand will increase as the reputation of the course grows. An increase to 25,000 rounds per year is very plausible. This would result in further increases in both GVA – to £11.9m and in employment to around 400 FTE.
- This increase in continuing employment associated with Coul Links will be significantly greater than that associated with either the recent investment of £664m in local wind farms or the spaceport being built near Melness, neither of which is likely to generate more than 50 jobs in Sutherland.
- The Coul Links project is closely aligned with several Scottish Government policies. These include the **National Strategy for Economic Transformation**, which sets Scotland’s economic priorities for the next decade; the new **National Planning Framework**, which argues in favour of employment-creating initiatives in remote rural areas (all of Sutherland is classified as a remote rural area by the Scottish Government); the **National Performance Framework** which seeks to support local culture, build resilient communities and keeps Scotland globally competitive. The **National Population Strategy** recognises the need to support private investment where it can enhance community resilience. The fragile nature of remote areas has been recognised in the Scottish Rural Visa Pilot, which will seek to boost population in remote Travel to Work Areas through inward migration.
- Golf tourism is a leading element in Scotland’s overall tourism strategy. The Coul Links project closely aligns with the newly published **Scottish Golf Tourism Development Strategy** and announced recently by Mr McKee. Coul Links could play a vital role in ensuring the success of this strategy by making a valuable contribution to maintaining living standards and supporting place-based development. It will increase Scotland’s tax revenues and therefore support public services. Scotland’s continued success in attracting golf tourists cannot be guaranteed. Strong competition has recently emerged in New Zealand and Tasmania. Aspirational golfers are always seeking new challenges.
- Coul Links is consonant with **HIE’s Dornoch masterplan** in that it will contribute to the area’s reputation as a quality tourist destination, thus enhancing the local economy.
- Golf benefits both physical and mental health and wellbeing. There is peer reviewed evidence that it increases life expectancy. It therefore is aligned with the Scottish Government’s aim to increase both life expectancy (at a time when it is falling) and healthy life expectancy. In turn these objectives are consonant with Scotland’s membership of the Wellbeing Governments (WEGo) group.
- Large wind farm and even a high-profile space exploration project will not stabilise Sutherland’s declining population since they offer relatively few Sutherland-based jobs, whereas an opportunity to benefit from the majority of the 400 jobs in Scotland associated with Coul Links will have a sufficiently large employment effect to make an impact on the demographic challenge faced by Sutherland.
- Population decline has been historically, and continues to be, a significant societal problem in Sutherland. An ageing population requiring additional health and social care services, schools being run well below capacity can lead to cumulative causation where the young leave and are often replaced by more older people. Golspie, Dornoch and Brora each have age profiles with significantly more older people than does Scotland as a whole.

- An independent survey carried out for Highlands and Islands Enterprise in 2022 suggests that a large majority (69%) of young people in Caithness and Sutherland say they are leaving the area because they cannot find work. Another majority (66%) say that most of the people coming to their local area are retired. These are extremely depressing statistics for the future of society in Caithness and Sutherland. The Coul Links project would have a significant effect on employment prospects for young people, at least in East Sutherland.
- The Coul Links project would gain from the availability of courses and training at the UHI site in Dornoch. The college would also act as a catalyst for the spread of knowledge and skills relating to golf. This activity would also help the college make the case for its continuing existence.
- The argument about the environmental aspects of Coul Links ultimately comes down to a debate about the substitutability of natural capital for other forms of capital. If one imposes a "strong" form of substitutability, the case seems to centre on the establishment of a case that general welfare would be reduced if the existence of 'critical' components of natural capital was threatened. This argument is difficult to hold if invasive species are causing the natural capital to depreciate and the public sector is unwilling or unable to provide the resource necessary to combat such depreciation. Further, the strong sustainability argument seems at odds with Nature Scot's "balancing duties" which seem to imply that it is bound to consider substitution possibilities.
- The developer associated with the Coul Links project is Mike Keiser, currently regarded as the best developer in the world. He has a track record of reinvigorating declining communities in remote rural areas with an ageing population. Local community leaders and commentators have, without prompting, heaped praise on him and argued that his intervention saved their communities.
- Mike Keiser's commitment to a 5% share in any profits made by the project is significantly more than the share of windfarm profits being distributed to nearby communities. His offer of a seat on its board to the people of Embo confirms his willingness to engage with the local community.

11.0 COASTAL EROSION

11.1 Introduction

The coastal erosion assessment considers the potential impacts of the proposed development on the stability of the shoreline at Coul Links and makes recommendations that should be implemented to increase the sustainability of the project in context of the surrounding coastal processes.

An extensive desktop study that involved reviewing and assessing the findings of a range of technical documents, coastal change maps and survey data has been undertaken in order to describe key coastal processes and sediment transport regime in the region of the proposed Coul Links development.

The Coul Links region forms the northern part of a low-lying depositional sedimentary unit composed of modern and Holocene emerged estuarine, beach and dune sands.

The site contains an extensive dune system, with high coastal dunes, low-lying dune slacks and extensive dune heath, while the surrounding region has an abundance of glacially derived sands and gravels, with virtually the entire length of this coastline being backed by raised beaches.

11.2 Coastal Processes

Short term storm driven acute erosion coupled with significant wave energy are identified to be more important for driving coastal change in this region compared to chronic long term due to underlying causes such as sea level rise etc. (Hansom *et al.*, 2013).

Through a range of existing literature, RPS found the shoreline at the Coul Links site to be dynamically stable, meaning that the position of the existing vegetation line will erode in response to arduous storm conditions and then recover during calmer conditions to maintain the natural quasi-equilibrium beach profile. Studies have indicated that there is a substantial sediment source in an area of c.123km² enclosed by the 20m isobath within the prevailing wave basin just beyond Dornoch sands that is available for wave-induced onshore movement (Hansom & Leafe, 1990). This sediment source would play a crucial role in re-nourishing the Dornoch and Embo coastlines following significant storm activity and therefore maintaining the dynamic stability of these coastlines.

Inspection of coastal change maps that were produced as part of the National Coastline Change Assessment (NCCA) project found that the shoreline in front of the proposed 15th and 17th greens had advanced shoreward by 1.6m – 2.5m between 1977 and 2009. The NCCA also calculated a modest rate of accretion in this area of c.+0.10m/yr.

During the extreme winter storms of 2013 and 2014, which are believed to have a return period of between 1 in 25 and 1 in 50 years, the average coastal retreat along Coul Links was c.4.00m. However, evidence gathered during a site visit indicated that the dune system has since naturally recovered and that the vegetation line is slowly advancing landward as more sand accumulates and is consolidated by stabilising pioneer species. The overall result of this erosion/recovery process is that the position of the vegetation line along Coul Links will shift about a mean line in response to prevailing storm conditions; i.e. it is dynamically stable in terms of natural geomorphology and sediment supply.

Recent study review

Professor Ken Pye was commissioned by C4C Ltd to provide initial comments on a recent report by Rennie *et al.* (2021) prepared as part of the Dynamic Coast 2 project which provides an assessment of recent historical and potential future coastal change on the coast between Golspie and Coul Links. As part of this, a survey of the beach and frontal dune area at Coul Links was also undertaken by Professor Pye on 12th-13th October 2021.

This concluded that many of the comments and forecasts presented in the Dynamic Coast 2 report on the Golspie – Coul frontage are unnecessarily alarmist. The forecasts of future coastal change at Coul are based on simplistic modelling, limited short-term monitoring data relating to changes in the vegetation edge, a limited consideration of coastal processes and morphology in the area, and do not take full account of geological and geomorphological constraints of potential future coastal development.

11.3 Future Climate Change

The projected change in relative sea level rise in the Coul Links region is expected to be c.0.26m by 2050 and c. 0.75m by 2100. The projected rate of change in storm surge levels is relatively small (< 0.5mm/year), whilst a minor reduction in wave heights has also been projected for the north of the UK (Lowe *et al.*, 2009).

It is well established that the natural response of a shoreline to sea level rise is to retreat in order to maintain its quasi-equilibrium state and therefore it is possible to infer that the shoreline along Coul Links is highly likely to retreat slowly landward in response to the projected increase in relative sea levels.

11.4 Recommendations

Based on previous extreme winter storm events it is expected that the shoreline in this region could retreat by 4m on average in response to 1 in 25 to 1 in 50-year return period storm event. During storm events, the dune system acts as a very flexible and highly effective buffer zone. By effectively managing the existing dune system it is possible to encourage the natural deposition of sediment material along the upper beach profile and increase the overall effectiveness of the dune system buffer zone.

In order to maximise the sustainability of the proposed Coul Links development, the developers commit to an ongoing and robust dune management plan that will involve utilising soft engineering principles to enhance the existing coastal processes. This will increase the overall sustainability of the development by building up the existing dune system which acts as a very flexible and highly effective natural buffer against coastal erosion. It will be necessary to undertake annual and periodic maintenance of the dune as part of this management plan, particularly following arduous storm events, to re-plant and re-build the dune face.

To ensure that hard coastal defences are unlikely to be required into the future, the width of the effective buffer zone at the edge of the proposed 15th and 17th greens should be maximised by constructing the greens as far landward as is permissible within the currently detailed maximum allowable footprint of the development.

Going forward, future increases in relative sea level rise due to climate change are likely to result in a trend of slow landward retreat along the Coul Links. As a result, a coastal monitoring programme should be implemented and a robust coastal processes study undertaken to assess and quantify the risk of coastal erosion and develop an environmentally sustainable long term management plan for the course.

12.0 DIFFICULTIES ENCOUNTERED IN COMPILING ANY SPECIFIED INFORMATION

Difficulties in compiling any specified information for use in this EIS.

No major difficulties were encountered in obtaining baseline information regarding the site of proposed development and its assets. Where necessary, further surveys, interviews and desk-based research was carried out to supplement existing available data. The best available methods were employed to forecast the potential environmental impacts that the proposed development would have on and near to the study area, but also on the wider surrounding landscapes and communities.

In circumstances where there was any uncertainty; evidence, expert opinion, best practice guidance and professional judgement have been used to evaluate what is likely to occur if the proposed development is to be agreed and constructed.

Any particular issues regarding the research gathering and writing of particular annexes which work to inform this EIS are described below:

1. Access, Traffic and Transport

There were no particular difficulties encountered when compiling the specified information necessary during the researching and writing of the Access, Traffic and Transport annex by SYSTRA Ltd.

2. Cultural Heritage

Some areas within the development boundary that were previously recorded as being of cultural significance were found by surveyors on walk-over surveys and therefore, many were assessed as having an unknown sensitivity. Apart from this, no particular difficulties were encountered when compiling any specified information for use in the Cultural Heritage annex written by North Light Heritage.

3. Hydrology and Hydrogeology

There were no specific difficulties encountered when compiling the specified information used to conduct and write the Hydrology and Hydrogeology assessment written by Arcadis Consulting (UK) Ltd.

4. Ecology and Ornithology

Baseline surveys undertaken are based on sampling techniques, not absolute censuses. Results give an indication of the numbers of ecological receptors recorded at the particular times that surveys were carried out. Species occurrence changes over time and therefore the results presented in this ES are snapshots in time. Importantly, no information gaps were identified in the baseline survey data that would prevent assessments in line with the requirements of the EIA Regulations to be undertaken.

Putting ecology and ornithology survey results into a wider geographical context is sometimes challenging because most species and habitats have not been systematically surveyed beyond the study area. Thus, defining a population as locally or regionally important is potentially difficult because local or regional population estimates do not exist for most taxa and habitats. Whenever such uncertainty exists, professional judgement and published evidence is used and populations in the study area or site have been assumed to be at their highest potential level of geographical/ecological importance.

5. Socio-Economics

There were no specific difficulties encountered when compiling the specified information used to conduct and write the socio-economics Annex of this EIS by Professor David Bell.

13.0 SUMMARY

Following EIA screening it was identified that the application is for a development that requires an Environmental Impact Assessment, as defined by the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Accordingly, the Environmental Impact Assessment of the proposed development has taken place, which is documented in the Environmental Statement, which is submitted in support of the planning application. The scope of the EIA was identified during an EIA scoping process undertaken with NatureScot, The Highland Council and a range of other statutory and non-statutory consultees.

A number of potentially significant effects were identified, due to the SSSI designation of the Loch Fleet as well as the Dornoch Firth and Loch Fleet RAMSAR site that makes up a portion of the proposed development area, a public right of way throughout the area, a range of protected species, archaeological interest in the area and potential traffic and nuisance implications of the scheme. These are identified as short term and resolved following construction of the course. The adverse effect on dune heath is addressed as set out in the EIAR and Biodiversity net Gain report which confirms that significant additional areas of dune heath can be created as a result of the development proposal.

Delivering such positive outcomes, for the longer-term benefit of the wider area and SSSI in particular, is a material consideration and serves to outweigh the 1.5 ha of dune heath loss created by the reseeded areas to form tees and greens and should be assessed in the context of the 317 ha application site.

The proposed development has evolved through expert advice and taking into consideration the comments of consultees to avoid direct impact where possible. A number of management and monitoring plans during both the constructional and operational phases have been identified to avoid, reduce or compensate for potentially significant environmental effects. These are set out within the ES, its appendices and supporting documents. As a result of the mitigation measures being implemented, the ES concludes that the proposed development will lead to no significant adverse effects.

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