



Report to the Scottish Ministers

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997

Report by David Liddell and Timothy Brian, reporters appointed by the Scottish Ministers

- Case reference: NA-HLD-086
- Site Address: Land 1700 metres north west of Embo Community Centre, School Street, Embo IV25 3PZ, known as Coul Links
- Application for planning permission by Coul Links Ltd, ref. 17/04601/FUL dated 29 September 2017, called-in by notice dated 24 August 2018
- The development proposed: 18-hole golf course with clubhouse and maintenance facility, renovation of existing buildings on-site to form a pro-shop, caddy hut, workshop, administration building, information booth, and new site access road from the C1026.
- Dates of inquiry / hearing sessions and site visit: 26 February-1 March, 5-8 March, 12-15 March, and 19-22 March 2019

Date of this report and recommendation: 27 November 2019



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The development of 18 hole golf course with clubhouse and maintenance facility, renovation of existing buildings on-site to form a pro-shop, caddy hut, workshop, administration building, information booth, and new site access road from the C1026, on land 1700m NW of Embo Community Centre, known as Coul Links

• Case reference	NA-HLD-086
• Case type	Application for planning permission
• Reporters	David Liddell and Timothy Brian
• Applicant	Coul Links Ltd
• Planning authority	The Highland Council
• Other parties	Scottish Natural Heritage, Not Coul, Save Coul Links Conservation Coalition, Local Area Community Groups, Scotways & Ramblers Scotland, and Peter Batten
• Date of application	29 September 2017
• Date case received by DPEA	28 August 2018
• Methods of consideration and dates	Inquiry & hearing sessions: 26 February – 1 March, 5-8 March, 12-15 March, and 19-22 March 2019. Written submissions on policy in December 2018 and further written submissions in February 2019. Accompanied site inspection on 7 March 2019.
• Date of report	27 November 2019
• Reporters' recommendation	To refuse planning permission

BACKGROUND

Site description

The application proposal concerns an area of land immediately to the north of the coastal village of Embo in south-eastern Sutherland. To the north of the site is the Loch Fleet estuary, and to the east is Embo beach and the Dornoch Firth. The small town of Dornoch lies around 4km by road to the south west of the application site.

The application site encompasses agricultural land associated with Coul Farm. The category B listed Coul Farmhouse and associated buildings are located in the centre of the site. The site is traversed by a dismantled railway line running south-east and then southwards across the site, which is a core path.

Between the former railway line and the coast is a dune system which forms part of the following designated nature conservation sites:

- Dornoch Firth and Loch Fleet Special Protection Area (SPA), protected for its range of non-breeding waterfowl and breeding osprey;

- Dornoch Firth and Loch Fleet Ramsar site, also protected for its non-breeding waterfowl, breeding osprey and its range of coastal features; and
- Loch Fleet Site of Special Scientific Interest (SSSI), notified for its intertidal marine habitats, its coastlands, its native pinewood, its vascular plant assemblage, and its birds.

The application site also lies adjacent to the Moray Firth proposed SPA (pSPA), protected for its marine birds.

The application proposals

The application seeks consent to develop an 18 hole golf course, largely within the dune system. The golf course would occupy an area of 22.7ha. The objective is to create a world class links course that would be rated amongst the top golf courses in the world. By siting it close to Royal Dornoch, the developers hope to enable the local area to become a competitive golfing destination in the international market.

The Environmental Statement (ES) states that the golf course would use the natural topography, with very little earth movement required. The proposal includes construction of a new club house and a maintenance building, and the refurbishment and use of existing listed buildings at Coul Farm. Areas of dune heath lost under the golf course footprint would be translocated to other locations within the site. Footpaths on the site would be upgraded, and new paths created. A new road would provide access to the site from the C1026 road.

A separate but related planning application reference 17/04404/FUL was submitted for the drilling of two boreholes and construction of water storage reservoir for irrigation of the proposed golf course at Coul Links. This remains undetermined, subject to conclusion of a Section 75 agreement.

Consultations

Scottish Natural Heritage (SNH) objected due to the potential adverse effects on the sand dune interest of the SSSI and Ramsar site. In respect of birds, the applicant's Recreational Access Management Plan (RAMP) allowed SNH to withdraw its earlier objections.

The Scottish Environment Protection Agency (SEPA) initially objected, but later withdrew its objection subject to conditions relating to waste water drainage and securing a schedule of mitigation.

The Highland Council Access Officer considered that the proposal would affect public access rights, and affect recreation in an area of high landscape value. Other consultees raised matters which can be addressed in planning conditions.

Representations

The Highland Council North Planning Applications Committee report noted that there had been 2007 representations on the application, 1594 of which were opposed to the development, 349 were in support, and 64 did not specify if they were supporting or objecting. A number of petitions were submitted for and against the application.

The development plan

The development plan for the area comprises the Highland-wide Local Development Plan (HWLDP) together with the Caithness and Sutherland Local Development Plan (CaSPlan) and adopted Supplementary Guidance.

THE CASE FOR THE APPLICANT

All work undertaken in support of the ES (including the National Vegetation Classification survey) was in accordance with the advice received from the consultation authorities, best practice guidance and the 2011 EIA Regulations. It is sufficient to establish the likely significant environmental effects of the development.

Coastal processes

The shoreline at Coul Links is dynamically stable. The vegetation edge of the front dune can be eroded by storms but then recovers afterwards. The Applicant is committed to a dune management plan that will involve utilising soft engineering principles to enhance the existing coastal processes and ensure there would be no threats from erosion to golf course infrastructure. To allow space for this the 15th and 17th greens would be constructed further landward than is shown in the application drawings. Not Coul exaggerates the threat from erosion, ignoring the management measures proposed.

Hydrology and effects on the water environment

Mitigation measures would remove the risk to the water environment from construction and operation of the golf course. SEPA agree with the applicant's assessment methodology and findings. Not Coul's hydrological model of the site is incorrect, and its concerns about effects on the water environment are unfounded. Water abstraction and subsequent irrigation of the course can be appropriately regulated to ensure there would be no significant adverse effects on the water environment. There would be no, or negligible, leaching of nitrates from fertilisers.

Effects on the SSSI and the Ramsar site

The development would, subject to standard and suitable mitigation, not have an adverse impact upon the breeding bird assemblage of the SSSI.

The sand dunes habitat is one of six habitat types that are notified features of the SSSI. 4.4ha of dune heath would be translocated into receptor areas totalling 6.2ha. Translocation has been successful at other golf courses, with the direct involvement of the applicant's expert advisors. Translocation (and management of the receptor areas to facilitate the further expansion of dune heath in these locations) would be important in mitigating the effects of the development on dune heath.

Taking into account the proposed mitigation measures (including translocation) the likely residual effect on sand dunes habitat would not be significant. In any event, the overall integrity of the SSSI would not be compromised through the direct impact on 13.4ha of sand dunes. The test of integrity must relate to the whole SSSI and not just to one notified feature. The evidence demonstrates that the development would not compromise the objectives of the designation or the overall integrity of the area.

The playing surfaces of the golf course would be discontinuous so as to avoid fragmentation of habitats and creation of physical barriers to movement. Neither the playing surfaces nor paths would be likely to pose a constraint to the movement of plants or animals. Raised boardwalks would maintain hydrological connectivity.

SNH and the objectors disregard the current poor condition of the site, its likely fate without the development, and the potential for the project to deliver significant environmental benefits. But proper regard must be had to the proposed mitigation and management measures which would assist in meeting the SSSI Management Objectives. This includes fully funding and implementing a long term Coull Links Site Management Plan (CLSMP) for the entire southern portion of the SSSI (and for other land adjacent to the SSSI) for the lifetime of the golf course.

This would deliver nationally important benefits to the SSSI. Realistically, these measures are not otherwise deliverable, and the 'do nothing' option will simply see further degradation of the SSSI and Ramsar site from the effects of invasive species and other ongoing threats.

No appropriate assessment is required of the effects on the Ramsar site. Scottish Planning Policy (confirmed in recent advice from the Scottish Government) is that where the key features of a Ramsar site are also the same as the qualifying interests of an overlapping Natura site, then it is the legal protection afforded to the Natura interest that will apply. Likewise when there is overlap between Ramsar key features and SSSI notified features. There would be no significant effect on Baltic rush, a feature of the Ramsar site.

Effects on the SPA and pSPA

Two of the non-breeding SPA bird species (teal and wigeon) occur within or adjacent to Coull Links. No golf course infrastructure is planned for areas regularly used by these species, and the golf course would be closed between December and March. There would be benefits to these species from the halting of wildfowl shooting at Coull Links and from a reduction in disturbance delivered through the RAMP.

The council's appropriate assessment concluded that the development would not adversely affect the integrity of these protected areas. SNH agrees. The Conservation Coalition has carried out no equivalent assessment, and focusses on potential effects rather than likely significant effects. There would be no adverse effects on the integrity of the SPA or pSPA.

Other ecological effects

Avoidance of their likely preferred habitats would minimise potential adverse impacts on butterflies and moths, and no likely significant effects are predicted. Lepidoptera would be likely to benefit from the proposed long-term conservation management of Coull Links towards a shorter vegetation sward height and removal of invasive species. The Conservation Coalition's evidence focusses on 'potential impacts' but does not establish that rare lepidoptera would be significantly adversely affected.

The requirements of Fonseca's seed fly would be considered in four main ways:

- retaining large and important habitat areas for composite flowers
- funding a PhD studentship or specialist dipterist research into the unknown, important elements of Fonseca's seed fly ecology

- publishing the findings of the research so that the ecology of the species is more widely understood and recognised
- targeting habitat management towards this species' favoured composite flowers (and other elements if necessary) in the light of the research results.

There is no evidence that any of the four Ramsar invertebrates might be expected to be present on the application site. Future site management would also benefit lepidoptera, lichens, waxcap fungi and other plant and animal species. There would be no significant effects on juniper or shoreweed.

Impacts on public access and enjoyment of the links

The main forms of recreation at Coul Links are from walkers, dog walkers, bird watchers and from local people and visitors frequenting Embo beach. The applicant would maintain access to the paths at all times, with clear signage provided to ensure safe and responsible access. Rights of way would be retained, and golfers would be instructed to give way to walkers and other path users.

New paths, including a new circular walking route would be created, as would new interpretation boards. The old railway bothy would become an information hub and would provide respite in bad weather. The RAMP would improve access for golfers and non-golfers. It would guide and manage access, not limit it.

Economic and socio-economic benefits

This would be a strategically important development for golf tourism at a national level. If successful, it would increase to 13 the number of golf courses in Scotland which are listed amongst the 100 best courses in the world.

The development is targeted at high value visitors. It would increase the number of golf tourism visits to Scotland as new visitors would be attracted by the prestige of the golf course. The involvement of Mike Keiser (the renowned golf course developer) and Coore/Crenshaw (amongst the most respected golf course architects in the world) would add significantly to that prestige. It is also expected that existing visitors would extend their stay in order to play the course.

There is a ready-made cluster of golf courses in the East Sutherland area, in particular, Royal Dornoch, Golspie, Brora and Tain. Coul Links would provide the reputational boost that would give this cluster an international profile. Visitors would be encouraged to play these other golf courses, for example by means of a common booking system and other collaboration between the local golf courses through a new foundation. The University of the Highlands and Islands (UHI) would also be involved, ensuring benefits for the students on its golf course management programme which is currently based in Dornoch.

Jobs at Coul Links would be well paid, quality jobs with good training, helping to retain young people in the area. But there are no plans to build accommodation, retail or leisure outlets. Therefore additional spending in these sectors by new visitors would benefit the wider economy of East Sutherland, including more deprived areas. The local community, through the Embo Trust, would be able to invest in the development.

The other golf courses (and other local businesses and organisations) support the development because of the wider economic benefits it would bring to the area. This is a highly sustainable economic development model. The co-developer, Todd Warnock, has already shown his long-term financial commitment to Dornoch.

The development would deliver socio-economic impacts of national importance. These would be consistent with the two key pillars of Scotland's Economic Strategy – 'increasing competitiveness' by building on a source of global competitive advantage (golf tourism) and 'tackling inequality' by delivering economic benefits to a region where there is a diminishing number of economic opportunities available. Displacement of spending from other parts of Scotland would not be significant, in particular due to the additional golfing visitors from North America which the development would bring to Scotland.

Not Coul's evidence on economic effects is anecdotal, unsubstantiated, and assumes a static golf tourism market. It does not take account of the unique nature of what is proposed.

THE CASE FOR SCOTTISH NATURAL HERITAGE

No serious consideration was given to alternative layouts making more use of less sensitive land within the application boundary whilst at the same time delivering long-term enhancement to the SSSI.

Effects on the SSSI and the Ramsar site

The development would result in significant adverse effects on the sand dunes habitat of the SSSI and the Ramsar site. It would result in significant permanent loss of this habitat, especially dune heath and dune slacks, and in impacts to species which depend on it. Direct loss would extend to 16.4ha of SSSI sand dunes habitat. Even after mitigation, residual losses would be extensive, and likely to be permanent.

Translocation would deflect the natural succession of the receptor areas that would otherwise result from good practice dune conservation. In these respects alone the proposed receptor areas are not suitable for translocation. The translocation would be compensation not mitigation, and should not be taken into account in establishing the residual likely significant effects of the development.

Translocating is unlikely to be successful. Translocation of these types of habitats in this type of situation is untested. The applicant's evidence is not sufficiently detailed to demonstrate past success. Matching the environmental context of the receptor sites to that of the donor sites would be particularly problematic in this case given the very varied topography. There has been inadequate consideration of on-site factors like slope, aspect and soil chemistry. Determining the success of translocation would take decades. In such circumstances the precautionary principle should apply.

There would be indirect losses of unknown extent adding to the area lost under the course footprint. The use of fertilisers (in particular in the establishment phase of the golf course) means that there would be a high risk of contamination of groundwater.

A further source of nutrient enrichment would be the irrigation water abstracted from the aquifer. It would be essential that control mechanisms are put in place to control the chemical content of the irrigation water.

The proposal would create a high level of disruption to natural dune processes, such as dynamism, due to large areas being stabilised. It would also result in significant levels of habitat fragmentation and edge effects.

The negative effects from invasive species and encroaching scrub are undesirable. But they do not detract from the value of the sand dunes habitat to the extent that an intervention of the scale of the proposed golf course (which would itself lead to the sand dune feature having a permanent unfavourable status) is necessary. Balancing the positive and negative effects of the proposal, adverse impacts would greatly outweigh any benefits for the sand dunes habitat.

THE CASE FOR THE LOCAL AREA COMMUNITY GROUPS

Effects on public access and enjoyment of the links

The paths at Coull Links have become overgrown since livestock grazing ceased, and the vegetation is becoming impenetrable due to invasive species. With sensitive development, the course would enable many more people to appreciate the value of Coull Links through carefully managed activity.

Socio-economic effects

There are significant socio-economic difficulties faced by East Sutherland communities, particularly very limited employment opportunities and the resulting serious imbalances in demographic profile. The area is in great need of substantial inward investment to turn the tide of generations of neglect and emigration. The economic future of the Dornoch area now depends entirely on tourism.

The proposal for a world class golf course at Coull Links is supported by the 23 local groups and businesses and 93 local residents who have signed the Friends of Coull Links Support Charter. The community council, and the local community generally, is strongly supportive. Todd Warnock has already shown how he can work with local groups for the benefit of the community.

Sutherland now has a very low population density, with a principal cause being lack of employment opportunities. The young, and the better qualified, are those most likely to leave the area. Given its age profile, it is not surprising that unemployment is low. The demographic challenge facing East Sutherland is so great that displacement effects should largely be discounted.

Coull Links is the only current prospect for significant private sector investment in the area. It would offer a range of high quality employment and career opportunities for young people, both direct and indirect, helping to limit outward migration and attract younger people to the area.

The provision of another high-quality golf course would increase the probability of longer stays in the area, with consequent benefits throughout the local economy. It would add

greatly to the area's, and to Scotland's, golf tourism offer. More golfers would visit the area, with benefits for the other local golf clubs. The benefits of collaboration have already been seen with the Dornoch Firth Golf Pass.

A proposal has been agreed between the developer and UHI identifying five areas of potential collaboration. This would offer a unique range of learning and development opportunities to students. It could act as a catalyst for increasing student numbers and a growth in staff and resources, and investment in the local area.

THE CASE FOR NOT COUL

Coastal processes

Coul Links is 'dynamically erosional'. The overall long-term trend has been one of erosion. Relative sea level rise has now replaced relative fall, fuelling more rapid erosion of beaches. Erosion at Coul Links is expected to extend and accelerate.

Certain parts of the proposed course appear highly vulnerable to erosion at present, and will be more so in the future. These elements of the course are too close to the coastal edge to be sustainable, even if sited further inland than as shown in the drawings. Hard coastal defence works should be avoided at all costs.

Hydrology and effects on the water environment

The applicant's hydrological work is inadequate and the likely overall effect on site hydrological integrity would be significant, and highly adverse. There is likely to be mixing of water between the deep and shallow water aquifers. Irrigation of the golf course would result in changes to vegetation around the irrigated areas. A domed aquifer at the north of Coul Links protects this part of the site from excessive nutrient inputs. Coul Links is becoming wetter. Nitrogen thresholds for the site ought to be much lower than those suggested by SEPA, and there is a significant risk from nitrates in irrigation water and from the use of fertilisers.

Effects on habitats and species

Coul Links is in good condition with only minor problems affecting habitat condition. Changes in habitats and the arrival of new plant species suggest that it is already adapting to climate warming, increased wetness and perhaps a rising sea level.

Effects on certain habitats and species were wrongly scoped out of the ES. The habitat surveys are inadequate and inaccurate, and cannot be relied upon.

A significant adverse effect on the integrity of the SSSI is unavoidable if the development goes ahead. Direct losses of habitat from the golf course footprint would be compounded in the longer term by indirect losses from irrigation and the use of fertilisers. After 20 years it is estimated this would amount to a loss of nearly half of the extent of sand dunes habitat at Coul Links. There would be significant effects on dune juniper, lichens and fungi.

The translocation proposals undervalue the habitats in the receptor areas, some of which are too wet for receiving dune heath. Translocation is not a proven technique. It is not

possible to translocate the lichens at Coul Links without irreparable damage. There is no methodology showing how juniper would be translocated.

Effects on public access and enjoyment of the links

Golfers paying top dollar for the privilege of playing golf at Coul Links would not be willing to give way to walkers, and the activities of walking and golf would not seem to be easy bedfellows.

Socio-economic effects

The applicant's evidence suggests that earnings per job would be low, affecting the local economic benefits and potentially making recruitment difficult. The applicant's figures for off-course spend are too high. Not Coul estimates lower figures for the number of new jobs created and gross value added. It is unrealistic to expect that the development would generate 684 full-time equivalent jobs, all but around 30 of them off-site. Due to a number of uncertainties, a total of 15,000 rounds per year by year ten is a more realistic figure than 20,000.

Golfers who choose to take a golfing holiday in Scotland will have been influenced by a large range of factors. One additional course in the far north of Scotland is unlikely to make much difference to the great majority of these holiday decisions. A maximum of 10% of visits would be by golfers who would not otherwise have visited Scotland. It is also unrealistic to expect that a third of Coul Links customers would extend their visit to Scotland to play the course. In other parts of Scotland, the positive effects from new visitors would be broadly balanced by the displacement of activity from these locations to the Highlands.

The unintended socio-economic consequences of the development should be considered. These could relate to the largely seasonal nature of the new employment and the lack of skilled jobs. There could be an inflationary effect on house prices, already high in Dornoch. This, and the high number of second and holiday homes in the area, mean that potential staff might struggle to find affordable accommodation. The employment rate in the Highlands is low, and it is already difficult to recruit staff in the area. The area is already very dependent on the tourist economy. There could be effects on local services from an influx of new staff.

Whilst the development would create some economic benefit, it would not contribute to sustainable communities in the Highlands. It would not be of national importance.

THE CASE FOR THE SAVE COUL LINKS CONSERVATION COALITION

The conservation importance of the site

The site is in one of the most important coastal ecosystems in Scotland. Many of the features at Coul Links are not found elsewhere within the SSSI, for example the dune slacks which are an important refuge for birds. Coul Links forms part of the most northerly estuary in Europe to hold internationally significant concentrations of birds in the non-breeding season. It is an important site for invertebrates, including being globally important for Fonseca's seed fly. There is an exceptional richness of lepidoptera.

The vast majority of the site is in very good ecological condition. There has been diminution of its quality by the spread of invasive species but this is not significant when looking at the site as a whole.

Deficiencies in the ES

The ES, despite the further information provided by the applicant, does not provide adequate information to satisfy the requirements of the EIA Regulations, and therefore the application should be refused.

Effects on the SSSI

The development would damage the SSSI and its features. Impacts would include direct and indirect loss of (and changes to) sand dune habitats and plant communities. There would also be disturbance of qualifying bird species and permanent loss and changes to their supporting habitats.

Effects on the SPA

The development would be likely to have a significant effect on the SPA and its qualifying species. However due to the inadequacy of the applicant's bird survey work it is not possible to properly assess the effects on the SPA and its qualifying species.

The development would be contrary to all of the SPA's conservation objectives. Impacts would include:

- The direct loss of at least 14ha of SPA habitat
- Disruption to the structure, function and supporting processes of habitats supporting SPA species through impacts such as habitat fragmentation, changes in hydrology, and water quality
- Disturbance of SPA qualifying species

Effects on the Ramsar site

The development is likely to have a significant effect on the Ramsar site. There is a need for an effective evidence base to undertake an appropriate assessment of the potential impacts on the Ramsar site. This has not been provided, therefore an adequate appropriate assessment cannot be undertaken.

Effects on habitats

The importance of the dune habitats, plants and fungi assemblages are underestimated by the applicant. The direct destruction of habitats, habitat fragmentation, changes in hydrology, water quality issues associated with pesticide and fertiliser use, and intensified human activity are likely to result in adverse impacts to the dune habitats and species they support.

As the plans do not appear to be future-proofed for sea level rise associated with climate change, the implications for further habitat loss are uncertain.

Effects on invertebrates

The nationally significant assemblage of lepidoptera at Coul Links is threatened by the proposed development, yet the ES treatment of the effects on lepidoptera is insufficient. There is a real likelihood that there would be adverse effects on Red Data Book listed, nationally scarce and Scottish Biodiversity List lepidoptera. The failure to recognise the importance of other invertebrates at the scoping stage, and the inadequacies of the applicant's desk study mean that insufficient invertebrate survey work has been undertaken to assess the impact on the nationally important invertebrate assemblage at Coul Links.

Given the limited information about how the Fonseca's seed fly is using the site, and the lack of knowledge about the size of habitat areas required, it is impossible to define what mitigation is required to retain appropriate habitat. Research into the habitat requirements of the species must be undertaken prior to the determination of the proposal, to provide an adequate assessment of the environmental impacts on Fonseca's seed fly, and to allow appropriate mitigation measures to be developed, agreed and implemented before construction begins.

THE CASE FOR RAMBLERS SCOTLAND AND THE SCOTTISH RIGHTS OF WAY SOCIETY (SCOTWAYS)

Effects on public access and enjoyment of the links

Coul Links is of high value for the enjoyment of open-air recreation. This is due to its natural character and physical diversity, dynamic landforms, scenic qualities and valued habitats and species. Its special qualities are not replicated elsewhere in East Sutherland or Easter Ross, and would be damaged by the development. It is the most pristine part of this coastline, and this is of importance for public enjoyment.

There would be potential conflict between golfers and path users at the front dune, and where seven of the golf holes would cross the core path. The development would limit the exercise of access rights at Coul Links. Although the applicant appears to have taken account of the interests of those seeking to exercise access rights, the proposed alternative provisions would not be an adequate substitute, and the RAMP is cause for concern. There should be greater clarity about how access is to be managed, including the basis for any future constraints on access.

REPORTERS' CONCLUSIONS

Coastal processes

There would be no hard coastal defences. The closest parts of the golf course to the sea would be at some risk from coastal erosion. However soft engineering and management has the potential to mitigate this risk. Future proposals for relocation could have effects on the natural heritage of the site, and there would be no guarantee that consent would be forthcoming. However this would be a risk that sits with the applicant, and one which it appears willing to take. Therefore, although there are risks and some uncertainties for the long-term fate of these elements of the golf course, there would be mechanisms to manage these.

Effects on the water environment

It is not certain whether there would be an effect on the water levels within the dune system as a result of abstraction. In terms of the water table across Coul Links as a whole, the overall volume of irrigation water to be used would be very small.

It is prudent to minimise the potential for harmful levels of additional nitrogen in irrigation water. A planning condition can ensure this is the case. Without a more detailed assessment of the potential for leaching of nitrates from fertilisers to affect the water environment and the habitats on site, there cannot be complete confidence that such leaching would not, particularly in the establishment phase, have adverse effects on the habitats at Coul Links. Effects from the use of other chemicals would not add significantly to the direct and indirect effects on habitats and vegetation.

Effects on habitats and vegetation

Benefits to dune heath would accrue from the control of invasive species, the creation of bare sand patches and the management of adjacent grassland. But given the loss of habitat identified in the ES; the further strongly adverse effects in the longer-cut rough at least; the effects on dune heath within matrix communities; lack of confidence in the success of translocation; and effects from disturbance and the effects from fragmentation and edge effects, there would be a likely significant adverse effect on dune heath. The likely overall effect on lichens would be significantly adverse.

There are potential benefits to dune slacks from control of meadowsweet and other site management. However given the extent of loss of habitat; the strongly adverse effects within the longer-cut rough at least; effects from disturbance and uncertainty about some of the effects on the water environment, the overall effect on dune slack is also likely to be a significantly adverse.

Given the likely extent of losses of dune juniper, the effect on this habitat would be a likely significant adverse effect.

For dune grassland, there would be adverse effects from the loss of habitat and from uncertain effects of management and disturbance in the longer-cut rough. On the other hand, most of the grassland appears to be rank grassland, and there is scope to improve this habitat through management. Viewed in isolation, the effects on dune grassland are not likely to be significantly adverse.

In relation to the overall system of sand dune habitats at Coul Links, the CLSMP would bring benefits, in particular from the control of invasive species, from the creation of bare sand areas and in the potential for better grassland management. Some habitats would be unaffected by the development. But given the extent of loss of Annex 1 habitats under the golf course; the strongly adverse effects within the longer-cut rough for dune heath and dune slacks; the effects from disturbance; the effects from fragmentation, edge effects and loss of dynamism; and uncertainty about some of the effects on the water environment, there would be a likely significant adverse effect on the overall system of sand dune habitats at Coul Links.

Effects on birds

There are limitations in the data in the ES on the use of Coul Links by birds, particularly non-breeding birds, which make it difficult to draw robust conclusions on the impact of the proposed development on birds.

The principal direct effect on bird habitat would be the reduction in areas of dune slack and 'ephemeral pools'. In addition to habitat loss, there would be wider adverse effects such as habitat fragmentation, since smaller areas of slack would provide smaller and less secure refuges from predators.

The construction and translocation works, and the operation of the golf course, would be likely to have a significant adverse effect on wintering and breeding birds as a result of disturbance and habitat loss. The more than tenfold increase in recreational users of the site would mean a substantial increase in potential disturbance to bird populations.

The proposed mitigation measures, including the RAMP, the winter closure of the golf course and the cessation of wildfowl shooting, would not be sufficient to reduce the level of adverse effects on birds to non-significant. The construction and operation of the proposed development is therefore likely to have a significant adverse impact on wintering and breeding birds, even after mitigation, arising from disturbance and habitat loss.

Effects on invertebrates

Butterflies and moths

The application site contains an unusually rich assemblage of butterflies and moths, including some rare species. The proposed management of grass swards, control of invasive gorse and bracken and creation of small bare sand scrapes could be beneficial for some species studied in the ES.

However, it would be difficult to construct and operate the golf course in a manner which prevented the diminution and fragmentation of these habitats, and those important to other nationally important lepidoptera species whose ecological requirements have not been examined by the applicant.

There are potentially significant effects on lepidoptera, and real unresolved concerns about the potential impacts of the proposal on certain species of butterflies and moths at Coul Links, including Red Data list species and other species of conservation concern.

Other invertebrates

On the basis of the evidence, it is difficult to assess the potential impact of the proposed golf course on most of the key invertebrate species at Coul Links.

Fonseca's seed fly is recognised as a priority species for conservation and as vulnerable to extinction. Since its known global range is restricted to an 8km length of coast in east Sutherland, it must be regarded as globally endangered. Without a sound understanding of how Fonseca's seed fly uses the site and the location and extent of its habitats, it is impossible to make a reliable prediction of the likely effects (and their significance) of the proposal on this species at Coul Links. Such effects could be very significant.

The implications of the findings of the proposed research on Fonseca's seed fly are unknown. In any case, any informed mitigation to protect this species ought to be agreed and in place before any work on site took place. Otherwise, there is a real risk of harm to this endangered species during the construction and operation of the golf course.

Effects on designated nature conservation sites

The Loch Fleet SSSI

Given the losses of habitat for dune heath, dune slack, dune grassland and semi-fixed dunes at Coul Links, the SSSI management targets relating to the extent of each of these habitats would be less likely to be met. The extent of each habitat present is an important measure of the overall condition of the sand dunes feature. Targets relating to the semi-fixed dunes habitat would also be less likely to be met.

Overall, there would be very significant adverse effects on the Coul Links part of the sand dunes feature of the SSSI. Coul Links makes up only part of the sand dunes feature of the SSSI – there is also the dune system at Ferry Links. However both are important parts of the SSSI. Therefore the effects on the overall sand dunes feature for the SSSI would be significantly adverse. The sand dunes habitat feature would be more likely, rather than less, to be found in unfavourable conservation status in the future. The development would make it less likely that the SSSI site management objective of restoring the condition of the sand dunes habitat would be achieved.

The development is likely to have a significant adverse effect on breeding birds, which are also a notified feature of the SSSI. It would run counter to the SSSI management objective of avoiding significant disturbance to these birds during the breeding season.

Given the effects on the sand dunes and breeding birds features of the SSSI, both its objectives of designation and its overall integrity would be compromised. The development of the golf course would, overall, impede the conservation and enhancement of the natural features of the SSSI.

The Dornoch Firth and Loch Fleet SPA

Because of the potential loss of bird habitat and likely disturbance to bird species from construction and operation of the golf course, the proposal runs contrary to the conservation objectives for qualifying interests of the SPA to 'avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained'.

For similar reasons, the proposal runs contrary to the conservation objective for SPA qualifying interests to ensure for the qualifying species the long-term maintenance of the following:

- distribution of the species within the site
- distribution and extent of habitats supporting the species
- structure, function and supporting processes of habitats supporting the species
- no significant disturbance of the species

The Dornoch Firth and Loch Fleet Ramsar site

Recent guidance makes clear the Scottish Government's current position on how it expects its policy on the protection of Ramsar sites to be implemented. Where Ramsar interests coincide with Natura qualifying interests, they are thereby given the same level of legal protection as Natura sites. Where, instead, the Ramsar interests match SSSI features, they receive protection under the SSSI regime.

The potential loss of bird habitat and disturbance of qualifying species would be likely to result in an adverse effect on overwintering birds, including wigeon and teal, which are protected under the Ramsar site designation. This is addressed in the assessment of impacts on the SPA. The impact on Ramsar site sand dune habitats and plants is addressed in the assessment of impacts on the SSSI.

The Moray Firth proposed SPA

The presumed conservation objectives for the proposed SPA would not be compromised.

Effects on public access and enjoyment of the links

The golf course would allow Coull Links to be enjoyed by many more people than the small number who currently use it for recreation. It would be easier to access certain parts of the site which are seldom visited at present, although the proposed access restrictions would be necessary to avoid disturbing nesting birds.

The development would straddle the core path on the west side of Coull Links, and there is a real possibility that the operation of the golf course would interfere with enjoyment of the core path and the informal path along the dune crest. The relatively unrestricted public access which is currently enjoyed would be materially constrained, even taking account of the suggested measures in the RAMP and in planning conditions.

However, the currently low intensity of recreational use, and the high level of support for the proposal from the local community who use the Links, serve to reduce the significance of the potentially negative impact on public access.

Other environmental impacts

Landscape and visual effects

There would be significant effects on landscape elements and landscape character within and on the edges of the site during construction. During operation, the effects on these would be unlikely to be significant. The site does not have wild land qualities such that the reduction of these by the development would be a significant environmental effect. There would be no significant cumulative effects on landscape character. There would be no significant effects on the Dornoch Firth National Scenic Area or the Loch Brora & Glen Loth Special Landscape Area.

During construction, there would be significant visual effects on receptors within and on the edges of the site, including those walking along the dunes. Visual effects would be lesser during the operation of the golf course, although recreational users of the site would still generally experience significant visual effects. Sequentially cumulative visual effects with

other golf courses on users of the beach and the core path would be rare, and would not amount to a significant effect.

Effects on cultural heritage

Subject to more detailed assessment through the subsequent applications for planning permission and listed building consent, it is unlikely that there would be significant environmental effects as a result of the proposed retention and conversion of listed buildings on the site. This would be a positive aspect of the development. Effects on the setting of Coul Farmhouse would not be significant.

In respect of the other assets which would be directly affected, for those with known sensitivity no significant effects would arise. There is some uncertainty about the extent of the remains of other previously recorded assets. Given their non-statutory status, the proposed condition requiring evaluation, preservation and recording is an appropriate response. There would be no significant effect on the setting of Skelbo Castle or on the setting of other cultural heritage assets outwith the site.

Traffic and transport effects

The overall numbers of HGVs during the construction period would be very modest. There would be no significant effects from construction traffic.

In relation to the operational phase, if the applicant's aspirations are realised and the course were to become a busy one then the amounts of traffic generated would be significant in what is currently a fairly lightly trafficked location north of Dornoch. Subject to the proposed widening of part of the C1026, there is no reason to disagree with the conclusions in the ES that any operational-phase impacts on this part of the local road network would not be significant. Post-development, overall traffic on the surrounding roads would remain fairly light.

The additional numbers of anticipated vehicle movements per day through Dornoch would have the potential to add to congestion in the town. However, there is the potential for the proposed shuttle bus service, operating between Coul Links and the Royal Dornoch Golf Club, to mitigate these effects to some degree.

Socio-economic effects

Construction effects

The construction of the golf course would generate significant economic benefits for a temporary period of around a year, most of which would be experienced outwith the local area.

Operational effects on the local area

The proposal has the potential to bring very important socio-economic benefits. It would generate a significant number of jobs, directly and indirectly, and a substantial boost in spending, in the local area and beyond. This would be particularly welcome given the economic and demographic circumstances of the area.

It would build on and develop the area's existing expertise, training and resources in golf and golf tourism, including at the Dornoch campus of UHI. It could be expected to stimulate significant new demand and investment in the area, and create opportunities for local residents to start new golf tourism related businesses. It would help to extend the local tourist season.

Most importantly, it would provide younger people with a greater incentive to stay in the locality, and might encourage others to return who have left in search of employment elsewhere. As such, the proposal would be likely to enhance business and community confidence and to have a significantly beneficial effect on the area.

The development would not result in an over-reliance on low paid, seasonal jobs in the Dornoch area, or place an undue strain on local services. New housing has been developed in Dornoch in recent years, including affordable houses, and more is planned, which is likely to help to attract and retain young people in the area.

Even taking account of the predicted response by local businesses to cater for this increased demand, a significant amount of this spending would be likely to 'leak' into other parts of Highland and beyond because of the restricted time schedules of golfing tourists and the wider spending opportunities elsewhere.

The development is likely to benefit, rather than threaten, the other local golf courses. By working together the East Sutherland courses would be able to draw more golf tourists to stay in the area, and to encourage them to play more than one course during their visit.

There is evidence that existing hotels in Dornoch, Golspie and Tain have the capacity and potential to take advantage of the increased demand, and the development would provide the stimulus for existing operators to upgrade their product and for other operators to enter the market.

Overall economic benefits

The assumed daily expenditure of £667 might be an attainable objective for the wealthy North American visitors that the applicant wishes to attract to Coul Links. However, it appears an excessive prediction of average spending for all customers given that 50% of visitors would be drawn from the UK and the rest of Europe.

The expectation in the BiGGAR report that the proposal would generate £16.5 million GVA and create 651 jobs in golf tourism (out of a total of 684 jobs associated with the project) in Scotland by year 10 appears somewhat optimistic.

If Coul Links achieved the status of a 'class one' golf course, the evidence supports the expectation that it would attract at least 20,000 rounds per year. So the aspiration to generate 20,000 rounds at Coul Links by year ten is ambitious, but potentially achievable.

Coul Links would help to create a critical mass of highly regarded links courses which could attract more golfing visitors to the North Highlands, and encourage those who might have been coming anyway to stay for longer. But given the profile of the tourists which Coul Links intends to attract, there would be a substantial level of displacement from other areas of Scotland containing prestigious golf courses.

This would not be offset to any significant extent by additional golfers attracted to the country by Coul Links. The assumption that 33% of Coul Links golfers would not be visiting Scotland but for Coul Links is questionable. If all or most of those 'Coul customers' were drawn from the 50% of visitors coming from the USA and Canada, the above assumption would suggest that up to two thirds of North American visitors would not have come to Scotland were it not for the Coul Links course. This is a highly unlikely outcome.

The proportion of golf tourists who would be displaced from another part of Scotland to play at Coul Links is more likely to be between one half and two thirds, rather than one third as the applicant suggests.

The proposal is supported in general terms by Scotland's National Economic Strategy, the National Tourism Strategy and the Tourism Development Framework.

The creation of a potentially 'world class' golf course is not intrinsically a development of national importance. If Coul Links were successful in achieving a ranking in the Golf Digest top 100, that would increase the number of highly rated courses in Scotland from 12 to 13. Whilst another world class course would be a positive addition, it would not qualify as nationally important on that count.

The proposal is of local and regional significance in socio-economic terms, but not nationally important. Nonetheless, the potential socio-economic benefits of the proposal, and the widespread support for the project amongst the local community, are important factors in favour of the application.

Overall conclusions

Section 25 of the Town and Country Planning (Scotland) Act 1997 requires this application for planning permission to be determined in accordance with the development plan unless material considerations indicate otherwise.

The proposal does not comply with the relevant provisions of the HWLDP, because the socio-economic benefits of the development would not outweigh the harmful impacts to protected habitats and species.

The proposal is consistent with the parts of vision and strategy of the Caithness and Sutherland Local Development Plan which seek to promote growing communities, employment and tourism, but it is contrary to the elements which seek to protect the environment and natural heritage.

Overall, the development is contrary to the development plan, as the likely detriment to natural heritage is not outweighed by the socio-economic benefits of the proposal.

The strong support in NPF 3 for sustainable economic growth and for rural development, including tourism, to strengthen communities is tempered by a recognition of the need to protect the natural environment and of the importance of biodiversity.

The proposal is consistent with SPP's strong support for economic growth, rural development, growing communities and tourism – a key growth sector in the Scottish economy. Granting this application would not result in any significant adverse effect on cultural heritage asset, or their settings. However, because of the potential significant

adverse effects on protected habitats and species at Coul Links, the proposed development runs contrary to SPP's emphasis on protecting natural heritage sites and world-class environmental assets. It would not contribute to sustainable development.

The development would conflict with the objectives of the Scottish Biodiversity Strategy insofar as it would have a negative impact on biodiversity at Coul Links and on the conservation interests of the SPA, SSSI and Ramsar site.

Therefore the proposed development does not accord with the relevant provisions of the development plan and there are no material considerations which justify granting planning permission. Planning permission should be refused.

Scottish Government
Planning and Environmental Appeals Division
4 The Courtyard
Callendar Business Park
Callendar Road
Falkirk
FK1 1XR

DPEA case reference: NA-HLD-086

The Scottish Ministers
Edinburgh

Ministers

In accordance with our minutes of appointment dated 4 September 2018, we conducted a public local inquiry between 26 February and 22 March 2019 in connection with a planning application for the development of an 18 hole golf course, erection of clubhouse, renovation of existing buildings for maintenance facility, pro-shop, caddy hut, workshop, administration building, information booth, formation of new private access from C1026 on land 1700 metres northwest of Embo Community Centre, School Street, Embo known as Coul Links.

The application was called in for determination by Scottish Ministers. The Direction dated 24 August 2018 was made 'as the proposal raises issues of national importance in relation to natural heritage issues and its compliance with SPP which require further scrutiny at a national level.'

We held a pre-examination meeting on 31 October 2018 to consider the arrangements and procedures for the inquiry. It was agreed that impacts on natural heritage and protected species and socio-economic impacts would be addressed at inquiry sessions, and that there would be a hearing session to consider what conditions would be required if permission was granted for the proposed development.

Parties were also invited to make written submissions in December 2018 on the extent to which the application proposals are consistent with relevant provisions of: (a) national policy; and (b) the Highland-wide and Caithness and Sutherland Local Development Plans, and relevant statutory supplementary guidance. The parties' written submissions were updated in February 2019 in the light of the Scottish Government's revised guidance on Ramsar sites.

The inquiry sessions were held on 26 February – 1 March, 5-8 March, 12-15 March, and 19-22 March 2019, and the hearing session took place on 22 March 2019. We made an unaccompanied inspection of the appeal site on 30 October 2018. An accompanied site inspection took place on 7 March 2019.

It was agreed at the inquiry that closing submissions would be exchanged in writing, with the final closing submission (on behalf of the applicant) to be lodged on 22 April 2019, but the complete closing submissions on behalf of the applicant were not lodged until 6 August 2019. Not Coul and the Save Coul Links Conservation Coalition (SCLCC) objected to the delay, and SCLCC requested that inquiry parties be given the opportunity to respond to the applicant's closing submissions. We advised that we had sufficient evidence on which to make our report and recommendations to Ministers, and therefore did not intend to seek a

further round of submissions at that stage. However, we noted their concerns and advised that we would forward the relevant correspondence to Ministers along with our report.

The applicant is keen that Ministers are made aware of a number of procedural and other concerns which it highlights in its closing submissions. They relate to the council's consideration of the planning application, the call-in process, the conduct and credibility of objectors (which are contrasted with those of the applicant and the Local Area Community Groups), and the position of Scottish Natural Heritage. In our report we have taken full account of these submissions insofar as they are relevant to our reasoning and recommendations.

Our report, which is arranged on a topic basis, takes account of the precognitions, written statements, documents and closing submissions lodged by the parties, together with the discussion at the inquiry and hearing sessions. It also takes account of the Environmental Assessment, Addendum and other environmental information submitted by the parties, and the written representations made in connection with the proposal.

On 16 May 2017, the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 came into force. The 2017 regulations revoked the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 with certain exceptions. The 2011 Regulations continue to have effect for an application (and any subsequent appeal) for planning permission where the applicant made a request for a scoping opinion or direction in respect of the proposed development before 16 May 2017. That was done in this case. The present application should therefore be determined in accordance with the 2011 regulations as they applied before 16 May 2017.

We are satisfied that our reasoned conclusions are up to date at the date of the report, but Scottish Ministers will wish to assess whether they remain so at the time of their decision.

ABBREVIATIONS

BCS	Butterfly Conservation Scotland
BCSCS	Butterfly Conservation's UK and Scottish Conservation Strategies
BNG	Biodiversity Net Gain
CAR	Water Environment (Controlled Activities) (Scotland) Regulations 2011
CaSPlan	Caithness and Sutherland Local Development Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CLSMP	Coul Links Site Management Plan
cm	centimetre
DACIC	Dornoch Area Community Interest Company
EC	European Commission
EclA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
ES	Environmental Statement
FOI	Freedom of Information
FTE	full-time equivalent
GPS	Global Positioning System
GVA	gross value added
GWDTE	Groundwater Dependent Terrestrial Ecosystems
ha	hectare
HGV	heavy goods vehicle
HIE	Highlands and Islands Enterprise
HRA	Habitat Regulations Appraisal
HWLDP	Highland-wide Local Development Plan
IEMA	Institute of Environmental Management and Assessment
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
kg	kilogram
kg/ha	kilogram per hectare
km	kilometre
LACG	Local Area Community Groups
LCA	Landscape Character Assessment
LDP	Local Development Plan
LVIA	Landscape and Visual Impact Assessment
m	metre
m ³	cubic metre
mg	milligram
mg/l	milligram per litre
MHWS	Mean High Water Springs
MIR	Main Issues Report
MLWS	Mean Low Water Springs
mm	millimetre
MW	monitoring well
NGO	non-governmental organisation
NPF	National Planning Framework
NVC	National Vegetation Classification
PAN	Planning Advice Note
RAMP	Recreational Access Management Plan
RDB	Red Data Book

RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SBL	Scottish Biodiversity List
SCLCC	Save Coul Links Conservation Coalition
Scotways	Scottish Rights of Way and Access Society
SDVSS	Sand Dune Vegetation Survey of Scotland
SEPA	Scottish Environment Protection Agency
SNH	Scottish Natural Heritage
SPA	Special Protection Area
pSPA	proposed Special Protection Area
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
SWT	Scottish Wildlife Trust
THC	The Highland Council
UHI	University of the Highlands and Islands
UK BAP	UK Biodiversity Action Plan
UKCP	UK Climate Impacts Programme
UK TAG	UK Technical Advisory Group
WeBS	Wetland Bird Survey

CHAPTER 1: BACKGROUND

Site description¹

1.1 The application proposal concerns an area of land immediately to the north of the coastal village of Embo in south-eastern Sutherland. To the north of the site is the Loch Fleet estuary, and to the east is Embo beach and the Dornoch Firth. The small town of Dornoch lies around 4km by road to the south west of the application site. The A9 Edinburgh-Thurso trunk road, which runs around 3km west of the site, connects Dornoch and Embo to Inverness and beyond.

1.2 The surroundings of the application site are predominantly rural, with the main land uses being livestock grazing and forestry. The neighbouring township of Embo, which has a population of some 300 people, contains a small store, a village hall, several bed and breakfast establishments, and a holiday park (Grannies Heilan Hame) with static caravans, lodges, touring caravans and tents.

1.3 The application site, which covers a total area of 328.4 hectares, encompasses agricultural land associated with Coul Farm. The category B listed Coul Farmhouse and associated buildings are located in the centre of the application site.

1.4 The northern and western parts of the site are improved pasture, used for sheep and cattle grazing, whereas the south-western part is rough pasture with patches of scrub, dune heath and woodland. The site is traversed by a dismantled railway line (now a core path), which runs south-east and then southwards across the site.

1.5 Between the former railway line and the coast is a stable dune system with some areas of trees, bracken and felled woodland, which forms part of the following designations:

- Dornoch Firth and Loch Fleet Special Protection Area (SPA), protected for its range of non-breeding waterfowl and breeding osprey;
- Dornoch Firth and Loch Fleet Ramsar site, also protected for its non-breeding waterfowl, breeding osprey and its range of coastal features; and
- Loch Fleet Site of Special Scientific Interest (SSSI).

1.6 The application site also lies adjacent to the Moray Firth proposed SPA (pSPA), protected for its marine birds.

1.7 The Ramsar and SPAs are international designations, whereas the SSSI is of national importance. 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).

The application proposal²

1.8 The planning application by Coul Links Ltd which is the subject of this report was lodged on 29 September 2017. The application seeks consent to develop an 18 hole golf course and practice area, set largely within the coastal dune system of Coul Links. The golf

¹ [CD001.006: ES Non-Technical Summary](#) & [CD002.027: Report to the North Planning Applications Committee](#)

² [CD001.006: ES Non-Technical Summary](#) & [CD002.027: Report to the North Planning Applications Committee](#)

course itself would occupy an area of 22.7 hectares within the application site, and would be constructed over an 18 month period.

1.9 The planning application was supported by an Environmental Statement (ES) prepared by STRI Group consultants. The ES was informed by a number of technical studies, including: surveys of ornithology and ecology; a landscape and visual impact assessment; a cultural heritage assessment; studies of hydrology and hydrogeology; an access, traffic and transport assessment; and a socio-economics study. The ES describes the potential for significant environmental effects, and identifies mitigation measures to minimise them.

1.10 Subsequently, the applicant lodged Addenda to the ES to address a number of environmental issues which required further information.

1.11 The stated objective of the proposal is to create a world class links course that would be rated amongst the top golf courses in the world. By siting the course close to Royal Dornoch Golf Club, the developers hope to enable the local area to become a competitive golfing destination in the international market.

1.12 The ES states that the 'golf course will be developed using the natural topography of the land, with very little earth movement required. The choice of site is due to its natural ability to support a golf course with minimal intervention, together with its significant opportunity to bring large scale economic benefit to the local and wider community.'

1.13 The proposal includes:

- creation of a new access road from the C1026;
- removal of trees and shrubs of low ecological importance;
- translocation of dune heath;
- minor earth moving and shaping;
- installation of irrigation system;
- sowing of playing surfaces with golf appropriate species;
- construction of golf club house;
- refurbishment of existing buildings to accommodate golf course facilities;
- construction of golf course maintenance shed building;
- upgrading of footpath network across the golf course; and
- installation of interpretation board(s) along public access paths.

1.14 The new clubhouse would be designed to be in keeping with the existing structures at Coul Links. Existing stone buildings near Coul Farmhouse would be renovated to create a pro-shop, caddy workshop/storage area, administration office and buggy store.

1.15 The ancillary development would also include internal access tracks, publicly accessible site access, interpretation boards, and the formation of an 85 space car park and coach parking.

1.16 The new private access from the C1026 would be constructed as a single track road with passing places, and would meet the C1026 at a priority controlled junction. The C1026 is a rural road that runs north to south adjacent to the western boundary of the site, which has some single carriageway sections and some sections where it is single track with passing places. It is to be widened to single carriageway throughout the section between the new junction and the C1026 / Embo Street junction.

1.17 A separate but related planning application reference 17/04404/FUL was submitted by the same applicants, for the drilling of two boreholes and construction of water storage reservoir (maximum capacity 20,000 cubic metres) for irrigation of the proposed golf course at Coul Links.

Consultations³

1.18 Scottish Natural Heritage (SNH) objected to the application proposal, due to the potential adverse effects of the golf course construction on the sand dune interest of Dornoch Firth and Loch Fleet Ramsar site and Loch Fleet Site of Special Scientific Interest (SSSI).

1.19 SNH stated that Coul Links supports some of the best quality SSSI dune slack habitats in Scotland. The water table and water chemistry of Coul Links are very important as they influence the sand dune vegetation which they support, especially the sand dune habitats. Fertiliser, herbicide or pesticide could be washed towards or even into a dune slack, potentially damaging these dune habitats. The proposal would result in significant permanent loss (16.4 hectares) of sand dune habitat, most of which is midway along the dune system.

1.20 SNH advised that the proposed development would disrupt natural dune processes such as dynamism, due to large dune areas becoming stabilised, and would result in significant levels of habitat fragmentation. SNH considered that translocation of habitat is unlikely to be successful, and is therefore not an appropriate technique to safeguard a protected area of such natural environmental complexity and notable dune quality. SNH concluded that the adverse impacts to the sand dune habitat would greatly outweigh the benefits of controlling invasive species.

1.21 In respect of birds, the applicant's Recreational Access Management Plan (RAMP) allowed SNH to withdraw its earlier objections relating to the disturbance of:

- the waterfowl assemblage of the Dornoch Firth & Loch Fleet SPA & Ramsar site;
- breeding birds of the Loch Fleet SSSI; and
- eider on the Moray Firth pSPA.

1.22 SNH advised that the proposal is likely to have a significant effect on the SPA birds, and hence that the competent authority is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests. However, SNH concluded that the proposals would not affect the integrity of the Dornoch Firth and Loch Fleet SPA.

1.23 SNH withdrew its previous objection to the borehole water abstraction application, noting SEPA's view that it is highly unlikely that the abstraction would have a significant effect on the availability of groundwater to the dune slack. Moreover, based on the appraisal carried out to date, SNH considered that the waste water treatment plant outflow would not adversely affect the integrity of the SPA and Ramsar site, and that coastal recreational disturbance would not adversely affect the integrity of the SPA and Ramsar site or the Moray Firth pSPA.

³ [CD002.027: Report to the North Planning Applications Committee](#)

1.24 Scottish Environment Protection Agency (SEPA) initially objected to the proposal, but later withdrew its objection subject to conditions relating to waste water drainage and securing a schedule of mitigation. The proposed development falls below the threshold requiring a connection to the public sewer, which is set out in Policy 65 of the Highland-wide Local Development Plan (HWLDP). The original proposal for a discharge to a soakaway was revised to a tertiary treatment system discharging to a reed bed system before discharging to a surface water ditch which outflows to Loch Fleet.

1.25 This system would require a licence under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (CAR). As Loch Fleet is an SPA and SSSI, SNH may be consulted as part of the CAR licence determination.

1.26 The applicant would seek to build the waste water drainage system to adoptable standards to enable Scottish Water to adopt the system should further development occur within the application site.

1.27 Having reviewed the further information regarding disruption to Groundwater Dependent Terrestrial Ecosystems (GWDTE), SEPA removed its objection in terms of direct impacts upon GWDTE, subject to the mitigation measures identified in Appendices 1-9 of the Schedule of Mitigation. SEPA is particularly concerned about the potential risks that could be posed by nitrates, and therefore welcomes the proposal in the Schedule of Mitigation that application rates would not exceed the threshold values recommended in the UKTAG technical report dated June 2014.

1.28 SEPA also considered that the proposed development is unlikely to have an adverse impact upon existing ground water abstractions, and removed its previous objection on flood risk grounds subject to the Schedule of Mitigation condition.

1.29 Scottish Water had no objections, but advised that this did not confirm that the proposed development could currently be serviced.

1.30 Historic Environment Scotland had no comments on the proposal, but recommended further consultation on any listed building consent application for the refurbishment of the category B listed Coul Farmhouse.

1.31 The Highland Council (THC) Transport Planning raised no objection to the proposal, subject to agreeing details of the proposed operation of a shuttle bus from Dornoch Golf Club, the junction of the site access with the C1026 and traffic calming measures on the C1026, and subject to appropriate planning conditions.

1.32 THC's Access Officer did not consider that the proposal accords with Policy 61 Landscape of the HWLDP. Three of the 10 viewpoints would experience significant effects, and there is likely to be a significant effect from the high/primary dune, which would affect recreation in an area of high landscape value. The development would also detract from the visual amenity of users of the core path, and there was inadequate consideration of public access in the context of HWLDP Policy 77 Public Access.

1.33 The proposed development encompasses a wide area of land on which recreational access rights, as provided by the Land Reform (Scotland) Act 2003, are exercisable by the public in addition to two public rights of way where a public right of passage has been created at common law. The change of use would affect access rights, as they would no

longer be exercised upon some land within the golf course, notably greens and tees, and the proposals would affect how the public access the wider area.

1.34 THC Environmental Health Officer had no objections, but made comments on the control of construction noise.

1.35 THC Contaminated Land had no objections to the proposed development, subject to a condition requiring the prior submission, approval and implementation of a scheme to deal with potential contamination on the site.

1.36 THC Archaeology had no objections to the proposal, but required an archaeological management plan or written scheme of investigation to be submitted to, and approved by, the council.

1.37 THC Historic Environment Team did not object to the application, and supported the intention to renovate and re-use the existing buildings on site.

1.38 THC Forestry Officer raised no objection in principle to the proposed tree removals, but expressed concern about the lack of protection measures for retained trees and of a compensatory tree planting plan to replace the trees/ woodlands to be removed.

Representations⁴

1.39 The planning application was reported to the Highland Council's North Planning Applications Committee on 5 June 2018. The committee report noted that there had been 2007 representations on the application, 1594 of which were opposed to the development, 349 were in support, and 64 did not specify if they were supporting or objecting. A number of petitions were submitted for and against the application, including an online petition of objection with more than 85,000 names.

1.40 A joint letter of objection was submitted by RSPB Scotland (which also submitted a detailed objection of its own), together with Buglife Scotland, Butterfly Conservation Scotland, Marine Conservation Society, Plantlife and the Scottish Wildlife Trust, which was endorsed by John Finnie MSP. Other objecting organisations included the IUCN World Commission on Protected Areas, the National Trust for Scotland, and Ramblers Scotland.

Not Coul, a third party group of objectors, lodged a detailed formal objection to the planning application.

1.41 The reasons for objection can be summarised:

- contrary to planning policy for protecting the natural heritage;
- unacceptable impact on an SSSI, SPA and Ramsar site;
- significant negative effect on a unique surviving sand dune habitat;
- destruction of coastline and natural habitats;
- adverse impacts to plant life, lichens and invertebrates;
- impact of pesticides/fertilisers on the environment/wildlife;
- effect on water levels in the dune system;
- water systems would be over-enriched with nutrients
- deficiencies with the applicant's Environmental Impact Assessment;
- applicant's recreational access management plan is inadequate;

⁴ [CD002.027: Report to the North Planning Applications Committee](#)

- proposed mitigation measures are ineffective;
- plans for translocation of dune heath and juniper are unrealistic;
- proposal should be adjusted to avoid impacts on natural heritage;
- ES conclusions about biodiversity net gain are incorrect;
- all habitats are in favourable condition, except dune heath;
- possible sea defences would increase threat to beach from wave erosion and rising sea level, and would have adverse landscape impact;
- adverse visual impact, including walkers and users of beach;
- traffic impact on Dornoch town centre;
- no demand for golf course in area;
- adverse effect on local economy, dependent on nature and wildlife tourism;
- economic benefits of golf course in ES are inaccurate and exaggerated; and
- proposal would exacerbate current problems with lack of facilities for tourists;

1.42 The proposals were supported by VisitScotland, golfing and tourism interests, and a number of local groups including Dornoch Area Community Council (a consultee), Dornoch and District Community Association, Dornoch and District Community Interest Company and the Embo Trust.

1.43 The grounds for supporting the application included:

- overwhelming support of local community;
- clear economic benefits;
- largest ever private investment in East Sutherland;
- once in a lifetime opportunity;
- creation of employment;
- wider benefits to communities in east and central Sutherland and Ross-shire;
- retention of young people in the Highland area;
- positive impacts for tourism, and people might stay in the area for longer;
- would increase public awareness of area;
- would benefit other golf courses in Highland;
- would assist golf course management students at Dornoch campus of University of the Highlands and Islands (UHI);
- similar to successful Castle Stuart development;
- Coul Links is a good site for a golf course;
- site currently unmaintained and neglected by public bodies;
- land overgrown with invasive species;
- left alone, the site would be vulnerable to the effects of climate change;
- golf course to be designed in environmentally sympathetic manner;
- 30 golf courses located within SSSIs in Scotland;
- net gain in biodiversity – important habitats would be properly managed; and
- shooting activities on the site would cease, to the benefit of nesting birds.

1.44 At the meeting of THC's North Planning Applications Committee on 5 June 2018, the committee decided to defer its decision on the application to allow SEPA time to respond to further information submitted by Not Coul on ground water dependent terrestrial ecosystems and related hydrological issues, together with the response by the applicant.

1.45 The application was reconsidered at the meeting of the council's North Planning Applications Committee on 20 June 2018. A supplementary committee report by the Area Planning Manager North advised that SEPA maintained its previous position in terms of wetlands within its remit, of no objection subject conditions.

1.46 The Area Planning Manager North recommended that the application be refused for the following reason:

"The application is contrary to the provisions of the Highland-wide Local Development Plan Policies 28 (Sustainable Design) [and] Policy 57 (Natural, Built and Cultural Heritage) as the proposed development would result in a significantly detrimental impact on the Loch Fleet Site of [Special] Scientific Interest and Loch Fleet Ramsar Site, designated for its sand dune habitat. In particular, the Coul Links support some of the best quality SSSI dune slack habitats in Scotland and the proposal, in its current format, will result in significant and permanent loss of sand dune habitat, particularly dune heath and dune slacks and impacts to other species which depend on it. Although mitigation is proposed the residual losses are extensive and likely to be permanent. In addition, the proposed development will create a high level of disruption to natural dune processes, such as dynamism, due to large dune areas becoming stabilised. It will also result in significant levels of habitat fragmentation, with the course infrastructure spread throughout the dune system. Furthermore, translocation of habitat is unlikely to be successful and therefore not an appropriate technique to safeguard a protected area of such natural environmental complexity and notable dune quality."

1.47 Following consideration of the 5 June and 20 June reports, and the representations and consultation responses, the committee resolved to grant planning permission subject to conditions and notification of the proposed decision to Scottish Ministers. The committee concluded that there were significant material considerations which outweighed the assessment of the application against the Highland-wide Local Development Plan and therefore justified the granting of planning permission. The considerations included:

- "the predicted significant economic benefits (as set out in the Environmental Statement);
- the positive re-use of redundant buildings;
- the securing of the positive long-term management of the site through the control of invasive species and the cessation of seasonal wildfowl shooting;
- a reduction of impacts presented through the provision of mitigation measures (as set out in the Biodiversity Gains Report)."

1.48 The committee minute also noted that:

"Despite SNH's reservations, Members were satisfied that the mitigation measures would be effective within a reasonable time frame.

In coming to this view, Members considered all the relevant planning issues, including giving equal consideration to all designations covering the site, that is the Loch Fleet Site of Special Scientific Interest, the Ramsar site and the Natura designations (Dornoch Firth Special Protection Area and proposed Moray Firth Special Protection Area). Members had regard to the Conservation (Natural Habitats etc) Regulations 1994, as amended, which specify that an Appropriate Assessment is required for Natura sites. In this instance the Appropriate Assessment, which had been undertaken by the Highland Council as the competent authority, concluded that the proposal would not adversely affect the integrity of the Dornoch Firth and Loch Fleet Special Protection Area or the proposed Moray Firth Special Protection Area.”

1.49 At the same meeting the committee resolved to grant planning permission for the parallel application 17/04404/FUL for the drilling of two boreholes and construction of water storage reservoir, subject to conditions and a section 75 agreement to secure a restoration bond.

Call-in direction

1.50 The council notified Scottish Ministers of its intention to grant planning permission for the golf course proposal on 4 July 2018.

1.51 Having considered the proposal, the Scottish Ministers decided on 24 August 2018, in terms of Section 46 of the Town and Country Planning (Scotland) Act 1997, to require the application to be referred to them for determination. This Direction was given as the ‘proposal raises issues of national importance in relation to natural heritage issues and its compliance with Scottish Planning Policy (SPP) which require further scrutiny at a national level’.

CHAPTER 2: RELEVANT POLICIES

Relevant legislation, policy and guidance

2.1 The current application is submitted under the Town and Country Planning (Scotland) Act 1997 as amended, but Scottish Ministers must also exercise their decision-making powers in accordance with relevant environmental legislation:

- Conservation (Natural Habitats, &c.) Regulations 1994⁵ (the Habitat Regulations);
- Nature Conservation (Scotland) Act 2004; and
- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011; and
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.

2.2 Regulation 48 of the Habitats Regulations 1994 requires that, where an authority concludes that a development proposal unconnected with the nature conservation management of a Natura 2000 site is likely to have a significant effect on that site, it must undertake an appropriate assessment of the implications for the conservation interests for which the area has been designated.

2.3 The Nature Conservation (Scotland) Act 2004 places a duty on Scottish Ministers to further the conservation of biodiversity, and requires them to have regard to the Scottish Biodiversity Strategy 2020. The Scottish Biodiversity List, made under section 2(4), is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

National Planning Framework (NPF) 3⁶

2.4 The National Planning Framework (NPF) 3 confirms that the Scottish Government's central purpose 'is to make Scotland a more successful country, with opportunities for all to flourish through increasing sustainable economic growth' (paragraph 1). It stresses that growth should respect 'the quality of environment, place and life which makes our country so special', and the need to protect 'our natural and cultural assets'. The natural environment is seen as 'fundamental to a healthy and resilient economy.'

2.5 NPF3 'highlights opportunities for rural development that will strengthen our communities. It sets out an ambitious agenda to secure investment in the unique assets of our coast and our islands' (paragraph 3). It describes the 'environment of our coastal areas, on land and at sea' as 'an outstanding, internationally important resource.' NPF3 states: 'On the east coast, tourism and recreational opportunities are rich and varied from wild life watching, to links golf courses, expansive beaches and historic buildings and settlements.'

2.6 NPF3 states that planning authorities will support Visit Scotland's Tourism Development Framework (see below) in their development plans. It advises that increases in population growth will be vital to sustain many of our rural communities, and that the Scottish Government 'do not wish development in our rural areas unnecessarily constrained.'

⁵ [CD005.009: The Conservation \(Natural Habitats, &c.\) Regulations 1994](#)

⁶ [CD004.002: Scottish Government Third National Planning Framework \(2014\)](#)

2.7 NPF3 refers to the Scottish Biodiversity Strategy, which highlights the importance of protected areas in providing jobs, particularly in rural Scotland, in addition to a range of other public benefits.

Scottish Planning Policy

2.8 Scottish Planning Policy 2014 (SPP)⁷ reaffirms the statutory status of the development plan as the starting point for decision making. It also establishes a presumption in favour of development that contributes to sustainable development, which is a significant material consideration where there is not an up to date development plan. It states that:

“The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost.”

2.9 Paragraph 20 ‘emphasises the importance of our environment as part of our cultural identity and an essential contributor to well-being and an economic opportunity. Our spatial strategy aims to build resilience and promotes protection and sustainable use of our world-class environmental assets.’

2.10 Decisions require to be guided by a number of principles set out in SPP, including:

- giving due weight to net economic benefit;
- responding to economic issues, challenges and opportunities, as outlined in local economic strategies;
- supporting climate change mitigation and adaptation, including taking account of flood risk;
- improving health and wellbeing by offering opportunities for social interaction and physical activity, including sport and recreation;
- having regard to the principles for sustainable land use set out in the Land Use Strategy; and
- protecting, enhancing and promoting access to natural heritage, including green infrastructure, landscape and the wider environment.

2.11 Paragraph 75 of SPP states that the planning system should encourage rural development that supports prosperous and sustainable communities and business whilst protecting and enhancing environmental quality, and support an integrated approach to coastal planning.

2.12 Paragraph 77 states that: ‘In remote and fragile areas and island areas outwith defined small towns, the emphasis should be on maintaining and growing communities by encouraging development that provides suitable sustainable economic activity, while preserving important environmental assets such as landscape and wildlife habitats that underpin continuing tourism visits and quality of place.’

2.13 Paragraph 89 requires development plans to identify areas of largely developed coast that are a major focus of economic or recreational activity and are likely to be suitable for further development, and to identify areas with significant constraints and largely

⁷ [CD004.001: Scottish Planning Policy](#)

unspoiled areas of coast that are unsuitable for development. The paragraph explains ‘that this broad division does not exclude important local variations, for example where there are areas of environmental importance within developed estuaries, or necessary developments within the largely unspoiled coast where there is a specific locational need, for example for ... tourism developments of special significance....’

2.14 Paragraph 94 advises that development plans should align with relevant local economic strategies, recognising the potential of key sectors for Scotland with particular opportunities for growth (including tourism), and paragraph 100 states that plans should be informed by the tourism and development framework for Scotland.

2.15 Paragraph 194 of SPP indicates that the planning system should conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities. It also advises that benefits for biodiversity should be sought from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats.

2.16 SPP paragraph 203 states that: ‘Planning permission should be refused where the nature or scale of proposed development would have an unacceptable impact on the natural environment. Direct or indirect effects on statutorily protected sites will be an important consideration, but designation does not impose an automatic prohibition on development.’

2.17 Paragraph 204 of SPP advises that: ‘Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur. The precautionary principle should not be used to impede development without justification. If there is any likelihood that significant irreversible damage could occur, modifications to the proposal to eliminate the risk of such damage should be considered. If there is uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered.’

2.18 Paragraphs 207-209 of SPP confirm that any proposal likely to have a significant effect on Natura 2000 sites (SACs and SPAs) requires to be subject to an appropriate assessment of the implications for the conservation objectives. Any such proposal may only be approved if the competent authority has ascertained by means of the appropriate assessment that there will be no adverse effect on the integrity of the site.

2.19 A derogation is available for authorities to approve projects which could adversely affect the integrity of a Natura site if:

- there are no alternative solutions;
- there are imperative reasons of overriding public interest, including those of a social or economic nature; and
- compensatory measures are provided to ensure that the overall coherence of the Natura network is protected.

2.20 Paragraph 211 indicates that: ‘All Ramsar sites are also Natura 2000 sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes.’

2.21 Paragraph 212 states that development that affects an SSSI (and other listed designations) 'should only be permitted where:

- the objectives of designation and the overall integrity of the area will not be compromised; or
- any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.'

National advice and guidance

2.22 Revised guidance was issued in June 2000 updating Scottish Office Circular No. 6/1995 on implementing the Habitats and Birds Directives. The guidance states that Scottish Ministers expect there to be few cases where it is judged that imperative reasons of over-riding public interest (IROPI) will allow a development to proceed which will have an adverse effect on the integrity of the internationally important SPA or SAC designations.

2.23 Where the importance of the development is judged to outweigh the nature conservation importance of the site, compensatory habitat measures must be undertaken to maintain the coherence of the Natura 2000 network.

2.24 Scotland's Economic Strategy⁸ reiterates the Scottish Government's purpose of creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. The Government's approach is based on two key pillars: increasing competitiveness and tackling inequality. The priorities include securing inward investment (focusing on key sectors such as tourism), promoting inclusive growth and enabling Scotland to take advantage of international opportunities.

2.25 The Principles for Sustainable Land Use within Scotland's Land Use Strategy 2016-2021 include the need for land use decisions to be informed by an understanding of the functioning of the ecosystems which they affect, and to encourage outdoor recreation opportunities and public access to land.

2.26 PAN 43 Golf Courses and Associated Development⁹ (1994) is somewhat dated, but it is still extant. It notes that interest in the development of new golf courses in rural areas is likely to remain strong, and that demand is generally focussed in the vicinity of famous courses which attract growing numbers of tourists. The PAN advises that development plans should indicate the locations which might be acceptable for new golf courses and reaffirm the protection which is normally afforded to the countryside.

2.27 Paragraph 59 of PAN 43 highlights that 'Coastal erosion on links courses subject to storm action has prompted some clubs to take steps to stabilise dunes in order to protect greens and fairways', and advises that 'Planning authorities should consider very carefully the long-term consequences of siting new courses in similar areas.'

2.28 Visit Scotland's Tourism Development Framework for Scotland¹⁰ is intended to help inform development plans about potential development opportunities, and stresses the need for a supportive policy framework. The strategy indicates that the quality of Scotland's environment is the biggest attraction to tourists. Reference is made to golf's important

⁸ [CD004.022: Scotland's Economic Strategy, Scottish Government \(March 2015\)](#)

⁹ [CD004.014: PAN 43 Golf Courses and Associated Development \(1994\)](#)

¹⁰ [CD004.030: Tourism Development Framework for Scotland, Visit Scotland \(2016\)](#)

contribution to tourism in Scotland, with golf tourism generating £120 million and directly employing 1,480 people.

2.29 The Draft Advice on Net Economic Benefit and Planning¹¹ published in 2016, advises that:

“Planning applications must be determined on their individual merit, in accordance with the development plan and ‘material considerations’, which may include the economic benefit of the development. Where economic benefit is relevant to the decision-making process it needs to be set alongside the other guiding principles of sustainability and good placemaking and any other material considerations.”

2.30 In assessing net economic benefit, assumptions made must be transparent, evidence-based and as accurate as possible. The Advice guards against ‘optimism bias’ in the case of large-scale, complex projects. In assessing net economic benefit, account must be taken of ‘deadweight’ (outcomes which would have occurred without the development) and ‘displacement’ effects.

The development plan

2.31 The development plan for the area comprises the Highland-wide Local Development Plan (HWLDP), adopted in April 2012, together with the Caithness and Sutherland Local Development Plan (CaSPlan), adopted in August 2018 and adopted Supplementary Guidance.

Highland-wide Local Development Plan¹²

2.32 Amongst other things, the vision for Highland in HWLDP seeks to ensure that the special quality of the natural environment is protected and enhanced, and that opportunities are provided to encourage economic development and create new employment, focussing on key sectors such as tourism, and promoting opportunities for investment and diversification in the economy.

2.33 The plan envisages that by 2030 Caithness and Sutherland will have a high-quality tourist industry, with tourists attracted by the outstanding natural heritage, outdoor activities and key tourist destinations providing high quality facilities, and will have a more diverse economy.

2.34 Policy 28 Sustainable Design states that all proposed developments must be assessed against the extent to which they:

- impact on habitats, species, landscape and scenery, particularly within designated areas;
- demonstrate sensitive design and high-quality design in keeping with local character and historic and natural environment;
- promote varied, lively and well-used environments; and
- contribute to the economic and social development of the community.

¹¹ [APP006.009: Draft Advice on Net Economic Benefit and Planning, March 2016](#)

¹² [CD004.003: Highland-wide Local Development Plan 2012](#)

2.35 Policy 28 also indicates that:

“In the relatively rare situation of assessing development proposals where the potential impacts are uncertain, but where there are scientific grounds for believing that severe damage could occur either to the environment or the wellbeing of communities, the Council will apply the precautionary principle”; and that

“Developments that will have significant adverse effects will only be supported if no reasonable alternatives exist, if there is demonstrable over-riding strategic benefit or if satisfactory overall mitigating measures are incorporated.”

2.36 The HWLDP defines the precautionary principle as ‘the principle that authorities should act cautiously to avoid damaging the environment or wellbeing of communities (in a way that cannot be reversed) in situations where the scientific evidence is not proven but the possible damage could be significant.’

2.37 Policy 36 Development in the Wider Countryside lists the range of matters which developments outside of Settlement Development Areas will be assessed, including:

1. siting and design;
2. design sympathetic to existing patterns of development in the area;
3. compatibility with landscape character and capacity;
4. avoidance of incremental expansion of one particular development type within a landscape whose distinct character relies on an intrinsic mix/distribution of a range of characteristics;
5. avoidance, where possible, of the loss of locally important croft land; and
6. ability to address drainage constraints without involving undue public expenditure or infrastructure that would be out of keeping with the rural character of the area.

2.38 Policy 36 also states that: ‘In considering proposals, regard will also be had to the extent to which they would help, if at all, to support communities in Fragile Areas (as defined by Highlands & Islands Enterprise) in maintaining their population and services by helping to re-populate communities and strengthen services’.

2.39 Paragraph 20.7.1 of the HWLDP recognises that tourism makes a significant contribution to the Highland economy. Policy 43 Tourism enables growth in high quality tourism development to support the aims and outcomes of the Tourism Partnership Plan where:

- the scale of the proposal is proportionate to its location/settlement;
- it will complement existing/allocated tourist facilities within a settlement;
- it will increase the length of people’s stay, increase visitor spending or promote a wider spread of visitors; and
- it will safeguard, promote responsible access, interpretation and effective management or enhancement of natural, built and cultural heritage features.

2.40 Policy 49 Coastal Development states that any development proposals for the coast should not have an unacceptable impact on the natural, built or cultural heritage and amenity value of the area, and should be assessed against the requirements of the Highland Coastal Development Strategy: Supplementary Guidance.

2.41 Of particular relevance to the current proposal is Policy 57 Natural, Built and Cultural Heritage, which applies the following criteria:

- “1. For features of local/regional importance we will allow developments if it can be satisfactorily demonstrated that they will not have an unacceptable impact on the natural environment, amenity and heritage resource.
2. For features of national importance we will allow developments that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must also be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services.
3. For features of international importance developments likely to have a significant effect on a site, either alone or in combination with other plans or projects, and which are not directly connected with or necessary to the management of the site for nature conservation will be subject to an appropriate assessment. Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, we will only allow development if there is no alternative solution and there are imperative reasons of overriding public interest, including those of a social or economic nature.”

2.42 Policy 57 continues: ‘Where a priority habitat or species (as defined in Annex 1 of the Habitats Directive) would be affected, development in such circumstances will only be allowed if the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment, or other reasons subject to the opinion of the European Commission (via Scottish Ministers). Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, the proposal will not be in accordance with the development plan’.

2.43 Policy 58 Protected Species, together with the associated supplementary guidance, set out how protected species should be protected. Development that is likely to have an adverse effect on protected bird species (including species listed in Annex 1 and Annex 2 to the Birds Directive and Schedule 1 of the Wildlife and Countryside Act 1981 as amended, and birds of conservation concern) will only be permitted where there is no other satisfactory solution, and the development is required in the interests of public health or public safety.

2.44 Development likely to have an adverse effect on other protected animals and plants will only be permitted where the development is required for preserving public health or public safety.

2.45 Policies 59 and 60 address other important species and other important habitats.

2.46 Policy 61 Landscape indicates that new developments should be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed.

2.47 Policy 64 Flood Risk requires that development proposals should avoid areas susceptible to flooding and promote sustainable flood management.

2.48 Policy 65 Waste Water Treatment requires all new development to connect to the public sewer unless it can be demonstrated that development is unable to connect for

technical or economic reasons and that the proposal is not likely to result in or add to significant environmental or health problems.

2.49 Policy 66 Surface Water Drainage states that all proposed development must be drained by Sustainable Drainage Systems (SuDS).

2.50 Policy 77 Public Access provides that where a proposal affects a core path, the council will require it to retain the existing path while maintaining or enhancing its amenity value, or ensure alternative access provision which is no less attractive, is safe and convenient for public use, and does not damage or disturb species or habitats.

2.51 The Main Issues Report (MIR) for the emerging Highland-wide Local Development Plan 2 proposes some changes to HWLDP, including the separation of Policy 57 into two policies – historic environment and natural environment – and revisions to comply with SPP. However, none of the proposed revisions would fundamentally change the policy direction of the plan, or the policies against which the current application requires to be assessed.

Caithness and Sutherland Local Development Plan¹³

2.52 CaSPlan's vision for 2035 contains the aspirations of growing communities, employment, connectivity and transport, and environment and heritage. It envisages a strong, diverse and sustainable economy, including a tourist industry that combines culture, history, adventure and wildlife, and high quality places where the outstanding environment and natural, built and cultural heritage is celebrated and valued assets are safeguarded.

2.53 Paragraph 5 of the plan states that: 'Opportunities for work, training and education must be provided for local people to stay in the area. Development and regeneration cannot take place at a cost to the outstanding built, natural and cultural heritage.'

2.54 The plan identifies the east coast of Sutherland, including the application site, as part of a tourism corridor. The site is also close to the North Coast 500 route.

2.55 Policy 3: Growing Settlements requires developments within, or which round off or consolidate growing settlements such as Embo to be assessed against criteria including the extent to which they are likely to help sustain, enhance or add to facilities, and they would not result in an adverse impact on any other important heritage feature. The application site lies immediately to the north of the 'growing settlement' of Embo, the boundaries of which are not defined in the plan.

2.56 Relevant placemaking priorities for Embo Growing Settlement include:

- significant developments to be accompanied by a recreational management plan to assess any likely increased pressures from recreational access of the sand dunes or disturbance to wintering or breeding birds; and
- development proposals should have regard to Dornoch Firth and Loch Fleet SPA and Ramsar site, Moray Firth SAC and Loch Fleet SSSI.

2.57 The plan highlights the importance of tourism as a major source of income for the Dornoch area, with visitors being attracted by the history of the settlement, the quality of the local environment and the Royal Dornoch Golf Course.

¹³ [CD004.005: Caithness & Sutherland Local Development Plan 2018](#)

Local guidance

2.58 The Highland Coastal Development Strategy¹⁴ was published by the council in 2010, and whilst it has not been formally adopted as supplementary guidance it is a material consideration in this case. The site at Coul Links is located in the 'undeveloped coast'.

2.59 The strategy states that: 'many Highland coastal areas have great landscape value and are regarded as desirable for both local residential living and tourism. However, the high natural heritage value of the area means that standards for development often have to be quite stringent if development is to be genuinely sustainable. Development should only be encouraged where natural systems can sustain it and where the socio-economic benefits clearly outweigh the environmental costs.' The strategy for the east coast includes protecting the integrity of designated sites by discouraging inappropriate development.

2.60 Dornoch Economic Masterplan¹⁵, which was commissioned by Highlands and Islands Enterprise, aims to ensure that by 2023 Dornoch is promoted as a first-class golf resort, and identifies the lack of high-end accommodation as a potential barrier to achieving this.

¹⁴ [CD004.012: Highland Coastal Development Strategy 2010](#)

¹⁵ [LACG002: Dornoch Economic Masterplan, HIE 2013](#)

CHAPTER 3: COASTAL PROCESSES AND CLIMATE CHANGE

BACKGROUND

3.1 Some objectors consider that parts of the golf course would be too close to the front of the vegetation line on the main dune at Coul Links. This relates to the 15th green, the back tees at the 16th, the 17th fairway and green and the back tees at the 18th.

3.2 The concern is that these holes would be at risk from future coastal erosion, in particular in the light of rising sea levels caused by climate change. It is feared that this risk would lead to future pressure for hard coastal defences to protect parts of the course, and/or that the future need to retreat from an eroding coastline would mean changes to the course layout which could have further adverse effects on habitats and species at the site.

The Environmental Statement

3.3 Chapter 11 of the ES¹⁶ covers coastal erosion, with more detail provided in Appendix ES11¹⁷, a desk top study prepared by RPS. Chapter 11 does not identify any likely significant environmental effects arising from this aspect of the development.

3.4 The desktop study concludes that the shoreline at Coul Links is 'dynamically stable'. This means that it will erode as a result of storms but then recover during calmer conditions. Storms have been more important for driving coastal change than longer term causes such as sea level rise.

3.5 In Chapter 11 of the ES it is stated that it is imperative that there is an ongoing programme of monitoring of the risk of coastal erosion and a dune maintenance programme to maximise the natural protection afforded by the dune system. Soft engineering techniques such as sand trap fencing, the planting of pioneer species and maintaining the profile of the front dune are suggested.

3.6 It is also recommended that those parts of the course which would be nearest the edge of the vegetation line are constructed as far landward as permissible, within the confines of the golf course layout plans submitted with the application.

THE CASE FOR THE APPLICANT

3.7 For the applicant, in addition to the material in the ES, the principal evidence to the inquiry in respect of climate change and coastal erosion is contained in the [precognition](#) and inquiry report¹⁸ of Kenneth Pye. In response to Dr Hansom's precognition for Not Coul, Professor Pye submitted a rebuttal paper.¹⁹

3.8 Professor Pye's evidence is that historical maps and aerial photographs show that most of Coul Links has experienced limited morphological change over the past 150 years. The overall pattern is fluctuating sediment gains and losses, but with long-term net gain in the north part of Coul Links and long-term slow net loss in the south.

¹⁶ [CD001.007 Environmental Statement](#)

¹⁷ [CD001.091 ES Appendix ES11 – Coul Links Coastal Desktop Study Final](#)

¹⁸ [APP004.001: Inquiry Report by Professor Kenneth Pye](#)

¹⁹ [APP004.020 - Response to Document NC 158 prepared by Dr J. Hansom](#)

3.9 There is sediment transport southwards from Golspie across Loch Fleet, but also probably some northwards from what may be a 'sediment divide' at Embo, where there is accelerated erosion due to the rock outcrops and rock armour, and erosion from use of the beach and dunes by people. Hard coastal defences can release sediment from a beach in the short term. Coul Links will probably have benefitted from this effect following the installation of the hard coastal defences at Golspie in the 1970s. However the effects of the strong tidal forces at Loch Fleet will continue to be a very important future source of sediment for Coul Links.

3.10 There is a state of 'dynamic equilibrium', with very little net change in the average position of the dune edge. The near-stability of the frontal dunes is reflected in the relatively large height and cross-sectional area of the frontal dune ridge along the central and southern parts of Coul Links.

3.11 Figures 28 and 29 of Professor Pye's inquiry report show changes in the position of the dune toe near the closest tees and greens between 1873 and 1975. There was net accretion (seaward movement of the front dune) between 1971 and 2009, but then erosion in the years after that during what was a particularly stormy period. At his site inspection in January 2019 Professor Pye observed dune recovery, with embryo dunes forming.

3.12 Tidal records for Aberdeen and Wick suggest that mean sea level is now rising faster than land uplift, resulting in relative mean sea level rise of 1–2 millimetres (mm) per year. The larger rises provided in a 2011 report by Dr Hansom for Wick, Aberdeen and Inverness are over a fairly short period (1992 to 2007) which cannot fully take account of the influence (of several centimetres) on tides of the 18.6 year lunar nodal tidal cycle. That report also has relatively large margins of error.

3.13 Since the RPS desktop study in 2017, the Met Office Hadley Centre has published new sea level rise projections as part of the UK Climate Impacts Programme (UKCP18). These sea level rise projections are reported in the UKCP18 Marine Report.²⁰

3.14 The three scenarios in UKCP18 (identified as RCP 2.6, RCP 4.5 and RCP 8.5) may be considered to be representative of 'low', 'medium' and 'high' future emissions scenarios respectively. These scenarios have been used to construct projected sea level curves for the inner Moray Firth up to 2100. These curves show the 5th, 50th and 95th percentile model output values for each of the three emissions scenarios, with the 50th percentile being the 'best estimate' for each scenario.

3.15 The three model output scenarios provide a wide range of projected future sea levels. The RCP 2.6 scenario provides projected increases in mean sea level, relative to the 1981-2000 baseline average, of between approximately 9 centimetres (cm) (5th percentile) and 25cm (95th percentile) by 2050, and of approximately 13.5cm to 54cm by 2100. The RCP 4.5 scenario gives a projected 5th-95th percentile range of approximately 10cm to 27.5cm rise by 2050 and 20cm to 65cm by 2100. The RCP 8.5 scenario projects a range of approximately 12cm to 32cm rise by 2050 and 36cm to 92cm by 2100.

3.16 However, the UKCP18 modelling also indicates a possible reduction of up to 20% in significant wave height in the Moray Firth area. Since dune erosion depends more on wave

²⁰ [APP004.012 – Palmer et al – 2018 – UKCP18 Marine Report](#)

energy than mean sea levels, erosion risk at Coul Links could therefore reduce rather than increase.

3.17 There is no guidance on which of the UKCP18 scenarios to use for planning purposes. In Professor Pye's view, account should be taken of risk. To take an extreme example, one would take an ultra-conservative approach for something like a nuclear power station development, and assume the worst-case scenario. One can assume lower levels of emissions for other planning purposes.

3.18 For the purposes of illustration a simple model²¹ shows the potential response of the shoreline to the projected sea level rises in the emissions scenarios. For this purpose, the 'likely' scenario is the RCP 4.5 50th percentile and 'worst case' is the RCP 8.5 95th percentile. An assumption is made that the existing gradient between Mean High (MHWS) and Low Water Springs (MLWS) along Coul Links is maintained during sea level rise. MHWS, MLWS and the dune toe are assumed to move landward in a proportional manner, maintaining the same gradients. In reality more spatial variation would be expected than is suggested by this simple model.

3.19 Under the 'likely' scenario, limited net dune edge recession of up to 6 metres (m) is projected by 2050 but this would not affect the 15th and 17th greens. The back tees for the 16th and 18th holes would see increased risk of storm erosion but would lie within the zone of natural possible post-storm recovery. Professor Pye's evidence is that one cannot quantify the risk precisely, but his judgement is that recession of 6m by 2050 is less likely than more likely, in particular if soft dune management techniques are employed in the meantime.

3.20 With the 'worst case' scenario around 13m of MHWS and dune toe recession could occur by 2050, with up to 40m recession by 2100, increasing the risk that erosion would impact significantly on the 16th and 18th tees. With 40m of recession, the 15th and 17th greens would escape erosion but would be placed at increased risk from further storm events. The 17th fairway is quite wide, and could be moved a few metres landward if required.

3.21 The frontal dunes act as a flexible and effective buffer zone which absorbs wave energy during storms, and recovers afterwards. The effectiveness of the frontal dunes in this respect could be enhanced by a programme of dune management, possibly including a range of soft engineering and visitor management measures. This should be informed by further baseline surveys and monitoring of the beach and dune profiles. There would be benefits of managing public access at Embo, and restricting access on the 'big dune' near the 15th green to assist vegetation growth. Professor Pye takes the view that such long term monitoring and management would be essential. It is often helpful to have a dune or beach management plan to inform this.

3.22 It is entirely acceptable, and not contrary to good practice, to place some elements of the golf course in such close proximity to the vegetation edge that there is a need to monitor coastal change and contemplate soft management. Such soft engineering measures would generally be undertaken above the level of MHWS.

²¹ See Tables 8 to 14 of Professor Pye's inquiry report, and in particular the maps at Figures 34 and 35.

3.23 In Professor Pye's opinion, if effective monitoring and a programme of beach and frontal dune management measures are implemented, there is a greater than even probability that there would be no requirement for significant course re-design before 2050, and possibly beyond. The likely requirement for course re-design could effectively be reduced to zero if management measures include a significant programme of beach nourishment. These kinds of measures are those advocated in guidance, for example guidance from SNH²² which is intended to apply, and has been applied, to golf courses around Scotland.

3.24 In its closing submissions²³, the applicant stresses that SNH did not object in relation to the risk of coastal erosion, instead advising that this was an issue to be considered in the context of long-term coastal management. SNH recommended planning conditions ensuring there would be no hard coastal defences and providing for strategies to manage coastal processes. The council concurs with this approach.

3.25 Not Coul exaggerates the risk of coastal erosion affecting the golf course, and the prospect of hard coastal defences. Dr Hansom ignores the views of both SNH and the council on this matter, and is very selective in his use and presentation of survey data provided by Dr Dargie on the recession of the vegetation edge in recent years. He ignores the recent seaward advance of the dune edge along the stretch proposed for the 17th hole. Professor Pye, on the other hand, provided an expert peer review of the ES.

3.26 Dr Hansom's position is not based on sound evidence. He alleges that national policy clearly states that development of unprotected shorelines should be discouraged if it would require coastal defences. However much of his evidence relies on his work with Dynamic Coast, part of the National Coast Change Assessment. This provides background evidence but is not policy. Dr Hansom refers to paragraph 88 of SPP but this relates to development planning, not development management.

3.27 The evidence of Dr Hansom and Not Coul ignores the fact that no hard defences are planned. It also ignores the soft coastal management that the applicant would employ, as discussed by Professor Pye. In cross-examination, however, Dr Hansom acknowledged that such measures, in particular beach nourishment, would be effective in tackling erosion caused by waves. All of the soft management measures would be above MHWS and on land controlled by the applicant. They could be secured by planning condition, as proposed by the applicant.

3.28 Professor Pye's evidence contradicts the evidence of Dr Hansom that there has been a long-term sediment deficit within the Dornoch Firth area. Indeed Dr Hansom (having seen the evidence from Dr Pye) qualified his view by stating at the inquiry that there is only a deficit at the southern part of the site, and he instead placed more emphasis on the effects of future sea level rise. In relation to the UKCP18 emissions scenarios Dr Hansom also acknowledged that the 'worst case' RCP 8.5 95th percentile is very unlikely to occur.

²² [APP004.017 - SNH - 2000 - A Guide to Managing Coastal Erosion in Beach-Dune Systems](#)

²³ [Coul Links Limited](#) closing submissions. See paragraphs 7.52-7.59

THE CASE FOR NOT COUL

3.29 For Not Coul, the principal evidence to the inquiry on this subject was from Jim Hansom. Dr Hansom's [precognition](#) reviews the inquiry report of Professor Pye, in effect updating his earlier review (in his inquiry report²⁴) of the RPS desk study.

3.30 Dynamic Coast²⁵ reported a 38% increase in erosion nationwide and a doubling of erosion rates since the 1970s. These trends are expected to extend to currently stable or slowly eroding areas. Within the Dornoch Firth, Golspie and Coul Links are identified as an exemplar of this effect.²⁶ The proposal needs to be considered in this wider context of erosion at other beaches in the area in recent decades.

3.31 Between 1904 and 1977, Dynamic Coast shows modest retreat of MHWS of 10m to 20m along most of the southern and central section of Coul Links. Dynamic Coast identified the 2009 Ordnance Survey MHWS at Coul Links to be the 1977 line, thus misrepresenting the modern coastal position. Using the 1872 Ordnance Survey mapped shoreline, up to 35m of erosion occurred between 1872 and 1977.

3.32 Dr Hansom agrees with Professor Pye that there has been net accretion and recovery since the 1970s. Despite concerns about its accuracy, the applicant's 2016 digital elevation model illustrates the mainly seaward movement of MHWS between 1977 and 2016 in the regions of the 15th and 17th greens and 16th and 18th back tees.

3.33 Early 1970s erosion at Golspie saw construction of a rock revetment that was extended south in 1979 and then again subsequently. Beach lowering resulted. Much of the sediment supply for Coul Links comes from updrift erosion of Golspie beaches. Coul Links will have likely benefitted from sediment from this beach lowering. This may be a significant factor in the accretion at Coul Links since 1977. The broader process continues today but arguably with reduced volumes.

3.34 So the main source of sediment for Coul Links is Golspie, but there are also significant amounts from tidal movements in Loch Fleet. Dr Hansom agrees with Professor Pye that the Loch Fleet estuary has a surfeit of sediment. This is enough to build a full suite of embryo dunes building to foredunes in the north part of Coul Links, but not further south towards Embo. There would be very limited onshore/offshore exchange of sediment. However, Dr Hansom accepted that the volume of these various sediment reserves has not been calculated.

3.35 In the absence of more recent mapping of MHWS, changes to the vegetation edge can help to show recent coastal change. Overall, the change in the vegetation edge evident from aerial photography from 2009 to 2018 shows 5-16m of landward movement in the southern part of Coul Links. But it is accepted that this is a fairly short period of time. The photography for this period shows modest seaward movement of the vegetation edge in the central section of Coul Links, north of the 17th green, and stability at the entrance to Loch Fleet. It is accepted that there are minor embryo dunes in places, but these may be

²⁴ [NC154 - Jim Hansom Inquiry Report](#)

²⁵ [NC067 - Hansom et al \(2017a\) - Dynamic Coast - NCCA - National Coastal Change Assessment Overview CRW2014-2](#)

²⁶ [NC066 - Hansom et al \(2017\) - Dynamic Coast - NCCA Cell 3 - Cairnbulg Point to Duncansby Head CRW-2014-2](#)

ephemeral and could be removed by the next major storm. The term 'dynamically erosional' is a more accurate description of the system.

3.36 Considering the relevant holes in more detail, the 15th green location shows MHWS seaward accretion of up to 14m in the period 1872-1977. However being close to the stream exit this may be unrepresentative of the overall situation. The vegetation edge shows landward erosion with the green less than 10m from the 2018 edge. Away from the stream exit, MHWS at the 16th back tee shows progressive erosion in the period 1872-1977. The proposed tee position is now less than 2m from the vegetation edge of an exposed dune cliff eroding at about 0.6m per year since 2009.

3.37 MHWS position at the 17th green shows erosion of up to 25m in the period 1872-1977. The position for the 17th green now lies less than 20m from the 2018 vegetation edge. Earlier erosion at the proposed 18th back tee reached 6m from the tee position but then regained 4m by 2018 due to stabilisation of the 2014 eroded dune face. It is accepted, however, that Figure 28 of Professor Pye's inquiry report shows accretion of the dune toe between 1904 and 1975. It is agreed that there is a small amount of embryo dune development here, but there is also cliffing as shown on the photographs for this location provided by Dr Hansom.²⁷

3.38 In summary, the positions of MHWS and vegetation edges at Coul Links are dynamic, and show reversals. But the overall long-term trend is for ongoing landward erosion. As a result, the 15th and 17th greens and the 16th and 18th back tees would be positioned too close to a mobile frontal edge to be sustainable. They are at erosional risk now and this risk is set to increase in the future.

3.39 Local tide gauges on the east coast of Scotland now show that falling relative sea levels have been replaced by relative sea level rise. If this trend continues, it is set to fuel more rapid erosion of beaches. On the east coast an accelerating rate of sea level rise has been observed between 1993 and 2011. At Aberdeen this was 3.2mm per year (+/-2.7mm) and at Wick 4.0mm per year (+/-1.7mm). This is an increase from rises in the period 1980 to 2011 of 2.6mm per year at Aberdeen and 2.1mm per year at Wick.

3.40 The RCP 8.5 scenario anticipates a 30cm increase in relative sea level by 2050 for this part of the Scottish coast (equivalent to a rise of 8mm per year). The projections are simply scenarios – there is no probability attached to them. The probabilities are within the scenarios themselves. For a given emissions scenario the percentiles set out what is thought likely to occur in terms of sea level rises.

3.41 In fact RCP 8.5 is considered at present to be the most likely, and is 'business as usual'. The advice of government agencies like SEPA and SNH is based on RCP 8.5. Because there is uncertainty, the precautionary principle would invoke the use of RCP 8.5, 95th percentile. There is nothing in guidance or policy to suggest which scenarios to use dependant on different types of development. But Dr Hansom acknowledged the difference between built development and development like golf holes which can more easily be reversed or removed.

3.42 A large reduction in wave heights would be required to offset the effect of an extra 30cm or 1m of sea level rise. However there is little agreement on the amount or direction

²⁷ [NC158 - Jim Hansom supporting graphs maps and photographs](#)

of wave height change. The UKCP18 Marine report (page 29) suggests average wave height change of 10-20% and a general tendency towards lower wave heights. Changes in extreme waves are also predicted at 10-20%, but there is no agreement on whether that will mean larger or smaller waves. For example, at the Moray Firth tide gauge mean significant wave height is projected to decrease by up to 10% but the annual maximum wave height may either decrease by up to 15% or increase by up to 10%. Therefore the possibility exists of increases in those categories of wave heights that have the most potential to erode.

3.43 Irrespective of any anticipated changes to storminess, there will be deeper water depths resulting from increasing sea level. This will allow larger and less attenuated waves than before to access the shore and cause erosion.

3.44 Future increases in surface and groundwater levels in the dune system and beach have the potential to result in increased beach water tables. This may have an indirect impact on erosion. This is because high beach water tables produce stronger down-beach backwash by waves, carrying sand seaward from the upper beach and resulting in more beach lowering and erosion.

3.45 With reference to the model contained in Professor Pye's inquiry report (see paragraph 3.18 above), the 15th and 17th greens and the 16th and 18th back tees would be impacted by landward recession of the vegetation edge well before MHWS reaches these greens and tees.

3.46 Dr Hansom's Figure 1B²⁸ shows February and November 2018 GPS beach surveys for the same profiles used in Professor Pye's model. Dr Hansom's Figure 2 shows the mapping for the RCP 8.5 95th percentile scenario in the model at a smaller scale. This shows the projected vegetation edge for 2050 and 2100. The current lateral distance between MHWS and the vegetation edge is assumed to be maintained at 2050 and 2100. A further document,²⁹ provided during the inquiry sessions, shows a three dimensional rendering of the mapping in Figure 2.

3.47 In respect of the 2018 GPS beach surveys, the mapping provided by Dr Hansom shows that the surveyed MHWS at that time had already reached, in places, the line for the RCP 8.5 95th percentile 2050 MHWS projected in Professor Pye's model. Dr Hansom's Figure 1B shows the further erosion between the applicant's 2016 digital elevation model and the November 2018 GPS survey.

3.48 In any event, there are concerns about the reliability of the 2016 digital elevation model results. These arise because the vertical margin for error is 1.5m, the ground control points are all outwith the dunes, and because it was undertaken five days after spring tide and therefore will show too low a level for MHWS. These points aside, it is still useful in illustrating the kind of change which could occur.

3.49 The shaded areas in Dr Hansom's Figure 2 depict the areas anticipated to be impacted by erosion by 2050 (up to the light green line) and 2100 (darker green line). These show significant encroachment of the vegetation edge on to the 15th green, the 16th back tees, the 17th fairway and green and the 18th back tees.

²⁸ [NC158 - Jim Hansom supporting graphs maps and photographs](#)

²⁹ [NC158A - Hansom Oblique Maps](#)

3.50 Some of the soft management measures proposed by Professor Pye would not directly address frontal dune erosion. This would require hard protection or beach nourishment. Both of these are expensive, long-term solutions. But it was accepted that beach nourishment would be an ideal approach at Coul Links. It is an acceptable strategy to relocate the golf course infrastructure in the future, but much more sensible to do that from the start. In either event, this risks impacts on other areas of dune habitats within the site. Dr Hansom was not aware of a proposed planning condition which would provide for a coastal retreat plan.

3.51 Dr Hansom would be very surprised if the tees and greens identified above survived to 2050 unchanged, without protection put in front of them. He accepts that, if no coastal management takes place at Coul Links, then the implication of his evidence is that erosion would occur and this would mean loss of SSSI land. However part of the natural heritage value of the site is its underpinning by geomorphological and natural processes. Such dynamism would be beneficial in terms of the natural heritage interest of Coul Links.

3.52 Not Coul's [closing submissions](#)³⁰ re-iterate the view that these parts of the course would not be 'future proofed'. Professor Pye relied on beach nourishment being carried out to protect these holes from erosion, but there are no plans for that. So either there would be the serious consequential impacts of hard coastal defences (which the applicant says it has ruled out), or further loss of SSSI habitat as parts of the course need to be relocated in the future. This should have been built into the plans.

OTHER REPRESENTATIONS

3.53 Other representations made on the planning application refer to coastal processes. These reflect many of the matters addressed in the evidence from the applicant and from Not Coul. Some supporters point to the prospect of future coastal erosion if the site is left unmanaged. Objectors raise concerns about the effects on the natural coastline and coastal processes, and about the potential for hard coastal defences. All of the key matters raised are addressed in our conclusions below.

REPORTERS' CONCLUSIONS

3.54 Although there are differences in emphasis, the broad historical pictures presented by Professor Pye and Dr Hansom are fairly similar. Both take the view that the major sources of sediment for Coul Links come from Golspie and Loch Fleet. Significant reserves will remain. Professor Pye's summary of fluctuating sediment gains and losses, but with long-term net gain in the north part of Coul Links and long-term slow net loss in the south, also fits the evidence presented by Dr Hansom. They agree that there was accretion in the period between 1977 and 2009, but erosion since then and now signs of recovery evident.

3.55 This demonstrates that some parts of the course are close to what has been a dynamic coastline for a number of decades. Beyond that, we think it is more important to consider the evidence in the context of the likely future changes to the coastline. We agree that too much could be read into the erosion described over the relatively short period between 2009 and 2018. This includes the evidence for the precise position of MHS in

³⁰ [Closing submissions – Not Coul](#) See paragraphs 207-218

the 2018 GPS survey, which appears to have been undertaken fairly soon after a significant storm event.

3.56 However we have no reason to conclude that what is agreed to have been, for the southern part of Coul Links, a long-term trend of slow net loss is likely to be reversed. It would be prudent to assume that this trend will continue. We must also consider what the implications for this of future climate change could be.

3.57 Again, we pay lesser attention to how sea levels may have changed in the past and more to how they may change in the future. That aside, the various figures given for historic sea levels in the inquiry reports of both Dr Hansom (paragraph 36) and Professor Pye (paragraphs 7.1 and 7.2) seem to indicate, on the face of it, an accelerating rate of relative sea level rise in the north east of Scotland in recent decades. We acknowledge, though, the caution with which Professor Pye says these figures should be approached,

3.58 We note from section 3.1 of the UKCP18 Marine Report that the projections it uses are predicated on the CMIP5 climate change models and the RCP climate change scenarios – IPCC AR5. We do not have further detailed evidence about these climate change models and projections. Therefore we can take no firm view on which (if any) of them should be considered to be the most likely to occur.

3.59 However, since three differing scenarios are presented (which could reasonably be described as 'low', 'medium' and 'high' emissions scenarios) we see merit in Professor Pye's approach of considering the 50th percentile for RCP 4.5 as the mid-point and the 95th percentile for RCP 8.5 as a nominal 'worst case'. Although we also saw that the Marine Report says (section 1.1) that there may be a greater than 10% chance that the real world response lies outside the ranges provided in the scenarios.

3.60 We recognise (as did Dr Hansom) that one may wish to take a more cautious approach when considering the risk to buildings or hard infrastructure than might be taken for parts of a golf course which may be more easily relocated. Dr Hansom may well be correct to say that government agencies like SEPA and SNH use RCP 8.5 as the basis for their advice. But we have not been pointed to any detailed evidence which shows how this works in practice, nor evidence which might help us determine which scenario should be given more credence in this case.

3.61 In respect of wave heights, at section 1.2 of the Marine Report it is stated that 21st century projections of average wave height suggest changes of the order 10-20% and a general tendency towards lower wave heights. Changes in extreme waves are also of the order 10-20%, but there is no agreement on whether this will mean larger or smaller waves. It is further stated (in section 3.3) that the wave projections presented should be viewed as indicative, with low confidence. Therefore we allow for the possibility that reductions in wave height could act to mitigate erosional effects from sea level rise. But we are not in a position to take a view on how likely this would be, or how significant would be any such mitigation.

3.62 Likewise, we would not wish to speculate on the likelihood of (or the extent of erosional effects resulting from) any future increases in the water table at the beach which may occur as a result of future climate change.

3.63 Not Coul has concerns about the accuracy of the applicant's 2016 digital elevation model. The applicant, in turn, raises questions about the validity of Not Coul's November 2018 GPS survey.

3.64 Professor Pye says the vertical margin of error in the digital elevation model is 0.5m whereas Dr Hansom states that it is 1.5m. We were not pointed to evidence which shows who is right about this. Since the applicant commissioned the work, we would expect the evidence of its witness on this purely factual point to be reliable. We also note that Professor Pye said that he validated the data against Ordnance Survey baseline data and found its accuracy to be much better than 0.5m. We recognise, however, the limitations in this work not being undertaken during a day of spring tide.

3.65 Not Coul's GPS surveys were provided by Dr Dargie using what was said to be highly accurate GPS technology. Dr Hansom confirmed that this data has been quality controlled and accepted for use by Dynamic Coast surveyors. Therefore we proceed on the basis that it, too, is accurate in what it shows.

3.66 However, it appears that the November 2018 survey was undertaken soon after a severe storm. The evidence we read and heard described a cycle of erosion by storms followed by a slower period of recovery. Therefore we agree with Professor Pye that this single snapshot should not be taken as a reliable indicator of the extent of longer-term erosion towards the projected line for the 2050 MHWS in Professor Pye's model.

3.67 In any event, we see more fundamental uncertainties in the projections for MHWS in the model (and the projections for the vegetation edge which Dr Hansom adds to it). These cause us to place little weight on the detailed mapping which has been produced by both parties on the back of the model. We leave aside any potential errors in the digital elevation model plotting of MHWS.

3.68 The model assumes no change to the beach and dune profiles. In reality these are dynamic. They will change due to the processes of erosion and deposition, and may change in response to the future advance of MHWS towards the higher foredune. The lateral distance between the vegetation edge and MHWS would also be dynamic, whether as a result of changes to the beach profile or in response to other factors. Indeed, the November 2018 GPS survey purports to show a significant advance of the MHWS towards the projected line for the 2050 MHWS in the model. But there is no detailed evidence put to us by Not Coul about any corresponding advance of the vegetation edge at the same time. It would appear to remain well short of where it is projected by Dr Hansom to be by 2050 on the basis of Professor Pye's model. The model also takes no account of future changes to wave conditions, to the water table at the beach, or to the supply of sediment from Golspie and Loch Fleet.

3.69 Underpinning all this, we re-iterate that the two sets of maps produced by Professor Pye are ultimately based on just two points in the range of possible outcomes provided for in the climate change projections and the UKCP18 Marine Report based on them. The mapping submitted by Not Coul is based on only one of these – Professor Pye's 'worst case'.

3.70 This is not to assert that Professor Pye's modelling and the work by Dr Hansom which builds on it are of no value. They show what could happen, under a certain scenario and if certain assumptions are made. But they take us no further than that. Indeed they

underline the inherent difficulty when considering those parts of the golf course which are close to the current vegetation edge but where there is uncertainty about the rate of future change to that edge.

3.71 That said, the evidence indicates previous net erosion (if slow) at the southern portion of Coul Links since the 19th century. There is likely to be increasing sea level rises induced by climate change. It is therefore prudent to proceed on the assumption that there is a likelihood of further erosion at parts of the beach/dunes near the 15th to 18th holes.

3.72 The applicant has stated, very clearly, that there is no intention to install hard coastal defences such as rock armour. We have no reason to doubt this. Such works, if they were contemplated in the future, would be likely to need a separate planning permission, and perhaps other statutory consents. Proposed condition 11 provides for a Coastal Retreat Plan which is to ensure that no coastal defences are constructed. Therefore we proceed on the basis that there would be no hard coastal defences.

3.73 The statements in the desktop study and in Professor Pye's evidence indicate an intention to undertake (or at least an acceptance of the desirability of undertaking) monitoring of coastal change and adaptive management techniques. This would include any soft engineering and access management as may be required.

3.74 In its final suite of suggested conditions (supplied with its closing submissions) the applicant has added provisions for an Adaptive Management Plan to its condition which previously dealt only with coastal retreat. The applicant also confirms that all such work would be above MHWS and, on the basis of the land ownership plan,³¹ on land within its control.

3.75 We note that such measures are advocated in guidance documents, including for golf courses in the SNH guidance. However, we cover in Chapter 7 below the concerns that such measures could have adverse effects on lepidoptera.

3.76 Bringing all of this together, we conclude that the closest parts of the course to the vegetation edge (the 16th and 18th back tees, the 15th green, the 17th fairway and green) would be at some risk from coastal erosion. However soft engineering and management has the potential to mitigate this risk. If, for whatever reason, there was a desire to relocate some or all of these elements of the course, condition 11 would require a separate planning permission to be applied for.

3.77 Future proposals for relocation could have effects on the natural heritage of the site, and there would be no guarantee that consent would be forthcoming. However this would be a risk that sits with the applicant, and one which it appears willing to take. We note that, in its initial consultation response³² of 24 January 2017, SNH recommended that a coastal retreat plan identify strategies and alternative layouts to inform future course management if parts of the course become adversely affected by coastal processes.

3.78 Ultimately, therefore, although there are risks and some uncertainties for the long-term fate of these elements of the golf course, there would be mechanisms to manage these.

³¹ [CD001.045 - ES - Annex B - Appendix B.7 - Figure B.11 Land Ownership](#)

³² [CD002.017 - Scottish Natural Heritage - response dated 24 November 2017](#)

CHAPTER 4: IMPACTS ON THE WATER ENVIRONMENT

BACKGROUND

4.1 This chapter covers the following potential effects of the proposal on, or related to, the water environment:

- Hydrology and hydrogeology, insofar as is relevant to the proposal.
- Effects of the related proposals for water abstraction, for the purposes of irrigating the golf course.
- Effects from irrigation of the course.
- Effects from fertilisers and other chemicals used in the establishment and operation of the golf course.
- Effects from the discharge of waste water.
- Effects of any previous contamination of the site.

4.2 Some of the evidence (and some of our conclusions) in this chapter are of relevance to subsequent chapters covering the effects on natural heritage.

4.3 As already indicated in Chapter 1 of this report, a separate planning application reference 17/04404/FUL was submitted by the same applicant for the drilling of two boreholes and construction of a water storage reservoir with a maximum capacity of 20,000 cubic metres (m³) for irrigation of the golf course. The Highland Council is minded to grant permission for that proposal subject to the conclusion of a Section 75 Agreement. The abstraction of water would also require to be licensed by SEPA, under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (the CAR Regulations). We understand that the application for this CAR licence remains under consideration by SEPA.

4.4 Although it is subject to these other consenting processes and has not in itself been deemed to be EIA development, the abstraction and storage of the water (and indeed its subsequent use for irrigation) clearly form part of the intended development project for the golf course. We therefore have regard to the cumulative effects of that proposal in association with those arising from the golf course application. This is addressed in our conclusions on the effects from abstraction and irrigation below.

The Environmental Statement

4.5 In describing the proposed development, Chapter 2 of the ES (pages 106-113) outlines the proposals for drainage systems, storm water control, temporary drainage, irrigation, fertiliser use, pesticide application and use of boardwalks to cross wetland areas. There is further material on drainage and irrigation (pages 119-120) and on water management (pages 126-127). Impacts on the water environment (for example changes in hydrology, and chemical inputs from fertilisers, pesticides and herbicides) are also considered in Chapter 5 of the ES (from page 202, then the table on page 209).

4.6 Chapter 6 of the ES is entitled 'Annex C: Hydrology and Hydrogeology'. It is accompanied by Technical Annex TA-C Hydrology and Hydrogeology. Chapter 6 addresses the potential effects on surface water and groundwater from the development. The environmental receptors considered include watercourses, wetlands and groundwater-

dependant terrestrial ecosystems (GWDTE), public and private water supplies, the coastline and the proposed golf course infrastructure. The potential for contamination from a previous waste disposal site and fly tipping on land to the north of Embo is acknowledged.

4.7 Chapter 6 of the ES also contains consideration of impacts on and from drainage, and from irrigation. It covers impacts on water quality, including from the use of fertilisers and pesticides. There is a description of the boreholes which have been dug – two for water abstraction to the west of the site and two for monitoring, these latter two near the dune system.

4.8 It is stated that the water levels within the two monitoring wells remained constant during abstraction tests, thus indicating no direct correlation between activity in the abstraction wells and the area of the dune slacks, both before, during, or after testing. Therefore there was no measurable impact on the aquifer or the SSSI water table when abstracting water during test pumping. The only restriction was in the ability of the wells to replenish while pumping.

4.9 From the test results it was determined that the wells are capable of delivering 210m³ of water per day on a continuous demand from Borehole One and 80m³ per day from Borehole Two.

4.10 Irrigation would be applied to offset evapotranspiration, and monitored so that excess water is not applied. It would be greater in the grow-in period to assist turf establishment. It would be kept to a minimum because links courses are firm and fast-running, and because excess irrigation would lead to a decline in turf quality and an increase in the build-up of organic matter. Modern irrigation systems are sophisticated and can take account of soil moisture and weather conditions and the differing needs of specific areas of the course. There would be no irrigation during the winter months.

4.11 No significant effects on the water environment are identified in Chapter 6 of the ES. The council consulted on an addendum to the ES in November 2017. This contained material related to GWDTE and pollution prevention. A second addendum (which included a revised Recreational Access Management Plan (RAMP) and a Schedule of Mitigation with appendices) was submitted and the council consulted on this material in February 2018.

SEPA's consultation responses

4.12 SEPA initially made a combined single consultation response³³ to the planning applications for the golf course and for the boreholes and reservoir, having had sight of the first addendum. SEPA objected due to a lack of information on:

- waste water drainage arrangements;
- drainage from the temporary construction compound;
- impacts on non-dune slack wetlands (including due to use of pesticides, herbicides, fertilisers and other chemicals; due to water abstraction and changes to groundwater, potentially due to the chemical composition of irrigation water);
- the impacts of borrow pits;
- tree felling and use of the felled timber;
- construction management techniques; and
- management proposals for the golf course.

³³ [CD002.021 - Scottish Environment Protection Agency - response dated 12 December 2017](#)

4.13 A number of planning conditions were requested. In relation to water abstraction, SEPA raised concerns about the quality of information supplied, and objected on that basis.

4.14 On the basis of the schedule of mitigation subsequently submitted by the applicant in the second addendum, SEPA withdrew³⁴ its objections to both applications. This was subject to certain planning conditions being imposed in relation to waste water and the imposition of the schedule of mitigation. SEPA was particularly concerned about the potential risks that could be posed by nitrates. It therefore welcomed the proposal in the schedule of mitigation that application rates would not exceed the threshold values recommended in Table 4 of the UK Technical Advisory Group on the Water Framework Directive: Technical report on groundwater dependent terrestrial ecosystem (GWDTE) threshold values (the UK TAG report)³⁵.

4.15 The original proposal for a waste water discharge to a soakaway was revised to a tertiary treatment system discharging to a reed bed system. This would then discharge to a surface water ditch which outflows to Loch Fleet. Our understanding is that the applicant has subsequently obtained a CAR licence for wastewater discharge on this basis.

4.16 In relation to water abstraction, SEPA noted in its consultation response that groundwater levels in the monitoring wells (MW1 and MW2) steadily dropped in the period before and during the abstraction tests. The levels recovered in MW1 but not in MW2. The groundwater levels in both monitoring wells appeared to have levelled after the cessation of the test. Although the levels in the wells did not show a significant reaction to the abstraction test, the interference of groundwater abstraction on groundwater levels could not be excluded. Changes to groundwater levels could result in groundwater depletion in the sand dune wetland system. The period of time utilised to produce the submitted pump test results was standard practice but did not allow for an evaluation of long term pumping effects.

4.17 Based on the information submitted at that time, SEPA considered that the proposed borehole abstractions were likely to be consentable under CAR. But this would be subject to assessment of the groundwater depletion in the dune system, long term monitoring at MW1 and MW2 (and possibly other monitoring wells) and possible future limitations on abstraction rates.

4.18 In a subsequent consultation response³⁶ in June 2018, SEPA responded to concerns expressed by Not Coul about what was, at that time, the applicant's conceptual groundwater model. SEPA clarified that its request for the conceptual model was to inform its knowledge of the hydrogeology of the site specifically in reference to the proposed groundwater abstraction. This related to the south of Coul Links where that abstraction was proposed.

4.19 In October 2018, responding³⁷ to a request from Not Coul that it take part in the public inquiry, SEPA stated that it had peer-reviewed and evaluated the applicant's conceptual groundwater model and was content with it from a planning perspective. The

³⁴ [CD002.022 - Scottish Environment Protection Agency - response dated 23 March 2018](#)

³⁵ [CD001.102 - Schedule of Mitigation - Appendix 2 - Nitrate Trigger Values](#)

³⁶ [CD002.023 - Scottish Environment Protection Agency - response dated 13 June 2018](#)

³⁷ [CD002.024 - Scottish Environment Protection Agency - response dated 29 October 2018](#)

CAR determination process was ongoing, but SEPA still considered that the borehole abstractions were likely to be consentable.

SNH's consultation responses

4.20 SNH's initial consultation response stated that the water table and water chemistry of Coul Links are very important as they influence the sand dune habitats. It was observed that the ES noted that leaching of fertiliser may reach 100% in sandy habitats. Fertiliser, herbicide or pesticide could be washed towards or even into a dune slack, potentially damaging these dune habitats.

4.21 SNH withdrew³⁸ its previous objection to the borehole water abstraction component. In doing so it noted SEPA's view that it was highly unlikely that abstraction would have a significant effect on the availability of groundwater to the dune slacks. SNH's understanding was that SEPA, as the groundwater hydrology experts, would, in consultation with SNH, ensure that the volumes of water abstracted would not exceed critical limits in order to avoid adverse impacts to site integrity through effects on the dune slack habitats.

4.22 SNH also considered that the proposed waste water treatment plant outflow would not adversely affect the integrity of the SPA and Ramsar site.

4.23 In the same consultation response, SNH noted that further information (in the second addendum) had been provided on the level and type of fertiliser to be added during the establishment phase for the golf course. SNH stated that this would be when the soil would be at maximum porosity and irrigation rates at their highest. So there would be a high risk of contamination of the water table at levels greatly exceeding the threshold values for nearby dune slacks. A further source of nutrient enrichment would be from nitrates in the irrigation water from the abstraction boreholes.

4.24 SNH also noted that drainage works would be carried out during construction and for long-term maintenance of the playing surface. It was stated that the installation of new drains and the re-contouring of land both have the potential to interrupt or divert hydrological pathways to the dune slacks. SNH advised that new drains should avoid entering dune slack habitats.

THE CASE FOR THE APPLICANT

4.25 The evidence submitted to the inquiry (and separately to SEPA in support of the application for the CAR licence for water abstraction) aims to address the concerns of SNH and others that water abstraction and irrigation of the golf course, and the application of fertilisers, would adversely affect the water environment and water quality at Coul Links.

4.26 The precognition of [Alan Bowey](#) addresses the hydrology and hydrogeology of the site and its surroundings, as does Dr Bowey's inquiry report.³⁹ Dr Bowey's evidence is that the underlying bedrock aquifer is confined. It does not contribute to the groundwater regimes in the overlying soils. The dune slacks are instead recharged from shallow groundwater, itself dependant on surface water recharge.

³⁸ [CD002.020 - Scottish Natural Heritage - response dated 25 May 2018](#)

³⁹ [APP005.001 - Inquiry Report by Alan Bowey](#)

4.27 Local geology is generally as described in the British Geological Survey and in the applicant's GWDTE Review and Assessment, prepared in January 2018.⁴⁰ That document develops a conceptual site model for the geology and hydrogeology of the site and the surrounding area – see appendices H and J in particular. The British Geological Survey describes the bedrock as being Raddery sandstone. Above this sits sand and gravels and glacial till, and blown sand.

4.28 The GWDTE Review and Assessment explains that two abstraction boreholes (BH1 & BH2) were dug to around 100m depth in the southwest part of the site, near Fourpenny Road. Two shallower wells (MW1 & MW2) were dug to monitor the impacts of abstraction on the water table – one within the farmland to the west of the dunes and one further east, at the edge of the dune slacks. The water levels within the two monitoring wells did not change. They remained constant during the step tests and the constant pump tests. This indicated no direct correlation between activity in the production wells and the area of the dune slacks before, during or after testing at the flow rates pumped.

4.29 It is also stated in that document that some dune slack water comes from the deep bedrock groundwater. The results from the boreholes suggest that, at the edge of the dune slacks, the groundwater regime within the underlying bedrock is raised to within the superficial soils, and it is probable that there is convergence of the upper and lower groundwater regimes at this point.

4.30 However between March 2018 and January 2019 additional intrusive and non-intrusive work was undertaken to better characterise the local geology and water environment. This has led to a better understanding of the local geology and wider environment, and to improved modelling. It has established that the deep rock aquifer is in fact confined, and independent of the groundwater regimes within the overlying superficial soils. These deep groundwater regimes do not influence the seasonal variation and subsequent expression of groundwater at the surface within the dune slacks. Seepages from former quarries in the site are from sand and gravel deposits, not the bedrock. Even if there was bedrock at surface level, it would not necessarily follow that the bedrock aquifer is mixing with the shallower groundwater. The principal hydrogeological mechanisms identified and proven within the southern parts of the site can confidently be applied to the northern parts.

4.31 The limit of sustainable abstraction is calculated at 225-230m³ of water per day.

4.32 Initial sampling of the water from the abstraction boreholes showed nitrate levels at 25-27milligrams per litre (mg/l) from the bedrock groundwater. This is higher than the nitrate levels in samples from the shallow groundwater at around 4-7mg/l. These nitrate levels in the shallow ground water are themselves higher than might have been expected, and are now attributed to run-off from the agricultural land to the west rather than due (as had previously been thought) to mixing with the deeper bedrock groundwater.

4.33 Water subsequently recovered from the abstraction boreholes following an extended period of abstraction had concentrations of nitrate at less than 0.4mg/l. It is now therefore considered that the initial, much higher, nitrate levels from the abstracted water were from 'new' water which had penetrated the bedrock aquifer over just a few weeks or months.

⁴⁰ [APP005.008 - Coul Link Golf Course Development - Groundwater Dependent Terrestrial Ecosystems \(GWDTE\) Review & Assessment](#)

The much lower levels more recently measured are, conversely, from older water which has been confined to the aquifer for many years.

4.34 Therefore water abstracted for irrigation on an ongoing basis is likely to have lower nitrate levels comparable to the more recently abstracted water. Nevertheless, irrigation water management plans include appropriate controls to mitigate and remove the potential for harm to the water environment.

4.35 It will be for SEPA to condition, through the CAR licence, the maximum allowable nitrate levels in the irrigation water. In accordance with SEPA's stated advice, it is the values from the UK TAG report which would be the appropriate ones to apply. This is the document used by SEPA as the regulator under CAR. The Environment Agency report referred to by SNH and Dr Dargie is not relevant to Scotland. The sites used in deriving the UK TAG thresholds are more representative of the situation in Scotland than is the case for the Environment Agency report.

4.36 Not Coul's conceptualisation of the water environment at Coul Links is unscientific. Dr Dargie's hydrological model is entirely based on ecology and without proper consideration of environmental geology, continuum mechanics or fluid mechanics. There are no plausible mechanisms which would support his posited domed water table at Skelbo in the north part of Coul Links. His conclusion that groundwater levels are rising are unsubstantiated and purely conjectural.

4.37 So too are Dr Dargie's conclusions on water quality. These are based on a general application of standard Ellenberg indicator values rather than chemical analysis of the water itself. In contrast, the applicant's assessment is based on independently certified laboratory testing.

4.38 The comparisons Dr Dargie seeks to draw with golf course development at Sandwich Bay in Kent are inappropriate given the fundamental differences between the two sites. For example the underlying geology at Sandwich comprises highly permeable chalks with typically a single unconfined aquifer. This maintains hydraulic connectivity between shallow and deep ground waters. There is also likely to be much greater tidal influence on groundwater at the relatively flat Sandwich topography than is the case at Coul Links.

4.39 It cannot be assumed that there would be lesser environmental impacts from relocating some of the golf course to the farmland. Creating the type of landforms associated with a links course would require significant earthworks and excavations, likely in excess of 5m depth. This would penetrate the shallow groundwater regimes which currently help recharge the dune slacks, potentially depleting them. It would also run the risk of surface water run-off affecting water quality.

4.40 The potential contamination on the part of the site north of Embo can be addressed by a planning condition. This would require the applicant to undertake site investigation works at these former landfills and evaluate the risk of a contamination source and plausible pollutant linkage to sensitive receptors. Where required, appropriate remedial work would be carried out. The council is satisfied with this approach.

4.41 Dr McMullen⁴¹ observed that the tall growth and density of meadowsweet stands within some of the dune slacks is much greater than at other locations. In his view such stands are likely to be dependent upon a relatively high level of nutrient supply that is not typical of the dune slack habitat elsewhere.

4.42 This is likely to arise from enrichment of groundwater (for example by fertiliser), atmospheric deposition, and/or from bird faeces. A combination of effects is probable. But the concentration of meadowsweet within the winter loch area suggests that over-wintering birds are responsible for raising nutrient levels to a point where meadowsweet becomes dominant. 'Islands' in the middle of the winter loch are favoured by over-wintering birds for roosting in safety from predators.⁴²

4.43 Nutrient enrichment of the groundwater from nearby agricultural use is not considered to be a significant source. This would have resulted in enrichment, and a presumed increase in meadowsweet cover, from the landward edge of the dune slacks rather within the seaward winter loch.

4.44 [Chris Haspell](#)'s precognition and inquiry report⁴³ cover the practical aspects of golf course construction and management. This includes how a 'low input low output' approach would be taken. In Mr Haspell's view SNH is taking an overly precautionary view of the potential risks associated with the use of fertilisers.

4.45 Grass is expensive to manage. Fertilising it too much increases costs by increasing cutting frequency and aftercare, and through wastage of evaporated feed. If grass is over-fertilised it produces excess organic matter, which results in a wetter surface which is unsatisfactory for links golf. In the long-term this leads to turf decline and disease. Responsible golf course operators only use enough fertiliser to establish and sustain grass in the early years. Once the course is established, operators apply only the fertiliser required to keep the grass alive. Studies have revealed that most of the nutrient applied is cut and collected as leaf matter.

4.46 Technology has advanced in nutrient application. It is anticipated that new temperature-controlled and water-controlled fertilisers would be used in the establishment phase. After dialogue with SNH and SEPA, the applicant was asked to use non-organic controlled-release fertilisers. These last for up to 3-6 months, and so only 2-3 applications would be needed per year. This further reduces the risk of leaching (even though that risk is considered to be insignificant). Application methods are very accurate. This mitigates any significant risk of contamination of water courses and the rough.

4.47 [Robert Taylor](#)'s precognition and inquiry report⁴⁴ provide further detail on the use of fertilisers.

4.48 Current legislation and best practice guidance on the application of fertilisers and plant protection products focuses on minimising use. Application must accord with an integrated turf management plan. Regulations and guidance require that users do not treat non-target areas and non-target organisms.

⁴¹ [APP003.001 - Inquiry Report by Andy McMullen](#)

⁴² [CD001.023 - ES - Annex A - Appendix A.1 - Winter 2016 Coull Links bird survey report](#) – 12 of 13

⁴³ [APP001.001 - Inquiry Report by Chris Haspell](#)

⁴⁴ [APP001.002 - Inquiry Report by Robert Taylor](#)

4.49 Scientific trials highlight that leaching risk is very low to negligible from golf turf, even when significantly larger quantities of fertiliser are applied than would be the case at Coul Links. The ability of turf and soil, and soil micro-ecosystems, to adsorb and assimilate nutrients and breakdown plant protection products before they can migrate and leach is well documented.

4.50 To summarise the research findings, leaching and runoff can be a risk only if plant protection products and fertilisers are not used according to best practice guidelines. Properly applied, they are either absorbed by the plant or are bound in the soil by organic matter and are therefore not likely to be leached.

4.51 Many of the fertiliser studies referred to in Mr Taylor's inquiry report used much higher application rates than would typically be used in the UK. They also tend to relate to quick-release products which are at greatest risk of leaching.

4.52 The studies agree that new establishing turf is at greatest risk of leaching due to the root system not being fully developed and lower levels of organic matter in the growing medium. As turf matured, leaching rates became significantly reduced to typically less than 2mg/l of nitrate.

4.53 The solubility and form of fertiliser is important to the risk of leaching. On newly-sown areas it is standard practice to use controlled-release fertilisers, as these reduce leaching risk by drip feeding over an extended period. Many fertilisers for golf are heavily based on ammonia and urea which is naturally at lower risk of leaching than nitrates.

4.54 From practical experience, typical values for the amount of fertiliser use on greens on a links golf course would vary between 60-120kg of nitrogen per hectare each year. Typical values for tees would vary between 50-100kg. Fairways, if fertiliser was needed, would likely only receive between 0-40kg.

4.55 During the growing-in period new courses are likely to require higher levels to those outlined above, amounting to 250-300kg on greens, 160-200kg on tees and 40-80kg on fairways. These values are indicative, and would depend on more detailed soil analysis prior to application. Where possible, less fertiliser should be applied to meet agronomic and playing quality demands. In cross-examination, Mr Taylor accepted a benchmark maximum figure of 200kg per hectare for fairways during the grow-in period.

4.56 In cross-examination Mr Taylor referred to a range of leaching (from the research studies) of between 0.2kg and 0.5kg of nitrogen per hectare per year. He said that there would be no (or negligible amounts of) nitrogen reaching the water table, at which point, in any event, it then becomes much diluted. He later suggested that up to 0.2% to 0.5% could potentially leach over the course of the year, based on the research studies. Dr Dargie assumes leaching rates of 10% or 25% of nitrates, but Mr Taylor sees no basis for adopting these figures. A more likely worst-case scenario would be 2.5% during an extreme storm event, and fertilisers would not be used if such weather had been forecast.

4.57 It was not possible to identify research papers that cover the risks of nutrient inputs relevant to the species and habitats of concern to SNH. But the levels used on fairways would be extremely low. The appropriate and best practice use of fertiliser and plant protection products on the limited areas that would require their use would not pose a significant risk to habitats and species. Mr Taylor accepted that there are already fairly high

levels of nitrogen in the soils and water at Coul Links. But these are still below the relevant UK TAG threshold values, and any additional inputs from fertilisers would be negligible.

4.58 In closing submissions,⁴⁵ the applicant asserts that the evidence of Dr Bowey should be preferred on all issues related to hydrology. Dr Dargie acknowledged in cross-examination that his own hydrogeological model was just an untested hypothesis.

4.59 In respect of nitrogen levels in irrigation water, there is no basis for Professor Angus and Dr Dargie maintaining that the Environment Agency reference levels should be preferred to those in the UK TAG technical report. Both those witnesses gave similarly confused and unsubstantiated evidence on this matter. Professor Angus' evidence is also inconsistent with the earlier advice⁴⁶ given by SNH that it considered the issue of nitrate levels in irrigation water as a secondary issue.

4.60 In relation to fertiliser use, the applicant's closing submissions highlight the many years of experience of both Mr Haspell and Mr Taylor in using fertilisers and plant protection products on golf courses. Mr Taylor's evidence is authoritative and he has easy access to STRI research. Mr Haspell has a high reputation for sustainable golf course management. The proposed membrane under the greens is a standard risk management measure – it does not imply that significant levels of leaching are expected.

4.61 The issue of leaching from fertilisers was not followed up in SNH's closing submissions. Professor Angus found himself being persuaded by Mr Taylor's inquiry Report, and the only reason SNH's objection in relation to leaching of nitrogen and its concerns over irrigation water had not been withdrawn was because he would need time to consult with SEPA. It appears that this matter has been dropped by SNH.

THE CASE FOR SCOTTISH NATURAL HERITAGE

4.62 In relation to the use of fertilisers, [Stewart Angus](#) recognised from the evidence of Mr Taylor that there could be valid methods of preventing or reducing nitrate infiltration of the water table once the course is operational. But the effectiveness of this during the establishment phase is uncertain. SNH therefore maintains its view that the risk to dune slack habitat from nitrates remains unacceptably high.

4.63 The borehole water that would be used for irrigation has a nitrate content of double the threshold value of 13mg/l for dune slacks in the UK TAG report. This does not indicate that values below this level are environmentally safe. Environment Agency guidelines⁴⁷ have set the value beyond which 'likely contamination and cause for concern' to dune slacks occurs as low as 1mg/l total inorganic nitrogen, with the reference condition at 0.2mg/l. Albeit that report is not relevant to the regulatory position in Scotland, Professor Angus expressed the view under cross-examination that dune slacks in England would have much the same environmental limits as those in Scotland. As Dr Bowey explained during cross-examination, that figure for nitrogen must be multiplied by 4.4 in order to be compared for the figures for nitrates given in the UK TAG report.

⁴⁵ In particular see sections beginning at paragraphs 4.4, 7.12, 7.41 and 10.235

⁴⁶ [APP005.011 - Email exchange between David Patterson \(of SNH\) and Alan Bowey regarding the groundwater abstraction test data](#)

⁴⁷ [SNH 041 - Protecting the plant communities and rare species of dune wetland systems. Environment Agency Ecohydrological guidelines for wet dune habitats](#). See Table 5.4 on page 36.

4.64 In respect of impacts on the SSSI, in its closing submissions⁴⁸ SNH reiterated that it is its advice, not SEPA's, that is relevant. The applicant is wrong in its view that the content and quality of irrigation water would be regulated through the CAR licence. This is clear from the email⁴⁹ of 21 March 2019 from SEPA to SNH.

4.65 If the dune slacks are to be afforded an appropriate level of protection it is essential that control mechanisms are put in place. Based on the evidence before the inquiry, in order to avoid possible contamination, monitoring would require to be carried out to ensure that groundwater nitrate levels at the dune slacks do not exceed the reference condition recommended in table D2 of the Environment Agency guidelines. The applicant should set out in detail what control mechanism would be used, how monitoring would work in practice, and what could be done in the event that the reference level is exceeded.

4.66 Dr Bowey said that the issues relating to the effects of abstraction on the water table, identified by SEPA at paragraphs 4.4 and 4.5 of its letter⁵⁰ to the applicant of January 2018, had been resolved. However paragraph 1 of SEPA's email of 21 March 2019 confirms that additional groundwater level monitoring over the full period requested by SEPA has been required⁵¹ of the applicant. SEPA confirms in its email that its previous position (that potential effects on groundwater levels from abstraction cannot be excluded) remains the same.

THE CASE FOR NOT COUL

4.67 Not Coul's evidence in relation to the water environment was presented by [Tom Dargie](#). His inquiry report⁵² and its appendices set out his evidence in detail, but also make reference to further detail in Not Coul's two objection letters.^{53 54}

4.68 Dr Dargie's written evidence stated that the applicant failed to declare potential contaminated land north of Embo, at the location for the 14th green. This required the council to change its recommended planning condition to one requiring a formal risk assessment for contamination. Nutrients leaching from this area are affecting downstream GWDTE and this has not been assessed by either SEPA or the applicant. However Dr Dargie acknowledged at the inquiry that the proposed planning condition would address this issue, and that removing this contamination would be an environmental improvement.

4.69 In Dr Dargie's view the quality of the applicant's hydrological assessment is too poor to be used. The conceptual site models are incomplete, and lack information about the groundwater characteristics of the SSSI at Coul Links. There are omissions and inaccuracies in the presentation of the conceptual site model in Appendix H of the GWDTE Review and Assessment, for example MHWS is incorrectly plotted. It makes no links between hydrology and GWDTE. If

Dr Bowey's model is incorrect, golf course construction and management (including reservoir construction) would inevitably result in multiple, severe and extensive adverse risks affecting all the water environment at Coul Links.

⁴⁸ Paragraphs 4.4-4.8.

⁴⁹ [SNH 126 - exchange between SNH and SEPA regarding CAR licence](#)

⁵⁰ [APP005.010 - SEPA response letter to STRI dated 31 January 2018](#)

⁵¹ [SNH 125 - Letter from SEPA 7 March 2019](#)

⁵² [NC138A - Dr T Dargie Inquiry Report](#)

⁵³ [CD003.011 - Not Coul - response dated and published 21 December 2017](#)

⁵⁴ [CD003.012 - Not Coul - response dated and published 21 May 2018](#)

4.70 Dr Dargie is concerned about the applicant's most recent submissions to SEPA in support of its CAR licence application for the borehole water abstraction. These were provided to Not Coul following a Freedom of Information (FOI) request.^{55 56}

4.71 Dr Bowey's claim that the deep water aquifer is confined requires him to infer a geological fault between the two abstraction boreholes 200m apart. There is no fault at this location previously recorded by the British Geological Survey.

4.72 The applicant's hydrological assessment makes no mention of the prominent raised beach which runs from north of Embo past Coul Farm, with its edge in places obscured by blown sand. This feature has many seepage areas at the foot of the raised beach cliff.

4.73 An area east of Coul Farm Cottages is recorded in British Geological Survey mapping⁵⁷ as a plain uncoloured polygon. This area marks surface exposures of Raddery Sandstone - i.e. solid geology, not superficial materials.

4.74 Depressions immediately adjacent to these exposures contain dune slack and swamp habitat. These demonstrate that the sandstone contains a near-surface aquifer, seasonally at the surface. The sandstone probably continues as a platform sloping gently downhill to the east. Therefore the sandstone aquifer is the key waterbody controlling the dune slacks in the south part of Coul Links.

4.75 The pump test results from 2018⁵⁸ (Figure D11) show the monitoring wells responding quickly to the start of pumping at the abstraction wells, with falling levels complicated by tidal fluctuations. The levels in the wells continued to fall for a further eight days. Dr Bowey's explanation that these falls are due to dry weather are unsubstantiated. There was no fall in water levels at the wells in the two to three days prior to pumping. Falls in water levels as a result of abstraction could have significant effects on the habitat zonations on site.

4.76 The ES has little information on the water volumes expected to be used for irrigation. Dr Dargie assumes (based on information from Royal St. Georges golf course) annual water use of 12,000 m³, and 21,000m³ during construction and establishment. Dividing his figure for the operational phase by the area of the course to be irrigated would give a level of 92mm of extra water per year.

4.77 This is significant in the context of an average summer rainfall of 336mm. Assuming 33% of the water would percolate beyond the root zone would mean a level of around 31mm of added water to the ground. The equivalent figure for the establishment phase would be 54mm. Raising the level of the aquifer by up to these amounts would result in changes in vegetation around the irrigated areas.

4.78 Dr Dargie's conceptual ecohydrological model construes the depth of the water table based on a survey of habitat and vegetation types, and is validated by water levels in the

⁵⁵ [NC106 - SEPA \(2019\) Freedom of Information release Report Vol. 1 \(Advanced Works\) - Further information in support of CAR licence application CAR-S-1156889](#)

⁵⁶ [NC107 - SEPA \(2019\) Freedom of Information release - Report Vol 2 \(Abstraction Test\)](#)

⁵⁷ [CD001.051 - ES - Annex C - Appendix C.1 - GeoIndex drawing](#)

⁵⁸ NC107

applicant's borehole survey results. The water table is higher in Dr Dargie's model than in that of the applicant.

4.79 His model shows that Coul Links is fed by three aquifers. The Dornoch coastal aquifer carries fertiliser leachate from the farmland to the west. Underneath, the Dornoch bedrock aquifer contributes to the largest groundwater flow through the dune system. The water in these two aquifers is subject to some degree of mixing.

4.80 Thirdly is an unusual domed aquifer at Skelbo, beneath a large local area of high dune sand in two domes, the highest at Coul Links. It is probably small (about 30 hectares) but it has sufficient radial head to restrict excessive nutrient passage through its surrounding dune slacks. This kind of feature is shown in the schematic drawing of a dune system in Figure 1, Appendix 1 of Dr Bowey's inquiry report. It is replicated from Figure 4.10 of English Nature's research report 'Development of eco-hydrological guidelines for dune habitats – Phase 1'.⁵⁹

4.81 Meadowsweet is an indicator of chronic nutrient excess. It is common in the south of Coul Links but almost absent in the north. This is probably because the domed aquifer has prevented its spread into this area and has maintained high-quality dune slack around its lower edges. Golf course fertilisers used in the north part of Coul Links would therefore pollute the only aquifer area which is currently free of contamination by agricultural fertilisers. Dr Dargie agrees that bird faeces are a contributory factor to understanding some Meadowsweet distribution. But in the north of Coul Links this is mitigated by the domed aquifer, otherwise there would be meadowsweet in the dune slacks to the north.

4.82 Coul Links is changing in a subtle but rapid fashion not understood by the applicant, SEPA or SNH. Dune slacks are formed in zones related to elevation above the water table. Dr Dargie mapped habitat at Coul Links in 1994 and again in 2018/19. The differences show a rise in the water table of 0.18m in that 24-year period. This is likely to be driven by increased rainfall and sea level rise. The extent of wet ground at Coul Links has increased from 22% in 1994 to 27% in 2017.

4.83 The site is likely to get wetter still. This will further affect the habitats and vegetation within the dune system. The design of the golf course has not taken account of these recent (and likely continuing) changes.

4.84 The dune slack vegetation sits within a narrow elevational range of only 0.3m. Therefore even a small change to the hydrology will change the zonation. The same applies to saltmarsh habitats in the north of Coul Links. There, rises in the water table would lead to 'freshwater forcing' and the replacement of saltmarsh by swamp.

4.85 The changes also show, in some locations, possible evidence of increased nutrients. The role of nutrients as a possible driver of adverse change is critical, and under-appreciated. Nutrient enrichment at Coul Links is caused by atmospheric deposition, water run-off from the adjacent farm land and the faeces from wintering birds. Atmospheric deposition of nitrogen is already high, at around 50-62.5% of critical loads for the fixed acidic dunes at Coul Links.

⁵⁹ [SNH 040 - Davy et al 2006 - Development of eco-hydrological guidelines for dune habitats-Phase 1](#)

4.86 The nitrogen thresholds for irrigation water suggested by SEPA on the basis of the UK TAG report seem too high. Alternative research, referred to by SNH⁶⁰, demonstrates that dune slacks are more sensitive to groundwater nitrogen levels. Dr Dargie acknowledged that the dune systems on which this Environment Agency guidance is based experience higher rates of aerial deposition of nitrogen and therefore are more likely to be closer to critical loading than Coul Links.

4.87 Coul Links is particularly sensitive due to the existing inputs of nitrogen from the adjacent farmland. Groundwater monitoring at Sandwich Bay showed chronic excessive nutrient contamination of groundwater beneath three golf courses. It showed a major spike in concentration within one course due to the reconstruction of one fairway.

4.88 The critical nitrogen loads which would cause conversion of habitats to other types are 8kg/ha per year for fixed acidic dunes and 10kg for other important habitats.⁶¹ Current aerial deposition is 5kg per year. Dr Dargie assumes there is no nitrogen in irrigation water, and that nitrogen will be applied to the 11 hectares of fairways at a level of 200kg/ha for each of the first two years of the development. In a scenario that 10% of the nitrogen would enter the groundwater through leaching, there would therefore be 220kg leached which, dispersed over the 153 hectares of the SSSI at Coul Links, would be 1.43kg/ha. Assuming 25% leaching it would be 3.56 kg/ha.

4.89 The 10% scenario would not take any habitats beyond their critical load, but the 25% scenario would take fixed dunes above it. This habitat is already being affected by nutrients in groundwater and by a rising water table. Regardless of these critical loads, if all the leached nitrogen in dune slacks is absorbed by plants then the 10% scenario would exceed the Environment Agency reference figure and the 25% scenario would exceed the UK TAG threshold.

4.90 Around half of the dune slacks are already beyond critical load due to leached agricultural fertiliser. Further nutrients from golf course fertilisers would therefore accelerate degradation in these areas, for example encouraging invasion from meadowsweet. This would probably be sufficient to eradicate all remaining humid dune slack habitat within a 10-20 year period. When questioned, Dr Dargie recognised that the most recent borehole water analysis shows minimal nitrate levels, but he pointed out that his analysis assumes no nitrates from irrigation water.

4.91 Without the golf course, humid dune slacks and their transitions would adjust to a rising water table by changes in vegetation. Existing habitat zonations would be retained but would shift position. A rising water table on its own would not destroy dune slack habitat unless very high levels are involved, creating aquatic conditions.

4.92 In Not Coul's closing submissions it is pointed out that Mr Taylor maintained throughout his oral evidence that there would be minimal or no fertiliser leaching to groundwater. This is contradicted by measures proposed in the applicant's Schedule of Mitigation for an impermeable membrane to be installed beneath all greens and tees. It is also contradicted by evidence from Sandwich Bay.

⁶⁰ SNH41

⁶¹ [NC078 - APIS \(2019\) - Indicative critical load values for European habitats, Loch Fleet SSSI and Sandwich Bay](#)

4.93 Mr Taylor's inquiry statement omits the following statement (about a paper by Clark & Kenna) from his September 2017 report⁶² The Fate of Pesticides and Fertilisers in Turfgrass Situations:

"Nitrogen leaching ranged from 100% of applied for pure sand rootzones to <1% for those containing more silt and clay"

Given this statement, and because he assumes no leaching from greens and tees, Dr Dargie's estimates of the amount of nitrate leaching are conservative.

4.94 In relation to Dr Dargie's domed Skelbo aquifer, Dr Bowey has not demonstrated why such a feature cannot exist.

OTHER REPRESENTATIONS

4.95 Other representations made on the planning application refer to effects on the water environment. These reflect many of the matters addressed (for example the potential effects on water levels and from the use of chemicals) in the evidence from the applicant, SNH and Not Coul, and indeed in the consultation responses from SEPA. All of the key matters raised are addressed in our conclusions below or in subsequent chapters relating to natural heritage.

REPORTERS' CONCLUSIONS

4.96 There is dispute about the nature of the hydrology and hydrogeology in and around Coul Links. In particular this relates to the extent to which the dune slacks are recharged by the bedrock aquifer, and the existence or otherwise of a domed aquifer in the north of the site. Our focus must, however, be on the implications of this for any effects which might arise from the development of the golf course (and the associated water abstraction).

The effects of water abstraction

4.97 The applicant continues its engagement with SEPA in respect of the CAR licence application for water abstraction. The applicant has evolved its conceptual site model from the one initially shown in Appendix H of its GWDTE Review and Assessment. Further work by the applicant has led to the model being adapted, to the one currently with SEPA and as provided in SEPA's FOI request to Not Coul.

4.98 SEPA has requested further monitoring of groundwater levels over the summer months. It has not yet ruled out a connection between abstraction of water in the borehole wells and the water levels in the monitoring wells (and dune slacks) but remains of the view that abstraction is likely to be consentable.

4.99 The abstraction boreholes also required planning permission. But it is clear that, insofar as consideration of the effect of abstraction on the water table is concerned, SEPA, through its consideration of the CAR licence, is the lead regulator. SNH, trusting in the expertise of SEPA and that it would be consulted as appropriate, is content that consideration of this particular effect lies with SEPA.

⁶² [CD001.097 - ES - Supporting Document 11 - Fate of pesticides](#)

4.100 We can well understand why Not Coul is concerned about the potential for linkages between the shallow and deeper groundwater, and how (if these do exist) the water table at Coul Links could be affected by abstraction. Given the importance of the dune slacks and other wetland habitats and the extent of their dependence on groundwater, we accept that there could be significant effects from changes to water levels, for example if they fall as a result of abstraction.

4.101 Indeed, as noted above, the applicant's initial conceptual site model, set out in the GWDTE Review and Assessment, was based on the premise that there was convergence of the bedrock and shallower groundwater regimes near the western edge of the dune slacks. As recently as June 2018 (see letter to SEPA at Appendix 4 of Dr Bowey's inquiry report) Dr Bowey stated that:

"Our assessment of the hydrology at Coul Links has determined that, and as identified within our conceptual hydrological model, mixing of deep and shallow groundwater and surface water does occur below and within the Dune Slacks."

4.102 On the face of it, and whatever the reason, the graph at Figure D11 in Appendix D in the second volume of the SEPA FOI response to Not Coul does seem to show water levels in the monitoring wells beginning to drop at the same time as the abstraction tests begin.

4.103 However Dr Bowey is now confident, although he allows for the existence of plausible doubt on the matter, that there is no connection between the deep and shallow groundwater. This is because of the additional work undertaken since March 2018 and which informed the applicant's subsequent engagement with SEPA in respect of the CAR licence.

4.104 We would expect SEPA to consult SNH in respect of the potential effects from abstraction on the nature conservation designations at Coul Links. If there is indeed no effect on groundwater levels as a result of abstraction, then no effects on the habitats at Coul Links would occur.

4.105 In our view Ministers can have confidence that the effects on water levels from abstraction can and would be fully considered and regulated by SEPA through the CAR licensing procedures. At this point in time, however, we cannot say with any certainty whether there would or would not be an effect on the water levels within the dune system as a result of abstraction.

The effects of irrigation of the golf course

4.106 As we narrate below, SEPA has made clear that its consideration of the CAR licence extends only to the effects of abstracting the water, and not to the effects of irrigation using that water. The CAR licence would not directly control the amount of water being used for irrigation. Indeed SEPA envisages that, should permitted abstraction rates need to be adjusted downwards in the future, other sources of irrigation water may need to be secured by the applicant.

4.107 In the ES (paragraph 2.3.5.1) it is stated that, during the establishment phase, irrigation water would be applied in small quantities on a regular basis (only when required, depending on climatic conditions) to minimise waste. It would only affect the localised area where it was applied, and within the top 300mm of the topsoil. Around 30,000m³ of

irrigation water would be used annually during the establishment phase, dropping to 10-15,000m³ annually (in dry years) during operation.

4.108 We are not clear why Dr Dargie does not base his assumptions about water on what is stated in the ES. Anyway, his estimate is within the range provided in the ES for the operational phase, but lower for the establishment phase.

4.109 Dr Dargie assumes (but does not say why) that 33% of the irrigated water would percolate beyond the root zone. He then goes on to give examples of where he considers that the consequent changes to the local water table would affect dune slack habitats in the vicinity of tees, fairways and greens. He finds that more generally the irrigation water would cause a rise in the water table (and consequent effects on habitats) over a larger area. Given its reliance on various assumptions, Dr Dargie's evidence as to the effects of irrigation on the water table (and then on habitats) appears somewhat speculative.

4.110 We would perhaps have found it helpful had the information supplied by the applicant contained a more in-depth assessment of the potential effects of the volumes of irrigation water to be applied (taking account, if need be, the effects of changes to evapotranspiration rates). There is no detailed treatment of the anticipated effects on the water table across the site as a whole or of the effects in the immediate environs of the fairways, tees and greens.

4.111 That said, we have no reason to reject that applicant's evidence that the use of irrigation water would be minimised to that which is necessary. The local effects of such irrigation would occur in areas where the golf course would already, by habitat loss and modification, be causing an effect. We consider those effects in Chapter 5. It seems unlikely that a more detailed analysis by the applicant of these local effects would have had a significant bearing on the conclusions we reach in respect of effects on habitats. In terms of the water table across Coul Links as a whole, the overall volume of irrigation water to be used, compared to the amount of rainfall (and surface water inputs) across the site (and the yearly variations in these) would be very small.

Nitrogen in irrigation water

4.112 In respect of the levels of nitrogen within irrigation water, Dr Bowey expressed the view that this would be controlled through any CAR licence for the water abstraction. However, that was not SNH's view nor the view of SEPA, who would be responsible for issuing such a licence. In terms of the division of responsibilities between SEPA and SNH, it is SNH who are the lead agency for these habitats within the nature conservation sites.

4.113 It is not certain that all irrigation water would come from the abstracted water. If abstraction rates need to be reduced or are lower than is demanded by irrigation needs, the applicant might need to obtain alternative sources of water. In this context, the ability to control the nitrogen content (and indeed potentially its other qualities, such as pH value) of all irrigation water to be used is an important consideration.

4.114 The key difference in opinion is whether the maximum nitrogen levels in the irrigation water should be those of the UK TAG report or those of the Environment Agency report.

4.115 According to the evidence of Dr Bowey (and the consultation responses from SEPA) the UK TAG report would appear to be the document which is of direct relevance to the

regulatory position in Scotland (and indeed across the UK) for the implementation of the Water Framework Directive. Its threshold values are for chemical concentrations within the groundwater on which a GWDTE depends. The values have been developed to ascertain whether or not there is a risk to the health of a GWDTE. One of their uses is stated in the document to be to prevent deterioration in the status of the groundwater body from new activities.

4.116 In setting the threshold values, the correlation between the condition of wetland conservation sites across the UK and available data on the chemistry of water feeding these wetlands was analysed. More detailed investigations were carried out at some sites. Where a conservation site was in favourable condition it was inferred that groundwater was not causing significant damage. That said, the report acknowledges that a site could be being impacted by water inputs but not yet to the extent that it was in unfavourable condition. It was also recognised that a site may be in unfavourable condition as a result of factors other than water inputs.

4.117 The analysis shows that the likelihood of a GWDTE being in good condition decreases with increasing nutrient concentration in the groundwater that feeds it. The threshold values are such that it is highly likely (85% to 95%) that a GWDTE is in good condition when the threshold value is not exceeded. The report groups wetlands into 11 'broad categories', one of which is 'wet dune'. The threshold value is 3mg of nitrogen (in nitrates) per litre, which equates to 13mg/l of nitrate.

4.118 The Environment Agency report is intended to apply to England and Wales. As Dr Bowey identified, none of the dune slacks studied to inform the report (and only one of the sites referred to in its appendix D) was in Scotland. However, the report seeks to make recommendations on the British dune slack community types from Annex 1 of the Habitats Directive (NVC types SD13-SD17). That includes the types present at Coul Links, and the guidelines in the report for total inorganic nitrogen for all five types are identical.

4.119 Albeit no Scottish sites were studied, it seems to us that the guidelines for these various dune slack communities could still be of relevance to sites where they occur in Scotland. Certainly that was the view expressed by Dr Dargie and Professor Angus, both of whom are experts on the ecology of sand dune systems. Even if these English and Welsh sites were subject to higher rates of nitrogen deposition, it is not clear to us how this would have a significant influence on the overall levels of nitrogen at which adverse effects begin to occur. Dr Dargie's answers at the inquiry on which, if any, thresholds to adopt (Environment Agency report or UK TAG) seemed uncertain, but in the end he preferred the former.

4.120 Annex D of the Environment Agency report sets out these guidelines. The reference condition (where there is no pollution of groundwater) is of 0.2mg/l total inorganic nitrogen. Concentrations above 0.4mg/l may indicate contamination and above 1mg/l indicate likely contamination. These figures need to be multiplied by 4.4 to provide the equivalent values for nitrates per litre. It is stressed in the report, however, that there is no data linking such concentrations to adverse impacts.

4.121 Dr Bowey recorded nitrate levels in the shallow groundwater at Coul Links of between 4 and 7mg/l. This is well below the UK TAG threshold value of 13mg/l but around or above the level which the Environment Agency report says would indicate likely contamination.

4.122 Aside from the effects from nitrates in irrigation water, there are concerns (which we cover below) about the potential effects from nitrogen in fertiliser. Dr Dargie and Dr McMullen both gave evidence about the potential for nutrient enrichment of the site from sources such as aerial deposition and from bird faeces.

4.123 Dr Bowey is in fact confident that, once purged of 'new water' and operating regularly to provide water for irrigation, the nitrate levels in the old water (measured as below 0.4mg/l) would dominate. He also described nitrates as being a 'commodity', and said water is readily capable of being treated using commercially available products to reduce nitrate concentrations.

4.124 In all of this context, and given the importance of the dune slacks (and of the other sand dune habitats) at Coul Links and their sensitivity to nutrient enrichment, it seems prudent to take all reasonable precautions to minimise the potential for harmful levels of additional nitrogen to be added in the irrigation water. The reference condition of 0.2mg/l of total inorganic nitrogen in the Environment Agency report is the equivalent of 0.88mg/l nitrate – more than double the nitrate content in the old water.

4.125 On the basis of Dr Bowey's evidence, such a low rate of nitrogen content in the irrigation water should be achievable, perhaps with little or no treatment. We therefore amend the applicant's proposed condition to apply this value. We allow, though, for the council to vary this upward, in consultation with SEPA and SNH, should it prove to be unnecessarily low.

The nature of the hydrology and hydrogeology at Coul Links

4.126 We turn now to Dr Dargie's posited Skelbo domed aquifer. Dr Bowey says that, in his professional opinion, there are no plausible mechanisms to support the existence of such a feature. He may be correct, and we recognise his expertise in this area. But we were not provided with any detailed technical evidence which shows why this is the case.

4.127 In support of his hypothesis, Dr Dargie cited the conceptual model at Figure 1 in Appendix 1 of Dr Bowey's inquiry report. This schematic shows a water table (and above it a capillary fringe) bulging upwards underneath a main dune area. To the extent that Dr Dargie may be arguing that, under the higher dunes at the north of Coul Links, the water table may be elevated relative to the lower areas around them, this conceptual model he cites would seem to allow for such a possibility.

4.128 If so, this higher water table within the dune heath in the north part of the site could conceivably be inhibiting the extent to which other ground water penetrates this area. This could account, to some degree at least, and noting Dr Dargie's use of the presence of Meadowsweet as an indicator of higher nutrient levels, for the almost complete lack of this plant in the northern part of Coul Links. On the other hand, Dr McMullen may be correct in attributing the pattern of meadowsweet distribution mostly to the nutrient enrichment from the faeces of wintering birds on the dune slacks. We are not able to provide a strong view on this dispute which, in any event, does not significantly impinge upon our assessment of the impacts of the development.

4.129 Dr Bowey considers Dr Dargie's evidence for a rise in the water table at Coul Links since 1994 as conjectural. However there is no detailed evidence from the applicant about

what, if any, changes to the water table there might have been in this period. Both Dr Bowey and Dr McMullen acknowledged that using ecohydrology to infer the level of the water table from surveying the different habitats and plant communities on a site is a valid technique, although it has limitations.

4.130 There are differences between Dr Dargie and the applicant's ecology witnesses as to the correct habitat mapping of the site. But we have no strong reason to reject the comparisons⁶³ Dr Dargie makes between his own 1994 and more recent surveys of Coul Links habitats. His hypothesis of a rising water table during this time seems plausible, and is unchallenged by detailed evidence from the applicant. Again, however, such evidence as there is for a rising water table in recent years does not have a significant bearing on our assessment of the effects of the development.

The use of fertilisers

4.131 It is clear that fertiliser use would be greatest in the establishment or 'grow-in' period. That is also the time when, until the turf becomes more established, the ground would be more susceptible to leaching of nitrogen through to the water table. Various figures have been put forward for the amount of nitrogen in fertilisers which would be used during this period.

4.132 Appendix 14⁶⁴ of the Schedule of Mitigation provides figures equivalent to 200-250kg/ha of nitrogen in year 1. It then gives annual figures for years two to four of 160kg (tees and greens) and 80kg (fairways and semi-rough). The amounts drop further for year five and beyond. These figures are in line with those given in the ES itself (Section 6.6.2). They are broadly consistent with Mr Taylor's estimates, although in cross-examination he was content with a benchmark upper-level figure of 200kg/ha for fairways during the grow-in period.

4.133 The evidence of Mr Haspell and Mr Taylor demonstrates that there is a range of different fertiliser products to choose from, and well-established techniques to ensure these are used in the correct quantities and in accordance with best environmental practice. We do not doubt the intention to do so.

4.134 Even assuming fertiliser use is kept to a minimum and it is applied in the correct manner, we still must consider the potential effects of any leaching of nitrates which could occur. Mr Taylor's estimates (notwithstanding a washout associated with a storm event) would be that up to 0.2-0.5% of the nitrogen would leach, and certainly that any leaching ought to be considered negligible. That, assuming up to 200kg/ha of nitrogen per year on the fairways only during the grow-in period, would amount to 0.4–1kg/ha on the fairways (in total 4.4–11kg over the 11 hectares of fairway). Dividing that by the 153 hectares across Coul Links, as Dr Dargie did for his estimates, would give an overall level for the dune system of 0.03-0.07kg/ha.

4.135 This is far below Dr Dargie's hypothetical example based on 10% leaching, and could fairly be described as negligible when compared to the 'critical load' values of 8-10kg which Dr Dargie says would apply to the site. Like Mr Taylor, we have seen no basis for Dr Dargie's assumptions.

⁶³ See examples at paragraph 37 of Dr Dargie's inquiry report NC138A

⁶⁴ [CD001.129 - Schedule of Mitigation - Appendix 14 - Golf Course Management Plan](#)

4.136 Given his expertise in golf turf management, we have more confidence in Mr Taylor's estimates. However there is still room for reasonable uncertainty. The various studies quoted in STRI's 'Fate of Fertilisers'⁶⁵ may not be directly applicable to the situation at Coul Links, and they generally indicate low levels of leaching of nitrates.

4.137 However the reference from one study highlighted by Not Coul is striking. This seemed to indicate the potential for up to 100% of nitrate leaching in pure sand rootzones. We appreciate that there is sandy soil at Coul Links and not a pure sand. We are also conscious of the particular risk of leaching in the establishment phase. Mr Taylor referred to his summary of the Lawson and Coldclough report. The leaching rates given there for sand/soil mix rootzones was 0.5%, consistent with Mr Taylor's estimates. For pure sand the loss appears to have been, at most, 2.5%, still well below Dr Dargie's assumptions. However the study appears to have used 'established turf' rather than ground during the establishment phase of a golf course development.

4.138 Even though the levels of leached nitrogen may be assumed by the applicant to be very small, we would have wished to see a more detailed assessment of the potential for leaching to affect the water environment and the habitats on site, both during establishment phase and thereafter. The UK TAG document sets threshold values for the levels of nitrates in groundwater supporting wet dunes. Dr Dargie refers to the critical load values for nitrates for certain of the habitats on site. Both he and SNH refer to the Environment Agency report discussed above. We have seen nothing in the applicant's written evidence which seeks to estimate the amount of nitrate leaching and then to assess the impacts of that on the health of the habitats on site, for example with reference to these threshold and/or critical load values. Without such an assessment, we cannot be wholly confident that the leaching of nitrates from fertiliser would not, particularly in the establishment phase, have adverse effects on the habitats at Coul Links. In that respect, our concerns echo those of SNH.

The use of other chemicals

4.139 In addition to the effects from nitrogen, concerns have been raised about the effects on habitats and vegetation from chemicals such as pesticides, herbicides and fungicides.

4.140 The potential for habitat modification and pollution due to chemical inputs is recognised in the ES (paragraph 5.5.3.1 and Table B.15). It advises (2.3.4) that pesticides would only be used, when necessary, on greens and tees. It is further stated (5.5.3.2) that herbicides (which may also be used on fairways) would be applied in discrete and defined areas. This would be in accordance with approved methods, and would not spill beyond these areas.

4.141 Despite this information SEPA raised concerns in its initial consultation response because of a lack of information in relation to the use of pesticides, herbicides and other chemicals in respect of potential impacts on GWDTEs.

4.142 SEPA withdrew its objection subject to the imposition (by means of planning conditions) of the schedule of mitigation contained in the second EIA addendum. In particular SEPA referred to Appendix 3 of the Schedule of Mitigation - Fertiliser and

⁶⁵ [CD001.097 - ES - Supporting Document 11 - Fate of pesticides](#)

pesticide buffer zones, to Appendix 8 - Addendum to the Construction Environmental Management Plan and Appendix 14 - the Golf Course Management Plan.

4.143 SEPA welcomed the commitment to a 1m buffer to water bodies for fertilisers and the proposed ongoing monitoring of flora to provide an early indicator of any signs that the application of chemicals may be causing a problem. SEPA considered that Appendix 14 includes appropriate pollution prevention measures.

4.144 SNH, in its initial consultation response, noted that herbicides and pesticides could be washed towards or even into a dune slack. But it did not return to this concern in its subsequent consultation responses, nor did it expand upon it in its detailed evidence to the inquiry.

4.145 Appendix 3⁶⁶ of the Schedule of Mitigation says that herbicides would only be used as a spot treatment when required in extreme cases, but that this could apply to the 'managed rough'. This indicates a potentially more extensive use than is indicated by the ES. Fungicides would only be used on greens, although their use is said to be 'unlikely'. There are no plans to use insecticides since there are no approved products on the market. Any subsequent use would, again, be limited to greens.

4.146 The course layout drawings in Appendix 3⁶⁷ show a 1m pesticide buffer zone outwith the edge of the rough, with fertilisers having a 2m buffer. This appears to indicate that not just fertilisers but pesticides could be used within the managed rough. This would be contrary to what is stated in the ES and indeed Appendix 8⁶⁸ of the Schedule of Mitigation (in section 4 it is stated pesticides would only be used on greens and their surrounds) and Appendix 14⁶⁹ (which says they would not be used on fairways or semi-rough).

4.147 In any event, there is no dispute between the parties at the inquiry that the areas of greens, tees and fairways should be treated as being habitat loss. Therefore any direct effects on these areas from pesticides and herbicides do not affect our overall conclusions in respect of habitats and vegetation.

4.148 There is perhaps less certainty in respect of the rough. However, the statements in the written evidence (for example in Appendix 14) are clear enough, so we proceed on the basis (despite the pesticide buffer zones shown on the maps) that there would be no (or negligible) pesticide use beyond the areas which are already calculated as habitat loss.

4.149 We note also the evidence from the applicant that pesticides, herbicides and fungicides would be used only where necessary, in accordance with good practice and that drift or spillage is unlikely. It is also notable that SEPA is satisfied in respect of the effects of such chemicals on GWDTE, and SNH did not lead detailed evidence on this matter at the inquiry sessions. Overall (apart from our unresolved concerns in relation to Fonseca's seed-fly which we cover in chapter 7) we are satisfied that any effects from the use of such chemicals would not add significantly to the direct and indirect effects on habitats and vegetation.

⁶⁶ [CD001.108 - Schedule of Mitigation - Appendix 3 - Management plan for the golf course- Fertiliser and pesticide programme](#)

⁶⁷ CD.001.103-1.107

⁶⁸ [CD001.115 - Schedule of Mitigation - Appendix 8 - Addendum to the Construction Environmental Management Plan](#)

⁶⁹ [CD001.129 - Schedule of Mitigation - Appendix 14 - Golf Course Management Plan](#)

Potentially contaminated land

4.150 In relation to the potential for past contamination of land north of Embo, we recognise the concerns which have been expressed. Dr Dargie may be correct in some of his assumptions about the nature of the materials which were deposited and the effects this may be having on the water environment in this vicinity.

4.151 However, as stated by Dr Bowey, a planning condition is proposed which would ensure the further investigation, and remediation if necessary, of any potential contamination on the site. The council's contaminated land officer recommended such a condition. This is a common approach to addressing the potential for contamination on a development site. The potential area of contamination affects a small part of the site, and is outwith the nature conservation designations. We have seen no evidence to make us conclude that a planning condition is an inappropriate way to ensure this matter is addressed. We note that Dr Dargie said, when asked about it, that his concerns in relation to this matter had been resolved.

Waste water treatment

4.152 In respect of the waste water treatment plant, we note that it has already received planning permission and a CAR licence, and that SNH is satisfied in relation to the potential for effects on the nature conservation sites.

CHAPTER 5: IMPACTS ON HABITATS AND VEGETATION

BACKGROUND

5.1 The key areas covered in the evidence of the parties at the inquiry sessions on habitats and vegetation related to:

- The potential alternative option of building the golf course further inland, making more use of the agricultural land immediately to the west
- The robustness and sufficiency of the work done to prepare the ES
- The nature and extent of the habitats across the site
- The extent and effects of direct habitat loss and of habitat modification
- The effects of habitat fragmentation and effects on dynamism
- The effects on certain species
- The impacts on habitats and species from effects on the water environment
- The appropriateness and likely success of the proposed habitat translocation
- The condition of the habitats at Coul Links and their likely fate if the development does not proceed
- The benefits of controlling invasive species and other habitat and species management as part of the golf course development

The Environmental Statement

5.2 Chapter 5 of the ES addresses ecology, and is accompanied by appendices B.1 to B.7. Supporting Documents relevant to this chapter of the ES include 1: Dune Heath Translocation Plan, 4: Management Plan Aspiration and 9: Biodiversity Net Gain report.

5.3 Only the likely effect of land take on dune heath is considered significant, prior to mitigation. Proposed mitigation of effects on dune heath includes translocation of dune heath to other locations within the site, as well as management of the current areas of dune heath and restoration and natural expansion of this habitat type. With such mitigation, the residual effects on dune heath are assessed as not significant.

5.4 The ES also outlines proposals for a Coul Links Site Management Plan (CLSMP) which would involve positive management of the habitats on the site and the control of invasive species. Management of the site would also aim to mitigate impacts on (and bring benefits for) certain species.

THE CASE FOR THE APPLICANT

5.5 The evidence from several of the applicant's witnesses covered issues relating to potential ecological impacts and benefits arising from the development. There was a degree of overlap in this, both in the written evidence and in the oral evidence presented at the inquiry sessions.

5.6 Chris Haspell focussed mostly on the approach to the site selection, design, construction and operation of the golf course. This included evidence on the translocation of dune heath habitat. Robert Taylor similarly focussed on translocation, both of dune heath and juniper. He also covered trees, invasive species and the proposed CLSMP. Peter Cosgrove's evidence majored on the approach taken in preparing the ES, the extent

and significance of habitat loss and fragmentation and effects on species. He too covered invasive species and the proposed CLSMP, and impacts on the designated nature conservation sites at Coul Links. Andy McMullen covered similar ground as Dr Cosgrove in respect of the ecological surveys undertaken for the ES. He also covered effects on habitats (especially from fragmentation), impacts on Baltic rush and shoreweed and the impacts from invasive species.

Site selection and alternatives

5.7 [Mr Haspell](#) explained that Mike Keiser, one of the key investors in the project, is known for developing golf courses in unique locations which offer an exceptional golfing experience. His search for a new site extended to a number of suitable locations in Scotland (and in Ireland). He said at the inquiry that the applicant's team studied alternative sites, but that no document on this process was produced.

5.8 Overseas visitors coming to Scotland for links golf will want to experience natural dunes and the connection with the sea. On the most popular links courses players experience the smells of the links and the sounds of the waves. This is essential for a great links course.

5.9 Building the course on the farmland outwith the SSSI would not generate the excitement or impact within the golfing world wanted by the course designers or the applicant. It would likely be an inferior course. It would neither be revered in the industry, nor included on the itinerary of the very people the applicant wants to attract to Scotland to play golf. It would make it impossible to create the unique experience of a links golf course.

5.10 Trying to mimic a dunescape on the farmland would require deep excavations. Millions of tonnes of material would need to be moved. Despite this, golfers would still not experience natural dunes or come close to the sea. Low impact, natural links golf course development is what the Coul Links developers and designers specialise in. They are not interested in a more intrusive type of development. Instead, they would walk away from the project.

5.11 Mr Haspell also noted (as indeed did Dr Bowey) that such extensive cut and fill works in the agricultural land could impact on the ground water connection with the SSSI to the east.

5.12 The project would help to secure funding and resources to maintain, enhance and strengthen the site's environmental qualities. This would help to maintain the positive reputation of the UK golfing industry for environmental stewardship. There are many golf courses in UK which are within SSSIs and other designations. In recent years golf courses have delivered projects to enhance sand dune-related habitats, including adding dune slacks and sand scrapes. A golf course could bring similar environmental benefits to Coul Links.

5.13 Dr Cosgrove said at the inquiry that he understood that, prior to his own involvement in the project, a number of sites in the Highlands and islands had been looked at but the perfect site had not been identified until Coul Links was found. He had advised the developers that building a golf course on such a heavily designated site would be extremely challenging, and worked with them to minimise the environmental effects. He advised that

the concerns raised by SNH in initial discussions were legitimate, and needed to be addressed as best they could.

5.14 Mr Taylor explained at the inquiry that in June 2017 STRI took over the lead role for the ES from Golder Associates. By that time the design was largely fixed. But the material in the Design and Access Statement on different course layouts for Coul Links covered what had already been considered in terms of alternatives. Prior to that, he too understands that the applicant looked at other sites which in the end seemed to be unsuitable.

5.15 In closing submissions it is argued that the evidence demonstrates that, for the applicant, there never were (in the terms of the 2011 EIA Regulations) any 'main alternatives' to the proposed development – the alternatives were limited to different design layouts. The consideration of alternative sites was an initial sieving exercise to determine whether a site had the special qualities which merited further investigation at all.

5.16 None of the alternative sites had such merit. There is no obligation to study the potential environmental effects of a main alternative if it has been rejected (as is the case here) on grounds other than comparative environmental effects.

5.17 There is no serious deficiency in the discussion of alternatives being in the non-technical summary because that is part of the ES. In any event, there is no prejudice to the inquiry parties because they were all well-aware of the applicant's approach to the consideration of alternatives.

5.18 SNH refuses to accept that a golf course built on the farmland would not be an authentic links course. Its opposition to the development has been heavily influenced by the fact that Professor Angus and other SNH officers consider that building most of the course on this farmland is a reasonable alternative. This is asserted without access to any expertise in golf course design, without any analysis of the potential environmental effects of such an alternative, and without an objective review of the applicant's design philosophy.

5.19 Mr Haspell's inquiry report⁷⁰ stressed his long experience and acknowledged expertise in sustainable golf course design, construction and operation. As the project manager for Coul Links, he is well-placed to oversee the construction, establishment and operation of the course.

5.20 The golf course would fit comfortably into the existing landscape with very little earth movement. After construction it would quickly enhance, and blend seamlessly into, its natural surroundings. In that respect it would be comparable to Machrihanish Dunes, also within a SSSI. That said, Mr Haspell expressed the view that that course was not a top 100-ranked course because, it would seem, of the design changes required by SNH.

Environmental Impact Assessment – scoping

5.21 [Dr Cosgrove](#) explained⁷¹ that the applicant undertook thorough pre-application and scoping engagement with SNH and the council so that ecological survey, assessment and reporting requirements on likely significant effects could be identified and agreed. Dialogue with SNH took place throughout the development of the project, not just during pre-

⁷⁰ [APP001.001 - Inquiry Report by Chris Haspell](#)

⁷¹ See also [APP002.001 - Inquiry Report by Pete Cosgrove](#)

application consultation and scoping. Alba Ecology put great weight on SNH's advice, in particular since this came from a team of SNH specialists rather than, as is more usually the case, the SNH area officer.

5.22 At formal scoping stage SNH recommended⁷² surveys for vegetation and habitats. The desk study was conducted using a variety of information sources. This included commissioning the Highland Biological Recording Group, again as per best practice. The National Biodiversity Network Gateway was not used, due to the need (which is impractical for a consultancy firm) to obtain the consent of all of those who provided the original data.

5.23 SNH did not consider that there would be a likely significant effect on lichens, fungi or flora such as juniper, as evidenced by its scoping response and earlier pre-application advice.⁷³ Therefore no surveys were requested or undertaken for these.

5.24 The above approach to scoping accords with best practice. For example guidance⁷⁴ published in 2016 by the Chartered Institute of Ecology and Environmental Management (CIEEM) states (paragraph 2.6) that:

“Where an EclA is carried out as part of an EIA...competent authorities are required to provide a ‘scoping opinion’ if requested by a developer. A scoping opinion summarises the specific advice of the competent authority concerning the required coverage and content of the EIA”.

5.25 It is the role of the competent authority (in this case SNH) to provide specific advice on the required coverage and content of the EIA work. The same guidance also states (at paragraph 5.8) that:

“There could be any number of possible impacts on important ecological features arising from a development. However it is only necessary to describe in detail the impacts that are likely to be significant”.

5.26 The objectors have ignored the scoping process and instead insist that the applicant should have carried out survey work already deemed unnecessary by SNH. Such an approach would have been against EIA guidance and best practice, and against the scoping advice provided.

5.27 Some individual plant species were covered in the ES, but no floristic survey was undertaken as SNH did not consider one was necessary. Nevertheless, following comments made by Not Coul about the potential presence of scarce/rare plant species, Dr McMullen undertook an independent floristic survey and this is reported on in his Inquiry Report.

5.28 In closing submissions it was pointed out that neither the council nor the consultation authorities found any deficit in the scope (or any other aspect) of the ES. Nor did the panel of CIEEM Fellows who considered a complaint made to them about the professionalism of

⁷² [APP002.006 - SNH letter dated 30 June 2016 Coul Links Golf Course Proposal - Scope of Ecological Surveys](#)

⁷³ [APP002.005 - The Highland Council Pre-Application Advice Pack issued on 17 November 2015](#)

⁷⁴ [APP002.004 - Chartered Institute of Ecology and Environmental Management - Guidelines for ecological impact assessment in the UK & Ireland](#)

the EIA work of Alba Ecology. This CIEEM investigation was the equivalent of a peer review.

5.29 It was re-iterated that scoping is there to ensure a proportionate response, a point highlighted in PAN 1/2013 Environmental Impact Assessment.⁷⁵ The objectors do not have regard to (or do not understand) Regulation 14 of the 2011 Regulations and the relevant Scottish Government and CIEEM guidance.

5.30 Professor Angus did not properly distinguish between, and often confused, likely significant effects, adverse effects and impacts. He could not quantify his experience of EIA work and he confirmed that the training he received on it pre-dated the 2011 Regulations. He could not say what likely significant effects would derive from the indirect effects he is now concerned about – all he has identified are potential significant effects. SNH did not lead a witness with the necessary expertise to address EIA-related evidence, and it cannot rely on the evidence of Professor Angus in this area.

Environmental Impact Assessment – habitat surveys

5.31 The ecological surveys for the ES were undertaken using best practice guidance. They were completed competently and to the expected industry standard.

5.32 In Dr Cosgrove's view Not Coul's first objection⁷⁶ contained a misleading and factually incorrect 'audit' of Alba Ecology's work. The flawed comparisons made were not transparent, nor clearly defined. Data was not produced in a recognised standard format and there was misrepresentation of Alba Ecology data.

5.33 For example, Not Coul put transect lines through Alba Ecology habitat polygons and took point quadrats along the transect. This approach is fraught with potential errors, and not a suitable method for reviewing habitat mapping. Making an assessment of points along a transect route and comparing them to landscape-scale mapping is not a like-for-like comparison. Any statistics from it are unreliable.

5.34 Dr Cosgrove criticises Dr Dargie for assuming that Not Coul's habitat mapping is correct and that all habitat work should be compared to that standard. He is also critical of the claim that there should be at least a 90% agreement between different surveyors. A recognised⁷⁷ and inherent limitation of all habitat survey work, including the NVC⁷⁸ approach used at Coul Links, is that different surveyors will interpret and map vegetation communities differently. This is due to factors like the timing of surveys, the lack of hard boundaries between habitats and communities, the choice of scale for mapping and the amount of time devoted to surveying.

5.35 In Alba Ecology's professional opinion, the Not Coul 'audit' is neither professional nor objective.

⁷⁵ [CD004.020 - PAN1- 2013 - Environmental Impact Assessment](#)

⁷⁶ [CD003.011 - Not Coul - response dated and published 21 December 2017](#)

⁷⁷ APP2.1 - Hearn S.M., Healey, J.R., McDonald, M.A., Turner, A.J., Wong, J.L.G. and Stewart - The repeatability of vegetation classification and mapping

⁷⁸ [CD001.040 - ES - Annex B - Appendix B.7 - Figure B.6 NVC Survey Map](#)

5.36 The applicant commissioned an independent third party review of the Alba Ecology mapping from the highly experienced ecological consultancy Botanaeco. This review, by [Dr McMullen](#), included a detailed walkover survey of the proposed development area using the habitat maps provided by Alba Ecology. It found⁷⁹ the Alba Ecology habitat survey work to be in keeping with best practice, and to be an accurate and suitably detailed account of a complex dune system. Dr McMullen's inquiry report contains a detailed rebuttal of Not Coul's criticisms. In his view Not Coul fails to engage in good scientific practice.

5.37 There are often matrices (areas made up of a mixture of habitat types) at Coul Links. Transitional forms of vegetation are common. The dynamism of the habitats adds a temporal dimension to this variability. These mixed and transitional forms of habitat and vegetation therefore require to be mapped as matrices because the vegetation communities cannot always be discriminated in a meaningful way. The small scale of some the habitat areas and many of the vegetation stands makes them difficult to map and present in a comprehensible form.

5.38 The mapping by the applicant focused on the need to convey the transitional and mosaic character of areas of vegetation and habitat. This work has not been criticised by either SNH or the council, and Professor Angus recognises⁸⁰ that SNH's data is compatible with that in the ES. The precise mapping of boundaries or small features, such as dune slacks or patches of juniper, would be managed by an Ecological Clerk of Works present on site during construction.

5.39 In [closing submissions](#) the view is re-iterated that Dr Dargie did not apply proportionality when forming a professional judgement as to the adequacy of the EIA. He never sought to engage with the applicant's ecologists to establish if his concerns had any validity. When questioned, he said he had simply set the applicant's work aside and not considered it further.

5.40 Table 7 of Dr McMullen's inquiry report responds to Dr Dargie's criticisms. Dr McMullen noted that the applicant's mapping was much more detailed than the earlier Sand Dune Vegetation Survey of Scotland (SDVSS) prepared by Dr Dargie. Professor Angus concluded that the NVC survey was fit for purpose when walking the site with Dr Massey. Mr Hughes (who has NVC experience) described it as an excellent piece of work. Dr Coppins was content with the mapping of dune heath habitats. The CIEEM complaint panel found no fault.

5.41 There is therefore no basis for concluding that the EIA survey work departs from the requirements of the 2011 Regulations or from the advice of the CIEEM.

The extent of habitat loss and modification

5.42 Mr Haspell explained, with reference to the applicant's course layout drawings, that everything within the darker green areas beyond the collar of semi-rough would be rough. There is no indication in the drawings of the boundary, for each hole, between the longer-cut and managed rough. There would be later design decisions taken about this boundary. This would be done in consultation with SNH, in order to create the best possible habitat for different species such as lichens.

⁷⁹ See [APP003.001 - Inquiry Report by Andy McMullen](#)

⁸⁰ [SNH 030 - Report by Professor Stewart Angus, SNH, containing hole by hole analysis of vegetation and translocation dated 10 November 2017](#)

5.43 Mr Haspell also explained that the managed rough would be cut no more than once a year, and potentially left uncut from year to year in the outer areas. The heather there would be cut to a different height than in the deeper-cut rough, providing a variety in habitat.

5.44 Dr Cosgrove confirmed that the extent of predicted habitat loss was determined by Alba Ecology as outlined in Section 5.5.3.2 of the ES. In particular Tables B.17-19 (and associated text) display the assumptions and metrics used in relation to the predicted likely construction and operational land-take calculations.

5.45 Table B.19 reports a land-take of 4.47ha of dune heath (NVC community H11), 2.51ha of dune grassland (SD9, SD7), 0.74ha of open dune (SD7y) and 0.27ha of dune slack (SD15, SD16, SD17). The total land-take for the above habitats would be 7.99ha.

5.46 There are discrepancies between the amounts of land-take predicted by Alba Ecology and SNH. Dr Cosgrove's understanding is that SNH's metrics were initially based on a worst-case scenario, rather than a likely one (as required by the EIA Regulations). It appears there are two main differences between the methods used:

- whether the regime for cutting the 'managed rough', estimated to take place once every 1-3 years, would constitute 'land-take' (complete habitat loss) or would mimic the effects of natural grazing (habitat modification)
- the inclusion or exclusion of matrix habitats in the land-take calculations for the habitats listed in the preceding paragraph.

5.47 A cut of the rough once every 1-3 years would likely mimic occasional grazing effects. Based on Mr Haspell's and Mr Taylor's expertise and experience across multiple sites, this would not result in the loss of the managed rough habitat. Much of the existing heather is in decline so a management plan for trimming of these areas on a rollover basis would be incorporated. Trimming not only produces healthier heather, but the area of heather can be expanded in size by re-using brushings collected on site. Dr Cosgrove therefore considers that the managed rough habitat is likely to be modified but not lost, contrary to SNH's position.

5.48 The second, and a much smaller, source of difference comes from the inclusion or exclusion of matrix habitats. Matrix communities were not included in the Alba Ecology assessment of land-take metrics in Table B.19, although they were considered within the ES. This is because the inclusion of matrix habitats can result in the double counting of the habitats within them.

5.49 Nevertheless, including these matrices in the land-take assessment would not have altered the significance of the predicted impacts. The ES (at page 209) identifies 'no significant impacts' on dune heath from the land-take within matrix habitats. If matrices are included, Dr Cosgrove calculates an overall land-take for dune habitats of 10.73ha. He confirmed that he did not take issue with SNH's approach to the handling of matrix habitats, as these are matters of professional judgement.

5.50 Dr McMullen also agreed that the approach to matrices was a matter of judgement. But the dune heath:dune grassland matrix is chiefly dune grassland – a few heather shrubs does not make it dune heath. The improved grassland:dune slack mosaic is 95% grassland.

5.51 A further consideration when assessing the likely land-take is that, wherever possible, sensitive habitat areas would be avoided through micro-siting, as advised by the Ecological Clerk of Works and golf course designers. These are important practical modifications to avoid sensitive habitats. They cannot be quantified at the design stage, but they are intended to further reduce the potential impacts.

5.52 It is also important to recognise (in assessing the sensitivity of dune heath) that it has been expanding naturally at Coul Links. Using aerial photographs and GIS, Alba Ecology demonstrated that there has been an approximate 3.6ha expansion of dune heath since SSSI designation in the 1980s – a 17% increase in the extent of dune heath.

5.53 The assessment of the likely significant effects on habitats set out in the ES is correct. It is clearly and transparently explained and follows best practice. Regardless of their different approaches, both Alba Ecology and SNH predict a likely significant adverse effect on dune heath before mitigation.

5.54 Mr Taylor said that it was well-understood by golf course advisors and managers that, in relation to the ecological management of heather, structural diversity is key. Management is essential to keep it in good condition. Without it the heather becomes mature to degenerate, and becomes more susceptible to disease and invasion from scrub and weeds. The heather is currently in decline at Coul Links. Cutting allows younger heather to be formed, so management is critical to retaining juvenile heather. Management can also create bare sand areas.

5.55 Careful consideration would be given to canopy structure in the areas of managed rough. Within the longer-cut rough, the heather may also be cut discerningly, rather than just being mowed to the same height as the grass around it. Areas of uncut heather, for example near greens and tees, might be retained as a design feature, as might juniper stands. Heather would tend to be cut progressively lower as it nears the fairways, enabling golf but also ensuring structural diversity of habitat, similar to that caused by grazing.

5.56 In cross-examination related to his book on heather management, Mr Taylor demurred from the extract that stated that heather was 'extremely' sensitive to trampling. But he acknowledged that the pressures from cutting and disturbance could combine when considering the effects on heather.

5.57 Dr McMullen's view is that the H11a dune heath sub-community is the most biodiverse, being notable for the widespread presence of lichens and its richness for other species. H11b is not quite so rich but is distinctive for its association with crowberry and creeping willow. H11c is the species-poor community. Despite that, all these sub-communities are classed as dune heath in the ES.

5.58 In the applicant's closing submissions, it is argued that the SNH calculations for the land-take of different habitat types do not compare like-for-like. Yet Professor Angus still relies on this evidence of the larger areas calculated for loss of dune heath and dune slack. Professor Angus confirmed that his approach was that where a matrix contained an element of dune heath or dune slack then he treated that whole area as a loss of that habitat. However given the need to properly identify impacts on nationally important sand dune habitats, Alba Ecology was correct to distinguish these pure habitats from the matrix communities.

5.59 On the treatment of the managed rough, Professor Angus did not seem, when asked about it, to have a proper understanding of the descriptors used in the ES to differentiate between semi-rough, longer-cut rough and managed rough. Mr Haspell clarified that SNH had deducted 1.52ha from its initial land-take calculations as it accepted that the effects on dune grassland within the managed rough would not amount to habitat loss.

5.60 In fact SNH's objection letter of 19 February 2018⁸¹ provides the clarity required. The applicant provided SNH with estimates of the extent of each habitat type in the managed rough which it then took account of in modifying (if only for dune grassland) its land-take metrics.

5.61 There is no coherent explanation from SNH as to why it treated managed rough as a complete loss of dune heath and dune slack habitat. It is illogical to treat the limited conservation-led cutting of the heather in the managed rough as being akin to stripping and removing.

5.62 SNH's witnesses wrongly assume that the indicative heights of cut provided in the ES would be carried out to exactly the same height across the whole area of the longer-cut and managed rough, including the heather within it. From the evidence of Mr Haspell and Taylor it is clear that this would not happen, as it would not deliver a golf course of the high ecological value and high quality golfing experience which is desired. Instead, management of the heather would deliver ecological conservation and enhancement.

5.63 Dr Coppins' evidence also refers to the benefits of opening up stands of heather. Some lichen species require the mature or degenerate stage and others the pioneer stage, and that is what management of Coul Links will bring.

5.64 In relation to dune slacks, SNH's objections noted possible adverse impacts but there is no suggestion that these would likely be significant effects. Its concerns had primarily been about the effects on dune heath. However it placed greater reliance on effects on dune slacks in its written evidence to the inquiry.

5.65 When questioned, Professor Angus disagreed that the effects on dune slacks would be negligible. But he did not clarify (because he did not understand the distinction) whether the impacts would be a likely significant effect in EIA terms.

5.66 From SNH's closing submissions it appears that its final position is that the direct impacts on dune slack habitat, together with indirect impacts from fragmentation, should be treated as constituting a likely significant effect on that habitat type. However SNH does not have an evidential basis for these conclusions, and it led no evidence as regards the assessment of likely significant effects.

Habitat fragmentation

5.67 Dr Cosgrove explained that the golf course layout has been designed to avoid significant habitat fragmentation, particularly severance or isolation of dune heath. The likelihood of significant severance is assessed in the ES as negligible. The habitats at Coul Links are already fragmented, often as matrices, as a result of topography and hydrology.

⁸¹ [SNH 007 - Scottish Natural Heritage - response to Highland Council dated 19 February 2018](#)

The fairways and other playing areas would be discontinuous. They would not create physical barriers to the movement of species.

5.68 The 'light-touch' management of the managed rough would likely ensure that habitats are retained outwith the playing surfaces. This would not impede movement of species.

5.69 The connecting network of paths between the playing surfaces would pose no, or a very limited, barrier, especially where raised boardwalks are to be used. The boardwalks maintain the connectivity of hydrological and other processes. There is no evidence to suggest that any potentially important species would find a 2.5m wide path a physical barrier.

5.70 Dr McMullen's evidence is that construction of the golf course would limit the spread of some species and potentially facilitate the dispersal of others, such as lichens. He acknowledges that there would be some fragmentation and changes to the direct connectivity of dune heath habitat patches. The effect of this is uncertain because small and isolated areas of dune heath persist already within the system of dune habitats. It is not necessary for every area of dune heath to be in a connected block. One cannot assume further fragmentation means a loss of connectivity.

5.71 Habitats are also already fragmented due to the presence of invasive species and a lack of management. Dr McMullen said at the inquiry that removing the gorse and birch would mean the dune heath would recolonise the large gaps he maps in his inquiry report. The development would 'swap' the fragmenting effects of the invasive species with those of the golf course, but with the added benefit that the site would then be actively managed.

5.72 He also said that the H11c habitat, because it is ranker, can itself act as a barrier, whereas the managed rough could let more light in and aid connectivity. He agreed that dune heath could recede back from a path if subject to trampling and other pressures.

5.73 Two dune heath species, marram grass and sand sedge, spread via rhizome. Their spread is likely to be constrained by the presence of the golf course. However both are widespread at Coul Links so their viability is not likely to be affected. Both can also spread by seed, maintaining the potential for dispersal between habitat patches. This is also the case for the other herbs and shrubs (including crowberry and heather) listed in the ES for dune heath habitat. These species are also widespread, mitigating the effects on connectivity.

5.74 Lichen and mosses can spread through the displacement and dispersal of shoots, or (for lichens) by propagules. Reproduction by spores is also prevalent amongst mosses. Lichens would be favoured in areas of managed rough due to the reduction of the heather canopy. This emulates the wind-clipping of heather at high altitudes that results in low-stature, lichen-rich heath.

5.75 Overall, the effect of fragmentation on dune heath would be minor, and not significant. This conclusion is supported by the viability of already isolated areas of dune heath.

5.76 Dune slack has a naturally patchy distribution across Coul Links. Changes in connectivity are unlikely to have a significant effect upon dune slacks because many are

already small and isolated. This does not limit their current viability in terms of function or notable plant species.

5.77 In closing submissions, it is argued that none of the objector or SNH witnesses presented sufficiently detailed evidence on these effects, in contrast to the detailed analysis of Dr McMullen. Professor Angus simply relied on generic scientific studies on fragmentation and edge effects.

5.78 The applicant's ecologists do not deny that fragmentation and edge effects would occur. But they do not consider that these would be significant due to the existing fragmentation of habitats at Coul Links and the continuing decline in the condition of the site. The proper management of the site would deliver considerably more ecological benefits than adverse impacts from fragmentation.

Translocation of dune heath

5.79 Dr Cosgrove understands that translocation has been successfully achieved at other golf courses, including within SSSIs, as evidenced in the Biodiversity Net Gain Report.⁸² The applicant's team, in particular Mr Haspell and Mr Taylor, have direct experience of working together to deliver successful heath expansion and translocation at a number of golf courses.

5.80 A comprehensive Dune Heath Translocation Plan,⁸³ updated in December 2018, has been developed to guide the process and ensure success. This was compiled using Mr Taylor's expertise and with reference to guidance compiled by Penny Anderson Associates ('the Anderson guidelines').⁸⁴ Dr Dargie argues that successful translocation is implausible. However, this contradicts his evidence to the public inquiry into the development at Menie.

5.81 Mr Haspell considers that the results of successful heathland translocation at Castle Stuart are clear, and indicate that successful translocation could be achieved at Coul Links. Translocation of whole areas of habitat (as opposed to 'plugs' formed of individual plants) is proposed. In Mr Haspell's experience, the use of such larger turves is more successful than the use of plugs.

5.82 It is important that all the species are retained in the understory of the turves to be translocated, ensuring invertebrates, insects, moss and lichens are transported with the turf. Turves should be cut between 300mm and 500mm thick, and the work done in winter. Juniper, lichen and species-rich areas would be avoided through micro-siting wherever possible or would be translocated with the turves. Strict on-site supervision would be carried out by the Ecological Clerk of Works.

5.83 Translocation would be carried out by experienced contractors using specialised equipment. An agreed programme of aftercare and monitoring would be adopted. Mr Taylor said that he probably had the most experience, amongst his peers, of such translocation. But he is content that there are other properly-experienced and qualified consultants who could do this work. The methodology should be agreed with SNH.

⁸² [CD001.050 - ES - Annex B - Supporting Document 9 - Biodiversity Net Gain Report](#)

⁸³ [APP001.020 - Updated Translocation Plan](#)

⁸⁴ [SNH 090 - Anderson 2003 - Habitat translocation - a best practice guide](#)

5.84 Mr Taylor recognises Joint Nature Conservation Committee (JNCC) policy⁸⁵ says that translocation is not an acceptable alternative to *in situ* conservation. But this was based upon the evidence available at the time of publication in 2003. The studies which underpin the policy are out of date and do not reflect current scientific knowledge. Some of them are now up to 30 years old, and scientific knowledge and understanding of translocation has moved on significantly during that time.

5.85 Many of the methods successfully used now, and particularly the bespoke equipment being used, did not exist when the policy was written. It is therefore out of date. The policy does in fact recognise that habitat translocation can contribute towards habitat restoration schemes in some circumstances.

5.86 Mr Taylor acknowledged that there is no up-to-date research literature available which could underpin an updated version of the policy. However he stated that he knows that translocation of dune heath can work, based on his experience at Sillioth, Royal Troon, Carnoustie and Royal County Down.

5.87 In 2003, when the JNCC policy was published, Mr Taylor would have estimated that there could be as much as a 90% risk of loss of habitat or failure in translocation. Now, he would estimate a 20%-30% (if that) risk, but also said that it could be 100% successful. He did qualify these figures though, stating that they were spurious, and 'off the top of my head', rather than being based on science.

5.88 At this stage the Translocation Plan should be viewed as covering the basic methodology. It is the starting point for agreeing a more detailed plan with SNH. Discussions with SNH post-consent would deliver a plan with much greater detail, for example on soil analysis and equipment to be used. These are all matters that are best covered at that later stage. It is not necessary, presently, to carry out soil pH testing, in particular since the receptor areas would be stripped back to bare sand.

5.89 The receiving areas have been carefully selected by Mr Taylor. He has a clear indication of the vegetation types from the NVC survey and his own walkover. He looked for badly degraded areas of what would previously have been dune heath. The felled conifer plantation is near to the dune heath to be translocated. It already supports weak heather, showing that it previously supported dune heath and can do so again. Soil samples confirm the depth of the underlying clean sand in the receptor areas so as to ensure they match the donor turves.

5.90 There is no dune slack within the receiving areas. Mr Taylor said at the inquiry that he would have spotted any on his walkover surveys, and that dune slacks would not be suitable for receiving translocated dune heath.

5.91 The total receptor area (at 6.2ha) is larger than the total donor area (4.4ha). In addition to translocation, sand scraping in the receptor areas would help remobilise habitats and aid lichens and other species which need an open canopy to flourish. This would allow for the gradual expansion of dune heath over time, and reduce competition on the translocated heath from the effects of the adjacent vegetation. Given appropriate management, this would therefore provide for a potential increase in dune heath of 1.8ha.

⁸⁵ [APP001.011 - JNCC \(2003\) - A Habitats Translocation Policy for Britain - JNCC, in combination with Countryside Council for Wales, English Nature & SNH](#)

5.92 Not Coul claims that the felled plantation is regenerating back to sand dune habitat, but Mr Taylor and Dr McMullen disagree. The area is covered by stumps and woody debris. As a result of this and related changes to the substrate (disturbance, build-up of organic material, etc.) the regenerating grassland is dominated by indistinctive mesotrophic species, and bramble is extensive. Sand dune habitat type is now unlikely to establish without intervention – a clear trajectory of change towards mesotrophic grassland and bramble dominance has been established.

5.93 In closing submissions, it is stated that Dr Coppins did not notice from the ES and other documents that he was wrong in his view that translocation would be onto diverse dune heath or other quality dune habitat. He did not recognise that the translocated turves would be laid on bare sand. Dr Coppins did not have sufficient detailed knowledge of translocation to reach an informed view as to the risks to lichen habitats and species.

5.94 Professor Angus is content to rely heavily on JNCC policy based on outdated scientific and practical knowledge. Mr Rooney also just relied on the policy. There was no formal position from SNH on the extent which the policy should be considered out of date. It seems that SNH's position is that translocation of a protected habitat is not appropriate in a SSSI, based only on the JNCC policy.

5.95 Professor Angus dismissed Mr Taylor's evidence as just 'a series of nice pictures' with no evidence to back them up. This shows how little attention he gave to it. But Mr Taylor is unique amongst the ecologist witnesses because of his extensive knowledge and experience working almost exclusively in golf, including on translocation.

5.96 Professor Angus explained that Mr Rooney was brought in as a specialist witness for the inquiry. So there was no specialist advice behind the statements made in the SNH objection and Site Integrity Assessment⁸⁶ about translocation. Professor Angus accepted that the dune habitat at Menie is quite different to that at Coul Links. This calls into question the appropriateness of using Mr Rooney's evidence from the Menie inquiry in the objection letter for Coul Links, in particular since scientific understanding of translocation has moved on since.

5.97 Therefore the advice in the SNH objection and Site Integrity Assessment is generic, and little more than reliance on JNCC policy. Those documents should be set aside, and conclusions on translocation should be based on the suitably qualified and reliable witnesses that gave evidence about it – Mr Taylor, Mr Haspell and Mr Rooney. Given the outdated nature of the JNCC policy, the key question is whether or not there is a sufficient evidential basis upon which to reach a conclusion regarding the likelihood of success of translocation.

5.98 A study showing the results of successful translocation of heathland was submitted as one of SNH supporting documents.⁸⁷ It reports on a 17-year experiment to restore lowland heath on former agricultural grassland. Mr Taylor referred to this at the inquiry. He explained that it shows that the translocated heath habitat had remained intact, that pH levels had reduced, and that the heathland community had been restored in the longer term. Dr Cosgrove said under re-examination that this is relevant scientific research in

⁸⁶ [SNH 009 - SNH Site Integrity Assessment for Coul Links Golf Course dated 5 February 2018](#)

⁸⁷ SNH70 - Pywell, R.F., Meek, W.R., Webb, N.R., Putwain, P.D. & Bullock, J.M. 2011. Long-term heathland restoration on former grassland: the results of a 17-year experiment. *Biological Conservation*, 144, 1602–1609.

relation to the translocation, since lowland heath is quite similar to dune heath in terms of its general location and altitudinal range.

5.99 Dr Cosgrove was also referred to an article⁸⁸ that was published in 2010 about a translocation of wet heath. It reports that there was a risk of failure because of the complex ecosystem associated with wet heath. Despite that, the results demonstrated that an ecologically acceptable outcome was achieved, with emphasis on the importance of securing long-term management.

5.100 The implementation of the Translocation Plan would be the responsibility of Mr Haspell. He demonstrated substantial knowledge and experience of techniques and aftercare from carrying out translocation of heathland and other habitats on a number of different golf courses. His expertise is demonstrated by his ability to take upland heath from a site 40 miles away to a lowland coastal location at Castle Stuart and still ensure successful translocation. Mr Taylor, from his years of working with Mr Haspell, knows he is highly regarded within the golf industry and would adopt best practice in the ecological management of the golf course. The evidence of Mr Haspell, Mr Taylor and Dr Cosgrove shows that the development at Castle Stuart provides an increased understanding of how successful translocation of heathland habitats can be achieved.

5.101 Mr Taylor differentiated between measuring short term success of the translocation itself, and the longer term monitoring that would be involved in establishing whether or not the species assemblages had been maintained. In his experience the advancement of translocation techniques with bespoke machinery, together with the continued use of the Anderson guidelines, has allowed STRI to effectively translocate habitat 'to the benefit of the vegetation and species assemblages'. He accepted that his evidence is experiential but he disputed that it did not constitute scientific evidence.

5.102 The evidence of Mr Rooney supports Mr Taylor's and Mr Haspell's confidence about the likely success of translocation. Mr Rooney relied upon his own experience in carrying out translocation (including of dune slack) when giving evidence. He said that he knows that translocation can work and that the crucial issues for ensuring success are the techniques employed and aftercare.

5.103 Mr Rooney's evidence does not support the advice in SNH's objection letter and Site Integrity Assessment that it should be assumed that there is a high risk of failure in translocating dune habitat. Neither his evidence nor the extracts quoted from the Box⁸⁹ paper in the SNH closing submissions support the position that translocation is so inherently risky that it should still be treated as it was when the JNCC published its policy in 2003.

5.104 Mr Taylor pointed to the abstract of the Box paper, which emphasises that translocation should now be considered as another mechanism, along with habitat creation and enhancement, which can contribute to the delivery of the UK Government's policy of 'no net loss of biodiversity'. He also drew attention to the recognition given to the

⁸⁸ SNH93 - Box, J., Brown, M., Coppin, N., Hawkeswood, N. Webb, M. Hill, A., Palmer, Q. Le Duc, M. and Putwain, P. (2011) Experimental wet heath translocation in Dorset, England. *Ecological Engineering* 37 pp158-171

⁸⁹ SNH34 - Box, J. 2014. Habitat translocation, rebuilding biodiversity and no net loss of biodiversity. *Water and Environment Journal*, 28, 540-546

importance of translocation in salvaging ecological features from consented development sites, which is directly relevant to this case.

5.105 It is clear from Mr Taylor's evidence that he does not consider that translocation of habitat remains experimental or that there is a probability of habitat change. The conclusions reached by Mr Box in terms of how policy needs to change and how translocation should be considered now, matches his own view.

5.106 Mr Taylor's evidence on the Box paper in re-examination contradicts SNH's closing submissions. The first two bullet-points at the top of page 545 of the paper and the first two conclusions on the same page do not fit with SNH's closing submission as to what should be concluded from the paper. Instead they support the position that the JNCC policy is out-dated and that a different policy approach, that reflects current scientific understanding on translocation, is required.

5.107 When the JNCC policy was developed there was general consensus that translocation was high risk. Although there may still be limited scientific research-led evidence of long-term success of translocation of heathland, there is some. More importantly, the evidence shows how the views of practising ecologists have changed over the intervening 16 years.

5.108 It is necessary to respond to the conclusion in paragraph 3.20 of SNH's closing submissions that the proposed translocation is contrary to the Anderson guidelines. In relation to the first bullet, the basis of this aspect of the Anderson guidelines is the JNCC policy. Turning to the second bullet, whilst the receptor areas are in the SSSI, they are badly degraded and there would be no loss of important habitat. In respect of the third bullet, there was no need to carry out soil profiling of the receptor and donor areas at this stage of the consenting process.

Translocation – the mitigation hierarchy

5.109 Dr Cosgrove, when cross-examined, said that he treated the dune heath translocation as compensation, but this was part of the mitigation hierarchy. The 2019 Biodiversity Net Gain practical guidance⁹⁰ highlights the confusion in the terminology around compensation. Changing 'mitigation' to 'minimisation' clarifies that compensation is still within the wider hierarchy, rather than being something different to mitigation. The practical guidance says that compensation measures in a designated site should not be badged as biodiversity net gain. This does not mean they should be left out of account altogether.

5.110 SNH has invented a principle that compensation measures cannot be taken into account in reducing a likely significant effect to non-significant, in terms of the EIA Regulations. The provisions of the Regulations do not support this principle, and nor does case law.

5.111 SNH asserts that it was established at the inquiry that an additional likely significant effect on dune heath has not been reported in the ES. By only revealing this view in closing submissions, substantial prejudice is caused to the applicant.

⁹⁰ NC156 - CIEEM Biodiversity Net Gain: Good Practice Guide. Good Practice. Principles for Development

5.112 This assertion is based on Mr Rooney's and SNH counsel's misunderstanding of Dr Cosgrove's position and his EIA methodology. This was compounded by SNH's counsel's over-speedy and confused approach to questioning, and by his interruptions when Dr Cosgrove was trying to answer him. Dr Cosgrove sometimes gave confusing answers as a result of all of this. The concessions that SNH's counsel believes he secured disappear when the evidence is properly understood.

5.113 The applicant's witnesses agree that the translocation is compensation within the mitigation hierarchy, and a measure of last resort as per the CIEEM guidelines. Dr Cosgrove was always clear that it is compensation.

5.114 The hypothetical question put to Dr Cosgrove was that if the reporters judged that the correct stage at which to reach a conclusion on residual likely significant effects was before taking compensation into account, then would he agree this would be a likely significant effect to be brought to the attention of Ministers.

5.115 That is what Dr Cosgrove agreed to. He was just acknowledging that if the reporters did not think translocation would be successful, they would have to advise Ministers that there would be residual likely significant effects on dune heath.

5.116 When Dr Cosgrove and Mr Taylor were cross-examined they explained that there are many other mitigation and enhancement measures contained in the Biodiversity Net Gain report and the Management Plan Aspirations document that are proposed for the purpose of remedying the loss of dune heath.

5.117 There is no logic to setting aside any other measure in the mitigation hierarchy other than avoidance or minimisation before reaching a conclusion on the residual likely significant effects. Compensation measures are broader than offsetting and must also include enhancement measures that are designed to remedy predicted likely significant effects.

5.118 It is also clear from Figure 2 of PAN 1/2013⁹¹ that compensation is part of the mitigation hierarchy; likewise from paragraph 6.1 of the CIEEM 2016 guidance,⁹² the one in place when the ES was prepared.

5.119 The translocation of the displaced dune heath is an integral part of the project, as the restoration and enhancement of parts of the SSSI is an objective of the design. It would improve the amenity of the golf course to a standard expected of a world class course, and deliver the management objectives of SNH for the SSSI sand dune habitats at Coul Links. It is intrinsic to the way the development would be carried out. As in-built design it is a 'committed' mitigation measure, like many of the other measures in the CLSMP.

5.120 The difference between mitigation and compensation in this case is only a semantic one anyway. They are both stages in the mitigation hierarchy that have the same final objective of reducing a significant effect to non-significant. The end point is the conclusion reached on significance after going through all of the stages in the mitigation hierarchy. In terms of the wording in Parts 1 and 2 of Schedule 4 of the 2011 Regulations, it does not

⁹¹ [CD004.020 - PAN1- 2013 - Environmental Impact Assessment](#)

⁹² [APP002.004 - Chartered Institute of Ecology and Environmental Management - Guidelines for ecological impact assessment in the UK & Ireland](#)

matter where within the mitigation hierarchy the predicted likely significant effects are reduced to no likely significant effect.

5.121 It is the final outcome of assessment that is important to the decision-maker and to ensure compliance with the legal requirement to take account of all likely significant effects. Logically that must be after all of the options available under the mitigation hierarchy have been taken into account.

5.122 The use of the term 'other [than compensation] mitigation' in paragraph 6.5 of the CIEEM 2018 guidance⁹³ clearly shows that under that guidance compensation is a form of mitigation. Legislation must take precedence over the guidance anyway. The glossary of the 2019 Biodiversity Net Gain guidance is also consistent with Dr Cosgrove's approach to the mitigation hierarchy. Therefore Dr Cosgrove merely agreed that the ES complies with CIEEM guidance. He never accepted that he had departed from the conclusion of no residual significant effects on dune heath.

5.123 Dr Cosgrove explained that the general approach of CIEEM has been to identify the order in which practitioners should consider identifying different types of mitigation. If neither avoidance nor mitigation can reduce predicted likely significant effects to non-significant, the next stage is to consider both compensation and enhancement. The purpose is to reduce the effect to non-significance. It is clear (as it would have been to the Fellows of CIEEM who reviewed it) that this is the approach in the ES, and that the translocation and enhancement measures are considered in that context.

Effects on species

Juniper

5.124 Common juniper is found in several locations at Coul Links. Two of these have been avoided. One location, supporting 20-30 individual juniper bushes, would be at the 16th hole. Many of these bushes would be avoided through micro-siting, and the others would be translocated elsewhere. Mr Taylor was asked about Dr Dargie's much higher figure for the amount of juniper bushes in this area. He said that he didn't pick out, in his own survey, every single bush (especially very small ones). He was confident that his own figure was the number of plants potentially affected, not just the number of juniper in the general area of the 16th hole.

5.125 Dr Dargie suggests that the practice of translocating juniper is untested, but that is contrary to Mr Taylor's professional experience. Translocation of juniper has been successfully undertaken on golf courses in the UK. The risk of failure can be reduced by ensuring receptor sites are suitable and by using equipment appropriate to the vegetation and on-site conditions. Older plants are unlikely to transplant successfully, and micro-siting would be considered for these if necessary.

5.126 Bare ground would be formed around translocated juniper. This is necessary because juniper is not tolerant of competition. Receptor sites would be in areas of nutrient-enriched transitional grassland, or created by removal of unwanted scrub.

⁹³ [SNH 120 - Guidelines for Ecological Impact Assessment in the UK and Ireland 2018 pp38-42](#)

5.127 Translocation would also help to thin the juniper stands, reducing overcrowding and the incidence of juniper dieback. Increasing areas of bare sand across the site would further encourage the natural spread of juniper over time.

5.128 *Phytophthora austrocedrae* (a disease which affects juniper), being airborne and favouring humid and still conditions, would be more prone in closely-spaced juniper stands. Thinning of the current stands, even without the golf course, will be essential if the juniper is to survive long term.⁹⁴

Lichens

5.129 Dr Cosgrove's evidence explains that lichens are a noted feature of the dune heath habitat and so were considered in the ES as part of that habitat. Patches of lichens within the dune heath would be avoided, wherever possible, through micro-siting.

5.130 The exception to this approach was for the lichen species *cladonia mitis*, which is near-threatened, is nationally rare and features in the Scottish Biodiversity List. This species was considered separately because SNH referred to it, although did not request any survey. No likely significant effects were predicted for this species because the area in which it was considered most likely to be present has been deliberately avoided.

5.131 The proposed long-term conservation management of Coul Links towards a shorter vegetation sward height would likely benefit lichens, including *cladonia mitis*. Dr McMullen expanded on this point by explaining that reducing the heather canopy in the rough would increase the potential for lichen dispersal and limit the effects on lichens of shading.

5.132 In addition, the occasional disturbance of dune heath is likely to favour the persistence and succession of lichen communities by creating bare patches. Some species (such as green felt lichen *peltigera malacea*) may be favoured, initially, by management of the rough.

5.133 The applicant's closing submissions point out that Dr Coppins confirmed that the British Lichen Society would be prepared to collaborate on the development of management measures intended to improve habitat for lichens. He also agreed that the lack of active management was a significant issue at Coul Links.

5.134 Dr Coppins said that not all lichens would establish on bare sand and some are favoured by fragmentation and edge effects. He confirmed that active management of dune habitat at Coul Links could deliver significant benefits for lichens. He also agreed that the over-stabilised fixed dunes were not providing habitat for the establishment of lichens and that management to create patches of different sized areas of bare sand would be beneficial. Instability required to be created within the dune system to encourage greater diversity. Rank grassland establishing through increased nitrogen deposition was causing decline of sand dune habitat. He was particularly concerned about the spread of gorse, birch and brambles in the felled plantation.

⁹⁴ See [APP001.009 - Forestry Commission Scotland \(2013\) Planting juniper in Scotland - reducing the risk from *Phytophthora austrocedrae*](#)

Fungi

5.135 Fungi were considered within the ES because SNH referred to them in correspondence, although again did not request a survey. The desk assessment identified that some of the semi-improved grassland supported a regionally important waxcap fungi assemblage.

5.136 As the land-take would constitute only 9.3% of Coul Links, likely effects on fungi were predicted to be non-significant. Furthermore, the removal of invasive species and proposed long-term conservation management towards a shorter vegetation sward height would be likely to benefit fungi.

Baltic Rush

5.137 Baltic rush (a named feature of the Ramsar site) was found by Dr McMullen in 18 locations across Coul Links, with a concentration in the south. It is dependent upon damp conditions within SD17 dune slacks. It is excluded from other dune slack communities by more productive species, except where trampling reduces vegetation density and stature. Baltic rush is difficult to detect. As a result, it is likely that some plants have been missed but its general distribution on the site is apparent.

5.138 Only two of the locations of Baltic rush (3% of the population found) are near to the course layout, within planned areas of managed rough at the 13th fairway. As a result, their avoidance is possible with suitable management of the rough or small changes to the course footprint.

5.139 Even if these plants are lost the effect on Baltic rush would not be significant because it would be a minor loss of the Coul Links population. This conclusion was not challenged in cross-examination. The Ramsar site extends across a larger area than Coul Links and is likely to include additional areas of Baltic rush.

5.140 Translocation of the Baltic rush within the site would maintain the current population size and distribution, albeit within a slightly smaller area. There is a high confidence of successful translocation because of the low habitat specificity of the species and the apparently widespread presence of suitable dune slack habitat.

Shoreweed

5.141 Dr McMullen noted that shoreweed is potentially an Annex 1 habitat (H3110 & H3130). He identified 1,155m² of shoreweed sward in nine locations. Three of these (27.2% of the total area of shoreweed) are located in the centre of a proposed fairway and would be lost. However, neither of the shoreweed-dominated Annex 1 communities are actually present. Therefore the effect on shoreweed is not considered to be significant.

Trees

5.142 Tree removal would be minimal, amounting to less than 0.4 ha of Category C trees (stunted or immature woodland). Appropriate further tree planting would be agreed with SNH and the council. A tree protection plan would be the subject of a planning condition, as would the requirement for compensatory planting.

Invasive species and the condition of Coul Links

5.143 Parts of Coul Links have had substantial increases in invasive species cover since the 1980s. For example, the SSSI Site Management Statement⁹⁵ reports that 'Tree saplings e.g. Scots pine, birch, willow and gorse encroachment of the dune habitats has been causing gradual modification of the dune system'.

5.144 Analysis of aerial images⁹⁶ shows that 1.83ha of bracken in 1988 has expanded to 3.66ha in 2016. Birch woodland in the dune heath has also expanded by approximately 3.6ha since 1988 – an increase of 233%. Invasive species expansion has adversely affected several of the SSSI habitats.

5.145 Mr Taylor noted that the features for which the SSSI was designated have not been restored, enhanced or properly managed in accordance with the Site Management Statement. The sand dune feature was last monitored⁹⁷ in August 2014 and found to be in unfavourable condition. This represents no change since the previous assessment. SNH has not been able to secure the restoration of the sand dunes, so that management objective has not been met.

5.146 Dr McMullen provided further evidence in respect of invasive species. Three dune heath sample points in the SSSI Site Condition Monitoring Report from 2014 failed to meet the desired criteria because of the presence of gorse and birch scrub. He observed that further spread of scrub appears to be ongoing, given the occasional presence of birch and grey willow saplings. Grazing will however probably impose some restriction on its further spread. It is likely that the spread of gorse is also ongoing.

5.147 Species such as birch and gorse have the potential to completely change the form and function of the open dune habitats, for example by converting heath to woodland or scrub. Birch also increases productivity, speeding up ecological processes. The gorse and scrub encroachment is not considered to be a problem by Dr Dargie because it covers only 4.7% of the Coul Links part of the SSSI, and not the 5.0% required to indicate a failure in the Site Condition Monitoring Report. This approach fails to recognise the artificial nature of the 5% threshold, and the significance of the ongoing spread of scrub.

5.148 Burnet rose forms low thickets within the dune grassland. It appears to be spreading. It is a desirable component of the dune vegetation but its widespread dominance is likely to result in losses to biodiversity. Its prickly, dense growth may also restrict recreational access.

5.149 A loss of biodiversity is already apparent in the weedy, species-poor, neutral grassland that is beneath the more mature Burnet rose shrubs. Some monitoring of the distribution and density of Burnet rose is therefore desirable to avoid detriment to the more species-rich and distinctive dune vegetation types.

5.150 Bramble is not mentioned in the 2014 Site Condition Monitoring Report. But by the time of the 2016 habitat survey by Alba Ecology it was prominent in the south of the area of felled plantation. In October 2018 it was observed by Dr McMullen to be abundant and

⁹⁵ [CD005.002 - The Loch Fleet Site of Special Scientific Interest Site Management Statement as prepared by SNH](#)

⁹⁶ [CD001.034 - ES - Annex B - Appendix B.6 Aerial Comparisons 1988, 2009 and 2016](#)

⁹⁷ [CD005.008 - SNH Site Condition Monitoring Report for Loch Fleet SSSI \(2014\)](#)

locally dominant throughout the felled plantation, including the northern end. This is typical behaviour by this species that can spread very rapidly once it has established. Bramble is likely to expand further and the felled plantation could act as a source for its spread into adjacent areas.

5.151 Bracken is extensive on a stable dune in the south of Coul Links and is present in well-established patches elsewhere. Its potential for further expansion appears to be constrained by the waterlogged conditions within the neighbouring dune slacks. However, monitoring to ensure it does not access new areas of suitable habitat (via wind-blow spores) is desirable.

5.152 Meadowsweet is not normally thought of as an invasive species. However, it is extensive at Coul Links and appears to exclude other species from dune slack habitat, including Baltic rush. Species richness is reduced because the meadowsweet out-competes other species for resources and because of its tall, dense growth and accumulations of litter. This can especially affect species that are specialists and distinctive to open dune slack habitat.

5.153 Meadowsweet dominance could be reduced by lowering dune slack floors so that longer and more variable conditions of inundation are experienced. This would limit the productivity of the meadowsweet and allow the entrance of more diminutive species. The level of lowering would depend on the hydrological conditions in each location but would likely be no more than 0.5m.

5.154 In closing submissions it is reiterated that the applicant's ecologists have taken account of the current baseline condition of Coul Links, and its likely condition in the event that the status quo is maintained and there is no active management of the site. No other party carried out an update to the baseline, or gave proper attention to the spread of invasive species and the current poor condition of the site. They rely on outdated evidence like Mr Hughes' anecdotal evidence from when he was a ranger at Coul Links in the 1990s, or a 1973 study⁹⁸ cited by SNH which says there is a low level of human impact at Coul Links. Professor Angus conceded, though, that the site had changed since then. Mr Hughes even disputed that there has been a significant problem with invasive species over the past two decades.

5.155 Objectors also blame the landowner, ignoring the financial reality of the level of investment which would be required to change the condition of the site. Neither the Scottish Wildlife Trust (SWT) or RSPB are offering alternative proposals for positively managing Coul Links.

The proposed Coul Links Site Management Plan (CLSMP)

5.156 Biodiversity Net Gain is development that leaves biodiversity in a better state than before. It is based around a series of ten principles that were articulated in guidance from 2016.⁹⁹ A summary report on Biodiversity Net Gain at Coul Links was produced by the development team.¹⁰⁰

⁹⁸ SNH75 - Smith, J.S. & Mather, A.S. 1973. Beaches of East Sutherland and Easter Ross. Department of Geography, University of Aberdeen.

⁹⁹ [APP002.013 - CIRIA, CIEEM and IEMA - Biodiversity Net Gain - Good practice principles for development](#)

¹⁰⁰ [CD001.050 - ES - Annex B - Supporting Document 9 - Biodiversity Net Gain Report](#)

5.157 The applicant has committed to funding and implementing the long-term CLSMP. This would be agreed with SNH and would be largely based around the relevant sections of the SSSI Site Management Statement. It would aim to achieve favourable conservation status for the Coul Links part of the SSSI. In Mr Taylor's professional opinion the establishment of the CLSMP would address those aspects of the current condition of the SSSI which are of concern to SNH at Coul Links. Many of the biodiversity net gain measures at Coul Links would form part of the CLSMP and would be committed mitigation, controlled through planning conditions. The Management Plan Aspirations¹⁰¹ document outlines the applicant's aims for the CLSMP.

5.158 The CLSMP would identify and map all areas of dune slack and would direct management towards annual monitoring for condition, scrub removal, pollution control and maintenance of natural hydrological functioning.

5.159 The CLSMP would also cover the southern part of the golf course, south of the Cluain Burn. This land is of similar ecological profile to the SSSI (it is the source of much of the invasive species encroachment) but lies outwith it. The proposed management measures would create, in this southern part of the site, comparable environmental conditions to the adjacent SSSI. It is anticipated that there would be no discernible difference in environmental terms between the CLSMP land within and outwith the SSSI boundary. The CLSMP would therefore provide increased landscape and habitat connectivity. Managing this southern area to remove and control invasive species would provide benefits for that land itself as well as creating a managed buffer to the SSSI.

5.160 The CLSMP would cover other areas of best practice management for habitats and vegetation, including:

- Control of invasive species more widely
- Dune heath management
- Conifer plantation habitat restoration
- Grass sward management
- Juniper expansion through translocation
- Grassland management to benefit waxcap fungi
- Ensuring no further loss of valuable woodlands

5.161 The mitigation measures are not otherwise deliverable, as evidenced by the history of management (or rather lack thereof) at Coul Links. The 'do nothing' option will see further degradation of the SSSI and Ramsar site as a result of factors such as naturally regenerating scrub and invasive plant species.

5.162 Dr McMullen referred to the earth having moved from the Holocene into the Anthropocene period, defined by the effects of human activity (for example atmospheric nitrogen deposition affecting sand dune habitats) on the global environment. Therefore an approach to conservation based on trying to keep habitats intact and leaving them to natural processes is no longer valid.

5.163 He said that the site would benefit from a lot more guardianship, for example lowering dune slacks, clearing meadowsweet, strimming of grassland and improvements to areas of the H11c sub-community. But this kind of work is expensive. There is massive

¹⁰¹ [CD001.048 - ES - Annex B - Supporting Document 4 - Management plan aspirations](#)

potential for making improvements to the habitats on site and, taking account of such measures, the overall nature conservation effects of the development would be positive.

5.164 The applicant's closing submissions stress the benefits of the range of mitigation and enhancement measures for the SSSI, and for biodiversity more generally.

5.165 In the SNH objection letter reference is made to only one of the beneficial measures identified in the Biodiversity Net Gain report and the Management Plan Aspirations document. This was the control of invasive species, which was said to be greatly outweighed by land-take losses and fragmentation. SNH refused, in its Site Integrity Assessment, to take other measures into account as mitigation.

5.166 Positive management of dune habitat outwith the SSSI is dismissed by SNH on the basis that it would not contribute to off-setting losses within it. This ignores the benefits to the SSSI from reducing edge effects and the threat of species invasion from adjacent land. SNH fails to recognise that the spread of invasive species is an ongoing and significant threat to the SSSI.

5.167 The main reason given in the Site Integrity Assessment for discounting the control of invasive species within the SSSI is that there was not a quantification of the area that would benefit. It can be seen from Table 1 of the Site Integrity Assessment that SNH allowed 1ha of off-setting by scrub control, and 0.5ha for removal of trees to make way for habitat translocation.

5.168 There is currently 5.2ha of birch woodland within the Study Area and it can be assumed from Dr McMullen's evidence that a significant proportion is within dune heath. Dr McMullen identified the need for remediation within the felled plantation that would increase the 0.5ha figure assumed by SNH for control of removal of invasive species within that area. In the applicant's view, at least 3ha of SSSI dune heath would benefit from the control of invasive species.

5.169 There would also be benefits to areas of dune slack and dune grassland from the control of invasive species. Therefore the SNH figure under-estimates the areas of dune habitat that would be restored through the proposed remediation, control and long term-management of invasive species within the SSSI.

5.170 The benefits of the creation of an additional 1.8ha of bare sand in the receptor areas to encourage natural regeneration of dune heath was dismissed by SNH on the basis that it would take too long (more than five years) to deliver results. In the context of Mr Rooney's description of inter-generational timeframes relevant to dune habitats, this is an unreasonable restriction on this long-term conservation benefit.

5.171 SNH refuses to take into account grass sward management. No likely significant effect on dune grassland is predicted. Nonetheless the CLSMP would return what is presently rank grassland to dune grassland. From the NVC mapping and Table B.18 of the ES there is an estimated 2ha of rank grassland that would benefit from this management. The applicant's calculated loss of 2.5ha of rank grassland would therefore be substantially off-set.

5.172 SNH also refuses to take into account the proposed translocation of juniper. It presented no evidence to the inquiry on this point, but Mr Taylor shows there is no basis for concluding that this is too risky a procedure.

5.173 Translocation of dune heath amounts to 4.4ha of replacement habitat, along with the 1.8ha of proposed artificial expansion of dune heath. The other management measures to restore dune heath and dune grassland, including the creation of bare sand areas, cannot be quantified at present.

5.174 These measures can be secured through consenting the proposed development and they would be to the direct benefit of the protected natural features, including sand dune habitat.

5.175 The landowner has no interest in entering into a management agreement to reverse the continuing decline in the condition of the sand dune habitat because the funding available would be insufficient to achieve any meaningful results. If the development does not proceed it is not certain that SNH would pursue a land management order. SNH is really advocating a 'do nothing' approach. In that situation the applicant's ecologists' predictions as to the continuing threat from invasive species and the further decline in the condition of the site will likely come to pass. The only realistic way of achieving positive management to benefit the SSSI is through the proposed development.

5.176 SNH refers to the fact that coastal sand dune is a priority habitat in the UK Biodiversity Action Plan¹⁰² (UK BAP), there is a need for restoration of this habitat, it is on the Scottish Biodiversity List and the habitat is in unfavourable declining condition – all of which supports the case for securing positive management through consenting the development proposal.

THE CASE FOR SCOTTISH NATURAL HERITAGE

The importance of the site

5.177 [Professor Angus](#) states that Coul Links has an exceptionally rich mosaic of habitats, including those listed in Annex 1 of the Habitats Directive. It has been described as 'one of the most complex dune systems in the north of Scotland'.¹⁰³

5.178 At the inquiry Mr Rooney said that sand dunes are one of the most important habitat types in Europe, reflected in the Habitats Directive. They are one of the top four threatened habitats in Europe. Dune heath is an essential component of this and one which is extremely limited in its occurrence. The objection by SNH is because of significant adverse effects on sand dune habitat of national importance. However Ministers should be aware of this international context.

5.179 In its [closing submissions](#),¹⁰⁴ SNH stressed that coastal sand dunes feature in the Scottish Biodiversity List.¹⁰⁵ The listing entry notes that conservation action is needed, negative impacts should be avoided, and this habitat type is in unfavourable condition and

¹⁰² [SNH 019 - Biodiversity The UK Action Plan 1994](#)

¹⁰³ See from page 63 of [SNH 075 - Smith and Mather 1973 - Beaches of East Sutherland and Easter Ross - part one](#)

¹⁰⁴ [Scottish Natural Heritage](#)

¹⁰⁵ [SNH 018 - Scottish Biodiversity List](#)

in significant decline. Coastal sand dunes are also listed as a Priority Habitat under the UK Biodiversity Action Plan (UK BAP).

Site selection and alternatives

5.180 The course layout currently proposed is the fifth iteration. Micro-siting changes have been made which would marginally reduce its impacts. But none of these address the fundamental difficulties which SNH indicated to the applicant at the outset.

5.181 No serious consideration was given to alternative layouts making more use of less sensitive land within the application boundary whilst at the same time delivering long-term enhancement to the SSSI. A layout involving the farmland to the west and additional dune grassland in the northwest should have been considered as a 'reasonable alternative' under the 2011 Regulations. However Professor Angus said under cross-examination that SNH is not claiming that the ES therefore fails to comply with the Regulations.

5.182 SNH offered¹⁰⁶ to discuss with the applicant a potential alternative layout which would still include significant sections within the SSSI. A low impact course, where the use of nitrates is not permitted on fairways, was approved within an SSSI at Machrihanish Dunes. That course is entirely on dune grassland, so did not affect either dune slack or dune heath. The SNH offer was made with the intention of exploring how both of these habitats could be avoided at Coul Links, in addition to ensuring the retention of native grasses and no use of nitrates on the fairways. The offer was rejected in a letter to SNH¹⁰⁷ which made clear the applicant was not prepared to discuss more use of farmland.

5.183 In closing submissions SNH notes that there are no records of design decisions on wider alternatives. It is clear that the whole design process was driven by golfing considerations. Dr Cosgrove confirmed that Mr Coore, the designer of the proposed golf course, had persisted in his design approach despite having been advised that dune grassland was less sensitive than dune heath.

5.184 Mr Haspell has no expertise in links golf course design. Nor was his evidence supported by any research to justify a conclusion that a links course of the highest quality can only be achieved by avoiding the farmland. A basic understanding of the history of links golf in Scotland, and of its renowned links courses, shows that a links course need not be located entirely within sand dunes right beside the sea.¹⁰⁸ There are many examples of famous links courses set back from the sea – for example Muirfield, Carnoustie and the Old Course at St Andrews, each of which is on the rota for the Open Championship.

5.185 It is for the applicant to determine the scope of the project for which they seek consent. But the sensitive nature of Coul Links does not justify a failure to examine potential alternatives in a more open-minded manner. The applicant's witnesses failed to demonstrate that environmental effects could not be more fully mitigated by making better use of the farmland and avoiding dune heath.

¹⁰⁶ [SNH 004 - Letter by SNH to Applicants 20 October 2016 re proposed layout](#)

¹⁰⁷ [SNH 109 - Developer letter to SNH Chairman dated 3 November 2016](#)

¹⁰⁸ See APP001.035A and APP001.035B - Extracts from True Links by G Peper and M Campbell

The extent of habitat loss and modification

5.186 The evidence of Professor Angus addresses this issue.¹⁰⁹ He explains that SNH's use of the NVC mapping data provided by the applicant does not constitute endorsement of its quality. However, in the absence of recently surveyed alternatives, it has been used by SNH.

5.187 Direct impact on the SSSI is interpreted by SNH as habitat that would be permanently damaged or destroyed within the footprint of the golf course. The SNH hole-by-hole analysis gives a breakdown of the direct impact of each hole. Amended calculations (SNH having accepted that the managed rough would not involve direct impacts on dune grassland) are shown in Table 1 of Professor Angus' inquiry report.

5.188 In cross-examination, Professor Angus explained that SNH had weighted the habitats in each area of matrix habitat, and had considered that area to be a loss of the more valuable habitat type, albeit at a lower density than for the areas of single habitat type.

5.189 The ES gives a total of 0.74ha of mobile and semi-fixed dune directly affected by the development. SNH calculates the area to be 0.91ha. Although the ES attempts to minimise the impact on this habitat on the basis of the low areas involved, the actual impact could be very significant indeed, as development in such locations (in particular the back tee of the 18th hole) invites future stability problems.

5.190 The ES gives 2.51ha as the area for dune grassland directly impacted while the SNH analysis gives an area of 3.28ha. The SNH methodology would tend to under-state the area of grassland in matrices with dune heath or dune slack, so this difference is difficult to account for. Additionally, SNH allocated all SD7 areas to semi-fixed dunes whereas the applicant included some SD7 with dune grassland.

5.191 Impact on fixed dune grassland depends on the nature of the effect. Mowing existing grasses could aid biodiversity by reducing sward height, but displacement of wild grasses by golf cultivars constitutes habitat destruction. Such displacement is not accommodated by the minor/negligible impacts described in the ES.

5.192 SNH is in principle open to the concept of incorporating areas of dune grassland into the course. This is provided that no nitrate is applied to the fairways and they are not re-profiled, as at Machrihanish Dunes. Management of grassland (including establishment) limited to mowing can mimic grazing and even aid biodiversity, as reflected in SNH's Site Integrity Assessment.

5.193 The ES states that 'dune slacks have been avoided through design. Therefore, impacts on potentially important bryophytes have been scoped out of the assessment and are not considered further'. The area of 0.27ha of dune slack land-take identified in Table B.19 is incompatible with this statement. SNH calculates a direct impact on dune slack of 2.2ha.

5.194 The applicant does not class the west section of the 18th fairway as dune slack. But having re-visited the site, SNH consider this area is indeed dune slack. In its closing submissions, SNH acknowledges that Professor Angus and Dr Cosgrove agree that there is

¹⁰⁹ [SNH 028 - Topic Paper by Professor Stewart Angus](#). NB: in the last sentence of paragraph 20, the reference to Appendix 1.5 of SNH30 should be to paragraph 1.5 of Appendix 1 of that document.

a degree of professional judgment involved in deciding whether to include habitat matrices within the direct impact calculations, and either approach is justifiable.

5.195 It can be seen from Table B.18 of the ES that, in addition to the 4.47ha impact on dune heath, the applicant also predicts a further loss of 1.22ha of dune grassland:dune heath, 0.11ha of dune heath:dune-slack, 0.07ha of neutral grassland:dune heath, and 0.01ha of dune heath:scrub. The total loss of dune heath (if including these matrix habitats) would be 5.88ha.

5.196 At paragraphs 3.5.17 to 3.5.19 of his inquiry report, Dr Cosgrove explains his approach in relation to 'managed rough habitats' that are 'cut every 1-3 years'. Insofar as this approach is applicable to the 'longer cut rough', it is too simplistic. Its management to a height of 100mm would not mimic grazing. The management methods described in the evidence of Mr Haspell and Mr Taylor are clearly designed to provide a first-cut of longer rough that is in play for golfers.

5.197 The ES¹¹⁰ asserts that heaths recover rapidly from disturbance. But the foreword to Mr Taylor's book¹¹¹ on golf course management states that 'heaths and moors are particularly sensitive to trampling caused by seemingly innocuous activities such as walking'. A study¹¹² of dune heath in Denmark demonstrated damage by comparatively low levels of trampling.

5.198 Within the 8.5ha of dune heath which SNH considers would be directly affected, there are 0.32ha of dune heath featuring crowberry (H11b), which is restricted to Scotland within the UK. The surviving UK extent of this habitat is believed to be 322ha. Although 0.32ha represents only 0.1% of the remaining area, this habitat is rare and an Annex 1 priority.

5.199 To some extent the difference in the extent of direct loss of dune heath is immaterial since the ES reports a significant effect before mitigation. Table B.19 explains that 4.47ha is 15.5% of the 28.8ha of dune heath within the study area. The same calculation, on Professor Angus' figure of 8.5ha, would instead give a loss of 29.5%. Taking into account the loss of the H11b sub-community, the loss of dune heath should be regarded as major.

Loss of dynamism

5.200 The ES would have benefitted from a fuller consideration of the relationship between dune habitats and species and dune dynamics.

5.201 Both Professor Angus and Mr Rooney addressed dynamism within sand dune systems. Coastal dunes are naturally dynamic systems. Their formation is driven by the availability of sand, and the forces of wind and water. Their vegetation is both influenced by, and influences, dune topography. The sustained interaction of these factors is necessary to maintain a naturally dynamic system.

¹¹⁰ Paragraph 5.5.1.1

¹¹¹ SNH77 – Taylor, R.S. 1996. Studies in golf course management, No. 1: Heathland/moorland management. Sports Turf Research Institute, Bingley.

¹¹² SNH 54 - Hylgaard, T. & Liddle, M.J. 1981. The effect of human trampling on a sand dune ecosystem dominated by *Empetrum nigrum*. Journal of Applied Ecology, 18, 559-569. Page 567, paragraph 2.

5.202 This dynamism is dependent on the ability of plants and animals to spread. It needs to allow for the possibility that the areas of each habitat will change in response to natural environmental fluctuations, something that would be inhibited by barriers or edges. The creation of a golf course within a dynamic dune system would effectively freeze sediment and habitat dynamism. Although the system may be over-stabilised, Mr Rooney confirmed in questioning that this is not a pejorative term, or a cause for conservation concern. There is still dynamism, and the presence of dune heath is a huge conservation asset for the site.

5.203 Coul Links already faces challenges by way of invading vegetation. It will face additional challenges in terms of climate change, and retaining the adaptability and resilience of the system is highly desirable. Building a golf course would significantly compromise the adaptability of this ecosystem, and therefore of its species.

Fragmentation and edge effects

5.204 Professor Angus addressed these issues for SNH. In heathlands, heather tends to be replaced by grasses towards the edge of a patch.¹¹³ Edge zones up to 8m wide can become marginal for some species in heathland, so smaller patches are particularly affected.¹¹⁴ Heathland spiders, for example, are poor dispersers, and some species seem to depend on large heathlands.¹¹⁵ One study concluded that fragmentation negatively affected almost three-quarters of heathland species.¹¹⁶

5.205 Biodiversity within patches can increase as a result of fragmentation, but this is due to invasion by species from other habitats.¹¹⁷ If you add grassland species to an area of heathland then biodiversity increases, but not in a desirable way because the objective is to conserve heathland. Although fragmentation and edge effects could benefit certain lichens (and perhaps some invertebrates), the overall impact would be adverse.

5.206 Fragmentation as a result of the proposed course layout is evident in the separation of the southern and northern sections of dune heath and, to a lesser extent, in the dune slacks to the south. The fairways would be 20-50m wide¹¹⁸ and would create a circle round part of the dune heath in the northern part of the site. The isolation of this area would be exacerbated by the pathways between the holes. Another two isolating circles would be created in the south, again with pathways creating additional barriers.

5.207 Dr McMullen describes the connectivity which would exist after the course is built as 'convoluted'. His conclusion that 'changes in connectivity are unlikely to have a significant effect upon the dune slack areas because many are already of a similar size and location' is not convincing.

¹¹³ SNH45 – Fagúndez, J. 2013. Heathlands confronting global change: drivers of biodiversity loss from past to future scenarios. *Annals of Botany*,111,151–172. Page 57.

¹¹⁴ SNH69 – Piessens, K., Honnay, O., Devlaeminck, R. & Hermy, M. 2006. Biotic and abiotic edge effects in highly fragmented heathlands adjacent to cropland and forest. *Agriculture, Ecosystems & Environment*,114,335-342. Page 335.

¹¹⁵ SNH52 – Hopkins, P.J. & Webb, N.R. 1984. The composition of the beetle and spider faunas on fragmented heathlands. *Journal of Applied Ecology*,21,935-946. Pages 943,945.

¹¹⁶ SNH68 – Piessens, K., Honnay, O. & Hermy, M. 2005. The role of fragment area and isolation in the conservation of heathland species. *Biological Conservation*,122,61-69. Page 67.

¹¹⁷ SNH47b – Harrison, S. and Bruna, E. 1999. Habitat fragmentation and large-scale conservation: what do we know for sure? *Ecography*, 22,225-232. Page 229.

¹¹⁸ See page 14 of [SNH 029 - Design and Access Statement by STRI September 2017](#)

5.208 The ES states¹¹⁹ that ‘there is no evidence that any of the important terrestrial ecological receptors within the study area would find a 3.5m wide access track for example, a physical barrier, causing severance and preventing movement between habitat patches’. However, there is evidence that a 3.5m wide path could be a significant barrier. There are also concerns about the potential for compaction of soils by construction vehicles using these paths, and for the potential for them to be covered in the future by synthetic matting or to be re-turfed.

5.209 Dr McMullen also believes that paths are unlikely to pose a barrier to wildlife and that movement is determined by dispersal capability. This overlooks the edge effect. The significance of a barrier is only partly related to its width – more important is the existence of a habitat ‘edge’ that inhibits leaving the patch. The scientific literature shows that fragmentation causes damage. This problem applies to all habitats. But the extensive literature describing such problems in heathland gives particular cause for concern in relation to Coul Links.

5.210 In cross-examination, Professor Angus reiterated that the effects of fragmentation cannot be quantified. But it is ‘not a numbers game’ anyway – the main effects are on ecological processes. The management objectives for the SSSI do not cover fragmentation and habitat function, but these are still relevant effects.

5.211 Professor Angus stated in re-examination that, although the ES records an increase in dune heath habitat, this is really just an increase in the extent of heather. It will take time for the other elements of dune heath habitat (such as lichens and mosses) to develop in these areas. It is the loss of the longer-established areas of dune heath which is of most concern to SNH. Mr Rooney expressed a similar view during cross-examination.

5.212 In closing submissions, SNH backs up its concerns with reference to ‘Ecology of Golf Courses’ which states that¹²⁰:

“it is not just the absolute distance between patches that is important, but the nature of the barrier between them (figure 7). In the current work, it has been found that fairways (which are considerably less than 100m wide) represent serious barriers to ground-dwelling invertebrates.” And below figure 7 that:

“barriers to wildlife movement between patches may be small such as paths or tracks, or large, such as fairways or sand in a bunker.”

5.213 As was explored with Dr McMullen during his cross-examination, the tables and figures at pages 56 to 59 of his inquiry report establish that there would be:

- general fragmentation of dune heath habitat (particularly at his areas 1-3 in the main body of dune heath)
- increased fragmentation and isolation of area 4 to the south
- disconnection at bottlenecks E, F and G, and partial disconnection at bottlenecks C and D
- more generally, an impact on habitat connectivity on both an east-west axis and a north-south axis within the main body of dune heath

¹¹⁹ CD1.7 – page 203

¹²⁰ SNH 110 - Gange, A.C., Lindsay, D.E. & Schofield, J.M. 2003. The ecology of golf courses. *Biologist*, 50, 63-68. Page 66.

5.214 Any need in the future to realign or relocate the 17th hole westward would give rise to the need to avoid the extensive areas of dune slack between areas C and D shown on Dr McMullen's Figure 2. The potential therefore exists for further fragmentation of dune slack in this area.

Dune heath translocation

5.215 Mr Rooney led for SNH on this matter, albeit Professor Angus also touched on it. In Mr Rooney's view the translocation proposals do not properly value the receptor sites, particularly in respect of their future potential. They do not need translocation to recover to higher quality dune habitats. They, especially the felled conifer plantation, just need good conservation management to raise their value.

5.216 Translocating would deflect the natural succession of the receptor areas that would otherwise result from good practice dune conservation such as turf stripping, scrub clearance and grazing. This is management that should occur with or without the golf course and would be preferable to translocation onto such areas. There are numerous examples where habitats very similar to those of the receptor areas have been recovered to top quality dune habitat by standard dune conservation practices.

5.217 Therefore translocation would reduce the conservation value of the site in the long-term by disrupting the receptor areas. In these respects alone the proposed receptor areas are not suitable for translocation.

5.218 When asked about what would happen to the receptor areas if they are left alone, Mr Rooney said that his advice would be that most of the organic material should be removed. If it wasn't, acid grassland might develop but the organic material would deflect this succession.

5.219 The translocation proposals do not adequately consider the soil conditions for both the donor and receptor areas. There is a brief and inadequate consideration of aspect and topography. Basic descriptive criteria such as soil pH, soil structure and chemistry are omitted, and there is no assessment of soil mineralogy. This undermines the credibility and prospects of success of the proposed translocation.

5.220 Moving dune vegetation presents practical difficulties that reduce the likelihood of success. Dune soils are thin and raw, with a low degree of coherence to form turves able to be translocated. Moving dune vegetation in large turves would be highly problematic due to the nature of the soils and the very challenging topography of the donor areas. Dune vegetation has an intimate connection with its surrounding topography, soils and aspect. The very varied topography of the donor areas is quite unlike the topography in the three case studies which is flat, or very gently undulating.¹²¹ The translocation proposals do not take adequate account of these factors.

5.221 Lichens are an important part of the dune heath communities, and are known to be particularly fragile and sensitive to disturbance in dune heath. They are sensitive to changes in humidity, orientation and the prevailing chemical environment. Therefore, matching donor and receptor areas for lichens would be very difficult in this complex dune

¹²¹ [CD001.117 - Schedule of Mitigation - Appendix 10 - Translocation Plan](#) – Appendix A, case studies

environment. Determining translocation success for lichens would be very challenging as it would take a long-term monitoring project. The likelihood of failure in the translocation of lichens is high, although this would not become apparent for some time. Therefore the translocation proposals do not take adequate account of lichens, their ecology and the impacts of translocation on them.

5.222 The examples of translocation at page 218 of the ES are not adequate supporting evidence for the proposals. Mr Taylor's inquiry report does not provide robust or convincing evidence for the claims for translocation success. Providing photographs of translocation in progress and from a short time afterwards is not robust, credible evidence of success.

5.223 The JNCC policy acknowledges (at paragraph 5.4) the need for further debate concerning the use of translocation. But the point is also made that any new guidelines or policy would need to be based on more evidence on the outcomes of translocation in different circumstances. This would include carefully designed experiments to test the stability of desired assemblages following translocation, and a comparison between predictions of success and the results obtained from monitoring the condition of translocated habitats. Professor Angus stated under cross-examination that the JNCC was aware of the desirability of updating the policy, but it could not do so since there was a lack of scientific evidence.

5.224 Therefore, although the JNCC policy is dated, it remains relevant today. Without a systematic literature review of published peer-reviewed scientific papers providing a solid evidence base, the policy remains sound and continues to apply, especially in the context of an SSSI.

5.225 It is accepted that, in a general sense, translocation practices and success rates have improved.¹²² But the challenges presented by the varied dune heath at Coul Links are beyond existing experience. There are no authoritative published studies to support claims that the techniques proposed would succeed in this dynamic, diverse and topographically complex environment.

5.226 In its closing submissions, SNH notes that Mr Taylor accepted that even the updated Translocation Plan does not yet contain analysis of the matching requirements set out in section 4.4 of the Anderson guidelines.

5.227 Mr Taylor accepted that there was little or no verifiable scientific evidence establishing the long-term success of dune heath translocation. He accepted that all he had was experiential evidence. Therefore there is no sound basis for the high level of confidence expressed by Mr Haspell and Mr Taylor in their inquiry reports as to the prospects of dune heath being successfully translocated.

5.228 The true measure of success is whether diversity of species and of function is maintained in the longer term. Without the necessary scientific evidence and monitoring studies to establish that this has been achieved elsewhere for dune heath, the only robust conclusion that can be reached is that dune heath translocation has not been proven to be successful.

¹²² See [SNH 087 - Institute of Civil Engineers - Translocating wildlife habitats - a guide for civil engineers](#)

5.229 Of the scientific papers before the inquiry, the most useful (and a relatively recent) paper is the Box article which also concludes¹²³ that translocation should be the last resort and is subject to various uncertainties.

5.230 The Anderson guidelines state that ‘the receptor sites must match the donor site adequately and should not be part of the wider site of value from which the donor site is taken.’ Coul Links and the dune heath within it are of high value. Therefore, considering the extent of the proposed translocation and likelihood of success, if dune heath translocation is to occur, site integrity would be compromised.

5.231 When cross-examined on the content of the Anderson guidelines, Mr Taylor accepted the statement at paragraph 2.2 of the guidelines that ‘Habitat translocation affects the character of the habitat negatively to a greater or lesser extent. This will affect its nature conservation value.’ Asked about paragraph 5.5 of the guidelines Mr Taylor accepted that translocation was a last resort.

5.232 Determining the success or otherwise of the translocation would take decades or longer. In such circumstances the precautionary principle applies.

Translocation – the mitigation hierarchy

5.233 In Mr Rooney’s view mitigation is the avoidance or reduction of negative impacts to the point where they are no longer significant. In terms of good practice, the proposal should aim to avoid negative impacts in the first place.

5.234 The CIEEM 2018 guidance advises so at sections 6.2 to 6.4. One form of ‘mitigation by design’ (as described in the guidelines) would have been a layout which avoided dune heath. The distinction between mitigation and compensation is explained at paragraph 6.5. At paragraph 6.7, translocation is identified as a form of compensation. The distinction between mitigation and compensation, and the potential for confusion, is discussed at paragraph 6.10.

5.235 In closing submissions it is argued that the reference in paragraph 6.5 of the 2018 CIEEM guidance to all ‘other [than compensation] mitigation options’ needs to be seen in the context of the wider mitigation hierarchy explained in the ‘key principles’ and in section 6 of the guidance. According to the sequential approach explained, at the stage of identifying the likely residual significant effects, compensation must be left out of account since it is designed to offset the significant residual effects that have been identified. By then, it is too late to prevent or reduce those effects. All that can be done is to seek, where possible, to offset them.

5.236 The 2019 Biodiversity Net Gain practical guide is consistent with CIEEM guidance on this point, for example in the definition of compensation within its glossary. It emphasises that it does not apply to designated sites or irreplaceable habitats.

5.237 During cross-examination Dr Cosgrove explained that he referred to dune heath translocation as mitigation because compensation formed part of the wider mitigation hierarchy. But he accepted that the crucial point is determining whether there is a residual likely significant effect (i.e. after mitigation). He agreed that compensation measures are

¹²³ SNH 34 – see page 543.

designed to offset likely significant effects and, therefore, they are considered after it is decided what the likely significant effects are. Although compensation measures are part of the wider mitigation hierarchy, he agreed that at the earlier stage in the hierarchy (when one determines what the likely residual effects are), compensation measures are not taken into account.

5.238 But when asked in re-examination about the distinction between mitigation and compensation explained at paragraph 6.10 of the CIEEM 2018 guidance, Dr Cosgrove stated the translocation should be considered as mitigation. He seemed uneasy in being asked to support a conclusion in the ES which he had departed from, as noted above. His answers were unconvincing, and demonstrated the error in the ES.

5.239 Dr Cosgrove was asked about paragraph 5.35 of the 2018 CIEEM guidance concerning the precautionary principle. In light of the evidence of Mr Taylor in particular (that dune heath translocation had inherent risks), Dr Cosgrove confirmed that a precautionary approach was appropriate. It followed, he agreed, that even if it was relevant to take into account translocation before determining the residual likely significant effects, it would still need to be brought to Ministers' attention that there was a likely significant effect on dune heath.

Effects on species

5.240 SNH draws attention to the presence of rare species on the site including green felt-lichen, Baltic rush and the particularly high diversity of waxcap fungi. For example, Baltic rush is likely to be impacted by the development, resulting in a reduction of this species within the Ramsar site, albeit to an uncertain extent.

5.241 However, rather than focus on species individually, SNH's contention is that if all physical and biotic processes are retained, habitats will be maintained. If habitats and their processes are retained, species will be conserved by default, including rare species and even species that are presently unknown. Equally, if processes and continuity are not maintained, habitats and species will be damaged.

5.242 The emphasis is thus on the importance of these processes. However, the presence of rare species shows the importance of Coul Links for biodiversity.

Invasive species and the condition of Coul Links

5.243 Whilst there are issues affecting the current condition of the site, principally the spread of bracken, gorse and birch, the applicant has exaggerated the overall effect to support the idea that a management agreement is a crucial step in protecting the future of the site. But it should be noted from the applicant's aerial analysis that, whilst there was an increase in bracken and birch between 1998 and 2009, from 2009 to 2016 the areas affected remained almost stable, whilst the area of dune heath continued to expand.

5.244 The 2014 SSSI Site Condition Monitoring Report records the sand dunes feature to be in unfavourable (no change) condition. But most of the area of Coul Links is in favourable condition, with negative influences localised. Though the area of good habitat has been slightly reduced, the remainder is very fine indeed. Overall the current quality of habitat and process compares very favourably with many other sand dune SSSIs in eastern

Scotland. Professor Angus accepted that it is possible that further effects from invasive species could result in an 'unfavourable (declining)' conservation status in the future.

5.245 It is regrettable that, since the management agreement with the SWT ended in 2010, SNH has not been able to persuade the landowner to enter into a new agreement for the site. This is not for the want of trying. During the past 10 years SNH has made various efforts to engage with the landowner to facilitate scrub and invasive species control but those efforts have not been successful. The landowner has been unable or unwilling to justify a failure to take relatively straightforward management steps to control invasive species.

5.246 It would be irrational to place significant weight on the refusal of the landowner to enter into a management agreement as part justification for a scheme which includes such an agreement with the same landowner. Further, it should not be assumed that the future condition of the site will continue to be unfavourable. Professor Angus confirmed that there is not at present an intention to pursue the mechanism of a land management order under the provisions of the Nature Conservation (Scotland) Act 2004. SNH generally views such a measure as a last resort, but it remains an option that may require to be pursued.

5.247 Mr Rooney, under cross-examination, stated that both the degenerate and pioneer stages of heather created areas of bare sand, with clear ecological benefits. Each of the four stages of heather (pioneer, building, mature, degenerate) are part of its natural lifecycle. He also recognised, though, the threats from invasive species, including those identified in the SSSI Site Management Statement.

The Coul Links Site Management Plan

5.248 The measures set out in the CLSMP and designed to improve the condition of the site are desirable. These include, as Mr Rooney agreed, the beneficial effects of the creation of bare sand, especially at the micro scale, which golf courses have great potential for. But these measures should be carried out in any event, as Dr Cosgrove confirmed to the inquiry.

5.249 Taking into account the CLSMP, the proposal would be positive for the control of invasive species. But, balancing its gains and losses, the adverse impacts would still greatly outweigh any benefits for the sand dune habitat.

THE CASE FOR NOT COUL

The importance of the site

5.250 Coul Links contains a complete transition from foredune vegetation at the rear of the beach to dune slack habitats. Unusual in a Scottish and UK context, the site is notified explicitly for these sand dune features. The geomorphological transitions within the site underpin its designated features. Any interference with, or loss of, these processes would impact on the habitats of the site. Coul Links is much more complex than, and very different to, the dunes further the north at Ferry Links. For example, there are no dune slacks at Ferry Links.

5.251 Dune juniper is a Habitats Directive priority habitat and the Moray Firth is its main locus in the UK. The SNH hole-by-hole analysis¹²⁴ contains the statement, for the 16th hole that 'the general area of this hole contains what is probably the second densest growth of Appendix 1 dune juniper in the UK'.

5.252 [Brian Coppins](#) explained why, in his view, the site is so important for lichens¹²⁵. The dune systems in the SSSI are the most biodiverse in the British Isles in respect of ground-inhabiting (terricolous) lichens. The SSSI may have the highest diversity of terricolous lichens for any dune system in northwest Europe. This is due to its size, its undeveloped nature and the presence of extensive dune heath and dune grasslands. Coul Links, as part of the SSSI, is the single most important lichen-rich dune habitat in Scotland, the British Isles and northwest Europe.

5.253 The SSSI has a total of 101 terricolous lichen species recorded to date. Ferry Links has 87 species, with 31 of these not found on Coul Links. Coul Links has 71, with 14 not found on Ferry Links. Hence the two sites are complementary. Of these species, 27 are notable lichen species, seven of which are on the UK Red-list. The lichen assemblages are just as important as the rare or notable individual species.

5.254 In recently published Guidelines¹²⁶ for the selection of SSSIs concerning lichens, a score of 20 or more is stated to merit SSSI designation. Both Coul Links and Ferry Links have scores of 37 and 43 respectively – 46 when combined. This total is exceeded only by Culbin (49). This score is for heathland habitats only, so does not include other vegetation types supporting lichen-rich assemblages, such as grassland.

5.255 The exceptional lichen interest at Coul Links has long been known but has only been fully recognised in the last two to three years. It is still not fully explored. A one-day visit by four members of the British Lichen Society in 2018 discovered a further 14 lichen species for Coul Links. Much of the site is still to be explored so more species can be expected to be found.

5.256 The fungi of Coul Links are now rated as nationally important after a visit by Professor Roy Watling in 2017.¹²⁷ Professor Watling covered Coul Links over four days, listing 100 species of large fungi. Adding his new records to existing data produces a list of 19 species of waxcap fungi at Coul Links. This confirms it as a site of national importance for fungi.

Environmental Impact Assessment – scoping

5.257 Dr Dargie's view is that aspects of the ES requested by SNH were scoped out on the basis of incorrect or inadequate information.¹²⁸

¹²⁴ [SNH 030 - Report by Professor Stewart Angus, SNH, containing hole by hole analysis of vegetation and translocation dated 10 November 2017](#)

¹²⁵ Note that Dr Coppins' [inquiry report](#) refers to a number of annexes but these were omitted in error and Not Coul does not rely on them.

¹²⁶ [NC057 - Sanderson, N. et al - Guidelines for the selection of Biological SSSIs - Chapter13 -Lichens JNCC \(2018\)](#)

¹²⁷ See Annex 3 of [CD003.011 - Not Coul - response dated and published 21 December 2017](#)

¹²⁸ See Annex 5 of [CD003.012 - Not Coul - response dated and published 21 May 2018](#)

5.258 In respect of lichens, the ES highlighted only *cladonia mitis* from a desk study. No lichen survey was commissioned. The ES merely says¹²⁹ 'lichen species were identified to the genus *Cladonia*'. In Dr Coppins' view this is inadequate. He said that the exceptional lichen interest of Coul Links would be obvious to any ecologist walking the site, and is amazed that the British Lichen Society was not approached.

5.259 There are 30 species of *cladonia* lichens known at Coul Links. The ES failed to recognise that the UK-wide review of lowland heathland lichen habitats made to the Nature Conservancy Council¹³⁰ considered Coul Links (as part of 'Ferry-Coul Links') to be of national importance.

Environmental Impact Assessment – habitat surveys

5.260 [Tom Dargie](#) checked the applicant's habitat survey and found it to be very inaccurate. Wetland is particularly poorly mapped. The mapping underestimates the extent of wetland habitats. It uses too many matrix habitats, which means that it is too generalised. Although that can be an appropriate approach, more detail is needed in this case. It appears that Alba Ecology surveyors were sometimes inconsistent in recording and separating mosaics from intermediate communities. Mapping of dune heath overestimates the extent of the H11c sub-community.

5.261 Dr Dargie's analysis is set out in Annex 4 of Not Coul's first objection letter and in his inquiry report¹³¹ and its first annex.¹³² Comparative studies are made of his and Alba Ecology mapping at certain holes.

5.262 In addition, Dr Dargie compared the Alba Ecology mapping with his own surveys along a series of transects across the site. Since Coul Links is a complex site with many NVC communities, Dr Dargie simplified this into 20 habitats – 13 dry and 7 wet. Along the transects he found only 48% correspondence between his survey and the Alba Ecology mapping, based on these 20 habitats. Based on just two groups, dry and wet habitats, there was 85.5% correspondence for dry ground and 57.6% for wet.

5.263 Dr Dargie made two further comparisons with the Alba Ecology mapping. Firstly, a comparison of NVC types listed by Dr Dargie against those recorded by Alba Ecology found many types unrecorded by the latter.

5.264 In the second comparison, Dr Dargie compared his surveys with the Alba Ecology mapping at 3,339 point locations around Coul Links. He found that the correspondence at NVC community level was only 35.5%. This corroborates his earlier poor result using the transects.

5.265 An important example is at the proposed 13th fairway, where large areas of very high quality dune slack were found by Dr Dargie beneath the site of the fairway. Alba Ecology, by contrast, mapped this ground as a mosaic (a combination of dune grassland and dune slack). The SNH hole-by-hole analysis by Professor Angus concurred with Dr Dargie on this point.

¹²⁹ Page 184

¹³⁰ [NC052 A&B - Fletcher, A et al - Survey & Assessment of Lowland Heathland Lichen Habitats \(1984\)](#)

¹³¹ [NC138A - Dr T Dargie Inquiry Report](#)

¹³² [NC138B - Dr T Dargie Inquiry - Report Annex 1 - A3 Tables & Figures](#)

5.266 Another example is at the proposed 16th fairway. This includes ground which was previously managed by the SWT to exclude grazing, to protect dune juniper. A considerable population of juniper is still present, and Dr Dargie recorded 95 bushes on the fairway footprint. This is 50% of the Coul Links dune juniper population. The ES gives a grid reference for juniper at this location but there is no mention of the bush numbers which could be affected by the development.

5.267 When questioned on his criticism of the applicant's NVC survey, Dr Dargie said he was aware of the study (referred to by both Dr Cosgrove and Dr McMullen) showing differences between NVC surveyors for the same habitat. However this was for an upland habitat in a part of Wales where habitat variation is quite complex. The comparisons in that study show differences caused by both observer error and methodological error. In the case of Coul Links, Dr Dargie's experience means his work is to be preferred to the NVC, especially given the lack of detailed information provided on the NVC quadrat surveys.

5.268 In cross-examination Dr Dargie acknowledged that he is not immune to error. He accepted that his Figure 4 from the 2nd Not Coul objection made errors in its characterisation of the Alba Ecology NVC mapping, albeit he said the original version of this (in the annex to the first objection) did not have the same errors. He also said he accepted the judgement of the CIEEM panel which considered the complaint about the quality of the ES.

5.269 In closing submissions, Not Coul points to other disagreements on habitat mapping which were pointed out by Dr Dargie during the site inspection.

5.270 SNH scoping advice¹³³ was that 'the sand dune vegetation survey should be undertaken by someone who is experienced in surveying this habitat'. The applicant's witnesses could not provide evidence of the experience of Dr Massey (the Alba Ecology surveyor), who did not appear as a witness.

5.271 Dr Dargie is Scotland's expert on dune habitats. He has mapped most of the national dune and machair resource, with the JNCC and SNH publishing his work. SNH maintains his survey work as a dune and machair GIS database. He has known Coul Links for more than 30 years and lives nearby. He has five decades of experience of work on UK dunes. He made careful checks on the accuracy of Alba Ecology NVC mapping. Dr McMullen has made no equivalent checks.

5.272 Professor Angus assessed only those habitats within the golf course footprint, and the applicant's maps are very difficult to use for precise location in the field. He did not have the course layout available as a field GIS layer locatable with GPS accuracy. Dr Dargie's testing of Alba Ecology mapping accuracy is therefore the only careful evaluation that has been presented as evidence to the examination.

5.273 Overall, the Alba Ecology NVC mapping is too flawed to be of any use in assessment. It should not be used for calculating the areas of habitats to be destroyed or altered. All ES analysis and tables based on that survey must be regarded as unreliable.

5.274 Almost all STRI map documents lack an Ordnance Survey grid, a clear indication of scale and a north arrow. This failing in basic cartographic standards makes the maps

¹³³ [NC105 - SNH scoping opinion](#)

unusable for accurate use in the field. Flawed mapping was presented to the examination showing an overlapping borrowpit and temporary construction area in the north of the site, revealed by Not Coul.¹³⁴

The extent of habitat loss and modification

5.275 The inadequacy of the habitat mapping is compounded by a flawed presentation of the results of assessment. The habitat survey area boundary is different to the red line boundary of the application. Habitat totals, expressed either as hectares or as percentage of survey area, are therefore all incorrect in the context of the application site which is smaller. No results or analysis is presented differentiating between habitats within or outwith the SSSI.

5.276 There is no SSSI-specific information which shows that dune grassland, dune slack and dune heath are extensive and likely to be impacted. Where habitat losses are presented (in Table B.18), the proportion of each habitat type which would be destroyed is unstated. The value of community H11c is underestimated.

5.277 The ES is very unclear about which parts of the course layout would be modified by groundworks, planted with introduced species or modified by mowing. This makes it difficult to calculate exact figures for direct (habitat loss) and indirect (mowing) effects. Habitat modification should have been identified as an indirect effect. On this point, Dr Dargie conceded at the inquiry that some indirect effects are covered in the ES.

5.278 There is no discussion of the role of rabbits or roe deer in supporting biodiversity at Coul Links. A golf course is likely to eradicate rabbits and modify the browsing behaviour of roe deer.

5.279 The Coul Links component of the SSSI is 153.5ha, based on the applicant's aerial photography. Dr Dargie expresses his own calculated habitat losses as a percentage of this area. Table 1 of his precognition summarises these, correcting some of the figures in his more detailed Table 3 from Annex B¹³⁵ of his inquiry report.

5.280 For dune grassland, 7.47ha (4.9% of the total area of the Coul Links part of the SSSI) would be directly lost. An additional 3.76% would be destroyed within the rough and 2.1% lost in translocation receptor areas. Within 20 years there would be a further loss of 8.1% due to nitrogen use and 2.1% due to irrigation. Total losses would be 20.8% of the Coul Links part of the SSSI.

5.281 Turning to dune heath, 3.19ha (2.1%) would be directly lost, with an additional loss of 1.6% within the rough. Within 20 years there would be a further loss of 2% due to nitrogen use and 0.8% due to irrigation. Total losses would be 6.5%.

5.282 For dune slack, 1.25ha (0.8%) would be directly lost, with an additional loss within the rough of 0.6%. Within 20 years there would be a further loss of 17.2% due to nitrogen use and 1% due to irrigation. Total losses would be 19.6% (being all the dune slack within the Coul Links part of the SSSI).

¹³⁴ [NC160 - Borrowpit 2, Topsoil and TCA positions](#)

¹³⁵ [NC138C - Dr T Dargie Inquiry Report - Annex 2 - A4 Tables & Figures](#)

5.283 Total direct loss of the above Annex 1 habitats would be 11.9ha (7.85%). In the 9.23ha (6%) of rough, management of the turf would destroy the existing vegetation structure of these areas. These are direct impacts and mitigation is not likely to be effective. This therefore gives a figure of 13.85% as the overall direct effect of golf course construction within the Coull Links part of the SSSI (not counting effects on translocation receptor sites). Total indirect losses would be 27.15% from fertiliser use and 3.9% due to irrigation. The overall loss over 20 years is estimated to total 46.9% of the 153.5ha Coull Links part of the SSSI.

Fragmentation and edge effects

5.284 Because of the proposed course layout, habitat loss and modification would be dispersed throughout much of the site. These would have a cumulative effect on ecosystems, increasing the area of edge effects and breaking up the existing habitat patches. Fragmentation and severance would occur, for example of the dune slack habitats at the 13th hole. The result would be reduced naturalness.

5.285 The development would harm the potential future dynamism of the dunes and constrain the site's ability to adapt to climate change and sea level rise. Coull Links should be left to respond, as naturally as possible, to the current environmental changes (increasing rainfall, higher water table and a rising sea level). Instead, large-scale dune dynamism would be frozen by the development. For example at the inquiry Dr Coppins said that, although micro-siting might reduce the initial effects on what are presently the best areas of lichens, these areas move around over time. So what is the best lichen area now may not have been a few decades ago, and may not be so in the future.

Dune heath translocation

5.286 Not Coull disputes¹³⁶ the suitability of the receptor areas for translocation. Dr Dargie disagrees with the Alba Ecology mapping of the cleared conifer plantation. It is incorrect to map this as non-NVC felled plantation. Felling took place in 2012. In the four years to the Alba Ecology survey the habitats had already changed to early successional forms of acidic dune grassland and dune slack. Sand sedge and wavy-hair grass are the abundant species. These are not mentioned by the applicant. Around 3.6ha is already EU priority fixed dune grassland 2130, and a UK special responsibility. Loss to translocated dune heath means this would be an additional direct habitat loss.

5.287 Around 1.5ha of the receptor areas is not suitable because it is too wet, including areas of dune slack. This was demonstrated (to give just one example) by Dr Dargie on the site visit, in the northwest part of receptor area R1. The ground there is mapped as SD17 dune slack by Alba Ecology. In Dr Dargie's view it is SD17 in lower parts of the zonation, SD16 in higher parts, plus some invading MG10 grassland. In average winters the ground here would flood, and any translocated dune heath would fail due to waterlogging causing heather death.

5.288 A total of 0.5ha of the receptor areas is already dune heath and should also have been excluded. The remaining dry suitable ground within the receptor areas (that which contains only commonplace or unwanted habitat) therefore extends to only 0.8ha. The lack

¹³⁶ [NC132 - Figure 14 - Translocation - The suitability of Receptor Areas R1 and R2](#)
[NC133 - Figure 15 - Translocation - The suitability of Receptor Areas R3 and R4](#)
[NC134 - Figure 16 - Translocation - The suitability of Receptor Areas R5 and R6](#)

of a detailed juniper translocation plan is a major omission and means that the success of juniper translocation cannot be relied upon.

5.289 As far as Dr Coppins is aware, transplantations of terricolous lichens have all failed after two or three years.¹³⁷ Of the examples given by the applicant of previous habitat transplantation, only Skibo Castle may have supported a rich lichen assemblage, although Dr Coppins said at the inquiry that he is uncertain what work was carried out there. He said that he is not aware of any successful attempts to translocate lichen-rich dune habitat, although he acknowledged the benefits of inserting sand between the translocated turves. He also accepted that the example of a failed translocation he refers to used a very different methodology to that proposed at Coul Links.

5.290 The lichen assemblages in the dune heath at Coul Links are found on more or less bare sand and open areas, so it would be impossible to move them without irreparable damage. The best lichen areas are on steep slopes, whereas the conifer plantation is much too flat.

5.291 Therefore it is unlikely that dune heath containing rare lichens would survive translocation. Furthermore, it is unlikely that the provision of bare sand within receptor areas would create the unique micro-climate required by rare lichen species. Only common lichens are likely to survive and flourish. Dr Coppins accepted at the inquiry that the former conifer plantation was not a valuable habitat, and has no lichen-rich areas.

5.292 In its closing submissions,¹³⁸ Not Coul asserts that translocation of habitats is not proven as a successful mitigation, and is not recommended by JNCC policy. That remains the authoritative policy on translocation. Its opposition to translocation in protected habitats is stated in the 'strongest possible' terms.

5.293 Not Coul's lack of confidence in the translocation proposals is due to the lack of peer-reviewed research supporting translocation, the lack of relevant experience of it, the lack of clarity as to who could do it, and its concerns about the proposed approach to translocation of dune heath, juniper and lichens. No credible evidence was submitted as to how advancements in technology could protect the fragile species and habitats of Coul Links through the translocation process. Given the lack of empirical scientific data or supporting policy, the previous experience offered by both Mr Haspell and Mr Taylor is completely insufficient.

Effects on species

Juniper

5.294 In Dr Dargie's view there would be the loss of significant amounts of dune juniper, including at the 16th hole. 48-50% of juniper bushes would be lost due to construction, with a further 20-22% lost indirectly within 20 years of operation. He assumes translocation of juniper would not be effective due to the lack of a methodology or identification of receptor areas.

¹³⁷ For example see NC55 – Lambley, P. (2018). The demise of the Breckland lichen flora. *Journal of Breckland Studies* 2: 39–51. Pages 39 & and 49]

¹³⁸ In particular see paragraphs 110-130

5.295 In closing submissions, Not Coul argued that Mr Taylor misunderstood the risk posed by *phytophthora austrocedrae*. Forestry Commission Scotland guidance was misinterpreted. He assumed that this fungus was largely wind-dispersed via spores. In fact it is water-dispersed. Translocation would conflict with this guidance, increasing disease risk when translocating.

Lichens

5.296 Dr Coppins explained that, to succeed, terricolous lichens require gaps in the vegetation to allow them to colonise. In a dune heath such gaps are provided by periodic disturbances, which can vary from major dune blow-outs and sand accretion to minor blow-outs and rabbit scrapes.

5.297 To maintain a long-term lichen interest the habitat requires a continuum of localised disturbance and recolonization. Bare and part-colonised areas are restricted at Coul Links to the dune heath in the north part of the site. Areas of rabbit activity are the main niche for most of the more notable species there, for example the very significant population of green-felt lichen *peltigera malacea* in several locations within and close to the footprint the 4th hole. That lichen population, only found in 2017, might represent 10% of the UK species population.

5.298 The proposal would greatly diminish the area of lichen-rich dune heath. It would destroy most of the area occupied by the red-listed lichens *leptogium palmatum* and *peltigera malacea*, as well other notable species such as *bryobilimbia sanguineoatra* and *stereocaulon condensatum*.¹³⁹ The best areas for lichens on the site are at the 4th hole, and these would be lost.

5.299 That destruction, plus management of the adjacent rough, would reduce the area of the bare and part-colonised sand which these lichens require. There would be additional reduction of small scale, localised disturbance from control of rabbits.

5.300 There would be increased nutrient input into the system through fertiliser treatment. Fertilisers are directly harmful to lichens, altering the vegetation structure and soil conditions around them, leading to indirect harmful effects. Lichens would be killed by any drift of fungicide treatment.

5.301 The development of the golf course would therefore seriously compromise, and in part destroy, the biodiverse lichen component of the dune heath habitat. The loss of rare lichens (and maybe bryophytes too) and a large proportion of their future bare sand niches is a significant adverse effect. The SSSI would quite quickly lose the unique and nationally important lichen component at Coul Links.

Fungi

5.302 Dr Dargie identifies a high risk that waxcap fungi at Coul Links would decline following the development. A significant loss of suitable grassland, plus widespread potential indirect effects of fertilisers and fungicides, would outweigh the potential benefits from any grassland management around the golf course. There is no detailed treatment in the ES of dune grassland management.

¹³⁹ See Figures 1 & 2 of [NC050 - British Lichen Society \(May 2018\) - Objection to proposed golf course at Coul Links](#)

Baltic Rush

5.303 Baltic rush is a component of the vascular plant assemblage of the SSSI and the Ramsar site. There are over 50 locations for this species at Coul Links. It is mainly concentrated in extensive dune slacks within and between the 13th and 16th holes. It is an indicator of nutrient-poor conditions and is likely to be affected by indirect nutrient impacts, especially from the application of fertiliser to the 13th hole. Dr McMullen's assessment takes no account of such indirect impacts.

Shoreweed

5.304 Dr Dargie confirmed at the inquiry that his view now is that there is no Annex 1 shoreweed habitat.

Restharrow

5.305 Restharrow has recently arrived at Coul Links. It is evidence of climate warming. This is the most thermophilous plant species at Coul Links and is very rare in Sutherland. It appears to be spreading north. The boardwalk and tee aprons for the 16th hole would destroy some of this species. This would reduce our capacity to observe and monitor this indicator of climate change.

Invasive species and the condition of Coul Links

5.306 In Dr Dargie's view Coul Links is in good condition with only minor problems affecting habitat condition. Indeed, its condition is probably the best for all dune habitat within the Ramsar site. It is certainly in better condition than in 1994, the date of its first baseline survey.

5.307 The Site Condition Monitoring Report shows that SSSI dune grassland is in unfavourable condition. But there is no dune grassland test which is failed at Coul Links – it is in favourable condition there. There is therefore no obvious case for a change in grass sward management as part of any biodiversity net gain scheme.

5.308 Gorse and birch woodland are adversely affecting dune heath, but this is not a serious problem. Dune heath on the site has expanded by around 50% since 1994. This expansion is marginally more than losses to gorse and birch woodland. This means there is a weak case for including control of gorse and birch woodland in a Biodiversity Net Gain scheme. Some minor control is needed but would not require a large investment nor development of a golf course to ensure that it happens.

5.309 Dr Dargie broadly agrees with applicant's evidence for the increasing extents of bracken, birch woodland and gorse scrub. He estimates the extent of birch woodland as 5.0ha and gorse scrub as 2.2ha. The total (7.24ha) is 4.7% of the area of the Coul Links part of the SSSI. In the Site Condition Monitoring Guidelines the threshold triggering a failure is 5%. Coul Links should not therefore be listed as having an invasive scrub and woodland problem. Dr Dargie accepted at the inquiry that the threats from meadowsweet and Burnet rose are a greater problem than is acknowledged in his written evidence.

5.310 At the inquiry, Dr Coppins did not agree with the proposition that the dune heath is in poor condition for lichens. The vast majority is in very good condition, but some areas have been affected by scrub. These are a cause for concern, and targeted management is required. He also recognised the huge problem with nitrogen deposition affecting lichens generally.

The Coul Links Site Management Plan

5.311 Dr Dargie argues that there would be no biodiversity net gain from the modest amount of birch and gorse clearance which would occur. Bracken expansion is not a long-term problem. The applicant exaggerates the impacts of invasive species and ignores their habitat value. There is no evidence of declining interest for waxcap fungi.

5.312 Dr Coppins acknowledged the benefits for lichens of creating bare sand areas, although they would generally need to be small areas of around 1m². Theoretically, management of the habitats in a way which mimics the effects of rabbit activity would be beneficial, in particular if rabbit populations decline. But there is no need to contemplate an alternative to the rabbit-induced effects at this time.

5.313 Trimming of heather would be beneficial for some lichen species (such as certain *cladonia* species), but not all - there would be pros and cons depending on each species. *Peltigera malacea*, for example, occurs under fairly tall heather.

5.314 In its closing submissions, Not Coul refers to the 2016 Biodiversity Net Gain guidance requiring the application of ten principles. But there is no evidence that a thorough principle-based approach has been used.

5.315 The applicant's case depends on the input of several named experts and specialists. It is therefore not future-proofed, since the skilled people involved at present may not all retain an involvement in the future. Relying on this expertise and experience is a precarious basis for such an important planning permission.

THE CASE FOR THE CONSERVATION COALITION

5.316 Of the four witnesses for the conservation coalition, Dr Wright gave evidence on birds (see Chapter 6) and Dr Young and Mr Macadam gave evidence on invertebrates (see Chapter 7). In respect of other effects on the site and the natural heritage designations it forms part of, the main evidence to the inquiry from the coalition is contained in its inquiry statement, supplemented by the precognition and oral evidence of [Mr Hughes](#) of the SWT.

The importance of the site

5.317 Coul Links holds an important and diverse range of habitat types, each contributing to make the internationally important site so valuable overall. The sand dune habitats are of international importance for their flora, fauna and geomorphology and support, amongst other species, internationally important numbers of wintering birds as part of the wider protected sites.

5.318 Mr Hughes stated that this is one of the most important coastal ecosystems in Scotland. The combination of protected areas, northerly distribution, and undisturbed state

creates a genuinely unique, unreproducible space. The transition from foredunes to dune slacks at Coul Links is not replicated in any other part of the designated sites.

Deficiencies in the Environmental Statement

5.319 Schedule 4 of the 2011 Regulations sets out the 'required information for inclusion in Environmental Statements'. These include a description of the development, outline of main alternatives, aspects of the environment likely to be significantly affected by the development, the likely significant effects of the development on the environment, and measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment. The ES, despite the further information provided by the applicant, does not provide adequate information to satisfy these requirements and therefore the application should be refused as it is contrary to the EIA Regulations.

The effects on habitats

5.320 The direct destruction of habitats, fragmentation of interlinked habitats, changes in hydrology, water quality issues associated with pesticide and fertiliser use, and intensified human activity are likely to result in adverse impacts to the fragile dune habitats and species they support. Mr Hughes expressed the view that impacts on this dynamic and complex ecosystem cannot be fully evaluated by totalling up the sum of individual impacts. Even small losses can cumulatively lead to significant impacts. The creation of a golf course would fundamentally affect the operation of natural processes at Coul Links.

5.321 The risk of habitat fragmentation is particularly concerning. This could lead to a wider reduction in the quality of ecosystems and reduce their resilience in the face of emerging environmental changes, affecting both rate of change and ability to recover. If you fragment nature, it becomes less resilient. Imposing a golf course on this highly complex system would cause profound effects on its ecological character.

5.322 In relation to the comparisons (in the SWT objection) with the earlier golf course development at the Menie estate, Mr Hughes accepted that these are two different types of dune systems and there was no SPA in that earlier case. But the broad point being made is about the effects of golf course development on sand dune habitats, because these are extremely sensitive systems.

The condition of Coul Links

5.323 The vast majority of the site is in very good ecological condition, with an extraordinary abundance of biodiversity in its centre and south. Large tracts are in favourable conservation status.

5.324 There has been diminution of its quality by the spread of invasive species in the western part, but this is not significant when looking at the site as a whole. This has been caused by a reduction in positive management (including less grazing, meaning ranker grassland) and a dramatic reduction in the rabbit population. On the other hand, the increase in dune heathland has been an improvement. It is acknowledged that increased nitrogen levels are also a problem, albeit this effect is less severe than it used to be.

5.325 The great majority of attributes in the Site Condition Monitoring Report met their target. Where they are not met, this could be overcome by better management. The kinds of positive management proposed by the applicant should be happening anyway.

5.326 But it is accepted that overall the condition of the sand dunes feature of the SSSI is unfavourable and that the current and potentially ongoing effects from invasive species (and other threats) are a relevant consideration. However dune dynamics is a process, and the succession to a more stable system is a natural one. The range of these processes evident at Coul Links is important.

OTHER REPRESENTATIONS

5.327 Other representations made on the planning application refer to the effects on habitats and vegetation. Many of these reflect the matters addressed in the evidence from the parties to the inquiry, summarised above. All the key points raised by other objectors are addressed in our report.

5.328 Many supporters of the development point to the sensitive nature of the proposals, the current threats to the site from a lack of management and invasive species, and the opportunities for positive management to improve its natural heritage value. Additional points raised by supporters include that the land has been neglected by public bodies, and that there are many precedents for golf courses within SSSIs. Again, we take account of all these matters in reaching our conclusions.

REPORTERS' CONCLUSIONS

Site selection and alternatives

5.329 Paragraph 95 of Circular 3/2011¹⁴⁰ outlines the provisions of the EIA Directive and the 2011 Regulations in respect of alternatives to the development proposed:

“Where alternative approaches to development have been considered, paragraph 4 of Part II of Schedule 4 requires the applicant to include in the ES an outline of the main alternatives, and the main reasons for his choice. Although the Directive and the Regulations do not expressly require the applicant to study alternatives, the nature of certain developments and their location may make the consideration of alternative sites a material consideration.”

5.330 The applicant's team looked at other potential locations elsewhere in Scotland and Ireland, but we do not consider that the lack of narrative about that process, before Coul Links was identified, results in a failure to comply with the Regulations. There is no evidence before us which indicates that any of these other locations must be considered a 'main alternative' under the Regulations.

5.331 There is no detailed coverage in the main body of the ES of any of the alternative layouts considered by the applicant. However section 1.9 of the non-technical summary covers this ground. It briefly outlines the disadvantages of constructing a course on the farmland and identifies why, with Coul Links as the preferred

¹⁴⁰ [CD004.021 - Circular 3-2011 - The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2011](#)

site, it is the dune system to the east of the railway line which is the best location for the golf course.

5.332 This approach is rather odd, in that there is material in the non-technical summary which has no counterpart in the main body of the ES. In any event, if only in the non-technical summary (and at least in respect of the earlier design iterations at Coul Links), the ES does contain an outline of the main alternative layouts studied and an indication of the main reasons for the choice made, taking into account the environmental effects. This seems to be all as would be required by Part 2 of Schedule 4 of the Regulations if these earlier layouts were 'main alternatives' to the proposal. On that basis Part 2, the non-technical summary would seem to fall to be considered as part of the ES.

5.333 Given this context, we are not convinced the treatment of alternatives leads to any failing in the ES.

5.334 SNH is not advocating (as Mr Haspell recognised when asked about this) that all of the golf course be built on the farmland, only that more of it is. But we see nothing in the Regulations which would require the ES to consider, as a further reasonable alternative, SNH's suggestion of having a greater proportion of the course on this land to the west.

5.335 We acknowledge the points made by SNH about the design choices made and the lack (as SNH perceives it) of serious consideration of other alternatives. We accept that there may be many different types of golf courses in Scotland which are still classed as 'links' courses. However, notwithstanding any comparison with the environmental effects of a hypothetical alternative design and layout, it is to the effects of the development proposal before us which we must direct our attention.

Environmental Impact Assessment – scoping

5.336 We deal with some aspects of the approach to the scoping of the ES in the following chapters covering birds and invertebrates. It is clear that the applicant liaised with SNH from an early stage in the project (before the formal scoping stage) as to what kind of information SNH considered would be required, and consulted with local experts.

5.337 SNH's advice was followed and SNH did not, in its subsequent consultation responses, find fault with the scope of the survey work carried out. Dr Cosgrove is right to point to the stress placed in CIEEM guidance about the importance of the advice from the competent authorities and about focussing only on the likely significant effects of a development. The advice of SNH was to undertake an NVC study, and this was done.

5.338 We recognise Dr Cosgrove's extensive experience in EIA work. But the applicant's advisors might have obtained further information on some of the plants and other vegetation present on the site if they had consulted informally with other organisations when they were undertaking scoping. The CIEEM guidance identifies the potential value of non-statutory consultees at scoping stage. Consulting more widely at that stage, or subsequently, might have added to the environmental information available, particularly given the high natural heritage interest of the site.

5.339 We take into account, in reaching our views on the effects of the development, the additional evidence provided by other parties including, for example, on juniper and lichens. But we do not think the evidence shows that the lack of specific surveys focussing on these

plant species (or the approach to the ES more generally) means that the preparation of the ES was not carried out in accordance with the requirements of the Regulations.

Environmental Impact Assessment – habitat surveys

5.340 Dr Dargie's expertise in, and long experience of, sand dune ecology is clear from the account he provides in Appendix 3¹⁴¹ of his inquiry report. For example, he produced national dune reports for Scotland and Wales which were published by the JNCC, subsequently adding to the Scottish survey so as to produce the SDVSS.

5.341 This work was based on NVC surveys. It is published on SNH's website and would seem to be one of its reference sources for the ecology of sand dune systems across Scotland. SNH's advice¹⁴² to the applicant at scoping stage was to use the SDVSS as a starting point.

5.342 Added to this background, Dr Dargie lives locally and is very familiar with the site. Therefore we would expect him to be well-placed to make accurate, reliable surveys of the habitats and vegetation at Coul Links. However, we do not accept his argument that the applicant's NVC surveys should be disregarded because, in his judgement, they are very inaccurate.

5.343 Professor Angus based his hole-by-hole analysis on the applicant's NVC survey but also with reference to the SDVSS, recognising that there may have been changes since that earlier survey was undertaken. He also records that, ideally, he would have wished more time to compare the applicant's maps against the SDVSS so that he could re-assess the impacts of the development.

5.344 That said, it is notable that, for most of the layout of the course covered in his analysis, there is no hint that Professor Angus, based on his visits to the course, would take serious issue with the applicant's NVC survey. In cross-examination, he said that in general terms he accepted the NVC as valid.

5.345 SEPA, in its letter to the council of 12 June 2018¹⁴³ did not discern significant differences, at least for some of the site, between the applicant's and Dr Dargie's more recent, more detailed surveys:

"We agree with SNH's assessment of this in their hole-by-hole analysis and note their conclusions. However, in terms of our remit, which is much narrower in relation to natural heritage than SNH's, the magnitude of this difference is small and relates mostly to the proportion between different dune habitats around proposed holes within the SSSI. The magnitude of change that is noted outside the SSSI does not result in a changed understanding of those areas that are water dependent and thus does not result in material changes to the scale of the impact of the proposed development outside the SSSI...

The discrepancies between the findings of the Not Coul Report transect surveys and the survey submitted by the developer appear to be largely due to a difference in resolution. The mapping within the applicant's ES and its updated information has made greater use of

¹⁴¹ [NC138D - Dr T Dargie Inquiry Report - Annex 3](#)

¹⁴² [APP002.006 - SNH letter dated 30 June 2016 Coul Links Golf Course Proposal - Scope of Ecological Surveys](#)

¹⁴³ [CD002.023 - Scottish Environmental Protection Agency - response dated 13 June 2018](#)

mosaic polygons (i.e. lumping together small areas of different habitats) whereas Not Coul surveyed to a greater level of detail, or in other words, to a finer spatial resolution.”

5.346 There is sense in the rebuttals of Dr Cosgrove and Dr McMullen of the conclusions from Dr Dargie’s transect line appraisal of the Alba Ecology survey. When undertaking an NVC survey and identifying polygons for particular vegetation communities we can understand that judgements will have to be made about the scale at which communities can be best identified. There is a potential difficulty in proceeding along a straight line through such a survey area and identifying, at points along that line, what vegetation community exists.

5.347 Page 8 of the Alba Ecology report¹⁴⁴ on the NVC and other surveys provides a helpful explanation of the difficulties encountered:

“The Phase 1 Habitat, NVC and Functional Wetland Typology maps are only indicative of the habitat boundaries of the study area. It was challenging to map the area to a high degree of accuracy because there was often no clear boundary between vegetation types, there being instead a gradual gradation. Also, many of the NVC communities in the study area contained a similar assemblage of species, and were often at a transitional stage between two community types. This is a recognised limitation of all vegetation mapping.”

5.348 Dr Dargie’s transect surveys may be valid in their own terms. However we are not convinced that they demonstrate that the judgements made by the Alba Ecology surveyors in mapping communities at an appropriate scale in two dimensions must be wrong. Although there are differences between Dr Dargie and the applicant’s witnesses about which areas ought to have been identified as matrices, it is agreed that the identification of matrix habitats can be an appropriate approach to an NVC survey.

5.349 Finally, both Dr Cosgrove and Dr McMullen make reference to an article in the Journal of Environmental Management. This illustrates very well the reality that there can be a high degree of variation in professional judgement when assigning vegetation communities across a site. This may be particularly likely when, as at Coul Links, there is a complicated network of habitats, including intermediate types which may be identified as matrices. The levels of disagreement quoted in the article are striking, regardless of whether they derive from observer error or methodological differences. They are not out of step with the amount of disagreement Dr Dargie finds between his surveys and those of Alba Ecology, albeit we recognize Dr Dargie’s identification of what would seem more fundamental disagreements as to the mapping of wet and dry habitat types.

5.350 At the accompanied site inspection Dr Dargie pointed to parts of the site where his survey results were different from the applicant’s ecologists. However, we are not in a position to undertake our own surveys of the site to inform our conclusions. And, mindful of our findings above, we must allow for the fact that there can be legitimate differences of professional opinion on such matters.

5.351 Given the context above, we proceed for the most part (as did SNH in its consultation responses and evidence to the inquiry) to consider the potential effects of the development on habitats at the site using the applicant’s survey work as a base, albeit noting below some of the instances of disagreement.

¹⁴⁴ [CD001.030 - ES - Annex B - Appendix B.2 - Coul Links Phase 1 Habitat, NVC & GWDTE Survey Report](#)

The extent of habitat loss and modification

Land-take

5.352 At the inquiry, Mr Haspell clarified what is proposed in terms of the initial groundworks to form the golf course and the management of the 'longer-cut' and 'managed' rough. This was helpful because the material in the ES and other evidence from the applicant is sometimes inconsistent in these respects.

5.353 Section 1.7 of the non-technical summary of the ES outlines the proposed construction programme for forming the golf course. It explains that all vegetation would be removed, along with a superficial layer of partially decomposed matter, prior to re-seeding for the golf turf. It is stated that this would apply to the 'working areas (tees, greens, surrounds, fairways, semi-rough, managed rough and grass pathways)'.

5.354 However, Mr Haspell advised that this was incorrect, and that the areas of rough (beyond the semi-rough) would not undergo this initial treatment. Although the earth moving proposals are covered in the main body of the ES (at 2.3.4.2) it is not clearly stated there which elements of the course this initial clearing would apply to. Therefore we proceed on the basis that, generally speaking, this initial stripping of vegetation to make way for golf turf would be restricted to the tees, fairways, greens, semi-rough, pathways and bunkers.

5.355 Paths would be a maximum 5m in width, although some could be narrower. Mr Taylor said at the inquiry that his recommendation would be that, where possible, paths should use existing turf rather than being stripped out. Likewise we noted Dr McMullen's view that this would be preferable since, for dune grassland at least, the habitat of the path would remain closer to the original habitat. However, on the basis of Mr Haspell's clarification (and following Table B.18 of the ES) the paths would represent habitat loss. Since the paths would also be used as initial construction haul-routes, we think that is the prudent approach.

5.356 We would also expect additional disturbance to some of the outer edges of the cleared areas in order to avoid a sharp change in level. Mr Haspell said the drawings showing cut and fill¹⁴⁵ were probably overly-precautionary, and that the aim would be to move as little earth as possible. We accept that, but these drawings are the detailed evidence for proposed cut and fill which were put before us.

5.357 Examination of those plans show much more than negligible amounts of cut and fill outwith the areas intended for initial stripping and counted as land take in table B.18 of the ES. Red and green shading shows proposed cut and fill respectively. Red (proposed) contour lines show where the land would be regraded from the existing white contour lines.

5.358 Just to use one of these drawings¹⁴⁶ as an example, extensive regrading can be seen, in particular, around the tees for the 3rd and 4th holes, and around the green at the 3rd. There are other examples elsewhere around the course. Much of this is in the longer-cut and managed rough – and indeed beyond those, in the rough which is not to be managed at all. Land subject to such initial earth-moving would need, it seems to us, to be

¹⁴⁵ CD1.140-CD1.144

¹⁴⁶ [CD001.140 - Additional Drawings - Coul Links Golf Course Proposed earthworks & volumes 1](#)

considered as habitat loss, or at least as very significantly modified. Much of it is not accounted for in Table B.18.

The use of matrix communities in the NVC

5.359 In relation to the matrix communities identified in the NVC, the ES says that the dune heath:dune grassland is a very grassy form of dune heath, and therefore no significant impacts (from the loss of this community) on dune heath are identified.

5.360 Dr Dargie considers there has been too much habitat identified as matrix communities. He makes entirely different calculations for the effects on dune heath, in fact identifying less direct loss than the calculations in the ES. However, in the light of the general agreement that the approach to matrices is a matter of professional judgement, and consistent with our approach of considering the effects of the development on the basis of the applicant's NVC, we accept the Alba Ecology approach to identifying matrix habitats.

5.361 But in doing so, we do not leave out of account the effects on elements of dune heath and dune slack within these matrices. The decision to present a habitat as a matrix is in part, as Dr McMullen explains, informed by a view on how best to present the habitats on site in a meaningful and understandable way. It does not mean that there is no dune heath or dune slacks in the matrix communities within which they are referenced. 'A very grassy form of dune heath' suggests a habitat which is (at least in part) dune heath. Dune slacks would be (because they are inundated in winter) an identifiable feature within a matrix. They do not cease to become dune slacks just by being within what is mapped as a matrix community. They could, if it was desired, be identified and mapped at a finer scale. We also keep in mind that other surveyors could (indeed Dr Dargie did) classify some of these matrix areas differently depending on professional judgement.

The exclusion of the managed rough from habitat loss calculations

5.362 The descriptions given of the widths, mowing frequencies and heights of the rough are necessarily indicative. That said, there is an inconsistency in some of the evidence from the applicant as to what is intended. The ES is our principal reference source. It describes (2.3.4.1) two types of rough:

- An inner band of 'longer-cut rough' about 4-6m wide, cut to around 100mm.
- An outer band of 'managed natural rough' mown once or twice a year.

5.363 Later (2.3.4.2.7) the ES confirms the cut of the managed rough as 'once a year (organic matter collected)'. It says that 'cut rough' (which we assume to mean the 'longer-cut rough' mentioned previously) would be cut every week to ten days with 'clippings allowed to fly'. Note that of these two types of rough, the 'longer-cut' rough would actually be the shorter – it is 'longer' in relation to the semi-rough.

5.364 It is also stated that:

"Cutting and collection on an annual basis of the areas outside the main routinely cut rough [which again we take to be a reference to the 'longer-cut rough'] will help promote the development of a finer, more open textured vegetation which in turn will encourage specific ground nesting bird species and ecologically more diverse vegetation."

5.365 However later again it is stated (5.5.3.2) that ‘rough’ (which type is not stated) would be 2-15m wide and mown a maximum of once a year. On that basis it is excluded from the land take calculations, but this is inconsistent with the earlier descriptions we highlight above. It is also stated that there would be no seeding or chemical application of the semi-rough, which is inconsistent with Mr Haspell’s clarification of the extent of the layout (including the semi-rough) which would be initially stripped and would then require subsequent re-seeding.

5.366 We happened to note that the Landscape and Visual Impact Assessment¹⁴⁷ and the Golf Course Management Plan,¹⁴⁸ although they use the term ‘controlled rough’ instead of ‘longer-cut rough’, describe, consistent with section 2.3.4.2.7 of the ES, a regime of cutting every week to ten days.

5.367 The various layout drawings for the golf course show rough around each of the holes but they do not discriminate between the longer-cut rough and the managed rough. As we record above, it was clarified at the inquiry by Mr Haspell that the boundaries between these two types of rough would be determined later, in consultation with SNH.

5.368 Dr Cosgrove, in his inquiry report (at paragraph 3.5.17) cites one of the conflicting sections (5.5.3.2) of the ES in support of the decision to exclude the managed rough from the habitat loss figures:

“The ES states (CD1.7 page 205) that ‘The habitat around the tees, greens and fairways will be regularly mown or cut (known as ‘the semi-rough’). This semi-rough area is approximately 3m around the tees, greens and fairways and is included within the land-take calculations due to the proposed regular management. There is a further area around the tees, greens and fairway which will be occasionally mown (a maximum of once per year) (actually likely to be once every 1-3 years). This is termed ‘the rough’. The rough has not been included in the land-take calculations as management is not considered likely to materially change the habitat type present (only reduce its height – mimicking grazing). There will be no seeding or chemical application in the semi-rough or rough. The rough habitat is approximately 2-15m around the semi-rough”.

5.369 However, this particular passage is unique (or at least untypical) in the applicant’s evidence in its description of how the rough would be managed. It is not consistent with Mr Haspell’s clarification. We are clear that the intention is to maintain, beyond the semi-rough, two bands of rough – the inner ‘longer-cut rough’ cut to 100mm every week to ten days and an outer ‘managed rough’ cut once or twice a year, or perhaps even less frequently.

5.370 Dr Cosgrove’s explanation in his inquiry report for excluding the rough from the land-take calculations appears to take no account of this distinction. At 3.5.19 of his inquiry report he says the following:

“The advice Alba Ecology received from Mr Haspell and Mr Taylor, who have direct first-hand experience of managing rough habitat on links golf courses, is that if the management intervals are long (as proposed) and the management carefully undertaken, then the managed rough habitats are not lost and so should not be considered as land-take. It is important to recognise that a cut of the rough habitat once every 1-3 years would likely

¹⁴⁷ [CD001.054 - ES - Annex D - Appendix D.1 - LVIA](#)

¹⁴⁸ [CD001.129 - Schedule of Mitigation - Appendix 14 - Golf Course Management Plan](#)

mimic occasional grazing effects and based on Mr Haspell and Mr Taylor's direct experience across multiple sites, this does not result in the loss of the managed rough habitat".

5.371 Dr Cosgrove's land-take calculations are based on Table B.18 of the ES, which is itself based on the land take for the different components of the golf course in Table B.17. The operational losses for the golf course are for 'bunkers' and for 'tees, greens, fairways and semi-rough'. On the face of it, Table B.18 seems to exclude all the rough ('longer-cut' and 'managed') from the land-take calculations, not just the latter, the final extent of which (Mr Haspell advises) has not been identified yet anyway.

5.372 Dr Cosgrove was taken at the inquiry to the contents of SNH's letter to the council¹⁴⁹ of 19 February 2018. SNH had re-considered its land-take metrics, in the light of further information from the applicant as to the extent of the various types of rough. Examination of this letter, however, does not entirely clarify this matter.

5.373 The second page of the letter explains the difference (albeit using different terminology) between the longer-cut and the managed rough. Based on figures provided by the applicant, there would be 2.62ha of dune heath in the latter.

5.374 However the third page of the letter contains a map extract to show the typical approach on each hole – it shows the 2nd hole in fact. What is labelled (by SNH we presume) on that map as 'Managed (deep cut) rough zone' (Dr Cosgrove said he took that to mean the applicant's 'managed rough') is in fact the area of rough within which, in the applicant's drawings, both the longer-cut and the managed rough would be located and the boundaries between which Mr Haspell confirms are to be determined at a later date.

5.375 On the basis of this map, it could be the case that SNH has treated all of this rough as the managed rough, based on information provided by the applicant. If so, the 2.62ha would be the figure for dune heath within all of the rough, both longer-cut and managed. Professor Angus, under cross-examination, said that they treated all of the dark green areas beyond the semi-rough in the applicant's drawings (so all of the rough which Mr Haspell confirmed would ultimately contain both longer-cut and managed rough) as 'deep cut' rough. We did detect, though, some uncertainty from Professor Angus at this point.

5.376 There may be some further support for such an interpretation when adding up the various land-take metrics for each habitat type. For dune heath, for example, SNH had calculated the total land-take (based on the entire course footprint and including both types of rough) as 8.5ha. The applicant's calculation was 4.47ha. Dune heath-related matrices amount to 1.41ha, which gives 5.88ha when added to the initial 4.47ha. This is 2.62ha less than the SNH figure for the entire course, the same figure which the SNH letter provides for the managed rough. In order for these totals to add up to the 8.5ha calculated for the whole course, the figure of 2.62ha would seemingly need to be for both the longer-cut and the managed rough together.

5.377 Similar calculations can be made for both dune slacks and semi-fixed dunes, indeed for the latter the calculation is simpler since there are no related matrix habitats. The SNH figure for the loss of semi-fixed dunes for the entire course layout was 0.91ha whereas the applicant's was 0.74ha. The difference of 0.17ha (which would need to be for all the rough

¹⁴⁹ SNH007

habitat) is again the same figure which SNH says in its letter is restricted to the managed rough.

5.378 Treating all of the area of rough as managed rough may indeed be consistent with Dr Cosgrove's understanding of how the course was to be managed. But it is not consistent with the clearly stated intention to have both longer-cut and managed rough within this area.

5.379 We acknowledge the expertise and experience in golf course management of Mr Haspell and Mr Taylor. However there appears to be a mismatch between what Dr Cosgrove understood to be the proposed management regime for the rough and what is actually proposed. This seriously undermines Dr Cosgrove's justification for excluding the rough (or at least the 'longer-cut rough', if it could be quantified at this point) from his land-take calculations.

5.380 We have seen no quantitative information which shows where the boundary between the longer-cut rough and the managed rough would lie on each hole. That said, the description in the ES of this strip of longer-cut rough being 4-6m wide may give an indication of what is intended. Such a strip around the semi-rough for each hole would amount to several hectares of additional modification of habitat in the longer-cut rough, beyond the totals for land-take in Table B.18.

Management of the rough

5.381 We acknowledge the intention to agree the boundary between the different roughs with SNH although, as noted above, that does not appear entirely consistent with the applicant's assertion that the area of the longer-cut rough has already been determined and shown to SNH. In any event, we do not doubt the intention to fine-tune this element of the design in the interests of retaining good habitat.

5.382 However, there would be limits in doing so. The reason for having two cuts of rough is primarily a golfing one. There would be golfing design considerations which would, we expect, be very influential in the decisions about how to lay out the inner longer-cut rough and the managed rough beyond it.

5.383 In this respect, and although we have no doubt that an Ecological Clerk of Works would provide appropriate oversight, we note the proposed 20m micro-siting allowance. Although this, clearly, could be used to further avoid important habitats, it appears a very large allowance for variation of the design in the context of a complex network of dune heath, slack and grassland habitats (and variations between these) which is very finely detailed on the ground. We have concerns that such a large micro-siting allowance would allow quite significant changes to the course layout (which could change the extent of the various habitat types affected) without the need for further consent.

5.384 We would also observe that how often and to what height the rough is cut is not something which could realistically be controlled through planning conditions in the long-term. These are course management decisions which might change in the future depending on factors such as weather conditions, vegetation growth, feedback from golfers and management preferences. The same would apply to the position along each hole of the boundaries between the longer-cut rough and the managed rough. Realistically, these could (due to much the same factors) be liable to change over time, despite what may be agreed initially with SNH. Therefore in reality, and despite the stated intentions now and

the conditions which may control these matters initially, they could very well change over time and it would be very difficult for the planning authority to control them, or to even recognise that they had changed.

5.385 Cutting the managed rough every one to three years (or even once or twice a year) may perhaps, as Dr Cosgrove says in his inquiry report, mimic the kind of grazing by animals which can be beneficial for some habitats. Especially if, as Mr Haspell and Mr Taylor advise, it was accompanied by a more discriminating approach to the management of heather and of habitat more generally.

5.386 But that is not what is proposed for the longer-cut rough. Whether at 100mm (or perhaps in the future to a different height), the longer-cut rough would be managed for the purposes of making it suitable for golf, albeit as rough not fairway. We tend to agree with SNH that this regular and mechanised mowing every week to ten days would not, on the face of it, seem to be a close analogy with the more varied vegetation height which would be the result of grazing.

5.387 There would also, clearly, be trampling from golfers and (for some of them) their trolley or caddy as they enter the longer-cut rough to look for and then strike wayward golf balls. To a lesser extent the same would apply in the managed rough for yet more wayward shots. There would be disturbance by greenkeeping staff as they undertake the mowing and other management of such areas.

5.388 Mr Taylor described the '90° rule'. This is a policy whereby golfers are encouraged (including through their caddies) not to walk directly through the rough to find a stray tee-shot. Instead, they are to walk along the fairway until they are level with where their ball is located (or where it is thought to be located) and then enter sideways. If they have a trolley, it is to be left on the fairway.

5.389 This would reduce, but not eliminate, disturbance to areas of habitat within the longer-cut and managed rough. We don't doubt the intention to implement such a policy. But it could not be guaranteed that all golfers would follow such advice, in particular those who do not employ the services of a caddy or if they preferred to follow the line of their ball flight (perhaps to make it easier to find) directly from the tee (or other striking position) into the rough.

The effects on each habitat type from habitat loss and modification

5.390 Table B.19 of the ES summarises the calculated amount of land-take for the 'pure' sand dune habitat types, and also states what proportion of these within the study area would be lost. We note Dr Dargie's criticisms about this. Giving the proportions of these habitat types of the dune system (or just that part of it which is within the SSSI) might have provided a more meaningful comparison. However there are no sand dune habitats in the agricultural land which formed the rest of the study area, so this does not mean that what is presented is skewed.

Dune heath

5.391 The ES, based on the figure of 4.47ha of land-take from Table B.19, describes the likely predicted effect on dune heath (prior to mitigation) as significantly adverse. That this

would be a significant environmental effect was not a matter of dispute between the expert witnesses at the inquiry.

5.392 SNH calculates a much higher loss of dune heath at 8.5ha. As noted above, the difference between the applicant's and SNH's calculations appear to be due to two main factors – whether or not the rough is included, and whether or not certain matrix communities with an element of dune heath are included.

5.393 On the basis of the NVC, and because the calculations in Table B.18 are based only on the areas of the course that would be initially stripped and re-seeded, on one level we accept the applicant's calculation of 4.47ha total loss of pure dune heath habitat. This is because we recognise the distinction between the effects of this process and the effects on other areas of dune heath which are not stripped and re-seeded. However, as we note above, Table B.18 does not appear to take account of what in places would appear to be fairly extensive areas of cut and fill beyond the areas calculated for stripping and re-seeding. This is a notable omission.

5.394 Professor Angus seems to acknowledge in his inquiry report¹⁵⁰ that dune heath can be compatible with being in the rough, and states that it is in the fairways, greens and tees where dune heath would be 'destroyed'. That seems to support a view that dune heath in the rough (or at least the managed rough) could be considered habitat modification rather than complete loss. However SNH's closing submissions state that management of the longer-cut rough would create a uniform height and structure very different from the structural diversity of natural dune heath and which is so important for the species found there.

5.395 Dr Dargie describes the effects within the rough as modification. But in his view this would affect its micro-climates and destroy its structure (for example the bare sand niches within it), affecting the species which rely on these. In the first annex to Not Coul's initial objection letter, Dr Dargie argues that it is important to maintain all stages of the growth cycle of heather within dune heathland.

5.396 Dr McMullen states, in his inquiry statement, that although elements of dune heath would persist in areas of rough alongside the fairways, its management would result in modification of its structure and function. He also asserts that management of the rough would increase the potential for lichen dispersal by reducing heather height, and that occasional disturbance would assist the creation and maintenance of the bare patches so important to lichens.

5.397 We recognise this point although, like Dr Cosgrove, Dr McMullen's evidence does not appear (in relation to these effects) to discriminate between the managed rough and the shorter, more frequently mown, longer-cut rough. We also recognise Mr Taylor's evidence that management of the heather can bring benefits, and we recognise his expertise in golf course heather management.

5.398 But we think it significant that the primary purpose of management of the rough in dune heath (in particular the 'longer-cut rough') in the long-term would be for golf. Mowing to a height of 100mm every week to ten days, even if a more discriminating approach is

¹⁵⁰ At paragraph 18

taken to some of the heather, would inevitably in our view create a very different habitat to the dune heath we observed on the site inspection.

5.399 SNH cites two publications that refer to the impact of trampling on heathland. Firstly Mr Taylor's book on golf course management covering heathland and moorland management. The foreword says these habitat types are particularly sensitive to trampling, and indeed refers (if perhaps light-heartedly) to the difficulty of finding golf balls within them. Later passages discuss the effects of trampling on heathland and the differences between mowing and grazing.

5.400 The other document¹⁵¹ cited by Professor Angus is a study of the effects of trampling on a dune system in Denmark. However we deem this of less relevance since it studied the effects of repeated foot traffic on paths rather than the more diffuse effects which might be expected from golfers and others entering the rough.

5.401 A more recent document¹⁵² co-authored by Mr Taylor (updating his 1996 book) provides further evidence of his long-standing and acknowledged expertise in golf course heather management. It reiterates the same themes – that heathland vegetation on golf courses is vulnerable to trampling and other pressures and that limited cutting of heather can be beneficial although it has the potential to represent an additional stress on the plant.

5.402 The purpose of this document is to encourage positive and beneficial management of heathland on golf courses, and Mr Taylor's involvement in the project underlines that this is the applicant's intention. But we re-iterate our concern that the applicant's evidence seems to mostly relate to the managed rough rather than to the more intensively managed (and closer to the fairways) longer-cut rough.

5.403 Therefore, beyond the 4.47ha which SNH and the applicant agree would be lost, there would be further initial effects from additional areas of cut and fill in the rough. There would be further areas of dune heath within the rough which would be modified through management, in particular in the more intensively managed longer-cut rough. There would also be the effects of trampling in the rough, again more so in the longer-cut rough. There could be some biodiversity gains through the management of heather and the creation of bare sand areas. But we cannot rely on Dr Cosgrove's reassurance and Dr McMullen's evidence based on the way the rough is managed, because these seem to relate to the managed rough.

5.404 In considering whether effects within the managed rough should be taken to be habitat loss, SNH sets out in its 19 February 2018 letter to the council the negative impacts on dune heath it considers would arise. These are based on an assumption of one cut per year, in the autumn. Amongst the concerns expressed are the effects of cutting on heather, a uniform sward height and reduced structural diversity (therefore lower diversity of plant species) and effects on lower plants (for example lichens) such as exposing them to more sunlight with the risk of drying out.

5.405 Therefore SNH expressed significant concerns about the effects on dune heath in even the managed rough. For the longer-cut rough, to be cut every week to ten days, we

¹⁵¹ SNH54 - Hylgaard, T. & Liddle, M.J. 1981. The effect of human trampling on a sand dune ecosystem dominated by *Empetrum nigrum*. *Journal of Applied Ecology*, 18, 559-569.

¹⁵² [APP001.018 - Taylor, RS & Penrose LA \(2007\) - Heather and its management - Studies in Golf Course Management No. 7](#)

consider that these kinds of impacts would likely be greatly magnified compared to those within the managed rough.

5.406 Given the fairly intensive nature of the management of the longer-cut rough, its primary long-term purpose of producing turf suitable (even if as rough) for golf and the additional trampling from staff, machinery, golfers and caddies, we conclude that, notwithstanding the applicant's best efforts, these additional effects on dune heath are likely to be strongly adverse overall.

5.407 Since the boundaries between the longer-cut and managed rough are still to be identified, we cannot quantify the extent of this effect. As we note above, the figure given for dune heath in the managed rough in the SNH consultation response of 19 February 2018 is 2.62ha. If that figure instead is the amount of dune heath in all the rough (which may well be the case, on the basis of our comments at paragraphs 5.375-5.378 above), then the extent of the effect within the longer-cut rough would clearly be less than this.

5.408 On the basis of the NVC, if 4.47ha of purely dune heath would be lost, a further 1.41ha of land of which dune heath is a notable component of a matrix community would also be lost. Dr McMullen's evidence is that a few heather shrubs in a grassland habitat does not make it dune heath. But, in proceeding on the basis of the applicant's NVC, we note that this community is described as a dune grassland:dune heath matrix, not as dune grassland with heather. Some dune heath:dune slack matrix would be lost. There would also be further areas of matrix communities in the rough, subject to the kind of effects we describe above.

5.409 Therefore we think that, in considering the effects on dune heath, even if not mapped as an Annex 1 habitat, account should be taken of the loss (and modification in the longer-cut rough in particular) of the elements of dune heath within the matrix communities.

Dune slacks

5.410 In respect of dune slacks, the ES is inconsistent in saying that they have been avoided through design but, elsewhere, identifying a direct loss of 0.27ha.

5.411 As we do for dune heath, we accept the applicant's approach in making a distinction between the habitats initially stripped and those affected by mowing and other disturbance. We also, with the same caveats as above, accept the approach to the matrix communities.

5.412 On the 13th hole, Dr Dargie considers that there is more dune slack in the south of the fairway than is shown in the Alba Ecology NVC survey map. That map shows semi-improved and then dune grassland in the north of the hole giving way to a dune grassland:dune slack matrix further south. Further south again, towards the green, it returns to dune grassland.

5.413 The SDVSS, referred to in the SNH hole-by-hole analysis, also has dune grassland to the north of the hole although Professor Angus says that the south part of this contains up to 70% dune slack. South of this is dune slack and then dune grassland again near the green. Dr Dargie's 2017 mapping (in an annex to the first Not Coul objection) shows a patchwork of wet and dry habitats over the area (and extending beyond it) where the NVC identified a matrix community.

5.414 It does not appear that there is a fundamental difference between these surveys. They all show dune grassland giving way (at least to some degree) to dune slack to the south and then returning to grassland further south again. But there is a notable difference in that, as part of a matrix, none of the dune slacks lost here under the fairway are factored into the land-take calculations in Table B.19 of the ES. Noting the evidence of Professor Angus (who says that the areas of dune slack on this hole should be avoided) and that of Dr Dargie, who surveyed this area in 2017, we take account of these effects.

5.415 In SNH's view, the western part of the 18th hole contains an area of dune slack identified by the applicant as semi-improved grassland. The SDVSS and also Dr Dargie's more recent evidence agree with SNH on this point. Given the expertise of Dr Dargie in sand dune ecology and the advice of SNH, and noting that even if it were not classed as pure dune slack, as an area of similar characteristics it would still have ecological value, we think it appropriate to consider this part of the 18th hole as a loss of dune slack (or similar) habitat.

5.416 Thus, beyond the calculations based on the Alba Ecology NVC, the evidence in relation to the 13th and 18th holes indicates that there would be additional effects on dune slack (or dune slack-related) habitats. The cut and fill drawings also show some earth moving within the rough in dune slack habitats (or sometimes in matrix habitats containing dune slacks) at the 7th, 13th, 16th and 18th holes.

5.417 As for dune slacks in the rough, the same difficulty arises as does for dune heath. We do not have a figure for the amount of dune slack which would be in the longer-cut rough. Again, if the figure of 0.75ha in the SNH letter of 19 February 2018 in fact relates to all of the rough, then the amount of dune slack in only the longer-cut rough would be less than that. Again the applicant's evidence on how the management of the course would affect this habitat relates to the managed rough.

5.418 We recognise again the further avoidance that micro-siting could bring. However, to take the 7th hole as an example, it must have its limits. Study of the applicant's NVC survey (or of Figure 2 of Dr McMullen's inquiry report which is based on it) shows that there would require to be a very substantial re-routing or redesign of this hole to avoid the dune grassland:dune slack. Likewise at the 13th hole. Other holes could, with fine tuning, provide slightly more avoidance of pure dune slack. But micro-siting could also, conceivably, result in more dune slack being affected rather than less, or by avoiding dune slack affect other important habitats instead.

5.419 In considering its position on whether effects on dune slack within the managed rough should be considered habitat loss, SNH sets out in its 19 February 2018 letter the negative impacts on dune slack it considers would arise, based on an assumption of one cut per year, in the autumn. Similar to dune heath, the concerns expressed relate to the change in sward composition, micro-climate and hydrology. Again, we would expect these to be significantly magnified when considering the more intensively managed longer-cut rough.

5.420 SNH also says in this letter that due to the high sensitivity of this habitat 'greater impacts may also result from vehicle tracking which would be long-lasting, even if low ground-pressure vehicles were used.' There would also be disturbance in the rough from golfers, caddies and green-keeping activities. Dr Dargie's concerns are about a loss of structure caused by the management of the rough, effectively meaning that dune slacks

within it would be lost, rather than simply modified. This is his position for all the Annex 1 habitats.

5.421 Overall, our view is that the effects on dune slacks, encompassing loss of dune slack, the effects of the additional initial cut and fill and the effects of golf course management and disturbance in the rough (the longer-cut rough in particular) would be strongly adverse. This would include effects on those elements of dune slack (or similar) habitat in matrix communities, including on the 13th and 18th holes.

Dune grassland

5.422 The ES puts the direct loss of this habitat at 2.5ha. SNH's revised calculations are a loss of 3.28ha. The same uncertainties as for the other habitat types present themselves as to the basis for this calculation.

5.423 SNH agrees that, in principle, mowing of dune grassland could benefit biodiversity. However, this is only if it meant mowing the existing grassland (not stripping it and replacing it with new golf turf) and avoided the use of fertilisers. SNH therefore clearly views the effect on dune grassland as adverse, but it has not stated whether it considers this to be a significant environmental effect in its own right.

5.424 The effects on dune grassland are mitigated by the seeming preponderance of the ranker SD9x community, which is not an Annex 1 habitat. Consistent with our findings above, we accept the findings of the applicant's NVC survey on this point. We have not seen the basis for Dr Dargie's statement that the SD9x grassland at Coul Links is the best in Scotland.

5.425 On the other hand, some of the grassland on the 6th hole (dune heath: grassland (SD9x) matrix) is described in the SNH hole-by-hole analysis as having high biodiversity despite its height. Similar comments in the SNH analysis apply to the grassland interest within SD9x matrix communities on the 7th and 9th holes. There is also 1.22ha of dune grassland (SD17): dune slack matrix habitat which the ES calculates would be lost.

Dune juniper

5.426 The ES notes that there would be effects on juniper within the dune grassland at the 3rd hole (in fact it seems this ought to have been a reference to the 16th hole) where there are '20-30' individual juniper plants. Coul Links is only one of two locations in the UK where juniper is found on sand dunes. It is said that many would be avoided through micro-siting and the rest transplanted, ensuring no significant effects on juniper.

5.427 Dr Dargie's survey identified 95 juniper plants on the proposed 16th fairway. He referred to the fencing which had previously enclosed stands of juniper at this location and which can still be seen on the base map for the NVC survey. Most of the area of the former enclosure would be lost under the 16th fairway, with a further, much smaller, part of it within the rough. On the basis of Dr Dargie's detailed mapping in the Not Coul objections,¹⁵³ most of the juniper bushes at this location would be lost under the fairway and semi-rough, with further bushes in the rough.

¹⁵³ See page 104 of 157 of [NC021 - Not Coul \(2017\) - Objection to a proposal to locate a new golf course at Coul Links dated 21 Dec 2017 - Annex 1 - Environmental Issues](#)

5.428 There may be some scope to reduce impacts on juniper by micro-siting. But the majority of the juniper is in (or close to) the tee shot landing area and it would take a major redesign of this hole (and there are wetter areas of habitat on either side) to significantly reduce the extent to which it would affect this area of juniper.

5.429 The SNH Site Integrity Assessment refers to adverse effects on juniper. A note which seems to have been associated with SNH's hole-by hole analysis¹⁵⁴ says that the 'general area' of the hole contains what is probably the second densest growth of Annex 1 dune juniper in the UK. It says that, although vastly exceeded by the extent and density of juniper at Morrish More, the small area of juniper at Coul Links is of national significance as there is so little of this habitat.

5.430 Dr Dargie also identifies the dune juniper at the 16th hole as Annex 1 priority habitat. The ES (paragraph 5.5.1.1) appears to do likewise, albeit it does not reference an NVC community as it does for the other habitats, and does not include dune juniper in Tables B.18 or B.19. We recognise that Dr Dargie may have mapped this area in much more detail and identified fairly young individual juniper bushes. But given all this evidence, we treat the effects on juniper at the 16th hole as effects on Annex 1 priority habitat. Given the extent of this habitat which would be lost, the effects here would be strongly adverse.

Open dune

5.431 The ES reports that over 99% of the open dune grassland to be directly lost is community SD7y, which is not as mobile as other open dune communities such as SD5 and SD6. That said, the NVC report¹⁵⁵ says this, though dominated by marram, has a well-developed assemblage of other species.

5.432 The difference in the assessment of the extent lost to direct impacts between the applicant and SNH is fairly slight – 0.74 hectares versus 0.91. SNH's argument appears to be, however, that the effects of this could be greater since development in such areas (which can experience both erosion and sand deposition) could trigger further instability over a wider area. The hole-by-hole analysis highlights the 15th green, 16th tees, 17th fairway and 18th tees.

5.433 On the basis of the NVC, we do not take issue with the conclusion that direct loss of such habitat would not be a significant effect. But we can see the potential for works to these areas to create instability in the adjacent areas of dune by changing the profile of the land and vegetation and drainage patterns, and perhaps by introducing more ongoing disturbance from trampling around them.

5.434 Mr Haspell said at the inquiry that there may be a need for some stabilisation of the front dune face by using measures like fencing and planting. This could also, if it proved necessary, have implications for the dynamism of that part of the system. In addition, the cut and fill drawings¹⁵⁶ show notable areas of regrading to (in particular) the seaward side of some of the playing areas of the 15th to 18th holes which are closest to the vegetation edge. Therefore we do have concerns about the wider effects of the proposed works within parts of the open dunes. These include effects on invertebrates, which we cover in chapter 7.

¹⁵⁴ See page 98 of 157 of NC021

¹⁵⁵ [CD001.030 - ES - Annex B - Appendix B.2 - Coul Links Phase 1 Habitat, NVC & GWDTE Survey Report](#)

¹⁵⁶ [CD001.143 - Additional Drawings - Coul Links Golf Course Proposed earthworks & volumes 4](#)
[CD001.144 - Additional Drawings - Coul Links Golf Course Proposed earthworks & volumes 5](#)

5.435 The applicant's inquiry statement says that these holes would be constructed further landward than is shown in the drawings. Although we express concern elsewhere about the extent of the proposed micro-siting allowance, we acknowledge the potential to pull back the seaward edges of these holes to some degree.

Other habitats

5.436 Dr Dargie is concerned about indirect effects on saltmarsh due to changes in the water table. However, we note above that water abstraction rates would be controlled by SEPA through the CAR licence and that levels of irrigation, when considered in the context of the volume of other water inputs to the dune system as a whole, would be relatively small. We therefore have no evidence pointing towards a likely significant effect on saltmarsh.

5.437 In relation to the loss of trees, a planning condition could ensure replacement planting. We are satisfied that there would be no significant environmental effect as the result of the felling of trees.

5.438 Direct impacts on other habitats are very limited in extent, or else relate to habitat (like improved and semi-improved grassland) with less ecological value. We return below, when considering the proposals for dune heath translocation, to consider the effects on habitats in the receptor areas.

Fragmentation, edge effects and dynamism

5.439 The applicant's layout drawings do not appear to show all of the paths which would be needed. Tees within the rough would need connecting paths to the previous green and/or the next fairway. These are not always delineated in the layout drawings – for example at the forward tee on the 2nd hole to the northwest of the 1st green, and the forward tee at the 7th hole to the southeast of the 6th green.

5.440 Mr Haspell confirmed that these paths would be needed and would be the same as the haul routes to these features shown on other drawings¹⁵⁷. We keep them in mind when considering fragmentation and edge effects.

5.441 As Dr McMullen shows,¹⁵⁸ the dune heath in the north part of Coul Links is already fragmented. We agree that this is reflective of a naturally fragmented pattern of dunes, but also that scrub encroachment has had an effect.

5.442 The course layout would cause further fragmentation of the dune heath, as illustrated in Dr McMullen's Figure 3. In the northern section, the 2nd and 3rd holes, including associated pathways, would effectively sever a section in the southwest corner. The most northwesterly part of the dune heath would remain connected at bottlenecks A and B, but the connections at D would be significantly narrowed. Similarly, the finger north of bottleneck C would remain connected, but more narrowly. The 4th and 5th holes would all but cut off the connection to the dune heath to the north of them. Bottleneck F would be severed by the 8th hole. The path and fairway of the 7th hole would create a new island of dune heath to the east of them. Bottleneck G would become rough, as would bottleneck E.

¹⁵⁷ See [CD001.174 - Revised Haul Route Plan](#)

¹⁵⁸ See Figure 1 from his Inquiry Report APP3.1

The 9th hole would create a further island west of the remainder of the southern area of dune heath.

5.443 There are three other observations to add in relation to this mapping. Firstly, as noted above, some of the paths, in particular those to some of the tees, are not shown. This would add to the fragmentation as presented in the mapping.

5.444 Secondly, there is the same inconsistency in the applicant's treatment of the rough. What is described as 'managed rough' and shown as habitat modification in Dr McMullen's figures is the whole area of rough from the applicant's drawings which Mr Haspell confirmed would contain the managed rough and the longer-cut rough. Like Dr Cosgrove, Dr McMullen seems to rely in his conclusions on all of this rough being managed rough (for example at bottlenecks G and E), whereas that would not be the reality. When asked about this he said that he had included the longer-cut rough within the fairways in his maps in the inquiry report. However that does not seem to be the case. The longer-cut rough would be within the dark green areas in his Figure 1, so he may have meant to refer to the semi-rough.

5.445 We conclude above that the effects on dune heath within the longer-cut rough would be strongly adverse. So the final extent of the longer-cut rough might well add further to the fragmentation as described by Dr McMullen.

5.446 Finally, although less relevant to the issue of fragmentation, Dr McMullen's mapping does not show the bunkers as habitat loss or even (where they are located beyond what would be the managed natural rough) as modification.

5.447 Just considered from the point of view of its mapping, we are in no doubt that the golf course would cause significant further fragmentation of the dune heath. The key question is what effects this would have on that habitat.

5.448 Marram and sand sedge are, as Dr McMullen states, widespread and so would likely remain viable at Coul Links. But it seems from the evidence that their ability to propagate across the golf course would be restricted, if not wholly so since they can still spread by seed. The same applies to other herbs and shrubs in the dune heath. The golf holes, and in particular the paths, might not present an unsurmountable barrier to all species. But they would still act to inhibit connectivity to a variable degree depending on the plant and animal species concerned. Conversely, we acknowledge Dr McMullen's evidence that reduction of the heather canopy in the rough could benefit some lichen species, as could occasional disturbance.

5.449 Dr McMullen explains that a wide variety of species characteristics and behaviours need to be considered when undertaking a connectivity study, which involves complicated calculations as a result. He goes on to say that the effect of fragmentation is minor and not significant, and that this view is supported by the viability of already isolated dune heath areas.

5.450 We are not convinced Dr McMullen's inquiry statement supports such a conclusion, in particular without the kind of detailed study he refers to. Based on the mapping, the amount of further fragmentation (for example it would affect five of the seven bottlenecks he identifies) would be significant when looking at the pattern of dune heath distribution as a whole. Dr McMullen gives reasons in section 15 of his inquiry report for why larger, better

connected patches of habitat are generally to be preferred. He discusses the kinds of adverse effects which can derive from a reduction in connectivity. Therefore on this evidence we are inclined to judge the effects from fragmentation as more adverse than does Dr McMullen or the ES.

5.451 We approach with caution the various scientific papers quoted by Professor Angus in support of his concerns. It appears that there have been several studies into how severance, isolation and edge effects can affect species and habitats. But the evidence we have seen does not allow us to draw firm conclusions on the particular effects which might be expected on the dune heath at Coul Links.

5.452 For example the study¹⁵⁹ which showed edge effects of up to 8m focussed on the relationship between dry heathland and both cropland and forest, and found that eutrophication was the major reason for this. Some studies¹⁶⁰ consider fragmentation at a landscape scale, not at site level, or are based on different kinds of barriers like roads.¹⁶¹ Although Professor Angus was sceptical, studies seem to show¹⁶² that suitable habitat corridors between patches can be effective in aiding connectivity.

5.453 But these caveats aside, we agree with Professor Angus that the general conclusion which can be drawn is that fragmentation and associated edge effects (including for heathland) tend to have adverse effects. That is consistent with Dr McMullen's evidence. It echoes the concerns expressed by Dr Dargie. Smaller patches of habitat, all things being equal, would tend to be more vulnerable. We think the extent of further fragmentation of the dune heath (as mapped by the applicant) would be significant, and connectivity would be reduced.

5.454 There would likely be increased edge effects. Although species diversity might increase because of such effects, this would be to the detriment of dune heath habitat if it was the result of the introduction of grassland species which then affected the quality and character of the dune heath.

5.455 Dr McMullen's Figures 2 and 4 show the course layout overlaid with the dune slacks. The dune slacks appear naturally more fragmented than the dune heath.

5.456 The course layout is more successful (although not wholly so) at avoiding fragmenting dune slacks than for dune heath. The 7th hole would fragment what is presently a fairly large area of matrix habitat containing dune slacks, and there is a haul route going through this same habitat type to the west of this hole. The 13th hole would fragment a larger area of similar habitat. Dr McMullen maps these areas as dune slacks. Other holes cross dune slacks but the use of raised boardwalks would seem able to prevent any significant fragmentation on these holes, albeit we note in Chapter 6 the potential implications of the boardwalks for birds.

¹⁵⁹ SNH63 - Malcolm, R. & Soulsby, C. 2001. Hydrogeochemistry of groundwater in coastal wetlands: implications for coastal conservation in Scotland. *The Science of the Total Environment*, 265,269-280. Downloaded PDF

¹⁶⁰ For example SNH68 - Piessens, K., Honnay, O. & Hermy, M. 2005. The role of fragment area and isolation in the conservation of heathland species. *Biological Conservation*, 122,61-69

¹⁶¹ SNH61 - Mader, H-J. 1984. Animal habitat isolation by roads and agricultural fields. *Biological Conservation*, 29, 81 –96.

¹⁶² SNH32 - Beier, P. & Noss, R.F. 1998. Do habitat corridors provide connectivity? *Conservation Biology*, 12, 1241-1252.

5.457 SNH is also concerned (as is Not Coul and the Conservation Coalition) about a loss of dynamism more generally. Although SNH's objections and inquiry evidence mostly focus on dune heath (and to a lesser extent dune slacks), its concerns also relate to sand dune habitat more generally, and the effects on the sand dune system at Coul Links.

5.458 Although sand dune systems are naturally dynamic, it is common ground that this applies more to younger dune systems, and generally to those parts of a system closest to the sea. It is also agreed that Coul Links is a mature system – one that is 'over-stabilised' in the words of Professor Pye.

5.459 However, despite this maturity there is still some dynamism, in particular at the foredune where we heard evidence about the process of erosion and recovery. The semi-fixed dunes, as the name implies, are not wholly static, and nor therefore are dune slacks adjacent to them. Dr Dargie presented his survey evidence (not challenged by any detailed evidence from the applicant) which infers a rising water table. There is also evidence of habitat change in recent decades, for example the increased area of dune heath. There are also the smaller-scale processes whereby areas of bare sand are created, leading to the growth of lichens and other species around them.

5.460 The concerns expressed are that the golf course would freeze, or at least impede, this dynamism. This would affect the ecological health and functioning of the system and its ability to adapt to change, most notably climate change.

5.461 We have sympathy with these concerns. The golf course, including the longer-cut rough, would be primarily managed for the purposes of golf. It would lead to habitat loss, and significant modification (strongly adverse for dune heath and dune slack) within the longer cut rough. The course footprint would be distributed widely across the dune system. The loss and modification of habitat would affect dynamism but so too, we think, would the placing of the golf course elements between the remaining parts of the system.

5.462 Connectivity would remain, and plants and animals might still be able to cross parts of the golf course. But it would be a diminished ability. Coul Links is not a wholly natural system and is already influenced by human activity. However the addition of the significantly more intensively-managed golf course would, on the evidence before us, diminish the ability of the system as a whole to adapt and change in response to environmental factors.

5.463 The applicant points to the significant ecological benefits which it says would accrue from the positive management of the golf course and the other land at Coul Links. This includes management actions designed to increase dynamism. We take account of these below in considering the proposed mitigation and the CLSMP.

Dune heath translocation

5.464 The 2003 JNCC policy is entitled A Habitats Translocation Policy for Britain. It remains extant. But we recognise its age and the applicant's legitimate desire to test, due to scientific and practical advancements meantime, the extent to which it should inform a decision on this case. The policy is heavily informed by the scientific evidence which was available at the time. It refers to various papers published in the mid-to-late 1990s (and earlier), which themselves look back to earlier translocation projects. Paragraphs 7.1 and 7.2 of the policy encapsulate its essence.

5.465 The Anderson guidelines are ‘based on the results of an extensive review of over 30 habitat translocation projects and the published information’. In that respect, they are similar to the JNCC policy with which they are associated and whose policy messages they repeat.

5.466 Of the papers provided to us as evidence in relation to translocation, amongst the most recent is a 2014 article by John Box.¹⁶³ Witnesses were asked about this at the inquiry and SNH and the applicant returned to it in closing submissions.

5.467 The article refers to the Lawton report on nature conservation policy in England. It is stated in the article that ‘the logic of a no net loss of biodiversity policy suggests that valuable habitats on development sites will have to be translocated because new habitats of the same maturity, structure and ecological functions cannot be created quickly enough to replace the loss of mature and long-established habitats to development projects.’

5.468 The point which, it seems to us, is being made is that if a habitat is to be lost (because of a development consent) then it may need to be translocated, in preference to restoration elsewhere as compensation. It is not an argument that a policy of no net loss means that more high value nature conservation sites can be developed, as long as they are translocated. It is in that context that the article calls for a re-assessment of translocation as a delivery process, and aims to provide general principles for projects ‘where there is no alternative to the destruction of features of ecological value because of consented or permitted development.’

5.469 The article says it is important to have clear aims, and clear measures for evaluating the success of translocation. In concluding, it argues for an update of the JNCC policy in the light of ‘no net loss’ biodiversity policies.

5.470 As for the points made in closing submissions by SNH and the applicant about this article, we refer to paragraph 5.468 above, which summarises what we take to be the key theme behind the article. We need not provide a view on whether translocation should in general terms be regarded as an ‘experimental technique’. The focus of our conclusions must be on the detail of the translocation proposals at Coul Links and their likelihood of success.

5.471 It seems to us that the key questions in relation to the proposed translocation scheme are:

- What do we mean by ‘successful’ translocation in this case?
- What evidence is there for assessing the likelihood of successful translocation of the dune heath?
- Does the translocation plan comply with good practice guidance?
- Is it appropriate to translocate onto the receptor areas?

¹⁶³ SNH34 - Box, J. 2014. Habitat translocation, rebuilding biodiversity and no net loss of biodiversity. *Water and Environment Journal*, 28, 540-546.

What do we mean by 'successful' translocation in this case?

5.472 Given the importance of the dune heath – an Annex 1 priority habitat within a SSSI and Ramsar site – it is important to consider what might reasonably be classed as successful translocation in this case. This question is also linked to one of the elements of a translocation proposal which is acknowledged as essential – the need to have clear aims, and clear measures of success.

5.473 The Box article, which Mr Taylor endorsed, provides an example of a set of aims which it seems to us could be applicable in this case:

“...the aim for the receptor site might be to create after 10 years, and then to maintain in perpetuity, a habitat on an area of land no less than the area of the donor site and supporting the same habitat or community type as was present at the donor site with the same notable plant and animal populations and with a nature conservation value at least equivalent to that of the donor site.”

5.474 Clearly other sets of aims could be formulated. But the important point is that the focus is on replicating the translocated habitat (and its value, for example the species it supports) at the new location. The extent to which translocation achieves this could be said to be a measure of the degree of success.

5.475 Section 4 of the updated Translocation Plan sets out its aims and objectives. It does not set out such an exacting set of requirements as the example we quote above. But we accept that these, or something like them, could be incorporated into the final plan to be agreed by the council in consultation with SNH.

What evidence is there for assessing the likelihood of successful translocation of the dune heath?

5.476 The JNCC policy is very clear on the lack of prospects for successful translocation:

“Available information shows that it is not possible to move species assemblages without substantial changes taking place in the structure of the habitat and its species composition, thus rendering the translocation unsuccessful...”

Translocation of habitats cannot reproduce the essential environmental conditions and the ecological processes, for example, migration, grazing and predation, which determine the composition of the original plant and animal communities. The available evidence shows that species in translocated habitats change their relative abundance over time, as well as being separated from their ecological, historical and cultural context.”

5.477 These statements are, however, grounded in the evidence available at the time. We also note, as Mr Taylor pointed out, that the receptor areas at Coul Links are very close to the donor areas and part of the same dune system.

5.478 The Anderson guidelines contain a similar warning:

“The risk of failure is high and translocation negatively affects the character of a habitat, likely resulting in (for high value sites like a SSSI) a significant effect on its nature

conservation value. Translocation schemes cannot, by their nature, guarantee that damaging effects will be avoided.”

5.479 Again, however, this guidance, like the JNCC policy, needs to be considered a product of its time, and of the available science of the day. A paper by Mr Box¹⁶⁴ in November 2003 (informed by a similar evidence base to the contemporary JNCC policy and Anderson guidelines) argues that there will be some loss of biodiversity from translocation, but strikes a more positive note about the degree of success which can be achieved:

“translocation will not achieve the preservation of a vegetation community without some change, but...it can create communities that closely resemble the original.”

5.480 The 2014 Box article, no doubt informed by evidence and experience in the years since the publication of the JNCC policy and the Anderson guidelines, talks of the risk of reducing nature conservation value. But it does not, as the earlier documents do, say this is bound to occur. It also offers that:

“the reasons for success or failure in habitat translocation are starting to be understood in both a general sense as well as for specific habitats”. And that there:

“needs to be an enhanced and qualitative evidence base for assessing the probability of long-term success in the translocation of different habitats.”

5.481 Keeping those quotes in mind, it is worth noting what is stated in the two scientific papers cited to us as showing evidence of successful heathland translocation. In the 17-year lowland heath restoration experiment,¹⁶⁵ of the various restoration techniques employed it was translocation which provided, as stated in the abstract of the paper from 2011, ‘consistently the most similar vegetation to the target’. The abstract also summarised this as ‘restoring the heathland community in the long-term’.

5.482 Thus for this experiment at least, translocation seems to have achieved a habitat close to that of the adjacent heathland. To that extent this study does seem to provide an example of relatively successful translocation. It is also one initially carried out in 1989, whereas it is agreed that the understanding and practice of translocation has improved over the years. We would add, though, that this is for lowland heath, not specifically dune heath, and the translocated habitat was not assessed against the condition of a donor site prior to translocation.

5.483 The other heathland restoration example¹⁶⁶ in the scientific literature referred to us relates to an area of wet heathland translocated in Dorset in 1993 to an engineered receptor cell. We would caveat what is to be drawn from this example because the area translocated was small (620m²) and it was wet heath not dune heath. It is also clear that the hydrology of the receptor site was important in achieving success, as the donor site was being colonised by other species and was drying out, already affecting its habitat quality prior to translocation.

¹⁶⁴ SNH91 - Box J. (2003) Critical factors and evaluation criteria for habitat translocation. Journal of Environmental Planning and Management 46 pp839-856

¹⁶⁵ SNH70

¹⁶⁶ SNH93

5.484 Nevertheless, the paper (also from 2011) reports that translocation successfully fulfilled the aims for a period of seven years when the hydrological regime of the receptor site was actively managed, delivering an 'ecologically acceptable outcome'. The vegetation which developed was more diverse and of greater nature conservation value than the original vegetation at the donor site.

5.485 The article does note that, in the short-term, it is unlikely that habitat translocation will achieve the transfer of an unchanged community because disturbance associated with translocation will cause changes to the vegetation community. However, it is said that with care it may be possible to re-create a community that closely resembles the pre-translocated state.

5.486 A further paper¹⁶⁷ from 2010 discusses eight grassland translocations from the late 1980s and early 1990s. Although only two of these were deemed successful in retaining the characteristics of the original vegetation, reasons were put forward for why the others did not. That paper does, however, say that it confirms earlier conclusions reached by others that translocation will not achieve the preservation of a vegetation community without some change, but that it can create communities that closely resemble the original.

5.487 In the 2010 guide¹⁶⁸ for civil engineers it is stated that 'habitat translocation is an effective and long-standing technique that can be used to rescue or salvage homes for wildlife which would otherwise be lost.' It provides three case studies (much less detailed than the above papers) of successful translocation involving a hedgerow, a grassland and fen/swamp vegetation.

5.488 The results showed that there had been some dieback of some species in the translocated hedge. For the translocated grasslands, many of the targets had been reached after just two years although, at the time of writing, it was too early to say that the vegetation on the receptor site was the same as the original vegetation on the donor site. The wetland translocation involved placing translocated turfs to 'seed' the receptor area so this project might be described as having an element of habitat creation rather pure translocation. A hedgerow translocated in the same project showed no dieback, and a translocated oak showed healthy new growth.

5.489 These examples from the 2010 guide appear to show varying (but generally positive) degrees of success. They were all fairly recent examples at the time of writing so long-term monitoring had not yet been undertaken. What these, and the other examples referred to above, do seem to illustrate is the variety of habitats which have been translocated and the differing circumstances which apply to each. They seem to show that translocation can be relatively successful in recreating valuable areas of habitat.

5.490 But in our view it is difficult to draw conclusions from this evidence about the likely success of translocation at Coul Links. None of these examples involved dune heath, which reduces their applicability to the proposal before us. Therefore we look now to the experience of translocation of Mr Taylor and Mr Haspell.

5.491 The Biodiversity Net Gain Report says that dune heath expansion and heath transplantation has been successful at a number of courses in recent years, but provides commentary only on Castle Stuart. It says that heather and associated species like

¹⁶⁷ SNH91

¹⁶⁸ SNH87

crowberry were transplanted there, and new heather was also grown from seed and brash. It says an understorey of lichen quickly established within the translocated heather, but takes matters no further than that.

5.492 The updated Translocation Plan refers to the translocation of lowland heathland (Mr Taylor's inquiry report and oral evidence clarified that this was dune heath) and acid grassland at Carnoustie. Photographs are provided of the translocation on what appears to be relatively level ground. It is stated that yearly assessments since 2012 have reported great success of the translocated heather and grassland. Mr Taylor's inquiry report also contains photographs of sand scraping at Silloth to aid restoration of dune heath, but not of translocation at that golf course. It is accepted that other photographs wrongly refer to translocation of dune heath at Castle Stuart.

5.493 The updated Translocation Plan also includes a case study of translocation of fixed dune grassland at Royal Portrush. Again it is stated that yearly assessments since 2015 have reported great success. Mr Taylor's inquiry report also shows photographs of translocated grassland at Royal Troon.

5.494 The experience and reputations of Mr Haspell and Mr Taylor are impressive. We accept Mr Taylor's professional view that the above projects have been successful. Likewise Mr Haspell's similar view on Castle Stuart. However, the level of detail provided to us in support of these judgements falls well short of the kind of example we quote above from the Box article of the sort of rigorous measuring, monitoring and reporting which Mr Taylor acknowledges is to be desired.

5.495 We do not know what criteria are used for measuring the success of these translocation projects at Carnoustie and Royal Portrush. There is no detail provided on, for example, the relative nature conservation value, or the species assemblages present, for either the original habitat or the translocated habitat. The projects are fairly recent (2012 and 2015) so they cannot yet provide a picture of their longer-term success.

5.496 These factors significantly lessen the extent to which we can rely on these experiences in reaching a view as to the likely success of translocation at Coull Links. Mr Taylor's estimate of up to a 30% risk of failure in fact seems rather high in the context of the importance of dune heath habitat and the location within an SSSI. We acknowledge, though, that he underlined there was no science behind this figure.

5.497 Mr Rooney provided examples, when asked under cross-examination, of successful translocation projects he had been involved in. But none of these seem to have been the translocation of dune heath.

Does the translocation plan comply with good practice guidance?

5.498 Although the 2014 Box article is not a guide to habitat translocation, its three 'critical success factors' reflect the other literature on translocation, including the Anderson guidelines. They are helpful in considering whether the updated Translocation Plan is an example of good practice:

- Matching the environmental context of the receptor site to that of the donor site in terms of soil type, soil pH and nutrient status; soil drainage; local hydrology; slope and aspect; biogeographical context and connectivity to similar habitat;

- Using an appropriate translocation methodology and suitable plant and machinery at the ideal time of year;
- Managing and monitoring the translocated habitats for sufficient time to allow the habitats to develop both maturity and complexity in order that remedial actions can be applied if required.

5.499 One thing missing from those factors though, but not from the Anderson guidelines,¹⁶⁹ is the need to have clear, realistic aims and objectives so that the results of translocation can be judged against them. Possible examples are given in box 4.2 and box 4.5

5.500 The aims and objectives found in Section 4 of the updated Translocation Plan do not closely align with the examples given in the Anderson guidelines. However, consistent with our finding at paragraph 5.475 above, we do not place great weight on this seeming omission. In agreeing the final translocation plan we accept that more finely tuned, measurable aims and objectives based on habitat quality could be developed. Doing so at a later stage need not change the clear and obvious purpose of the translocation, which is to preserve (and indeed expand) the dune heath habitat on site. We accept the more general premise that the Translocation Plan could be further reviewed post-consent. But it does at this stage need to be detailed enough for us to reach a view on the likelihood of success.

5.501 The Anderson guidelines advocate increasing site size using habitat creation methods. In that respect they accord with the applicant's proposal to create 1.8ha of bare sand within the receptor areas to promote natural regeneration of dune heath.

5.502 The first of Box's critical success factors is matching receptor sites to donor sites. The Anderson guidelines list¹⁷⁰ basic matching requirements, similar to those mentioned in the later Box article. It is recommended that all these features are surveyed on the donor site, with variations mapped on the basis of sampling and related to variations in plant communities. Groundwater depths may be critical to the survival of translocated vegetation.

5.503 It does not seem to us that the updated Translocation Plan demonstrates the kind of sampling and mapping envisaged in the guidelines. Table 1 in Section 5.2 of the updated Translocation Plan provides some commentary on the suitability of receptor areas. It summarises the vegetation in each area and the results of excavation to determine the soil profile. There is little or no discussion of topography or hydrology in each area. Area R4 seems to be omitted from the analysis.

5.504 Although Mr Rooney was critical of the lack of detailed soil matching, Mr Taylor makes a significant point about the methodology proposed. The donor sites would be stripped to bare sand. The translocated turves would, at a depth of 500mm, be cut down to bare sand, or close to it. So we are not clear about what would be gained from more detailed soil sampling at this stage.

5.505 We have more concern, however, in relation to hydrology and topography. In relation to the former, the Updated Translocation Plan acknowledges¹⁷¹ the importance of

¹⁶⁹ See section 4.3 of the guidelines. .

¹⁷⁰ Section 4.4

¹⁷¹ Section 4.1

matching groundwater characteristics. But beyond that there is no detailed explanation or description of the hydrology of the donor or receptor areas.

5.506 It is put to us by Mr Taylor that all of the habitat to be translocated is dune heath, and it is to be translocated into receptor areas which are suitable to receive it (or can be made so by soil stripping and perhaps other engineering). Mr Taylor was clear in his evidence that there is no dune slack in the receptor areas. However, Dr Dargie asserts that the northwestern corner of receptor area R1 mapped in Appendix 10 of the Schedule of Mitigation¹⁷² is dune slack, and would be too wet in winter for translocated heather to survive.

5.507 It seems to us that the applicant's NVC survey supports Dr Dargie's position here, identifying this area as SD17 dune slack. So too does Dr McMullen's inquiry report, where Figure 2 shows the northern strip of R1 as dune slack. The Phase 1 habitat survey¹⁷³ maps this area as dune slack, although the applicant's map of functional wetland typologies¹⁷⁴ does not. It is mapped as potentially highly groundwater-dependent in the map of GWDTE.¹⁷⁵

5.508 It may well be the case, therefore, that Dr Dargie is correct that this area would be too wet to successfully receive translocated dune heath. Indeed it may be an Annex 1 priority habitat in its own right.

5.509 Dr Dargie's assessment of the receptor areas is set out in Annex 2¹⁷⁶ of his inquiry report. On the basis of his own surveys he considers parts of these areas to be too wet, and sometimes too nutrient-enriched. Leaving aside the dune slack in area R1, even on the basis of the communities identified in the NVC there seems scope within these for variation in hydrological conditions. Another part of area R1 is identified as A24 marginal vegetation in the NVC, under the broader category of 'Standing Water and marginal/inundation vegetation'. It reports that these A24 areas are flooded during the winter and were drying out at the time of survey. This may suggest this area would not be ideal for receiving dune heath.

5.510 Dr Dargie also identifies significant areas of unsuitable wetter ground within area R6. The NVC maps most of this area as 'Felled plantation'. It does identify a dune slack to the south, within the plantation area but outside the receptor area. The masterplan drawings show that a boardwalk is proposed between 11th tees and fairway, which does suggest it would be traversing an area of wetter ground. Professor Angus, in the hole-by-hole analysis, refers to areas of dune slack within the former plantation area. However this was not on the basis of a detailed study (they were viewed from a distance) and he does not identify whether these are within the areas which are to form the course or to become a receptor area.

5.511 In light of the above, in our view the updated Translocation Plan would have benefitted from a fuller treatment of the hydrology of the proposed receptor areas, since there is room for doubt about the suitability of some areas within them.

¹⁷² [CD001.117 - Schedule of Mitigation - Appendix 10 - Translocation Plan](#)

¹⁷³ [CD001.039 - ES - Annex B - Appendix B.7 - Figure B.5 Phase 1 Habitat Survey Map](#)

¹⁷⁴ [CD001.041 - ES - Annex B - Appendix B.7 - Figure B.7 FWT](#)

¹⁷⁵ [CD001.042 - ES - Annex B - Appendix B.7 - Figure B.8 GWDTE](#)

¹⁷⁶ [NC138C - Dr T Dargie Inquiry Report - Annex 2 - A4 Tables & Figures](#) – from page 18

5.512 In relation to topography, the Anderson guidelines advise that, where the original habitat has a variable surface, it is essential to re-create this rather than a level receptor site. As we saw at the site inspection, parts of the course which would provide the donor areas (in particular on the 2nd to the 5th hole) have a very varied topography, which will have contributed to the complexity of the vegetation. This can be seen in some of the photographs in the evidence, for example in SNH's hole-by-hole analysis. Some areas to be translocated are very steeply sloping.

5.513 Again the updated Translocation Plan acknowledges that it will be important to consider aspect and topography, 'ensuring that vegetation for example lifted from south facing slopes is returned to similar south facing slopes'. But there is no detailed discussion of the aspect and topography of the donor or receptor areas, or of how these factors have informed either their selection or their matching as shown in Appendix 10 of the Schedule of Mitigation. This appears to us to be a significant omission given the complex and varied topography of a significant amount of the donor areas.

5.514 The Anderson guidelines state that it is important to ensure that vegetation is replaced on the receptor site in the same topographical position as it was in the donor site. We note Mr Taylor's intention that each turf would be labelled so that, when translocated, it can return to a position beside its former neighbours.

5.515 We do not doubt that the translocation would proceed in this way, but there are two obvious limitations. One is the point above about the complex topography. Unless that is replicated (or at least approximated) at the receptor site then there may be difficulty in replicating the same relationships between the turves. The second point is that there are 55 donor sites of differing sizes and shapes – tees, greens, fairways/semi-rough, paths and bunkers. There are six receptor areas, again of varying sizes and shapes. Clearly there will be some (although we cannot say how many) instances where the relationship between adjacent donor turves would not be able to be recreated after translocation.

5.516 The next iteration of the Translocation Plan could provide more detail. But we would have wanted at this stage to have seen significantly more coverage of the hydrology and topography of the donor and receptor areas in order to inform our conclusions. These factors seem to us to be more than minor details to be considered later. They could be very influential in determining the overall success of translocation.

5.517 The NVC shows a sizeable area of dune grassland:dune slack matrix in donor area D31 on the 7th hole. There is also some dune grassland. We assume this is simply a GIS rendering error in the map of areas to be translocated¹⁷⁷ (the area given in the map key for D31 seems much smaller than its area on the map) and that a smaller area here would actually be translocated. In any event, this matter could be satisfactorily resolved post-consent.

5.518 If instead the map is correct, then there is a degree of mismatch in the applicant's evidence, since Mr Taylor's evidence on translocation makes no mention of the translocation of dune grassland:dune slack matrix.

¹⁷⁷ See CD1.117. There seem to be other glitches. Donor area D16 on the 4th hole is miscoloured green instead of blue (the SNH hole-by-hole analysis assumes this area is not to be translocated, but we assume otherwise). The semi-rough is excluded from all the donor areas at the 7th hole, which again we assume would be translocated.

5.519 The second critical success factor in the Box article is using an appropriate translocation methodology and suitable plant and machinery at the ideal time of year. Chapter 6 of the Anderson guidelines goes into some detail on the mechanics of translocation.

5.520 The evidence from the applicant (in the updated Translocation Plan and the inquiry reports of Mr Taylor and Mr Haspell) is fairly clear about the processes involved and the options available in terms of bespoke equipment. It would seem that Mr Taylor's evidence shows, from previous experience for dune heath and dune grassland, that it is physically possible to lift these kinds of turf blocks and re-lay them within a receptor area. We note that relatively large turves would be translocated, and the short distances involved.

5.521 Although the equipment used may mean that there would be no significant loss of soil material, we do have concerns about the effect on the structure of sandy soil from the cutting, moving and re-laying of turves, particularly when these have had to be got from steeply sloping ground. Even more so when it comes to bare sand areas, which it is agreed are important for the lichen interest at Coul Links.

5.522 Therefore the question would remain that, despite evidence pointing towards an ability to physically translocate the turves (notwithstanding our uncertainty in relation to soil structure), what is the likelihood of successful long-term translocation in nature conservation terms? Given the lack of detailed, measurable evidence for successful long-term translocation of dune heath elsewhere, the shortfall in the evidence for the ability of the receptor areas to provide an adequate match for the donor areas, and our concerns in relation to the effects on soil structure, we think there remains considerable uncertainty on this point.

5.523 Dr Dargie was critical of the lack of treatment of juniper in the original Translocation Plan. The updated Translocation Plan makes modest mention of juniper, although chapter 4 of Mr Taylor's inquiry report provides more detail.

5.524 This says that there are 20-30 individual juniper bushes at the 16th hole but that many of these could be avoided by micro-siting. However, we find above that avoiding most of the juniper interest here would require a significant re-design of this hole in an area where there are other ecological constraints such as dune slack. There would also seem, on the basis of Dr Dargie's survey, to be many more juniper plants (albeit this may include relatively small ones) which would be affected.

5.525 We accept that, as set out by Mr Taylor, there could be further detail provided as to the methodology for translocation of juniper and the identification of suitable receptor areas. We think it likely that appropriate translocation proposals could be worked up so that juniper bushes could be successfully translocated.

5.526 The third critical success factor is monitoring. Mr Taylor agrees that this is vitally important. The applicant proposes a monitoring condition which would ensure that the full details of such a scheme (including provisions for remedial measures, if required on the basis of monitoring results) would need to be agreed by the council, in consultation with SNH. We are content that this could be worked up at a later stage, and we find no failure in respect of the intention to manage and monitor the translocated dune heath.

Is it appropriate to translocate onto the receptor areas?

5.527 Solely on the basis of the Anderson guidelines the answer to this question would be no, simply because they are in the SSSI (and even if they are degraded):

“offering management on an abandoned site as a benefit of translocation is not a viable argument for sites of high nature conservation value. The statutory nature conservation agencies would argue that there are other opportunities usually to be found to achieve suitable management as well as protecting the site in situ.”¹⁷⁸

The guidelines also state that the receptor site should not be part of the wider site of value from which the donor is taken.

5.528 That advice would not seem, at face value at least, to support the applicant’s proposal to translocate within the SSSI. Nevertheless, we acknowledge that the rationale for choosing the receptor areas is that they are degraded areas of habitat, with the potential for improvement.

5.529 Dr Dargie considers much of the land within the receptor areas to be unsuitable for this purpose because it is already valuable habitat. As we note above, the evidence from the applicant’s NVC and from Dr McMullen appears to concur with Dr Dargie in relation to the northern part of area R1.

5.530 We have already found that we should proceed primarily on the basis of the applicant’s NVC. There can be legitimate differences of professional opinion when identifying and mapping vegetation communities. Therefore we do not have strong evidence to conclude that Dr Dargie’s identification of other areas within the receptor areas as dune heath and dune grassland must be preferred. We treat these areas as identified in the NVC.

5.531 A related point raised in the evidence is the fate of the former plantation area if it is not subject to translocation. Dr Dargie argues that it already is (or if not, will return to) valuable dune habitat. Professor Angus, in the hole-by-hole analysis, noted ‘some pockets of surviving dune habitat’.

5.532 Mr Taylor describes this area as badly degraded and of low biodiversity value. He states that it is becoming dominated by Yorkshire fog, false oat grass and bramble. In his view ‘nutrient enrichment will limit dune interests instead favouring ruderal and opportunistic colonizers until a more stable competitive sward has established. Resulting competition will exclude more subordinate species including the principal dune grassland and dune heath elements.’

5.533 This is supported by Dr McMullen’s evidence in his inquiry report about the extent of invasive species in the area of the former plantation. He notes the failure of distinctive dune grassland to become established there. In responding to the Not Coul objection he says that recovery of the conifer plantation without intervention ‘may or may not proceed along a dune habitat-related trajectory of change’.

¹⁷⁸ SNH90 – Section 4.3

5.534 The Biodiversity Net Gain report, prepared by Dr Cosgrove, says most of the felled conifer plantation is 'of negligible biodiversity value or importance' and proposes as one option, even without any translocation, restoring the land to dune heath by scraping it back and spreading heather brash to assist reseedling.

5.535 There is clearly a difference of opinion between the expert witnesses on this point. All three expert ecology witnesses for the applicant take a similar view as to the current value of the former plantation area and what is likely to happen to it without intervention. Any pockets of viable dune habitat which remain there could presumably be retained when the detailed translocation plan is developed.

5.536 Mr Rooney argues for a restoration approach using turf stripping, scrub clearance and grazing which implies that he (although he may not have closely studied the site) would not suggest that the former plantation is currently high value habitat or would become so without intervention. On balance, therefore, we are not of the view that the current value of the habitat of the donor areas (or the likely future value of the former conifer plantation, if left alone) is a significant factor arguing against the translocation proposals.

Overall conclusions in relation to dune heath translocation

5.537 Our key findings are therefore that:

- It would be important to develop a measurable way of evaluating the success of translocation in the long term, based on the relative nature conservation value and characteristics of the dune heath before and after translocation. This could be done in a further iteration of the Translocation Plan.
- We accept from the scientific evidence that it is possible to translocate certain types of habitat and create vegetation communities which closely resemble the donor community, or at least an identified target community.
- But this has not always occurred, and there is risk of changing a habitat in translocating it.
- A variety of habitat types feature in the scientific literature on translocation which has been put before us, and the approaches to translocation also differ. This limits the extent to which we can draw conclusions from these papers in respect of the likelihood of successful translocation at Coul Links, particularly since none of the research seems to have related specifically to dune heath.
- We recognise the impressive credentials of Mr Taylor and Mr Haspell, and do not criticise them for the confidence they have in a successful translocation. We recognise they have experience of translocation, using bespoke equipment, of dune heath and dune grassland at Carnoustie, and of other translocations at Castle Stuart and elsewhere.
- But the reports of success at translocation projects at Carnoustie, Castle Stuart and Royal Portrush fall well short of the kind of measurable, long-term results which the evidence suggests is essential in truly demonstrating success in nature conservation terms.
- In that they seek to expand the extent of dune heath, the translocation proposals are supported by the Anderson guidelines.
- On the other hand, the Translocation Plan lacks the kind of detail on the topography and hydrology of the donor and receptor sites (we are content with the level of soil analysis) which the Anderson guidelines (and the Box article) recommend is required

and which could be important factors in the extent to which the translocation would be successful.

- There appears to be an area of dune slack within an identified receptor area. This habitat has value in its own right, and may be too wet to successfully host dune heath. The hydrology of some other receptor areas is uncertain.
- The varied topography of parts of the donor sites and the number, sizes and shapes of both the donor and receptor sites may place limitations on the ability to recreate the same spatial relationships between individual turves in the receptor sites as are currently present on the donor sites. Likewise in creating the same slopes, aspects and micro-climates.
- It is likely that the applicant's team would be able to physically translocate the turves, but there is considerable uncertainty in our minds as to the effects on soil structure and the degree of long-term nature conservation success which could be anticipated.
- We anticipate that juniper bushes could be successfully recreated but there would be a very substantial reduction in an area of fairly dense dune juniper habitat (an Annex 1 priority habitat).
- Satisfactory provision could be made for management and monitoring regimes for the translocated habitat.
- On the basis of the NVC, the current value of the habitat of most of the donor areas (or the likely future value of the former conifer plantation, if left alone) is not a significant factor against the translocation proposals.

5.538 Overall, we cannot have confidence that the translocation proposals would be likely to replicate the extent and quality of dune heath habitat which is currently present across the donor sites.

5.539 On its plainest reading the translocation proposed, being within an SSSI, is contrary to the JNCC policy. The applicant is critical of SNH's reliance on the policy and we recognise the age of the scientific evidence on which it relies. We accept that academic research, practical experience and understanding of translocation and the equipment available for it have all moved on. Therefore we have focussed more on the evidence which can help us draw conclusions about the likely success of the proposed translocation rather than a lack of compliance with the policy.

5.540 We are not convinced we need make an overall finding on whether the translocation proposals comply with the Anderson guidelines. They are, to a degree, limited by their reliance on the science of the day, and they are guidelines, not policy.

5.541 The applicant wants us, in respect of the positions taken on translocation, to set the SNH Site Integrity Assessment and objection letter aside. The Site Integrity Assessment refers to 'scientific literature available to date', although it does not state what that is. It relies on a lack of evidence for successful dune heath translocation, and therefore concludes that the risk of failure would be too great.

5.542 Professor Angus said he relied heavily, in his internal advice on translocation, on the evidence of Mr Rooney to the Menie Inquiry. But Mr Rooney acknowledged in cross-examination that the dune slack proposed to be translocated at Menie was very different from the dune heath proposed to be translocated at Coul Links.

5.543 Nevertheless the inquiry process has allowed SNH, the applicant and other parties to place far more evidence before us. This includes the various scientific papers, the updated

Translocation Plan, the witnesses' inquiry reports and what we heard during the inquiry sessions. It is this evidence which informs our conclusions in relation to the translocation proposals and the other effects of the development.

Translocation - the mitigation hierarchy

5.544 The closing submissions from SNH and the applicant as to the proper treatment of the translocation proposals in the EIA process are lengthy, and our summaries of these above is of necessity very much shorter.

5.545 We did not understand Dr Cosgrove, when cross-examined, to be saying that under EIA Regulations the conclusion must be that there is a likely residual significant adverse effect on dune heath. SNH's counsel preceded his line of questioning by saying it was hypothetical. Counsel's proposition was based on an acceptance that there was no scientific evidence for the likely success of dune heath translocation 'as an experimental technique' and therefore that the precautionary principle would need to be invoked. Our understanding was that he only agreed on the basis of the proposition as it was put to him, rather than he himself agreeing that translocation had to be considered as an experimental technique.

5.546 When re-examined, Dr Cosgrove stated that his position was (and still is) that the translocation proposals should be taken into account and that, after they are, the residual effect on dune heath would not be likely to be significant. We accept this account of his evidence.

5.547 New CIEEM guidance on ecological impact assessment was issued in 2018, replacing the 2016 version which was in place when the ES was published. It is agreed that the two versions are very similar. Paragraph 5.24 of the 2016 guidance ends by stating that:

"Any residual impacts that will result in effects that are significant, and proposed compensatory measures, will be the factors considered against ecological objectives (legislation and policy) in determining the outcome of the application."

5.548 Paragraph 6.1 confirms that for most projects avoidance, mitigation, compensation and enhancement measures should be identified as part of the EIA process. Paragraph 7.11 has a similar message. These passages are retained in the 2018 guidance.

5.549 So we are content, regardless of how they are defined and at what point in identifying residual effects they ought to be factored in, that it was in order to include the translocation and enhancement proposals in the ES. This takes us to the key point. The ES is clear in identifying a significant adverse effect on dune heath prior to the proposed mitigation and enhancement. The important thing for our conclusions is how confident we can be about the effectiveness of the translocation.

5.550 There are two further, related points to be made. The ES stresses (as it is stressed in the other evidence from the applicant's witnesses) the integral, intrinsic nature of the translocation and the other compensation measures. Dealing only with translocation at this point, we can see the strength in this argument. The receptor areas are threaded around the holes of the golf course. The translocated turf would not be travelling long distances. The translocation would happen at the same time as, indeed as part of, the wider golf

course development. And whilst the golf course could obviously be developed without translocating any dune heath, we can see the benefits in terms of quality of environment, quality of experience and prestige of the course which a successful translocation and more ecologically valuable surroundings would bring.

5.551 Related to that is the nature of the receptor (dune heath) which is identified as undergoing significant adverse effect. The land take is of dune heath within Coul Links. The translocation (and other measures) would aim to offset that by creating new (or restored) dune heath at Coul Links. That would not mean that loss of dune heath had never occurred. But we can see why, in reaching a view on the residual effect, it was judged reasonable to factor in the translocation and other compensation measures which are important to the project, would take place across the golf course and aim to have a positive effect on the same ecological receptor.

5.552 We are in no doubt that all the mitigation and enhancement measures proposed are relevant to our consideration of the overall effects of the development.

5.553 The 2019 Biodiversity Net Gain practical guide seems to present somewhat more of a mixed message. However, it is not a guide on EIA procedures. It has not been suggested to us that the 2018 CIEEM guidance on EcIA has been withdrawn.

5.554 The practical guide disclaims its use in designated sites. Be that as it may, this does not mean that the mitigation and enhancement measures proposed by the applicant (regardless of how they are 'badged') ought to be left out of account in reaching conclusions about the overall effects of the development.

Effects on species

Juniper

5.555 We cover above the effects on dune juniper habitat at the 16th hole. Dr Dargie identifies juniper on the fairway and green of the 10th hole, and the SNH hole-by-hole analysis says there are occasional juniper bushes at the 6th. The ES refers to juniper at the 3rd hole, which may be intended to mean the 16th. The NVC identifies juniper at the 16th hole and at the 13th (where Dr Dargie says there is none). In any event, it is at the 16th hole where there would be the principal effect on juniper.

5.556 In relation to *phytophthora austrocedrae*, it does appear from the Forestry Commission Scotland advice that this is thought likely to be spread in soil and water. Anyway, mitigating the risk of infection from this pathogen (there is no evidence that it is present at Coul Links) could be adequately considered in the construction environmental management plan, and as more detailed plans for translocation and site management are developed in consultation with SNH.

Lichens

5.557 Dr McMullen makes the point in his inquiry report that an expert lichen study is not normally undertaken for an EIA and none was requested by SNH. Since the lichens are intrinsic components of the dune heath, consideration of the effects on this habitat type is sufficient.

5.558 However, we note from Dr Coppins' evidence that there are lichens in the dune grassland, a habitat type which is also affected. There is also the question of whether the value of the site for lichens warrants more detailed consideration of the effects upon them.

5.559 Dr Coppins' description of Ferry/Coul Links as the most biodiverse coastal habitat in the UK (and perhaps in northwest Europe) for terricolous lichens is striking. The Fletcher Report (which involved Dr Coppins) for the Nature Conservancy Council surveyed and assessed lichen habitats in lowland heath, dune and machair sites. It graded the sites into seven classifications – from one (internationally important) to seven (no importance for lichens). Four internationally important sites were identified. Ferry/Coul Links was one of 24 sites identified as grade two, national importance. These are the best examples of a particular lichen community/assemblage in the British Isles. Grade three sites are also nationally important, but of slightly lesser value than the grade two. They are conceived as 'back up' sites if the equivalent grade two site becomes damaged. Ferry/Coul Links is described as 'unique', with no back-up site suggested.

5.560 Surveys of Coul Links in 1991 by Alan Fryday¹⁷⁹ were 'rather disappointing', but Dr Coppins considers that the conclusions in the Fletcher report still hold good. More recent visits by lichen experts have underlined the importance of the site. According to new guidance, Dr Coppins says Coul Links easily scores high enough to merit SSSI designation on the basis of heathland lichens alone. Dr Coppins is an acknowledged expert on lichens, and his evidence for the importance of Coul Links for lichens is not challenged in any detailed evidence from the applicant.

5.561 Had the applicant's team directly approached the British Lichen Society then they might have obtained further information on the lichen interests of the site.

5.562 Be that as it may, we can understand why a detailed lichen survey was not undertaken. SNH's scoping advice referred to *cladonia mitis* but noted that the areas of that species identified by Fryday did not appear to be affected. The shingle and stones which the Fletcher report says makes Coul Links especially noteworthy are also avoided. SNH noted that the areas of the 4th and 5th holes 'support areas of lichen heath'. This advice does seem to provide a basis for considering effects on dune heath (or perhaps lichen-rich dune heath) rather than on lichens specifically. Despite Dr Coppins' evidence as to the value of Coul Links for lichens, they are not identified as a notified feature of the SSSI.

5.563 We reach conclusions above on the direct and indirect effects of the development on dune heath. We have already noted the apparent rich lichen assemblage on the 4th and 5th holes. This interest is reflected in Figure 2 of the British Lichen Society's objection¹⁸⁰ to the application, which maps the distribution of notable lichens on or near the 4th hole, as found in visits to the site by Society members and by SNH. Therefore in taking account of the effects on dune heath, we bear in mind that part of it is particularly lichen-rich, and in the context of an overall lichen interest for Coul Links which must be considered to be very high on the basis of Dr Coppins' evidence.

¹⁷⁹ [NC053 - Fryday, A.M. \(1995\) - The Lichen Flora of Some Maritime Heaths in East Sutherland - Report to SNH](#)

¹⁸⁰ [NC050 - British Lichen Society \(May 2018\) - Objection to proposed golf course at Coul Links](#)

5.564 The objection letter from the British Lichen Society provides information on the conservation status of the species identified in its Figure 2. Of those to be affected, in particular we note that green felt lichen *peltigera malacea* is described as endangered, and nationally rare. It features on the Scottish Biodiversity List. The population of this species at Coul Links is described as 'nationally important'.

5.565 Much of the *peltigera malacea* identified in Figure 2 would be lost under fairway, semi-rough and a bunker, or would be affected within the rough. Dr McMullen says that this species might (initially) be favoured by the management of the rough. However, this evidence does not assist our assessment of the longer-term effect on this species, and again it appears to be based on the proposed treatment of the managed rough not the longer-cut rough. We recognise that micro-siting might mean some more of this species could be avoided, but the scope for this, from looking at the distribution of this species on Figure 2, appears limited.

5.566 There would also, on the basis of Figure 2, be effects on *leptogium palmatum*, which is said to be near-threatened, nationally scarce and on the Scottish Biodiversity List. Of the nine locations for this species identified, four would be affected – two would be on the fairway of the 4th hole, one within the rough and a further one on the edge of the rough. Dr Coppins' inquiry report says most of the area occupied by this species would be destroyed. Figure 2 does not support such an assertion, but it does indicate that there would be an impact on the distribution of this species at Coul Links, and a reduction in its extent.

5.567 Therefore within the direct and indirect effects on dune heath, there would likely be a notably adverse effect on a nationally important population of *peltigera malacea*, a species of particular conservation concern. There would be a lesser effect on *leptogium palmatum*, and effects on other lichen species as identified in Figure 2, even allowing for future micro-siting.

5.568 Figure 2 does, however, have to be treated with some caution. It is not based on a full survey, so there may be other effects on particular lichen species elsewhere. Also, the evidence points to dynamism in lichen distribution, so that may be somewhat different now to that reported in Figure 2. However, it illustrates the general point about the effects on lichen-rich dune heath, in particular on the 4th hole.

5.569 The 4th and 5th holes are among the donor areas for dune heath translocation. So the intention would be to recreate this lichen-rich dune heath at the receptor sites. We note above the scepticism of Dr Coppins (and of Professor Angus in his hole-by-hole analysis) about the prospects of success in translocating lichens. We have also noted our concerns about the potential for effects on the structure of areas of bare (or barer) sand to be translocated. We also point to the lack of coverage in the applicant's evidence of the aspect and slope of the receiving areas.

5.570 These factors are likely to be important in determining micro-climate which, in Dr Coppins' evidence, is so important to lichens. In this light, and noting our conclusions on the translocation proposals more generally, we are not confident that the lichen interests within the dune heath would be successfully translocated.

5.571 Dr Coppins stresses (as do the objection letters of Not Coul) the importance of rabbits in creating bare sand areas for lichens. Dr McMullen notes that rabbit populations

have declined nationally and therefore it would be risky to rely on rabbit activity continuing to support the lichen interest of the site.

5.572 There is no detailed evidence from the applicant as to what the effects on rabbits would be of management of Coul Links after the golf course development. Mr Taylor does say in his inquiry report that rabbits are common across most golf courses and that the condition of Coul Links with the golf course would support the continued presence of rabbits. We accept that the creation of bare sand areas is something which is proposed as a management technique and so in that respect there would be a mechanism to mimic the effects currently caused by rabbits, for example if they did decline.

5.573 Not Coul considers that *cladonia mitis* is likely to be present on the dune heath to be translocated. There is no comprehensive survey of this species. But the applicant says the areas where it exists have been avoided, and SNH's consultation response appears consistent with that. Figure 2 of the British Lichen Society objection letter does not identify this species within the dune heath. On the evidence before us, we do not find that there would be a significant effect on this species.

Fungi

5.574 The ES classes waxcap fungi as regionally important. There was no survey of these, as SNH did not request one. Waxcap fungi were previously recorded within the dune grassland at Coul Links (some of which would be lost) but it was noted that the grassland now appears taller and ranker than the shorter, more suitable grassland previously recorded. Overall, the amount of habitat lost was assessed as minor, and the effects on waxcap fungi as not significant. Management of grassland for a shorter vegetation sward was considered likely to benefit waxcap fungi.

5.575 Not Coul's assessment of the importance of Coul Links for fungi relies somewhat on a report by Dr Watling, described by Not Coul as 'Scotland's finest mycologist'. Dr Watling did not give evidence to the inquiry, but his report is appended to Not Coul's first objection letter.

5.576 Dr Watling's report lists the species he encountered over his two day survey. The report is largely descriptive. It makes no overt statements about the overall importance of Coul Links for fungi, nor about the effects of the development on fungi. It does not in our view support a conclusion that the effects on waxcap fungi ought to be considered a significant environmental effect.

Baltic rush

5.577 Not Coul initially identified Baltic rush at two locations within and on the edge of the rough at the 13th hole. Dr Dargie's inquiry report refers to 15 locations. Not Coul's closing submissions refer to over 50 locations, but we have not seen the detailed evidence for this. Map 3 of Dr McMullen's inquiry report shows the locations of the 18 areas of Baltic rush he identified in his own survey, overlain with the golf course layout. This shows several areas of Baltic rush in or near the winter loch but also in the areas near the 13th hole identified by Dr Dargie.

5.578 In relation to direct effects, it is only the Baltic rush near the 13th hole which would appear to be potentially affected. Noting Dr McMullen's assessment that 3% of the Coul

Links population he identified would be lost, we do not take issue with his assessment that the effects on this species would not be significant.

Shoreweed and restharrow

5.579 Dr McMullen's evidence from his site survey was that, although shoreweed is widespread, it is not in a form which makes it either of the Annex 1 shoreweed habitats. This seems to be accepted by Dr Dargie. Therefore we accept there are no significant effects from the loss of shoreweed. We appreciate Dr Dargie's view that shoreweed and restharrow are indicators of global warming and their presence at Coul Links could assist study of climate change indicators. We do not consider that this adds any significant weight to an argument against the development.

Invasive species and the condition of Coul Links

5.580 The applicant is right to highlight the current condition of the habitats at Coul Links with reference to the effects on these from invasive species and other factors. The condition of the site now, and its likely future condition under what the applicant calls the 'do nothing' scenario is relevant to our consideration of the merits of the proposal in terms of its effects on the natural heritage at Coul Links.

5.581 The ES records that over 99% of the dune grassland calculated to be directly affected is SD9x rank grassland, which is not an Annex 1 habitat. Mr Taylor says in his inquiry statement that succession is creating a ranker grassland across the site.

5.582 Dr Dargie takes a different view on the dune grassland. He does however, in his inquiry report, express the view that it is undergoing a change to a less diverse neutral grassland as a result of a rising water table and high levels of nutrients. Similarly, Mr Haspell says in his inquiry report that much of the grassland has become nutrient-rich through grazing.

5.583 The 2014 SSSI Site Condition Monitoring Report pre-dates the applicant's NVC, and the later survey by Dr McMullen. It is also based on sampling rather than a survey. Nevertheless it remains the extant (and fairly recent) SNH analysis of whether, for the sand dune component of the SSSI, the habitat types are meeting their targets based on a range of attributes. The ES and some of the other evidence from the applicant refers to an earlier Site Management Statement for the SSSI rather than to the Site Condition Monitoring Report.

5.584 The dune grassland is described as 'fixed dunes' in the Site Condition Monitoring Report. For vegetation structure, the most relevant target is that 30-70% of the sward comprises species-rich short turf, 2-10cm tall. Of the ten sampling points, only one (which was not at Coul Links) failed to meet the target. Coul Links sampling points also met the targets for vegetation composition for calcareous (and acidic) grasslands. The target for scrub invasion of grassland (less than 40%) was also met, although a large patch of field thistle was noted. The presence of Ragwort and rosebay willow-herb was 'low-density' and 'well within acceptable limits'. As far as dune grassland is concerned, this portrays a much more positive situation than the evidence (albeit more recent) from the applicant's witnesses.

5.585 The picture on dune grassland therefore appears somewhat mixed. But it does seem to be the case that most of the grassland is comparatively rank and species poor, and that this may worsen in the future. Therefore we think that this ought to be taken into account.

5.586 Mr Haspell and Mr Taylor both referred to declining heather at Coul Links, with Mr Taylor saying in his inquiry report that this is due to natural ageing and successional change. He states that much of the heather in the dune heath is mature and becoming degenerate, resulting in a more open structure which enables weed colonisation. We are not clear why the heather would have reached a particular stage when much of it is in decline at this point of time. Or why, if so, that would need management intervention. Especially noting the dynamic nature of the dune heath habitat, and indeed that heather has increased in extent in recent years.

5.587 There is no mention of such decline in the treatment of the effects on dune heath in SNH's hole-by-hole analysis. The commentary on the dune heath communities in the NVC survey report does not say anything about heather being in decline. Professor Angus stated under cross-examination that heather entering different phases of growth is a natural process, and one which is cyclical as new heather replaces the older plants. Mr Rooney took a similar view.

5.588 The Site Condition Monitoring Report has a vegetation structure target for dune heath which requires patch structure to be frequent, with varied dwarf shrub age structure and uniform old and senescent swards no more than occasional. Observations indicated a varied age structure present throughout the site (the wider SSSI not just Coul Links) and the target was met. Another target for dwarf shrub cover was also met. This does not indicate a problem of heather or heathland decline, although we did note that one of the dune heath sampling points at Coul Links failed to meet the target on species diversity. We consider below the effects of invasive species on dune heath.

5.589 Dune heath also failed a target due to the relative lack of bare sand patches. Although that did not contribute to the unfavourable assessment, we recognise that management to increase bare sand areas could nonetheless bring benefits.

5.590 In relation to dune slack, in the Site Condition Monitoring Report one sampling point did not meet the target for the amount of creeping willow, with that species being at too low a density. But it was noted that it is reasonably extensive overall in the dune slacks, and therefore this did not contribute to the unfavourable condition. Likewise the failure to have sufficient densities of certain other species did not contribute to unfavourable condition because appropriate species were considered to be present. Another target not met for vegetation structure was due to the presence of meadowsweet in some of the wetter slacks.

5.591 Although all other targets were met, there are clearly some issues identified with the condition of the dune slacks, most notably the presence of meadowsweet. This accords with Dr McMullen's evidence.

5.592 In relation to invasive species, it is helpful to consider these individually, as is done in the evidence of Dr McMullen.

Gorse

5.593 The NVC report identifies areas of gorse scrub. Three (out of perhaps five) dune heath sample points at Coul Links failed in the Site Condition Monitoring Report due to the presence of gorse and birch. Affected areas were close to existing mature birch and gorse which, it is stated, would have acted as a source for the invading growth. It is noted that manual control and grazing could reduce scrub encroachment. This is consistent with Dr McMullen's findings. He considers it likely that further spread is continuing, and gorse is an ongoing threat to the dune heath to the north of the site. We saw for ourselves the extent of the gorse and birch during the site inspection, and agree with Dr McMullen's assessment.

5.594 Dr Dargie says in his inquiry report that gorse and birch scrub should not be considered a problem since their extent across Coul Links is less than 5%. But this ignores the potential for further spread, and the threat to dune heath in particular.

Birch

5.595 As noted above, three Coul Links dune heath sample points failed for the presence of gorse and birch in 2014. On the basis of the applicant's aerial photographs the extent of birch on the site has grown from 1.54ha in 1988 to 5.18ha in 2016. The NVC maps wet woodlands (mostly birch) in the area within and to the northwest of the northern loop of holes in the dune heath. The aerial photograph base for the applicant's mapping also clearly shows this woodland. We recognise the potential for future birch encroachment in the dune heath, but this seems tempered by the grazing pressure on the birch, and indeed by the fact that it has declined slightly in extent since 2009.

Burnet rose

5.596 The NVC identifies several areas of Burnet rose scrub, noting that these were tall and dense, with little else growing with them. This is consistent with the evidence of Dr McMullen. Burnet rose seems, from Dr McMullen's evidence, to be spreading into dune grassland and dune heath. We agree that monitoring of this (and management measures relating to the existing Burnet rose) would be beneficial.

Meadowsweet

5.597 Like Burnet rose, meadowsweet is not normally considered to be invasive but its dense swards seem to be excluding other species from dune slacks. This is likely to be as a result of nutrient enrichment. Regardless of the main driver for this, it is acknowledged (including in the 2014 Site Condition Monitoring Report) that it is causing an effect on the dune slack habitats. The NVC report describes it as overwhelmingly dominant in places. Controlling this plant could help meet the target which failed in 2014, but also ensure other targets relating to the presence of meadowsweet and vegetation structure continue to be met in the future.

Bracken

5.598 We saw at the site inspection the main areas invaded by bracken. The NVC identifies three areas of bracken, where it is dominant to the exclusion of almost all other species. From the applicant's aerial photographs and analysis bracken has doubled in extent from 1.83ha in 1988 to 3.66ha in 2016. The rate of increase has been very much

slower since 2009. It is notable that bracken (which was present then to roughly the same extent as it is now) is not mentioned in the 2014 Site Condition Monitoring Report. This may, however, be because it was not caught by any of the sampling points. In any event, it could spread further so we agree that monitoring of bracken would be desirable.

5.599 Although there are other invasive species present (including lodgepole pine, rosebay willowherb, creeping thistle and ragwort) the evidence does not point to any particular threat from these.

5.600 Overall, we recognise that the applicant's evidence for the threat from invasive species (and about other factors affecting the condition of Coul Links) has a legitimate basis. We take this evidence into account in our conclusions below.

The Coul Links Site Management Plan

5.601 The ES says at section 5.7 that the mitigation measures described there (much of which would be delivered through the CLSMP) are treated as 'committed' since they are part of the in-built design. The aim would be to achieve favourable conservation status for the Coul Links part of the SSSI, although the aim of biodiversity net gain is also highlighted. The Management Plan Aspirations document provides some more detail on what is proposed, including the suggested aims of the CLSMP. The inquiry reports of Mr Haspell, Mr Taylor, Dr Cosgrove and Dr McMullen draw on this evidence.

5.602 Despite the desire of SNH (and the other inquiry parties) to see more positive management of Coul Links for nature conservation, there is no obvious prospect, as it stands, of this happening in the near future. Therefore we must carefully consider the potential benefits which might arise from the applicant's proposed mitigation and management measures, and take proper account of these in reaching our overall conclusions. Benefits could accrue to the SSSI and to biodiversity more generally. It is helpful to consider each type of mitigation and enhancement measure in turn. These are not exhaustive, but cover the main areas put forward by the applicant.

Dune heath translocation and restoration

5.603 We cover translocation in more detail above. We do not have confidence that the translocation proposals would be likely to replicate the extent and quality of dune heath habitat which is currently present across the donor sites. We identify other concerns, including the apparent presence of dune slack in one receptor area.

5.604 Alongside the translocation there would be a further 1.8ha which it is intended would be restored to dune heath. Leaving aside the uncertainty about the suitability of all of this land for dune heath, it is not controversial that, with appropriate conservation management, degraded habitat could be restored back to sand dune habitats in time. How long this would take is not certain, but it would in any event be a benefit in as much as such land could be put on a trajectory of recovery.

5.605 It is also proposed to manage the grassland in such a way as to allow the continued expansion of dune heath into it. We attach less benefit to this, noting that dune heath has been expanding in recent years anyway without such assistance. But we recognise the particular value of dune heath (especially if compared to ranker grassland) and accept,

subject to agreeing the details in consultation with SNH, that this could provide some benefits to the SSSI.

Dune heath management

5.606 More generally dune heath management outwith the golf course footprint (we include the rough in that footprint, certainly the longer-cut rough) could also bring biodiversity benefits to that habitat. However generally speaking, we do not see a basis for concluding that the dune heath habitat at Coul Links is in notably poor condition and in need of management. It has expanded in recent years (or at least the extent of heather has) despite the lack of management. Even if the H11c community is the least biodiverse, it is still an Annex 1 habitat.

Creation of bare sand areas

5.607 Although there are clearly bare sand areas being created presently by the action of the wind and of rabbits, the dune system is over-stabilised and the rabbit population could decline in the future. It is common ground that the creation of bare sand areas would be beneficial in supporting habitat dynamism, and therefore we take account of the positive effects which could derive from this management action, for example in creating habitat suitable for lichens and juniper (and for certain invertebrate species).

Juniper translocation

5.608 Again, we cover this above. We allow for the fact that translocation of individual juniper plants may be successful, even if not in every instance. But there would be extensive loss of the area of important dense dune juniper habitat at the 16th hole. We cannot conclude (on the basis of the evidence before us) that translocation of individual plants would mitigate this effect on the Annex 1 habitat to any significant degree.

Grassland management

5.609 We note above that most of the dune grassland appears to be of the ranker type, and one of the Coul Links sample points failed in 2014 on species composition. Therefore we agree that management of the grass sward could deliver biodiversity benefits, for example increasing species diversity and benefitting waxcap fungi. There is little to go on which would allow us to quantify the value of this.

Management of dune slacks

5.610 The Management Plan Aspirations document says that there would be management of dune slack habitat to deliver scrub removal and 'maintenance of natural hydrological functioning'. Mr Taylor refers to pollution control in his inquiry report. We recognise the benefits such measures could bring, noting the evidence before us about the current problems with nutrient enrichment of dune slacks. The benefits of scrub removal may be obvious, but it is not stated how 'maintenance of natural hydrological functioning' would be achieved. Dr McMullen suggested lowering of the floors of the dune slacks but we have no detailed evidence as to the various effects, positive or negative, which would arise from taking such action.

Control of invasive species

5.611 In relation to gorse and birch, there is clear evidence from all of the ecologist witnesses that encroachment of these species currently affects the dune heath habitat in particular. It could get worse without management. It has already caused three of the dune heath sampling points at Coul Links to fail the relevant targets in 2014. Removing invasive gorse and birch and mitigating the future threat from these could have measurable benefits for the SSSI which we do not underestimate, although we temper the future threat somewhat since the presence of birch seems actually to have declined a little in recent years.

5.612 Similarly, control of Burnet rose (for the drier dune habitats) and in particular meadowsweet (for the dune slacks) would seem to offer the potential for biodiversity benefits.

5.613 The potential for further bracken expansion may be limited, but the possibility would appear to remain. It is notable from SNH's hole-by-hole analysis that Professor Angus accepts the principle of golf holes being located within the bracken areas, demonstrating SNH's view that the bracken has degraded parts of the SSSI. Therefore any prospects of removing bracken (and controlling its future growth) from the non-golf areas ought to be considered as a positive.

Management of non-SSSI land within the site

5.614 There are two aspects to this. In the first instance, there would be the potential for biodiversity benefits for the non-golfing parts of the site to the south of the SSSI. These are difficult to estimate at this point since there is no detailed analysis from the applicant as to what would be sought here, or even what it is possible to achieve. These would be wider biodiversity benefits rather than benefits to the SSSI. But there would also be loss and modification of habitats under the three golf holes in this part of the site, even though it is outwith the SSSI. At this stage we can attach limited overall value to these potential benefits.

5.615 There might be also be benefits from the control of invasive species in this area. This would be of benefit in its own right but also of potential benefit to the SSSI. Invasive species from outwith the SSSI could affect it in the future. However, this area to the south of the site is some distance from the dune heath, the habitat seemingly suffering the most from invasive species. This significantly lessens the potential benefits to the SSSI of controlling invasive species in this area, although some of the bracken is within this land to the south.

Management of SSSI land at the west of the site

5.616 This relates to the 'Bain property', 7.5ha of land at the northwest of the site. The applicant proposes to manage this as part of the CLSMP. In fact this land would be part of the golf course development, and is needed for parts of the 3rd and 4th holes. It does not add significantly to the benefits from the CLSMP which we already take into account above. We acknowledge the potential for controlling invasive species on this part of the site.

Overall conclusions on habitats and vegetation

5.617 Dr McMullen refers to a paper¹⁸¹ from 2009 on the landscape and vegetation of coastal dunes. In general terms it supports his view that dune systems are being affected by widespread issues like declining rabbit populations, nitrogen deposition and the spread of invasive species. It argues that the restoration of natural dune landscapes is not a realistic prospect because of such ongoing influences. Putting this in context, Dr McMullen argues that the earth is now in the Anthropocene era, and that consequently an approach to conservation by trying to keep habitats intact and leaving them to natural processes is no longer valid.

5.618 Dr McMullen may be correct on the first point, and even on the second. We accept the premise that the habitats at Coul Links are subject to external human influences. This will affect how they change and the correct responses to that. But we must proceed on the basis of the approaches to nature conservation (in particular in a designated site) set out in relevant statute, policy and good practice advice.

5.619 Table B.18 of the ES shows the extent of predicted loss for each type of habitat under the tees, paths, fairways, semi-rough, bunkers and greens. If the table is based on the same layout drawings as were before us, there would be some additional land take under the stretches of paths (mostly to tees) that are not shown in the layout drawings but are shown as haul routes in other drawings.

5.620 There would be further effects within the rough. For the dune heath and dune slack we find that effects within the longer-cut rough would be strongly adverse. There would also be effects on the elements of dune heath and dune slack within the matrix communities – these would be lost to the extent covered in table B.18, and with further strong adverse effects within the longer-cut rough. There would also, it would seem, be further initial disturbance in the areas of proposed cut and fill in the rough outwith those allowed for in table B.18. Added to these impacts in the rough (especially in the longer-cut rough) would be disturbance from golfers, caddies and green-keeping staff which overall we deem, on the basis of the evidence on the sensitivities of these habitats, to be significantly adverse.

5.621 We cannot quantify the precise amounts of dune heath, dune slack and matrix communities affected within each of the two types of rough. SNH's estimates (since they seem to assume matrix communities represent a loss of the 'better' habitat within them) would seem too high. We conclude that the extents of these different types of rough (and the way they are managed) could well change in the future. We also have concerns about the potential for further changes to the golf course layout (and differing environmental effects, albeit we recognise the aim of further reducing them) which would be possible with the proposed 20m micro-siting allowance.

5.622 There would appear, beyond what is shown in the NVC, to be dune slack (or similar) habitat which would be lost/affected under the 18th hole. In line with the NVC, there appears to be an area of dune slack which would be lost under translocation in receptor area R1.

¹⁸¹ [APP003.008 - Provoost, S et al - Changes in landscapes and vegetation of coastal dunes in northwest Europe - a review](#)

5.623 For dune grassland, there would be habitat modification within the longer-cut rough. There would be a loss of dune juniper habitat at the 16th hole. We have concerns about the wider effects of the proposed works in parts of the open dunes.

5.624 There would be further effects on these habitats from edge effects and fragmentation, in particular for the dune heath. There would also be a loss of natural dynamism, and a restricted ability of the dune system to adapt to environmental factors such as climate change and, perhaps, a rising water table.

5.625 These more indirect effects cannot be quantified in the same way that the losses and modification of habitat can. But on the evidence we have seen and heard we think they are likely to be very influential indeed in determining the overall effects on habitats at Coul Links. Particularly so because of the complex network of habitats evident from the NVC surveys, the interconnectedness of the differing dune habitats, the generally adverse nature of edge effects, and the amount of fragmentation of the dune system generally (and of dune heath in particular) which would result given that the layout of the golf course would range across much of the links.

5.626 We find in Chapter 4 that although Ministers can have confidence that the effects on water levels from abstraction would be fully considered and regulated by SEPA, we cannot say whether there would or would not be an effect on the water levels within the dune system as a result of abstraction. Neither can we be wholly confident that the leaching of nitrates from fertiliser would not, particularly in the establishment phase, have adverse effects on habitats. These factors add to the potential effects, in particular for dune slacks.

5.627 On the other hand, we must take into account the committed mitigation measures covered in the ES and the applicant's other evidence.

5.628 We do not have confidence that the translocation proposals would be likely to replicate the extent and quality of dune heath habitat which is currently present across the donor sites. We do acknowledge though that there would still likely be improvements to the ecological condition of the former conifer plantation, including from the creation of bare sand patches, and other donor areas. Although juniper bushes might be successfully translocated, we do not think this would mitigate the loss of dune juniper habitat.

5.629 We recognise the current problems with invasive species, and that these could spread further in the 'do nothing' scenario. The opportunity the proposals present for more active management of these could result, depending on how extensive the clearance and management was, in particular benefits for dune heath habitat. There would be benefits from controlling Burnet rose, and benefits to dune slacks from controlling meadowsweet.

5.630 Beyond controlling invasive species, we not convinced there is a problem with the decline of heather or the condition of the dune heath which requires it to be more actively managed, although again we recognise the benefits of creating more bare sand patches. Management could bring benefits to the dune slacks although it is not clear how 'maintenance of natural hydrological functioning' would be achieved. We recognise the potential benefit of grassland management given the seeming preponderance of the ranker SD9x community, although it is difficult at this stage to quantify the benefits of this. Management of grassland might also assist the expansion of dune heath, although it (or at least heather) has been expanding naturally without this.

5.631 The ES notes that 90% of the dune heath it records as to be lost is the species-poor H11c sub-community. H11c is nevertheless still covered by the Atlantic decalcified fixed dunes priority habitat in Annex 1 of the Habitats Directive. Dr McMullen's evidence is that sub-community H11a is the most biodiverse and the most valuable. In his hole-by-hole analysis Professor Angus expresses the view that it is the H11b (decalcified fixed dunes with crowberry) which is the more valuable.

5.632 The 4th and 5th holes are mostly H11c in the Alba Ecology mapping. Professor Angus says (in the hole-by-hole analysis) of the 4th hole that the 'associated lower plants here were spectacular and this hole (together with the 5th) were the finest sections of the links seen on this visit.' He also describes this part of the 4th hole as 'outstanding dune heath vegetation'. We were indeed struck, at the accompanied site inspection, by the density and variety of lichens on the 4th hole in particular. On the 5th hole, Professor Angus refers to 'sections of high biodiversity resembling the finer sections of the 4th hole'.

5.633 Of the dune heath lost, according to the ES, 0.30ha would be H11b. However this would be a very small proportion of the 322ha of this sub-community thought to be present in the UK (all of it in Scotland). In that context the particular effects on the H11b sub-community do not add significantly to our assessment of the effects on dune heath. Likewise, the fact that most of the dune heath lost may be H11c does not significantly diminish our assessment of these effects.

5.634 We recognise the benefits to dune heath which would accrue from the control of invasive species, the creation of bare sand patches and (to a lesser extent) the management of adjacent grassland. But given the loss of habitat identified in the ES; the further strongly adverse effects in the longer-cut rough at least; the effects on dune heath within matrix communities; our lack of confidence in the success of translocation; effects from disturbance and the effects from fragmentation and edge effects, we find a likely significant adverse effect on dune heath.

5.635 There are potential benefits to dune slack habitat from control of meadowsweet and other site management. However given the extent of loss of habitat (including at the 18th hole, at receptor area R1 and in matrix communities); the strongly adverse effects within the longer-cut rough at least; effects from disturbance and our uncertainties about some of the effects on the water environment, overall we judge that the effect on dune slack is also likely to be a significant adverse effect.

5.636 Given the likely extent of losses of dune juniper and the fact that this is at seemingly the second densest concentration of this habitat in the UK, we judge the effect on this habitat (albeit it may be capable of being lessened to a limited extent by micro-siting) to be a likely significant adverse effect.

5.637 For dune grassland, there would be adverse effects from the loss of habitat and from uncertain effects of management and disturbance in the longer-cut rough. On the other hand, most of the grassland appears to be rank grassland and not an Annex 1 habitat, and there is scope to improve this habitat through management. Viewed in isolation, we do not consider the effects on dune grassland to be a likely significant adverse effect.

5.638 In relation to individual plant species, for the most part we see sense in SNH's approach (which Dr McMullen also advocated in his evidence in chief) of seeking to ensure

that species are adequately protected by seeking to adequately protect their habitats. We cover the effects on juniper under effects on dune juniper habitat.

5.639 The exception to this is in relation to lichens, both as an assemblage at Coul Links and in relation to certain species. Given the very clear evidence from Dr Coppins about the importance of Coul Links for lichens and the potential for direct and indirect effects on them, we judge that the likely overall effect on lichens would be significantly adverse. Noting their conservation status and that potentially 10% of the known UK population is found at Coul Links, this includes a significant effect on green felt lichen *peltigera malacea*. Lichens could be considered as a receptor in their own right, or alternatively these effects could be considered as part of the overall effect on dune heath (in accordance with the approach taken in the ES).

5.640 The above conclusions address the individual habitats and plant species identified as receptors within the ES. The natural heritage designations are also receptors, and we reach our conclusions on the effects on these in Chapter 8.

5.641 A proportion of the evidence before us also relates to the dune system at Coul Links in a more general sense. It is very clear that it is a complicated patchwork of related habitats. Dr Cosgrove agreed with this proposition under cross-examination, although he underlined that it is not necessarily in good condition. Albeit it may be mature, there is still dynamism, on a smaller scale from the action on the sand from wind and rabbits and on a wider scale noting the expansion of dune heath (or of heather), and indeed the spread of invasive species. We think there is merit in considering this system as a receptor in its own right.

5.642 On that basis, we recognise the benefits that the CLSMP would bring. In particular from the control of invasive species, from the creation of bare sand areas and in the potential for better grassland management. We also recognise that some habitats (like saltmarsh for example) would be unaffected by the development. But given the extent of loss of Annex 1 habitats under the golf course; the strongly adverse effects within the longer-cut rough for dune heath and dune slacks; the effects from disturbance; the effects from fragmentation, edge effects and loss of dynamism (in particular noting that the course would be distributed widely across the system and our concerns about development within the open dunes) and our uncertainty about some of the effects on the water environment, we find there would be a likely significant adverse effect on the overall system of sand dune habitats at Coul Links.

CHAPTER 6: IMPACTS ON BIRDS

BACKGROUND

Relevant designations

6.1 The Dornoch Firth & Loch Fleet SPA is designated for its range of non-breeding waterfowl and breeding osprey. The SPA qualifies: by regularly supporting populations of European importance of osprey and bar-tailed godwit (both Annex 1 species), and of greylag goose and wigeon (both migratory species); and by regularly supporting over 20,000 individual waterfowl, including nationally important populations of curlew, teal, scaup, redshank, wigeon, greylag goose and bar-tailed godwit. The assemblage also includes nationally important populations of dunlin and oystercatcher.

6.2 In relation to the SPA, SNH advised that the competent authority (now the Scottish Ministers) requires to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests, and specifically: SPA waders and waterfowl assemblage; SPA teal & wigeon (recreational disturbance, borehole water abstraction); SPA oystercatcher, bar-tailed godwit, curlew (coastal), dunlin, redshank and the waterfowl assemblage (waste water treatment plant, coastal recreational disturbance); and SPA geese & curlew (RAMP and waste water treatment plant).

6.3 In addition, the Moray Firth is proposed to be designated as a Special Protection Area because it supports important wintering and breeding populations of marine birds. The proposed qualifying interests are shag, eider, goldeneye, scoter, great northern diver, scaup, long-tailed duck, red-breasted merganser, red-throated diver, Slavonian grebe and velvet scoter.

6.4 In relation to the proposed SPA (pSPA), SNH advised that the competent authority requires to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests, and specifically pSPA eider (recreational disturbance).

6.5 The Dornoch Firth and Loch Fleet Ramsar site is designated in part for its non-breeding waterfowl and breeding osprey. It qualifies under criterion 3a by regularly supporting over 20,000 waterfowl in winter, and under criterion 3b by regularly supporting internationally important wintering populations of greylag goose, wigeon and bar tailed godwit. The citation records that the diverse assemblage of wintering waterfowl include nationally important wintering populations of teal, scaup, curlew and redshank. The site is also a nationally important feeding area for osprey.

6.6 The Loch Fleet SSSI is designated in part for its breeding bird assemblage (including ringed plover, oystercatcher, shelduck, eider and tern) and non-breeding eider (approximately 1% of the British wintering population).

Environmental statement

6.7 Annex A: Ornithology to the ES considers the potential impacts of the proposed development on the important ornithological receptors in the study area, during its construction and operation. The baseline ornithological conditions were assessed through targeted field surveys in the winter and breeding seasons, of potentially important and

legally protected bird species identified through desk study and consultation. A total of 56 bird species were recorded during winter and breeding bird surveys.

6.8 The winter bird survey was conducted between 27 October 2015 and 31 March 2016.¹⁸² Very low numbers of redshank were recorded, single curlews on two occasions, one flock of 150 dunlin on the foreshore, small-moderate numbers of oystercatchers on the Loch Fleet foreshore or the beach foreshore to the east of Coul Links, and one flock of six greylag geese on fields to the southwest of Coul Farm.

6.9 There was standing freshwater in the dune slacks from mid-December to the end of March during the survey. Teal were regularly recorded in small-moderate numbers (2-25 birds) during 2016 when water was present in the dune slack area at Coul Links, and variable numbers of wigeon (5-100 birds) were recorded on four occasions when water was present in the dune slack area. Also, variable numbers of eider (20-500 birds) were recorded on the sea or Loch Fleet.

6.10 The breeding bird survey was carried out between 1 April and 19 July 2016. Of the Loch Fleet SSSI breeding bird assemblage, oystercatcher, ringed plover, lapwing, grasshopper warbler, stonechat, redshank, linnet and reed bunting were recorded as breeding within the SSSI. There was no evidence of shelduck (recorded outside the SSSI) or eider (recorded inside the SSSI) breeding within the SSSI.

6.11 Osprey, the only SPA qualifying breeding species, does not nest/breed or forage in habitats at Coul Links and was therefore dropped from further consideration.

6.12 Of the wider countryside birds, no significant adverse impacts were predicted. Only one potentially sensitive and relatively uncommon species breeds within the study area.¹⁸³

6.13 None of the species mentioned in the proposed Moray Firth SPA citation regularly occurs within and adjacent to the development, and the ES found that there would be no likely significant effects on the qualifying features or site integrity.

6.14 The ES found that the proposed development layout could be accommodated without having adverse impacts on the SSSI breeding bird assemblage, and that there would be no likely significant effects on the qualifying features or site integrity.

6.15 No golf course infrastructure was planned for habitat areas regularly used by wintering SPA species, and the ES found that there would be no significant loss of dune slack habitat, either direct or indirect. The golf course would be closed during the winter months when SPA birds use the wetted dune slacks at Coul Links, and there would be significant beneficial impacts from ceasing wildfowl shooting (see below). A public access plan would focus public access away from potentially sensitive areas for important birds.

6.16 After mitigation, the ES predicts that there would be no significant adverse effects on the ornithological features of the SSSI, or on wider countryside bird species, and that there would be a moderate significant beneficial effect on the ornithological features of the SPA and Ramsar site.

¹⁸² [CD001.023: ES Annex A, Appendix A.1 – Winter 2016 Coul Links bird survey report](#)

¹⁸³ Confidential Appendix A.3

Consultation responses from Scottish Natural Heritage (SNH)

6.17 In its first consultation response to the Highland Council dated 24 November 2017,¹⁸⁴ SNH commented in relation to SPAs that: ‘The proposal could affect internationally important bird interests and we therefore object to this proposal until further information is provided. This will enable us to carry out an appraisal of these effects and help you determine this proposal. We consider it likely that these issues could be overcome by a competent Recreation & Access Management Plan [RAMP] and a Breeding Bird Protection Plan (for SSSI birds).’

6.18 SNH considered that the proposal was likely to have a significant effect on SPA waders and the waterfowl assemblage, and for teal and widgeon using flooded areas of dune slack through disturbance as result of increased numbers of people using the site. Consequently, Highland Council as competent authority was required to carry out an appropriate assessment in view of the site’s conservation objectives for its qualifying interests.

6.19 SNH’s initial view was that the proposal would not adversely affect the integrity of the SPA if undertaken strictly in accordance with the following mitigation:

From December to March (inclusive), greenkeeping operations on holes 10-18 must only take place between one hour after sunrise and one hour before sunset. This should reduce disturbance to a level that is more reflective of current use.

6.20 In SNH’s view, the proposal was also likely to have a significant effect on pSPA eider, and hence Highland Council as competent authority required to carry out an appropriate assessment in view of the site’s conservation objectives for its qualifying interests. A RAMP should be produced which aims to reduce any increased disturbance to eider.

6.21 In respect of the SSSI, SNH advised that there were bird interests of national importance on the site, which could be affected by the proposal (e.g. breeding terns) through disturbance as a result of increased use of the area and during the construction phase. SNH required a RAMP to help determine whether the proposal would affect the integrity of the SSSI, and objected to the proposal unless a breeding bird protection plan ensured breeding birds were protected during the two summer (breeding) seasons of construction.

6.22 In its letter dated 25 May 2018,¹⁸⁵ SNH updated its advice to reflect additional information it had received since its previous response. The RAMP allowed SNH to withdraw its holding objection with regard to disturbance of the waterfowl assemblage of the Dornoch Firth & Loch Fleet SPA and Ramsar site, the breeding birds of the Loch Fleet SSSI, and eider on the Moray Firth pSPA.

Recreational and Access Management Plan¹⁸⁶

6.23 Revision 6 of the RAMP, produced in February 2018, was informed by extensive discussion with statutory consultees, in particular Highland Council and SNH, and by the

¹⁸⁴ [SNH 005: Scottish Natural Heritage – response to Highland Council consultation dated 24 November 2017](#)

¹⁸⁵ [SNH 008: SNH response to Highland Council consultation \(addendum 2\) dated 25 May 2018](#)

¹⁸⁶ [CD001.005: Recreational Access Management Plan Rev. 6 \(2018\)](#)

requirements of the Land Reform (Scotland) Act 2016 and the Scottish Outdoor Access Code. It is intended to be an evolving document. The RAMP contains two plans detailing all sensitive areas, protection and mitigation measures at Appendix 2 (summer operations) and Appendix 3 (winter operations).

6.24 The golf course would be closed between 1 December and 31 March, when there would only be occasional access for greenkeeper maintenance. Operations would be kept to a minimum, particularly on holes closest to sensitive areas (i.e. holes 13, 16, 17 and 18), where fairways would not be mown and all aeration works and topdressing would take place before 1 December. During late February it might be necessary to begin cutting the greens and applying dressings, but this would be timed around low tide to minimise disturbance to birds which roost/use the wetted dune slacks, particularly around high tide when their preferred foreshore habitats are under water and thus unavailable.

6.25 To ensure that members of the non-golfing public accessing Coul Links during the winter months do not stray into areas of concern for wintering birds, temporary signage would be placed at key points highlighting areas to avoid and why. The golf course car park would be closed in winter.

6.26 It is proposed that all wildfowl shooting would cease at Coul Links (see below).

6.27 It is estimated in the RAMP that an average of 375 golfers per week and 58 maintenance staff per week would use the playing areas in summer, from early morning to sunset, and 40 maintenance staff per week in winter. This compares to a current 35 walkers per week in summer, and 21 per week in winter.

6.28 Regular monitoring is proposed of the wintering birds and breeding birds, and of the effectiveness of the temporary signage.

THE CASE FOR THE APPLICANT

6.29 [Peter Cosgrove](#) gave evidence on ornithology on behalf of the applicant, and produced an inquiry report¹⁸⁷.

Scoping and bird surveys

6.30 In accordance with the best practice guidance on ecological impact assessment published in 2006 and 2016, contact was made with SNH in the very earliest stages of the planning process to discuss and agree the scope and nature of the ecological and ornithological survey and assessment work required. An initial meeting was held with SNH in September 2015 before any survey work had begun, so that the survey, assessment and reporting requirements could be identified and agreed.

6.31 The council issued a pre-application advice pack¹⁸⁸ in November 2015, which included advice from SNH on the survey work required on breeding birds and non-breeding birds. The non-breeding (wintering) bird survey work was carried out in the winter of 2015-2016, and reported upon¹⁸⁹.

¹⁸⁷ [APP002.001: Inquiry Report by Peter Cosgrove](#)

¹⁸⁸ [APP002.005: The Highland Council Pre-Application Advice Pack issued on 17 November 2015](#)

¹⁸⁹ [CD001.023: ES Annex A, Appendix A.1 Winter 2015-2016 - Coul Links bird survey report](#)

6.32 SNH's scoping response in June 2016¹⁹⁰ recommended the type and scope of breeding bird surveys. The applicant's ecologists attach great weight to SNH's pre-application, scoping and ongoing advice. Throughout the development of the project there was ongoing dialogue with SNH, who used a team of specialist advisors to provide expert ecological/ornithological advice and requested no further work apart from the draft RAMP.

6.33 The above approach to scoping is completely in accordance with best practice, e.g. Circular 6/1995 (updated 2000)¹⁹¹, Circular 3/2011¹⁹², Planning Advice Note 1/2013¹⁹³, and CIEEM best practice guidance in 2016¹⁹⁴ (which states that a scoping opinion summarises the specific advice of the competent authority concerning the required coverage and content of the EIA). Paragraph 1.11 of the 2016 guidelines indicates that the emphasis in ecological impact assessment is on 'significant effects' rather than all ecological effects.

6.34 Dr Cosgrove rejects the criticism of the duration and methodology of the bird surveys undertaken in support of the ES, which were agreed with SNH. Some of the concerns of Dr Wright (RSPB) focus on birds on the foreshore, an area which is not part of the project. In addition, she describes five years of bird survey as best practice, whereas it is not best practice in Scotland for ecological impact assessment and was not requested by SNH during scoping.

6.35 The suggestion by Dr Douse of SNH¹⁹⁵ that two years of surveys would be appropriate, his surprise at the timing of the non-breeding bird survey, and comment that there was a significant deficiency in the information, represent internal discussions within SNH at one moment in time. He subsequently agreed that one season's survey was sufficient.¹⁹⁶

6.36 The bird surveys underpinning the ES adequately characterised the occurrence of birds across the study area when the surveys were undertaken. It is not surprising that RSPB Scotland subsequently recorded different numbers of birds on the site in different years. SNH agreed the winter survey durations (October to March), and identified no gaps in the baseline survey data that would prevent assessments in line with the requirements of the EIA Regulations. RSPB Scotland is wrong to suggest that dune slacks did not flood until January 2016, as the winter bird survey report states that some were flooded in December 2015.

6.37 The wintering bird surveys found that two of the species (teal and wigeon) mentioned in the SPA and Ramsar citations occurred regularly within Coul Links when water was present in the dune slack habitats: teal in small-moderate numbers (2-25 birds); and wigeon in variable numbers (5-100 birds).

6.38 Dr Cosgrove accepts that the surveys are snapshots in time, and that the maximum numbers may be substantially higher. He also acknowledges that the statement in his inquiry report that the dune slacks are 'typically' wetted between December and March is

¹⁹⁰ [APP002.006: SNH letter dated 30 June 2016, Coul Links Golf Course Proposal – Scope of Ecological Surveys](#)

¹⁹¹ [CD005.006: Circular 6/1995 Nature Conservation – 'The Habitats and Birds Directives' \(updated June 2000\)](#)

¹⁹² [CD004.021: Circular 3/2011 The Town and Country Planning \(EIA\) Regulations 2011](#)

¹⁹³ [CD004.020: Planning Advice Note 1/2013, Environmental Impact Assessment](#)

¹⁹⁴ [APP002.004: CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland, January 2016](#)

¹⁹⁵ CC15: SNH memo re Coul Links proposal, 21 July 2016

¹⁹⁶ [APP002.015: emails re. surveys dated 27 July 2016 and email re. ES ecology dated 30 October 2017](#)

based on a single year of data, and that there is evidence of flooding in October and April.¹⁹⁷

6.39 The breeding bird surveys¹⁹⁸ demonstrated that nine bird species (oystercatcher, ringed plover, lapwing, redshank, grasshopper warbler, stonechat, linnets, reed bunting, and a Schedule 1 breeding species¹⁹⁹) mentioned in the Loch Fleet SSSI breeding bird assemblage occur regularly within or adjacent to the development. However, SNH considered that the proposed layout could be accommodated without having significant adverse impacts on the breeding bird assemblage within the SSSI as a whole.

6.40 There is no evidence of eider breeding on site, but they are found offshore and in Loch Fleet throughout the year.

6.41 No golf course infrastructure is planned for habitat areas regularly used by wintering SPA birds, and the layout avoids or crosses over the main north-south dune slack habitat adjacent to holes 15, 16 and 17. Consequently, no significant direct or indirect loss of SPA bird habitat is predicted.

Mitigation measures and impact

6.42 A breeding birds protection plan would ensure all works which might disturb birds would take place outwith the breeding season.

6.43 The project is expected to bring environmental benefits, notably the benefit to wintering teal and widgeon (protected under the SPA and Ramsar designations) of ending existing wildfowl shooting at Coul Links. At present, the shooting activities will create a 'fear landscape', profoundly affecting the use of the site by birds. Over time, it is highly likely that the population of wintering wildfowl protected by these designations which uses the flooded dune slack habitats would increase substantially as the birds learn that Coul Links is neither dangerous nor disturbed. The bird species protected by the SPA and SSSI would become habituated to the routine appearance and predictable activities of golfers, as has occurred at Castle Stuart where there is a similar suite of bird species.

6.44 The proposal to stop winter shooting of wildfowl, including teal and widgeon, would result in greater winter survival of these species, and reduced disturbance (which reduces the fitness and survival rates). This would lead to a likely reduction in indirect mortality of SPA (and Ramsar) qualifying species, and moderate (i.e. significant) beneficial impacts.

6.45 Dr Wright underplays the importance and value of the proposal to close the golf course from December to March when SPA birds use the wetted dune slacks. She also disregards much of the proposed RAMP, which includes proposals to create access routes away from the designated site and dune slack habitats, and to install seasonal access signage.

6.46 Objectors claim that there has been insufficient consideration of the Ramsar designation, particularly in relation to bird interests, and yet the same wild bird species are protected under the Ramsar and SPA designations. Ten qualifying bird species [greylag goose, widgeon, bar-tailed godwit, teal, scaup, curlew, redshank, dunlin, oystercatcher,

¹⁹⁷ LW59: Wright, L.J. 2019 Photographs of flooded dune slacks

¹⁹⁸ [CD001.027: ES Annex A, Appendix A.2 – Summer 2016 Coul Links breeding bird survey report](#)

¹⁹⁹ ES Confidential Appendix A.3

osprey] and a waterfowl assemblage are protected under both designations, none of which would be significantly affected by the project (as agreed by SNH in the consultation response dated 25 May 2018).²⁰⁰ Highland Council considered the effects on the SPA and Ramsar site in carrying out an appropriate assessment of the project.

6.47 [Robert Taylor](#)²⁰¹ confirmed that there would be much less disturbance to wintering birds than at present. The golf course would close throughout the winter period, and the shooting of wildfowl would be prohibited. The open fairways would provide forage habitat, grazing for wildfowl and roosting. Wading birds are common on many coastal courses, clearly preferring the drier, shorter turf conditions and the feeding and vantage resources these areas provide. These birds would also benefit from the effects of habituating routine golfer movement, and the cessation of dog walking and other more random activities.

6.48 Through implementation of the RAMP the project would reduce the impact on wintering birds from dog walking pressures. Summer birds such as yellowhammer and linnet (red listed species) would benefit from additional planted scrub around the western perimeter, outwith the SSSI. Opportunities would be put in place to encourage barn owl.

Response to the evidence of the Conservation Coalition

6.49 In closing submissions, it is contended that the assessment work carried out by the applicant has satisfactorily demonstrated compliance with the legal and policy tests that apply to the SPA. In contrast, the Conservation Coalition has not provided any sound evidential basis to support its contention that consenting the development would be in breach of Regulation 48 of the 1994 Habitats Regulations, or contrary to paragraph 207 of SPP.

6.50 Unlike Dr Cosgrove and SNH, Dr Wright has not carried out an assessment of likely significant effects in relation to the qualifying species. Dr Wright identifies possible or potential effects from generic scientific papers, and then treats them as though they are likely significant effects. Generic evidence is no substitute for site specific EclA work, which is highly dependent on site conditions and knowledge of the activities that would result from the proposed development.

6.51 The competent authority must carry out an appropriate assessment to consider whether or not the identified significant effects on the qualifying interests (as opposed to the species generally found within the protected site) would adversely affect the integrity of the site, having regard to the site's conservation objectives and taking account of any mitigation measures proposed.

6.52 Dr Wright has not attempted to carry out a shadow Habitat Regulations Appraisal (HRA), and her failure to take account of the views of SNH, the appropriate nature conservation body for Regulation 48 purposes, is a significant omission. Its final consultation response of 25 May 2018 represents a peer review by SNH's team of ornithologists.

6.53 Dr Wright has identified potential adverse effects, rather than effects which would adversely affect the integrity of the European site. The Conservation Coalition concludes that bird populations (including some non-qualifying species) 'are at risk from the proposed

²⁰⁰ [CD002.020: Scottish Natural Heritage – response dated 25 May 2018](#)

²⁰¹ [APP001.002 – Inquiry Report by Robert Taylor](#)

development', but that is not a test of any legal or policy relevance whatsoever, and bears no relationship to the SPA test contained in Regulation 48 and SPP paragraph 207.

6.54 Dr Wright had not visited the site to understand the baseline before she wrote her inquiry report and made specific conclusions in relation to the SPA's conservation objectives. Wildfowling at Coul Links forms part of baseline conditions, which are the basis upon which to evaluate and assess the likely significant effects.

6.55 Dr Wright has no golfing experience and a very limited understanding of golf generally. Her concern about disturbance to birds from players and machinery at holes 3-6 shows that her report was written without visiting the site, and her assumption that golfers and their families would visit the foreshore is contrary to the evidence at the inquiry that most of the target market would visit Coul Links on 'buddy trips'.

6.56 She had limited understanding of the existing use of the site by dog walkers and others, and did not provide any sound basis to set aside the evidence and experience of Dr Cosgrove and Messrs Haspell and Taylor on the likely level of disturbance. There is limited disturbance to birds at Castle Stuart golf course from the adjacent SPA. It is commonplace to see wigeon and teal roosting on fairways and greens, which is attributable to the better sightlines to see approaching predators.

6.57 Dr Cosgrove was entitled to place weight on the fact that neither SNH nor the council expressed any concern that the assessment was based on one year of survey data. Wild birds will visit protected sites in varying numbers from year to year, and use different parts of the site, which is why pre-construction surveys are always required.

6.58 Dr Wright showed a flawed understanding as to the extent of habitat which would be lost to roosting birds, and in particular the areas of dune slack which would be impacted upon, which represent one small area within the whole of the SPA that has been designated for the protection of teal and wigeon. She also appeared not to appreciate the usefulness of the proposal to micro-site around dune slack habitat to avoid important and more ecologically sensitive parts of the habitat wherever possible. SNH is content that it would be a matter for the ecological clerk of works to identify the areas involved.

6.59 SNH agreed with the applicant that appropriate mitigation measures could be secured by conditions to protect the SSSI breeding bird assemblage. It is a criminal offence under the Wildlife and Countryside Act 1981 to disturb breeding birds. The RAMP would ensure that the disturbance effects from walkers and dogs would be managed to the benefit of breeding birds, and also the SPA and Ramsar internationally important overwintering assemblage at Coul Links.

6.60 There is overlap between the qualifying wild bird species and waterfowl assemblage under the SPA and Ramsar citations, within which there are nationally important wintering populations of teal, scaup, curlew, redshank, Icelandic greylag goose, wigeon and bar-tailed godwit. The highest level of protection is therefore afforded to the waterfowl and the wetland habitat used by the species of relevance to Coul Links. The proposed development would not impact on the Annex 1 qualifying species. Eider is not listed as noteworthy fauna for the SPA and the Ramsar site (though it is listed as a feature of the SSSI).

6.61 An appropriate assessment has been carried out that covers all of the wild bird species that are protected under the SPA, and which are the same wild bird species listed as noteworthy natural features in the Ramsar site citation.

THE CASE FOR THE CONSERVATION COALITION

6.62 [Lucy Wright](#) commented on ornithological issues on behalf of Royal Society for the Protection of Birds (RSPB) Scotland. Her topic paper²⁰² gives details of the importance of the site for birds, SPA conservation objectives, SSSI management objectives, and the status of the protected sites' species.

6.63 The RSPB's position has been informed by:

- survey data and information submitted as part of the ES;
- RSPB surveys of the site;
- Wetland Bird Survey data for the Dornoch Firth and Loch Fleet SPA, including WeBS Alerts;
- RSPB evidence on the effectiveness of signage in reducing disturbance; and
- relevant published peer-reviewed scientific literature including those included as references to Dr Wright's topic paper.

The importance of the site

6.64 The UK is particularly important for non-breeding migratory water birds, and the protected sites which include the application site form part of the most northerly estuary in Europe to hold internationally significant concentrations of birds in the non-breeding season. The Dornoch and Loch Fleet SPA has been described as 'one of the best examples in northwest Europe of a large complex estuary which has been relatively unaffected by industrial development'.²⁰³

6.65 This is important in meeting one of the key objectives of the internationally coordinated network of SPAs: to maintain the geographic range of migratory bird species, and the long-term resilience of bird populations globally. In addition to the reasons why the sites are designated, as a relatively sheltered site with unusual habitats within the Ramsar site and SPA, Coul Links is an important refuge for birds, at high tides and in adverse conditions.

6.66 Numbers of several water bird species of the Ramsar site and SPA have declined. Adding further pressure to a declining population could make it challenging to meet the SPA conservation objective to maintain the population of the species as a viable component of the site.

6.67 During the non-breeding season, the dune and slack areas provide habitat used by Ramsar site, SPA and SSSI species, notably ducks. Greylag geese can be found on adjacent fields. The foreshore adjacent to Coul Links provides a high tide roost site for non-breeding waders (including Ramsar site and SPA species). Non-breeding divers, grebes and sea ducks can be found just offshore. Eider are a named feature of the SSSI and part of the water bird assemblage of the SPA.

²⁰² [Topic Paper – Lucy Wright](#)

²⁰³ LW50: The UK SPA network: its scope and content. JNCC 2001

6.68 SSSI coastal breeding assemblage species nest on the foreshore or on parts of the application site. Many of these species favour less disturbed sites, so may only be present in their current numbers because of limited disturbance.

Scoping and survey work

6.69 RSPB would normally be contacted by potential developers as a matter of routine at the scoping stage of the project. In this case RSPB wrote to the developer's agent offering to help and/or advise on the scope of the studies and intended methods of assessment, and to provide data on bird species in the area, but was not invited to comment on scoping.

6.70 The applicant has not collected sufficient data to describe adequately the bird populations using the site and surrounding area at all times of the year and across multiple years, as would be expected from industry best practice and European Commission guidance. Therefore, the assessment of potential impacts to these populations cannot be scientifically robust.

6.71 Decisions on the proposed development of such an important site need to be founded on a complete and robust evidence base, but Dr Wright's concerns about the inadequacy of bird data include:

- the lack of surveys across all times of the year in multiple years;
- the lack of surveys of farmland adjacent to the application site that could provide important functionally linked land that may help to support the Ramsar site and SPA bird populations.

6.72 Dr Cosgrove suggests that the Conservation Coalition's approach is to 'ignore the process of scoping', and is 'against EIA guidance and EclA best practice'. However, best practice guidance recommends engaging with non-statutory consultees during scoping, and states that scoping is iterative and the scope of work may change in response to concerns raised by statutory or other consultees.^{204 205}

6.73 Bird numbers and species present at coastal sites vary within and between years, due to seasonal effects, weather conditions and the availability of food. At Coul Links the number of birds using the dune slacks varies depending on the levels of seasonal flooding. For developments predicted to affect Ramsar sites or SPAs, a minimum of two full years of survey is normally expected²⁰⁶, and best practice is to include five years of bird data²⁰⁷ to account for this variability. Although SNH's guidance relates to wind farms, the reference to two years of survey data is to provide adequate baseline data on bird use of a site, because numbers and types vary within and between years.

6.74 Such longer-term data can sometimes be sourced from existing bird monitoring schemes such as the Wetland Bird Survey (WeBS), which is normally used as the basis of SPA designation. These monthly surveys cover the site in question at all relevant times of year, and are normally conducted within two hours of high tide (when water birds such as wigeon and teal move onto the dune slacks to roost as the intertidal feeding areas become

²⁰⁴ [APP002.003: IEEM, Guidelines for ecological impact assessment in the UK \(2006\), Chapter 2](#)

²⁰⁵ [APP002.004: CIEEM, Guidelines for ecological impact assessment in the UK & Ireland \(2016\), Chapter 2](#)

²⁰⁶ LW44: SNH (2017), Recommended bird survey methods to inform impact assessment of onshore wind farms, p5&p10

²⁰⁷ LW19: EC (2001), Assessment of plans and projects significantly affecting Natura 2000 sites, p58

unavailable). Although the application site includes a small inland area outwith the survey area, WeBS is likely to cover the majority of SPA species (though not teal).

6.75 Dr Wright agrees with Dr Douse's expressed concern in July 2016²⁰⁸ about the timing of the non-breeding bird survey work, especially since eider will be present from at least July onwards.

Habitat loss

6.76 The ES suggests there would be no direct adverse habitat loss, and no golf course infrastructure on areas regularly used by wintering birds,²⁰⁹ but that cannot be said on the basis of a one-year survey. Even the applicant's limited survey work confirmed the presence of SPA ducks in or adjacent to the proposed 10th and 16th holes.

6.77 Figure 2 of Dr McMullen's inquiry report²¹⁰ shows that the dune slacks would be lost within Areas A-F. Roosting water birds need a wide area of dune slack to avoid predation. RSPB's surveys during the winter of 2017-18²¹¹ found wigeon and teal within the areas proposed to be turned into holes 4, 5, 7 and 11, and on the edge of holes 1, 3, 12, 13 and 16. Some of the wider dune slack areas, which may be of greatest value to roosting birds by providing a refuge away from disturbance, would be affected and if fragmented the safe distance from predators would be reduced. Also, the 2016 report by Golder Associates indicated that some of the ephemeral pools would be filled in.²¹²

6.78 Dr Wright accepted that: a very small area would be affected within Areas B, C and D; the golf course would be sited around the dune slack at Areas E and F; and micro-siting would be carried out under the supervision of the ecological clerk of works. However, the proposed micro-siting is not specified in the written documents before the inquiry, and there is considerable uncertainty whether and how micro-siting would be implemented or regulated. Even with micro-siting there would still be an issue with fragmentation. Moreover, the construction of the golf course would mean that these areas would no longer flood as dune slack.

6.79 The ES focuses on direct habitat loss from the golf course, and fails adequately to consider wider effects within the application site. Also, due to the inadequate survey period, the ES fails to identify all the important areas for Ramsar site and SPA species. This will affect the SPA conservation objectives²¹³ of maintaining the distribution of species within the site, and maintaining the distribution and extent of habitats supporting the species.

6.80 The Coalition is not aware of any case where such a significant area of Ramsar site or SPA habitat has been lost without the requirement for compensatory habitat creation, and yet the applicant has not proposed any compensatory habitat creation to account for the predicted loss of at least 14 hectares²¹⁴ of Ramsar site, SPA and SSSI habitat.

²⁰⁸ CC15: SNH memo re Coul Links proposal, 21 July 2016

²⁰⁹ [CD001.007: ES Non-Technical Summary and Environmental Statement, paragraph 4.6.1.2](#)

²¹⁰ [APP003.001: Inquiry Report by Andy McMullen](#)

²¹¹ [CD003.007: RSPB response dated 23 May 2018, Annex 2, p9-14](#)

²¹² [CD001.169: Coul Links - Hydrological Setting and Preliminary Options for Water Management, May 2016](#)

²¹³ [CD005.004: Dornoch Firth & Loch Fleet Special Protection Area Citation and Conservation Objectives](#)

²¹⁴ [SNH 028: Topic Paper by Professor Stewart Angus](#)

Disturbance impacts

6.81 The applicant has failed to consider the potential impacts of habitat fragmentation and other changes in habitat quality, and has underestimated the significance of increased human disturbance within, and adjacent to, the application site.

6.82 Changes to the level of seasonal flooding, the fragmentation of natural habitats including the infilling of the fringes of the dune slacks and some ephemeral waterbodies, and the site management practices required for the proposed development, would affect the suitability of the application site for Ramsar site and SPA water birds.

6.83 The proposed construction programme could potentially disturb Ramsar site and SPA species. Avoiding the months of November to March would not avoid the full period of the year (August to May) when non-breeding water birds may be present in or adjacent to the application site, nor would it avoid the breeding season when the SSSI breeding bird assemblage is present (though the ES states that all breeding birds located during surveys were outwith the development footprint).

6.84 It is proposed that work on heath translocation in areas close to the dune slack habitats would be undertaken during September to November, which is an important time for migratory birds passing through the Ramsar site and SPA and for birds arriving for the winter. Heath translocation work is scheduled to continue through the winter, combined with clearing and grubbing up between January and March, and excavation and shaping from February onwards. RSPB do not believe that there should be any construction activity which could cause disturbance to migratory and over-wintering birds between mid-September and early May.

6.85 The applicant has not formally assessed recreational use of Coul Links, nor how any changes to recreational use might affect the Ramsar site, SPA and SSSI species. RSPB do not consider that the proposed mitigation (e.g. closure of the golf course between December and March and signage to direct visitors away from sensitive areas) would be sufficient to manage the impact of potential increased recreational use of the application site effectively. The proposed greens and fairways would open up parts of the application site which are currently less accessible, particularly in winter due to ground conditions.

6.86 During 'summer' (which is assumed to mean all months when the course is open) the number of people visiting the application site is predicted to increase from the current 35 people per week to 468 people per week (more than 13 times the current numbers), not allowing for the likely increase in recreational use of the area by non-golfers.²¹⁵

6.87 There is robust scientific evidence (from 13 peer-reviewed papers²¹⁶) demonstrating that recreational disturbance can affect the number, and breeding success, of some of the species which the ES considered to have sensitivity. Certain species will habituate to some extent, but the carrying capacity of a site is still reduced. It has been shown that increased human interference can cause a significant reduction in the number of non-breeding wigeon, and may lead to the abandonment of a site.

²¹⁵ [CD001.005: Recreational Access Management Plan Rev.6 \(2018\)](#)

²¹⁶ e.g. LW04: Impacts of man-made landscape features on numbers of estuarine waterbirds at low tide, Burton et al

6.88 Peer-reviewed research indicates that non-breeding waders and wildfowl take flight in response to humans on foot at distances of 50-500 metres depending on the species and circumstances, and that a buffer of 250 metres would be required around the dune slacks to avoid disturbing wigeon.²¹⁷

6.89 RSPB data show that dune slacks flood in at least November and April in some years, when Ramsar site and SPA species including wigeon and teal are present, and some areas also flood in summer.

6.90 It is likely that golfers using the course in those months would cause disturbance which would affect the use of the site by Ramsar site, SPA and SSSI bird species. This would affect the SPA conservation objective and SSSI management objective of avoiding significant disturbance to breeding and wintering birds, and the SPA conservation objectives to maintain the population of the species as a viable component of the site, and to maintain the distribution of species within the application site.

6.91 There is also the potential for increased disturbance on the foreshore adjacent to the application site to non-breeding water birds (waders, sea ducks, divers and grebes) and breeding birds (e.g. ringed plover) which are known to be sensitive to disturbance. The SSSI's breeding bird assemblage, including Annex 1 and Schedule 1 terns and waders²¹⁸ would certainly be affected by any increase in visitors to the foreshore.

6.92 It is also likely that the activities of golfers, and the use of construction plant and maintenance machinery, on the course could disturb birds on nearby parts of the foreshore and on Loch Fleet. Studies have shown that increased human interference can cause reductions in the population sizes of non-breeding water birds that a site can support, and that water bird numbers were significantly lower in areas with a footpath nearby.

6.93 The situation at Castle Stuart where the golf course lies outwith designated sites is very different to Coul Links which is within such designations, and anecdotal evidence is not comparable to peer-reviewed literature, where the evidence is tested objectively by a number of highly qualified and experienced experts.

6.94 At present it is difficult to access the areas around the dune slacks in winter, and in practice walkers tend to stick to the informal track along the edge of the dunes or the beach. The new fairways would lead golfers through the sensitive dune slack areas, and open up these parts of the site to recreational users all year round. Also, some of the additional tourists attracted to the area might access the foreshore when not playing golf.

6.95 Birds may be impacted by disturbance even if they do not fly away, as result of increased time spent on vigilance (and therefore reduced time spent feeding, and hence reduced energy input) and increased energy expenditure through raised heart rate. The combination of reduced energy input and increased energy output has the potential to lead to sub-lethal effects (weight loss, reduced condition) and eventually an increased mortality rate for the affected birds. This would reduce the likelihood of the SPA bird populations being maintained in the longer term, and thereby reduce the ability to meet the SPA's conservation objectives and achieve favourable conservation status.

²¹⁷ LW28: A study of the impact of human disturbance on wigeon and brent geese on an Irish sea loch, Mathers et al 2000

²¹⁸ See Dr Wright's Confidential Annex – breeding birds

Mitigation

6.96 Dr Wright acknowledges that SNH withdrew its holding objection relating to impacts on birds, having regard to the mitigation measures set out in the RAMP which propose taking walkers away from the dune slacks. However, the proposed circular walking route with picnic area would reduce, but not eliminate, disturbance. She also accepts that current desire lines run through the main dune slack area, and there is access around the sensitive 'finger' in the north of the site (closer to where eider roost), between holes 3, 4, 5 and 6, and a footpath around the northern end of the site.²¹⁹

6.97 However, the proposed mitigation, including the closure of the golf course between December and March, cessation of wildfowl shooting and the RAMP, is inadequate to avoid significant disturbance to the protected sites' bird features, a key SPA conservation objective and SSSI management objective. Dune slack flooding (which is important to determining the bird use of the site) can occur outside that period, including from at least October to April.²²⁰

6.98 RSPB welcomes the proposed cessation of shooting on the application site (though the applicant cannot control shooting on the foreshore), but considers that this would not provide mitigation for the loss of suitable habitat on the application site. Shooting, which involves an estimated 4 people on only 7 or 8 days a year, is not recognised as one of the negative pressures affecting the Ramsar site²²¹ and SPA bird species in the site monitoring reports. The SSSI Site Management Statement confirms that the more likely cause of regular disturbance is through recreation.²²² The proposed golf course is expected to attract 20,000 golf tourists each year to the application site.

6.99 If greater numbers of people visit the foreshore, the seasonal signage to steer visitors away from sensitive areas is unlikely to be effective in preventing disturbance to the breeding waders and terns, and non-breeding wader high-tide roosts, on the foreshore. Ramblers Scotland and ScotWays consider that the proposed new circular route is likely to be more suitable to locals, rather than other recreational users who visit the area to experience the coastline.

6.100 For the above reasons, the likely adverse effects of the proposed development on the Ramsar site, SPA and SSSI bird species and the other Annex 1, Birds Directive and Schedule 1, Wildlife and Countryside Act 1981 species, have been greatly underestimated.

6.101 It is clear that the distribution and extent of habitats supporting the species, and the distribution of species, would be reduced within the site. Therefore, the site could not meet its conservation objectives, particularly for teal and wigeon, or maintain the favourable conservation status of the SPA.

6.102 The proposed development would pose significant challenges to meeting the SPA's conservation objectives and the SSSI's management objectives. The applicant's evidence fails to demonstrate that the proposed development would not adversely affect the integrity of the Ramsar site and SPA and their species, or show that the proposed development is not likely to damage the SSSI and its species.

²¹⁹ [CD001.163: Additional Drawings – Winter Access Management](#)

²²⁰ LW59: Wright, L.J. 2019 Photographs of flooded dune slacks.

²²¹ [CD005.003: Dornoch Firth and Loch Fleet Ramsar Site Info Sheet \(RIS\) & Ramsar Sites Criteria](#)

²²² [CD005.002: The Loch Fleet SSSI Site Management Statement as prepared by SNH](#)

6.103 It is submitted that adverse effects on key bird populations are highly likely, and certainly cannot be ruled out with the very limited data and consideration given to them by the applicant. Insufficient environmental information has been provided by the applicant, but due to the further evidence supplied by RSPB Scotland, it must be concluded that the bird populations, especially those that constitute the designated features of the Ramsar site, SPA and SSSI, are at risk from the proposed development.

OTHER REPRESENTATIONS

6.104 The issues relating to ornithology which were raised in written representations in favour and against the proposal have already been discussed above.

REPORTERS' CONCLUSIONS

The significance of Coul Links for ornithology

6.105 Loch Fleet, in the Moray Firth basin, is the most northerly inlet on the east coast of mainland Britain, and is the most northerly estuary in Europe to hold internationally significant concentrations of birds in the non-breeding season.

6.106 Dornoch Firth and Loch Fleet is one of the best examples in northwest Europe of a large complex estuary which is relatively unaffected by industrial development²²³. Its extensive intertidal flats support important populations of wintering birds, and the surrounding coastal habitats support an important assemblage of breeding birds.

6.107 We find that the proposed development has the potential to affect birds protected by three natural heritage designations – the Dornoch Firth & Loch Fleet SPA, the Dornoch Firth & Loch Fleet Ramsar site and Loch Fleet SSSI – each of which encompass much of the application site.

6.108 We note that Coul Links serves a significant function within the SPA and Ramsar site as a refuge for birds at high tides and in adverse weather conditions. The dune and slack areas are used in the non-breeding season by SPA, Ramsar site and SSSI bird species, and the adjacent foreshore is used for roosting by non-breeding waders at high tide. Breeding birds nest on the foreshore and on parts of the application site.

Ecological impact assessment

6.109 We have considered the Conservation Coalition's criticism of the surveys carried out on behalf of the applicant as part of the EIA. We note that the applicant's ecologists correctly sought the guidance of SNH, as the appropriate statutory body, on the survey requirements for breeding and non-breeding birds. They contacted SNH at the outset of the project, and followed its advice throughout the process on the type and scope of the surveys. SNH was content with the conduct and reporting of the bird surveys.

6.110 The applicant's reliance on the council's scoping opinion (which contained SNH's advice) is founded on the CIEEM best practice guidance in 2016 on ecological impact assessment (EclA). However, Box 3 of the guidance recommends that for EIA projects

²²³ LW50: The UK SPA network: its scope and content. JNCC 2001

'scoping should involve appropriate consultation with the competent authorities, statutory agencies, other regulatory bodies, and possibly relevant NGOs and other non-statutory bodies, regarding the project and the proposed scope of the assessment'. [our emphasis]

6.111 In a similar vein, Table 1 of PAN 1/2013: Environmental Impact Assessment states: 'As a matter of good practice, and depending on the circumstances of the application concerned, developers may choose to consult more widely at scoping stage, for example with the public or relevant Non-Governmental Organisations.'

6.112 Paragraph 1.20 of the 2016 CIEEM guidance highlights that scoping is an ongoing process, and that the initially proposed scope of the EclA may be modified following further ecological survey/research and during impact assessment. Box 6 lists the key activities in scoping, which include agreeing details of proposed survey methodologies, but notes that this does not preclude requests from stakeholders (statutory and non-statutory consultees) for further information at a later stage of EclA.

6.113 We find that the scoping of EclA is not intended to be a finite process, and that it can be good practice to involve relevant NGOs where they have a potentially useful contribution to make.

6.114 In that light, given the national and international importance of the site for its bird interest, we might have expected the applicant's ecologists to have consulted RSPB Scotland (the NGO with particular knowledge and expertise in this topic) to discuss the intended scope of the bird surveys to be undertaken, and to establish whether the RSPB had any useful data regarding the site.

Bird surveys

6.115 The applicant's bird surveys at Coul Links have been criticised on the grounds that they were carried out on a single year rather than multiple years, and for too few months in the year, and that they excluded the farmland adjacent to the application site.

6.116 Parties agree that Coul Links are regularly used by SPA and Ramsar site wintering birds when the dune slacks are flooded, and that the number of birds using the site depends on seasonal levels of flooding, which will vary from month to month and from year to year. It follows that the survey of a single year, or part of a year, may not be sufficient to establish the typical pattern of the use of the land by wintering birds. In seeking to avoid areas used by protected birds, it is necessary to know which species are present, in what numbers, and where they feed or roost. This is especially relevant when considering a development proposal with the potential to affect birds protected by SPA and Ramsar site designations.

6.117 It is not adequate to rely on pre-construction surveys to respond to new information on bird activity on the site, as the project itself and the site layout would have been approved by that stage.

6.118 There is no specific EIA guidance on bird surveys for golf course developments, but SNH's 2017 guidance for windfarm developments recommends that survey work should span all times in the year when the target species are present, and should cover at least two years to allow for variation in bird use between years, especially proposals affecting SPAs or Ramsar sites.

6.119 We acknowledge that this guidance was prepared for a different purpose, but consider that it highlights the need for surveys to cater for variation in bird use of a site and to ensure decisions affecting international designations are based on reliable data. Indeed, the 2001 EC guidance on assessment of plans and projects significantly affecting Natura 2000 sites²²⁴ (such as SPAs) recommends a minimum of five years' data for developments with the potential to impact on roosting or feeding areas of migratory species.

6.120 RSPB Scotland suggests that such longer-term data may be sourced from existing bird monitoring schemes such as the Wetland Bird Survey (WeBS). Appendix 3 of the 2016 CIEEM guidance lists WeBS as one source of information that may be useful when undertaking an EclA. We note that the applicant's ecologists opted not to make use of the monthly WeBS data for the site, which contain records of the situation around high tide when Coul Links is likely to be most heavily used by roosting birds.

6.121 The Wetland Bird survey is also specifically referenced in section 27 of the citation for the Dornoch Firth & Loch Fleet Ramsar site, which states: 'Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.'

6.122 The bird surveys conducted by the RSPB in 2017/18²²⁵ confirm that the results of the winter bird survey for the ES may not be typical, as they indicate substantially higher numbers of birds using the site than were recorded in the winter of 2015/16. Amongst a wide range of species, the RSPB surveys showed significant numbers of: teal and wigeon on the dune slacks; sanderling, ringed plover and dunlin in the high tide roost immediately to the east of the site boundary; and greylag geese in the fields to the west of the proposed golf course. This difference is not surprising, as bird numbers at Coul Links will be affected by the weather, the flooding of dune slacks, and food supplies, all of which will fluctuate from month to month and year to year.

6.123 There is evidence that the dune slacks flood between October and April. It is also likely that some of the non-breeding Ramsar and SPA water bird species may be found on the adjacent foreshore from August onwards. Moreover, the non-breeding bird survey did not address the use of the site by non-breeding water birds during the spring migration period in April-May. Nor were the fields to the west of the application site, which are used for feeding by Ramsar site and SPA greylag geese and curlew, surveyed in the ES despite the SNH guidance on assessing connectivity with SPAs.

6.124 We note that Dr Douse of SNH ultimately accepted that one full summer breeding season should provide enough information to gauge impacts on the breeding bird assemblage. SNH also agreed that one full winter season (October-March inclusive) should be sufficient, but that concession was made on the basis that WeBS data could be used as a contextual resource.

6.125 For the above reasons, we find that there are limitations in the data in the ES on the use of Coul Links, particularly by non-breeding birds, which make it more difficult to draw robust conclusions on the impact of the proposed development on important bird interests.

²²⁴ LW19: European Commission (2001), Assessment of plans and projects significantly affecting Natura 2000 sites, p58

²²⁵ [CD003.007: RSPB response dated and published 23 May 2018](#)

Effects on bird habitat

6.126 The principal direct effect of the proposal on bird habitat would be the loss of, or reduction in, areas of dune slack and 'ephemeral pools' at Coul Links which flood in winter months. These areas offer water birds, including teal and wigeon, a refuge safe from ground predators; the wider the dune slack the greater the distance from predators and disturbance. The winter flooded dune slack habitat is not present elsewhere in the SPA, Ramsar site or SSSI. The applicant's winter bird survey confirmed that the flooded dune slacks are regularly visited by teal and wigeon in particular, with around 100 wigeon using the wet dune slack at Coul Links on one occasion in March 2016.

6.127 The ES confirms that ground levels would be built up by 0.5-1 metre above ground water level where playing areas correspond with the dune slacks²²⁶. The Golder report in 2016²²⁷ indicated that some of the ephemeral pools would need to be infilled so that a drier surface on parts of the golf course could be maintained throughout much of the year. Infilling would be with inert, permeable material, covered with soil and grass, which would be used to raise the ground to above the current elevation.

6.128 Moreover, SNH's hole-by-hole analysis²²⁸ shows that areas of dune slack (some within matrix communities) would potentially be affected at holes 7, 13, 16 and 18. The RSPB survey found wigeon and teal in or adjoining the proposed holes 1, 3, 4, 5, 7, 11, 12 and 13, and the applicants' survey showed SPA ducks in or adjacent to holes 10 and 16.

6.129 We conclude elsewhere in Chapter 5 that the development of the golf course at Coul Links would result in the loss of dune slack on the tees, paths, fairways, greens, semi-rough and bunkers.

6.130 In addition to habitat loss, there would be wider adverse effects such as habitat fragmentation, since smaller areas of slack would provide smaller and less secure refuges from predators, and make the birds more vulnerable to disturbance, potentially reducing the quality of the remaining habitat and hence the number of birds it could support.

6.131 We note the applicant's intention that the ecological clerk of works would have the authority to micro-site golf infrastructure to minimise the loss of dune slack habitat, and that micro-siting could extend to up to 20 metres from the submitted course layout²²⁹. However, we do not consider that important decisions affecting such sensitive habitats and bird species protected by national and international designations should be left until construction work is underway. At present the degree to which the golf course design and layout could be modified to accommodate these constraints, and hence the impact on birds using those areas, remains unclear.

6.132 The impacts of borehole abstraction, irrigation and potential changes to hydrology, and of the application of fertilisers and pesticides, are discussed in Chapter 4 of this report. Changes to habitats are addressed in Chapter 5.

²²⁶ [CD001.007: Environmental Statement paragraph 2.3.4.2.4](#)

²²⁷ [CD001.169: Coul Links - Hydrological Setting and Preliminary Options for Water Management, May 2016](#)

²²⁸ [SNH30: Report by Professor Stewart Angus, containing hole by hole analysis of vegetation and translocation at Coul Links dated 10 November 2017](#)

²²⁹ [CD001.009: Coul Links Golf Development – Schedule of Mitigation](#)

Disturbance

6.133 There is the potential for disturbance to wintering and breeding birds, including qualifying species of the designated sites, during the construction, operation and management of the proposed golf course at Coul Links. Certain of the SPA and Ramsar site bird species present are particularly sensitive to human disturbance, and most of the dune slack habitat is within 250 metres of the proposed golf course infrastructure.

6.134 It is proposed to complete holes 10-18 during May to October, and holes 1-9 during April to July the following year.²³⁰ Although it is intended that no construction work would take place between November and March, construction would proceed during five months (August, September, October, April and May) when non-breeding water birds might use the site and its surroundings.

6.135 The construction period would also coincide with the breeding season for the SSSI breeding bird assemblage. The 2016 breeding bird survey recorded a total of 32 potential breeding species in the study area during April-July 2016.

6.136 Ringed plover, oystercatcher, eider, and Arctic, common and little tern (Annex 1 species) are known to breed on the foreshore, dune and saltmarsh habitats within 300 metres of proposed golf course infrastructure. Research indicates that terns are especially susceptible to disturbance, which can affect breeding success and may even result in the abandonment of colonies.

6.137 Wheatear, sedge warbler and reed bunting, which breed within the application boundary, would lose habitat from scrub clearance, 'remediation' of the felled plantation, and the re-grading works to create holes 10, 11 and 13.²³¹

6.138 The site is also used during the breeding season by a number of red listed birds of conservation concern (including lapwing, curlew, grasshopper warbler and linnet), and is used by a number of amber list species (including teal, oystercatcher, redshank, snipe, reed bunting and little tern), which are likely to lose habitat and be affected by increased disturbance. The site would be cleared and scrub grubbed out in May and June, the height of the breeding season²³², when there is a risk that passerines which breed in the scrub might lose nests, eggs and young.

6.139 The applicant proposes to carry out heath translocation work, including clearing, grubbing up, excavation and shaping the landform close to dune slack habitats, between September and February, when there is the potential to disturb migratory and over-wintering birds.

6.140 When the golf course was in operation, many more people (an estimated average of 468 per week in summer, rather than the current 35 per week) would visit the site than at present, and golfers would enter parts of Coul Links which are now relatively inaccessible, especially in winter. As discussed above, some of the fairways and greens would be close to areas frequented by wintering birds.

²³⁰ [CD001.006: ES Non-Technical Summary and Environmental Statement, section 1.7](#)

²³¹ [CD003.006: RSPB response dated and published 14 December 2017](#)

²³² [CD001.096: ES Supporting Document 10 – Construction Management Statement](#)

6.141 It is also likely that more non-golfers (including dog walkers) would visit Coul Links, which would become easier to negotiate on foot, and that some of the golf tourists would additionally seek to explore on foot the attractive beach which adjoins the proposed golf course.

6.142 We appreciate the need to have a close understanding of the site and the proposal, but we do not agree with the applicant's dismissal of the significance of 'generic scientific papers' on the effect of disturbance on birds. Once the baseline is established, the potential impact can only be appreciated if it is known how individual bird species are likely to react to the development which is proposed. Therefore, it is necessary to examine the relevant studies of bird behaviour.

6.143 There is clear scientific evidence based on a body of peer-reviewed research that people on foot (between 50-500 metres away) cause non-breeding waders and wildfowl to take flight, and that population numbers and breeding success of relevant bird species are affected by recreational disturbance. The effect of human interference on non-breeding wigeon ranges from a reduction in bird numbers to the abandonment of a site.

6.144 A study at Strangford Loch concluded that human disturbance may have contributed to the decline of wigeon in the loch from 20,000 in the 1970s to less than 2,000 in the 1990s, and that a minimum buffer zone of 250 metres is required for the species. More widely, studies have shown that disturbance can modify the feeding and roosting habits of wildfowl, place additional energetic stress on birds through increased locomotion costs and lost feeding opportunities, and potentially reduce fitness and survival rates. In some species such as wigeon and curlew the interruption to foraging can be especially significant.

6.145 On that basis, at Coul Links there could be a particularly pronounced adverse effect on birds using the dune slack habitats which are only found within the application site.

6.146 The evidence that the SPA and SSSI species at Coul Links would become used to the presence and behaviour of golfers is largely anecdotal, and based in some measure on the experience at Castle Stuart golf course. However, the golf course at Castle Stuart (which is not designated as an SPA or SSSI) was previously mixed agricultural land rather than a sand dune environment with dune slacks, so the bird habitats would be different from those at Coul Links.²³³

6.147 We therefore consider that it would be unsound to attempt to draw lessons from Castle Stuart when predicting the potential impact of the proposed golf course development on the behaviour of wild birds at Coul Links.

6.148 It is also possible that water birds using the adjoining foreshore would be disturbed by the increased recreational use of the dunes (for example around holes 15-17). A similar concern applies to SPA species such as greylag goose, curlew and oystercatcher which forage on the farmland immediately to the west of the proposed golf course, and to the flocks of waterfowl (including teal, wigeon, greylag goose and eider) which congregate on Loch Fleet to the north of the site.

6.149 With that in mind, we are concerned that SPA and Ramsar site wintering birds might be disturbed by works (including translocation of habitat) to construct the proposed golf

²³³ [APP002.011: CIEEM – Castle Stuart Best Practice Event 18 April 2014](#)

course at Coul Links, and by golfers playing the new course, maintenance operations including the use of machinery, and additional walkers accessing Coul Links and the adjoining foreshore.

6.150 We find that the construction and translocation works, and the operation of the golf course, would be likely to have a significant adverse effect on wintering and breeding birds (including Annex 1 and Schedule 1 species), as a result of disturbance and habitat loss.

Proposed mitigation

6.151 The suggested arrangements for micro-siting golf infrastructure are discussed above. However, we find that the proposed measures in the RAMP would help to mitigate the impact on protected birds.

6.152 It is intended that the golf course be closed each winter from the start of December to the end of March, when there would be only occasional access for maintenance, and activities would be programmed to avoid the times when the site is most used by water birds. When the course was closed temporary signage would be placed at key points along the golf paths requesting that members of the public (and their dogs) do not use them, to avoid disturbing wintering birds.

6.153 During the breeding season temporary signs would be erected to ensure that members of the public do not disturb important breeding areas for sensitive bird species.

6.154 However, the course would not be closed (and the winter signage would not be in place) for the full period between August and May when wintering birds are likely to use the site and the foreshore, when up to a predicted 400-500 people per week would visit Coul Links. Also, we were advised at the inquiry that it has been the experience at Brora Golf Club that dog walkers often ignore signs exhorting them to keep dogs on a lead, and allow their dogs to run free amongst nesting terns.

6.155 In addition, a new circular public footpath almost 3km long would be created to the west of the proposed golf course and outwith the SPA. As discussed in Chapter 9 of this report, we consider that this new route, whilst potentially a worthwhile addition to the local footpath network, is likely to be less appealing to recreational walkers than the existing path along the dunes and the walk on the beach itself, due to the natural attraction of the sea and the foreshore.

6.156 The proposal to stop the shooting of wildfowl on Coul Links would be clearly beneficial, as this practice is bound to cause some disturbance, stress and mortality to roosting and feeding waterfowl. However, the intensity of shooting activities on the site appears to be very low, taking place for only 7-8 days per year and apparently involving four people. Moreover, the offer does not extend to shooting on the foreshore, which lies outwith the applicant's control. We note that shooting is not identified as a negative pressure affecting the Ramsar site, and that recreation is cited as the most likely cause of disturbance to SSSI breeding birds and wintering bird populations.

6.157 Given that the applicant expects to attract 20,000 golfers to Coul Links each year, there would inevitably be a more than tenfold increase in recreational users of the site, and a substantial increase in potential disturbance to bird populations which roost, feed or breed on land in or adjacent to the application site. Visits by golfers to the course might typically

extend to four hours or more, which we consider is likely to be significantly longer than the average length of time spent there presently on a visit by a walker or other recreational user.

6.158 We find that the proposed mitigation measures, including the winter closure of the golf course and the cessation of wildfowl shooting, would not be sufficient to reduce the level of adverse effects on birds to non-significant.

Overall conclusion on impacts on birds

6.159 For the above reasons, we conclude that the construction and operation of the proposed development is likely to have a significant adverse impact on wintering and breeding birds, even after mitigation, arising from disturbance and habitat loss.

The position of Scottish Natural Heritage

6.160 We appreciate that our conclusions differ from the final position of SNH on the proposal's potential impact on birds, but we have been able to take account of the extensive evidence to the inquiry, cross-examination of witnesses, and the submissions of the parties on the topic, much of which was not available to SNH when they submitted their consultation response. For example, we have had the opportunity to consider the implications of the additional bird surveys by RSPB, peer reviewed scientific research on disturbance, and experience of the effectiveness of signage, which have helped to inform our conclusions.

CHAPTER 7: IMPACTS ON INVERTEBRATES

BUTTERFLIES AND MOTHS

Environmental statement

7.1 The desk study (Technical Appendix B.1: Coul Links Natural Heritage Desk Study)²³⁴ found 479 records of invertebrate species, including 178 species of lepidoptera, known to be within the Coul Links study area (Table B.5). This included records from local recording groups and historic surveys. In consultation with SNH and local experts four species were noted as being of particular concern/importance with regard to the proposed development, these included three lepidoptera, Small Blue butterfly (*Cupido minimus*), Northern Brown Argus butterfly (*Aricia artaxerxes*) and a rare micro-moth *Caryocolum blandelloides*, and one Diptera (Fonseca's seed-fly, discussed in a separate section of this chapter below).

7.2 The ES notes that the Small Blue, which is the UK's smallest butterfly, has been recorded at Coul Links. This butterfly is generally in decline, and is listed as a UK BAP priority species. Its sole food plant is kidney vetch, which is particularly common in the more disturbed open dune areas at Coul Links that have been deliberately avoided through design layout.

7.3 The Northern Brown Argus butterfly, which is also recorded at Coul Links, is a priority species on the UK BAP, and occurs as small, scattered colonies in the north of the UK. It forms small discrete colonies around its food plant, the common rock-rose. The areas of lightly grazed unimproved grassland at Coul Links, where the common rock-rose grows frequently, have been avoided by the design layout.

7.4 The micro-moth *Caryocolum blandelloides* is a rare species in the UK, found locally in the north east of Scotland and first located at Coul Links in 1994. In Britain it appears to be restricted to northern large sandy coastal dunes with open, sparse to moderate low plant cover. This micro-moth feeds on common mouse-ear, which is commonly found across Coul Links. It is likely to be restricted to the open dune habitat areas which have been avoided by the design layout.

7.5 Because the design layout has deliberately avoided the habitat areas of the above three lepidoptera species, they were scoped out of further assessment.

7.6 Although non-significant effects are predicted on lepidoptera at Coul Links, the ES explains that mitigation measures would be carried out as part of biodiversity net gain, to be detailed in the site management plan, including the measures summarised at paragraph 5.7.2.3 of the ES:²³⁵

- Ensuring the kidney vetch population at Coul Links is maintained and where possible expanded for the Small Blue. Kidney vetch is found commonly across Coul Links. It is a species that readily colonises disturbed ground, but which can be out competed by other species in later years. Restoration of the borrowpits immediately adjacent to Coul Links would be ideal for kidney vetch and annual creation of disturbed

²³⁴ [CD001.029: Coul Links Natural Heritage Information Desk Study 2017](#)

²³⁵ [CD001.007: ES Non-Technical Summary and Environmental Statement](#)

ground, such as creating butterfly banks and creating small bare sand scrapes would also encourage the small blue population (Butterfly Conservation 2017).

- Management to maintain and where possible enhance the current habitat for the Northern Brown Argus and promote management for common rock-rose in suitable areas. This would provide additional habitat potentially enabling the population of the Northern Brown Argus to expand with[in] Coul Links. Butterfly Conservation provides details of suitable management techniques for this species (Butterfly Conservation, 2017) and it is anticipated that the CLSMP would implement these.
- The micro-moth *Caryocolum blandelloides* feeds on common mouse-ear which is found commonly across Coul Links. Management of the grass swards, as detailed in Section 5.7.1.4 will ensure common mouse-ear can thrive. Grass sward management and the creation of small bare sand scrapes or butterfly banks will potentially be beneficial to other species of Lepidoptera across Coul Links.

The case for the applicant

7.7 [Peter Cosgrove's inquiry report](#) has a section on lepidoptera.²³⁶

7.8 The applicant's ecologists placed great weight on SNH's pre-application, scoping and ongoing advice. The process of selecting ecological features for detailed assessment was agreed with SNH and the Highland Council and was documented during scoping, in accordance with CIEEM's 2016 best practice guidance.²³⁷

7.9 SNH did not consider that the proposed development would have a significant effect on lepidoptera,^{238 239} and therefore did not request further surveys. Although the CIEEM guidance lists the National Biodiversity Network as a source of information that may be useful when undertaking an ecological impact assessment, it is necessary to contact the local recorders for permission.

7.10 The Northern Brown Argus is found in the number of widely scattered colonies in southern and eastern Scotland and northern England. It is a UK BAP species, with declines recorded in the south of its British range, but it is considered stable and not threatened in most European countries. Most colonies are found on lightly grazed unimproved grassland, where common rock-rose frequents; the majority of these areas at Coul Links were deliberately avoided by design layout.

7.11 The Small Blue is found in widely scattered colonies across England, Scotland, Wales and Ireland, with particular concentrations in coastal areas. The species occurs very locally, typically in small colonies, and has been declining in some countries in northwest Europe (including Britain), but is stable elsewhere. The Small Blue's food plant is kidney vetch, which was recorded commonly across Coul Links, particularly in open dune habitats.

7.12 The micro-moth *Caryocolum blandelloides* is found locally in northeast Scotland and in a number of European countries, but is considered scarce/rare in Britain and is found in open dune habitats with sparse to moderate plant cover. Its food plant is common mouse

²³⁶ [APP002.001: Peter Cosgrove's Inquiry Report, paragraphs 3.7.24-25](#)

²³⁷ [APP002.004: Guidelines for ecological impact assessment in the UK and Ireland, CIEEM 2016](#)

²³⁸ [APP002.005: The Highland Council - pre-application advice pack issued 17 November 2015](#)

²³⁹ [APP002.006: SNH letter dated 30 June 2016, Coul Links Golf Course Proposal – Scope of Ecological Surveys](#)

ear, which is very common at Coul Links across open dune, dune grassland, improved and semi-improved grassland and marshy grassland.

7.13 It was considered that the deliberate avoidance of their likely preferred habitats would minimise potential adverse impacts, and no likely significant effects on lepidoptera were predicted. Moreover, these lepidoptera would be likely to benefit from the proposed long-term conservation management of Coul Links towards a shorter vegetation sward height and removal of invasive species.

7.14 In closing submissions, the applicant points out that SNH did not object on the grounds of likely significant effects on lepidoptera or invertebrates (including Fonseca's seed fly), and the Reporters did not specifically identify lepidoptera or invertebrates as issues on which they needed further information.

7.15 Whilst the Conservation Coalition's witness Dr Young was very knowledgeable and appropriately qualified on lepidoptera, he confirmed that he had no expertise in EIA work or the application of CIEEM guidance, and did not understand the scoping part of the EIA process. The ES records the range of sources that were consulted to establish the species likely to be of concern, which included SNH and Butterfly Conservation. This resulted in the identification of the three species which were then considered further in the EclA work.

7.16 Dr Young accepted that it is for the EIA practitioner to exercise professional judgement as to the level of detail required in an ES, and that the principle of proportionality applies, based on experience. The initial scoping had not included lepidoptera, and it was the applicant's ecologists who identified the need for further consideration of the three species discussed in the ES.

7.17 Table 1 of Dr Young's topic paper provides an assessment of 'potential impacts' but muddles potential impacts with the process of identifying potential likely effects, and does not establish that rare lepidoptera would be significantly adversely affected.

7.18 Dr Young agreed that a properly researched, developed and approved site management plan 'would be a very good thing', and that Butterfly Conservation Scotland would be happy to be consulted. Enhancement measures would include improving habitat for lepidoptera through increasing the percentage of bare sand within the sand dune habitat, and increasing the plant sources for UK BAP species and/or on the Scottish Biodiversity List, including lepidoptera and Fonseca's seed fly.

The case for the Conservation Coalition

7.19 [Mark Young](#) gave evidence on lepidoptera on behalf of the Conservation Coalition, and produced a topic paper²⁴⁰ on the matter. He advises that the lepidoptera at Coul Links is exceptionally rich, with species associated with all the main designated habitats, and that the information provided by the applicant on the topic is inadequate. He contends that the applicant's information is poorly researched, being based on an incomplete desk study, and hence fails to recognise the importance of the lepidoptera assemblage.

7.20 Dr Young claims that, contrary to CIEEM guidelines, Butterfly Conservation Scotland (BCS), as the leading authority on the ecology and conservation of Scotland's lepidoptera,

²⁴⁰ [Topic Paper – Mark Young](#)

were not consulted directly before or during the preparation of the ES, or even after three species of lepidoptera were highlighted. CIEEM guidance highlights that ‘statutory and non-statutory consultees have an important role in providing site-specific data, contextual information and expertise’. Butterfly Conservation Scotland emailed Dr Cosgrove to highlight some species of conservation concern recorded at Coul Links, but none were mentioned in scoping and the applicants made no further contact with BCS.

7.21 BCS has collated a list of lepidoptera for Coul Links which comprises 684 individual records for 246 species, compared with 178 species noted in Table 1 of the applicant’s desk study²⁴¹. Of the 246 species, 66 are notable, including two Red Data Book (RDB) listed species, 43 listed as nationally or locally scarce, and 26 are on the Scottish Biodiversity List (SBL) – species that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

7.22 The various lepidoptera species found at Coul Links and their ecological requirements are set out in Appendices 1 and 2 of Dr Young’s topic paper. Seven species are particularly significant:

- Northern Brown Argus: Vulnerable on GB Red list, SBL species and High Threat Priority in Butterfly Conservation’s UK and Scottish Conservation Strategies (BCSCS);
- Small Blue: Near Threatened on GB Red List, SBL species and High Threat Priority in BCSCS;
- Portland Moth: Nationally Scarce B – i.e. recorded from 31-100 10km squares in Great Britain – and High Threat Priority BCSCS;
- Lyme Grass moth: Nationally Scarce B and Medium Threat Priority BCSCS;
- *Caryocolum blandelloides* (micro-moth): Red Data Book and High Threat Priority BCSCS;
- *Stigmella spinosissima* (micro-moth): Red Data Book; and
- *Syncopacma sangiella* (micro-moth): Nationally Scarce A – i.e. only recorded in 16-30 10km squares in Great Britain.

7.23 By comparison with many broadly similar sites in Scotland, Coul Links is species rich, with an impressive range of rare and local species of lepidoptera. Coul Links is unique in the range and comparative extent of habitats present, which has obviously contributed to this significant assemblage of species.

7.24 The importance of the site for its invertebrates is recognised by their specific inclusion under criterion 2 of the Ramsar Information Sheet. Furthermore, the lepidoptera associated with the habitats included in the Ramsar site listing help define the international importance of Coul Links. The butterflies and moths are also important constituents of the sand dune and other ecosystems listed in the SSSI notification²⁴², and should therefore be safeguarded.

7.25 Most species of butterflies and moths have very specific foodplant and micro-habitat requirements, so it is possible to assign the notable lepidoptera at Coul Links to the habitat(s) they inhabit. Even species whose foodplants are widespread often have very specific micro-habitat and micro-climate requirements, so even small changes in their environment can threaten their survival.

²⁴¹ [CD001.029: ES Annex B, Appendix B.1 – Coul Links Natural Heritage Desk Study](#)

²⁴² [CD005.001: The Loch Fleet Site of Special Scientific Interest Citation](#)

7.26 The population structure of most lepidoptera consists of an array of occupied habitat patches, which are within the flight range of individuals, and which all contribute to the long-term survival of the species, i.e. a 'metapopulation' (an interconnected network of colonies). The presence of arrays of habitat patches at Coul Links sustains the lepidoptera populations, and the loss of even some of these would decrease the survival prospects of these species.

7.27 The applicant seems to have made only very limited efforts to research the ecological requirements for only three species – Small Blue and Northern Argus butterflies and the micro moth *Caryocolum blandelloides*. Consequently, the potentially significant effects on the rare and notable lepidoptera present at Coul Links are seriously under represented and their true UK status is inaccurately reported.²⁴³

7.28 For each of the three species, the applicant stated that the potential impacts of the proposed development had been scoped out of further assessment, and concluded that guaranteed long term conservation management is likely to be beneficial. Yet there is no detail of such management or justification for this conclusion, and currently the mitigation measures proposed make no direct reference to lepidoptera.

7.29 Dr Young's concerns about the potential impacts on seven significant species of lepidoptera are summarised in Table 1 of his topic paper.

7.30 There would be a loss of habitat area during construction, leading to a reduction in the size of the remaining habitat patches and a restriction in metapopulation dynamics. Habitat fragmentation and isolation are problematic, especially when there are effective barriers between habitat patches, as would apply to managed grassland such as fairways. No species at Coul would benefit from the 'edge effect', as the interior of each patch would be closer to the edge. The majority of lepidoptera do not fly widely, and do not fly across (even small) barriers.

7.31 The suggestion that dune heath can be transplanted successfully refers to survival of heather and associated plants, and makes no comment about any insects.²⁴⁴

7.32 The managed areas, including tees, greens, fairways, managed rough, and access tracks and buildings would mostly be close to groundwater dependent semi-natural habitats, and so there is the potential for an array of adverse effects from construction and management. Even a small increase in ground fertility through fertiliser leaching would favour plants such as competitive grasses and Meadowsweet (that is already spreading due to increased nutrient levels), at the expense of less competitive plants which include many of the foodplants of lepidoptera. Dr Young is unaware of any mitigation measures which could reduce this problem.

7.33 The applicant's predictions of the possible effects of the proposed development on lepidoptera make no reference to changes in soil moisture or fertility. The hydrological regime in the study area would be changed to an unknown extent, following the use of boreholes to abstract water (which would then be used to irrigate managed areas), changes to the flow regime of the small streams, and then as irrigation water seeps back into the groundwater. The dune slacks all depend on the existing water supply and changes to the

²⁴³ [APP003.001: Inquiry Report by Andy McMullen – Table 8, p83](#)

²⁴⁴ [CD001.047: ES Annex B, Supporting Document 1 – Translocation Plan](#)

quantity and/or chemical quality of this run the risk of altering the vegetation, and thence the lepidoptera.

7.34 The proposal to use soft engineering to stabilise the dune face with sand-trap fencing, dune re-profiling and planting of Marram Grass threatens those lepidoptera whose foodplants benefit from sand movement. The Lyme Grass moth larvae feed on Lyme-grass, which depends on sand accretion, preventing competition from other grasses. The Small Blue butterfly feed on Kidney Vetch, which grows in hollows just behind the main dune ridge, and demands a succession of newly bare substrates, provided at Coul Links by sand blowing onto the main dune ridge and smothering other plants. Stabilising the dunes would lead to a loss of Kidney Vetch habitat and subsequent loss of the Small Blue.

7.35 Dr Young acknowledges that it would be good practice to create some new bare sand scrapes among the vegetation, if they were in the areas used by the Small Blue.

7.36 There is no reference to lepidoptera within the applicant's Biodiversity Net Gain Report.²⁴⁵ The control of invasive gorse and bracken should already be undertaken as part of SNH's SSSI Site Management Statement.

7.37 In summary, Dr Young is concerned that: the nationally significant assemblage of lepidoptera at Coul Links is threatened by the proposed development; the applicant has failed to identify the extent and importance of this assemblage; there is no evidence that any attempt has been made to research and understand the ecological requirements of these species; there is no recognition of the potential impact of construction and management of the development on lepidoptera habitats; and there is no evidence that the proposed mitigation measures are likely to be beneficial.

7.38 In the absence of informed assessment of the potential effects, there is a real likelihood that there would be adverse effects on Red Data Book listed (and Ramsar listed), nationally scarce and Scottish Biodiversity List lepidoptera, with no clear possibility of mitigation.

7.39 In closing submissions, the Conservation Coalition stated that the applicant only superficially considered three species of lepidoptera, which were abruptly and incorrectly 'scoped out', and ignored all other species. SNH would not have been aware of all the species of conservation concern present on the site when they provided scoping advice.

7.40 It is submitted that more weight should be given to the opinion of Dr Young, who is an authority on lepidoptera, whereas the applicant's witnesses do not have any specialist expertise on the topic. Dr Young visited Coul Links five times before the application was submitted, and again more recently, when he noted many rare and noteworthy species.

7.41 The applicant did not contest at the inquiry that there is an exceptionally rich lepidoptera assemblage at Coul Links. Significant adverse effects on notable lepidoptera are highly likely, and certainly cannot be ruled out with the very limited data and consideration given to them by the applicant. The current rich assemblage of lepidoptera, including species which form part of the Ramsar site listing, is at risk from the proposed development.

²⁴⁵ [CD001.050: ES Annex B, Supporting Document 9 – Biodiversity Net Gain Report](#)

Other representations

7.42 The issues relating to lepidoptera which were raised in written representations have already been discussed above.

OTHER INVERTEBRATES, INCLUDING FONSECA'S SEED FLY

Environmental Statement

7.43 The ES says the following about Fonseca's seed fly²⁴⁶:

"The construction of the proposed development has the potential to negatively affect Fonseca's seed-fly within the dune grassland directly through habitat loss during construction, herbicide/insecticide use during operation (Table B.22) and food-plant loss via accidental, but inappropriate management.

Relatively little is known about the Fonseca's seed-fly and its habitat ecological requirements. In total, only three studies of these species are known, studies in the 1965, when it was first described (Ackland, 1989), in 2010 (Gibbs, 2013) and in 2016 during Coul Links ES studies (Technical Appendix B.5: Fonseca's Seed-fly Report).

The accreting front dunes are considered the most likely place for Fonseca's seed-fly mating and courting (Gibbs, 2013) and were the location of the three female species found in the study area in 2016. These areas have been avoided through design to minimise potentially important habitat loss for this species. The single male that was located in the study area in 2016 was found on semi-improved neutral grassland. The habitat that it was found on has been largely avoided by design layout. However, it is unclear how important these and other areas are to Fonseca's seed-fly.

There is likely to be 0.74ha (8.0% of study area resource) of open dune habitat lost and 2.51ha (7.4% of study area resource) of dune grassland lost through land-take by the proposed development. Insecticide or herbicide affecting areas where Fonseca's seed-fly mate and/or larva are within their food plants may result in death. However, these chemicals will be carefully used in discrete and defined areas, following approved methods. Based on previous experience (STRI, no-date), 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, i.e. there will be no detectable adverse regional or national population level impacts."

²⁴⁶ [CD001.007: ES Non-Technical Summary and Environmental Statement](#)

The case for the applicant

7.44 Peter Cosgrove referred to the following statement from SNH which formed part of the Highland Council's pre-application advice pack²⁴⁷ in November 2015:

"Fonseca's seed fly

This species is very rare and due to its known restricted distribution, it has the potential to be considered nationally important. Information will be needed on the overall implications of the development for the national status of this species. Survey work will be required to gauge whether this species will be affected by the development and what, if any, mitigation could be undertaken. This rare sand dune fly has been found adjacent to the SSSI, so it is likely to be present on Coul Links. The previous survey did not fully cover all of Coul Links".

7.45 It was clear from SNH's pre-application advice where the applicant's ecology survey and assessment should be focussed on, and that the remaining SSSI interests and other ecological receptors did not need to be considered further.²⁴⁸

7.46 Fonseca's seed fly, although not afforded specific legal protection and not an SSSI citation feature, is a localised and under-recorded endemic UK BAP species of coastal sand dune habitats in East Sutherland. SNH agreed that it is potentially of national importance, on the basis that it has been under recorded.

7.47 Fonseca's seed fly surveys were conducted between 7-20 June 2016, following survey methods developed with David Gibbs, a specialist on the species.²⁴⁹ Of the several hundred flies recorded during targeted surveys at Coul Links, four individuals were found to be Fonseca's seed flies. The results of this study extended the known global range of this apparently endemic species by 29% from 6.3km to 8.1km of the sand dunes along the east coast of Sutherland.

7.48 The requirements of Fonseca's seed fly would be considered in four main ways:

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

7.49 The Site Management Plan would identify and conserve principal plant species used as a food source and larval host, identify population trends over time, and enable the beneficial management of other potentially suitable coastal habitats for the presence of the seed fly.

7.50 Moreover, careful and planned control and management is proposed of the areas of invasive species, whose expansion has adversely affected composite flower-rich areas of potential importance to Fonseca's seed fly.

²⁴⁷ [APP002.005: The Highland Council Pre-Application Advice Pack issued on 17 November 2015](#)

²⁴⁸ [APP002.001: Inquiry Report by Peter Cosgrove](#)

²⁴⁹ [CD001.033: ES Annex B, Appendix B.5 Fonseca's seed-fly survey report](#)

7.51 In closing submissions, the applicant reiterates that the only invertebrate which SNH considered was necessary to include in the EIA work was Fonseca's seed fly – not in the context of the Ramsar site designation, but because the species was considered to be of national importance and found adjacent to the SSSI. Lepidoptera and invertebrates always remained as an issue of relevance to biodiversity and not the Ramsar site. There is no evidence that any of the four Ramsar invertebrates might be expected to be present on the application site.

7.52 Moreover, the applicant does not accept that any potential impact on any species on the site which is identified under national biodiversity lists, BAPs or are Red Listed as species of conservation concern must be treated as a likely significant effect. The Conservation Coalition has failed to maintain a distinction between potential adverse effects and likely significant effects, and to demonstrate that the proposed development would have likely significant effects on these receptors.

7.53 There is a massive disparity between the applicant's witnesses Dr Cosgrove and Dr McMullen, in terms of their relevant ecological qualifications and EIA training and experience, and the Conservation Coalition's invertebrates witness Mr Macadam who has no experience in carrying out ecological impact assessment or relevant qualifications and expertise in EIA work.

7.54 Dr Cosgrove demonstrated that he had a sound scientific reasoned basis for his assessment that Fonseca's seed fly is nationally (rather than internationally) important. It was Mr Macadam's submission to the IUCN, which made use of the specialist report for the EIA, that resulted in the IUCN listing.

7.55 Dr Cosgrove points out that it is not possible to reach any certain conclusions as to the importance of the Coul Links site for this species on the basis of current information, as the distribution is undoubtedly under-recorded because of the lack of survey work.

7.56 In any case, if Fonseca's seed fly is a 'globally endangered endemic species' that does not mean that every location inhabited by the fly must be of international importance.

7.57 In relation to mitigation, there is already reasonable certainty and a high level of confidence that composite flowers are an important food source, and that large areas of habitat with composite flowers would be maintained. The survey work, which is consistent with the information submitted to IUCN, identified that the front dunes (where Fonseca's seed fly has been found) seemed to be the preferred habitat. The proposed use of adaptive management techniques to protect sand dune habitat against erosion would benefit the habitat of the species which is threatened by storm events.

The case for the Conservation Coalition

7.58 [Craig Macadam](#) gave evidence on the importance of Coul Links for invertebrates, the adequacy of information on invertebrates used in the decision-making process, and the adequacy of the proposed mitigation.²⁵⁰

²⁵⁰ [Topic Paper – Craig Macadam](#)

The importance of Coul Links for invertebrates

7.59 Invertebrates are essential to the maintenance of a healthy functioning ecosystem, as they provide vital services including waste recycling and pollination, and form the basis of most food chains. There are at least 24,000 invertebrate species in Scotland, of which 1,400 are confined to Scotland in a UK context, and five are not known to live anywhere else in the world.

7.60 The applicant's desk study²⁵¹ lists 301 non-lepidoptera invertebrate species from the Coul Links study area²⁵², but an independent review by the Highland Biological Recording Group identified 109 additional non-lepidoptera invertebrate species from records shared on the National Biodiversity Network Atlas. (www.nbatlas.org)

7.61 The importance of Coul Links for invertebrates is reflected by their inclusion in the Ramsar site information sheet, which states that the Ramsar site supports nationally-scarce British Red Data Book invertebrates. The GB Red Data Book criteria have been replaced by IUCN criteria, which focus on threat.

Inadequacies of the Environmental Statement

7.62 The pre-application and scoping advice by SNH did not mention the Ramsar site or the qualifying invertebrate feature; the only advice concerning invertebrates was about Fonseca's seed fly. The failure to recognise the importance of invertebrates at the scoping stage, and the inadequacies of the applicant's desk study (which makes no assessment of their importance), mean that insufficient invertebrate survey work has been undertaken to inform the ES and assess the impact on the nationally important invertebrate assemblage at Coul Links. Tables B.14 and B.15 of the ES²⁵³, which summarise the potential impacts on ecological receptors from construction and operation of the proposed development, should have considered the impacts on invertebrates.

7.63 The ES does not mention the Ramsar site invertebrates or the nationally important invertebrate assemblage (including Scottish Biodiversity List species), or explain that they were scoped out. The CIEEM guidance includes the Scottish Biodiversity List, red listed, rare and legally protected species amongst the important ecological features that need to be considered in ecological impact assessment.

7.64 The combined list of 410 species identified from the applicant's desk study and the National Biodiversity Network Atlas data encompasses 24 invertebrate Species of Conservation Concern recorded on the application site, including eight of national importance which therefore qualify as listed features of the Ramsar site under criterion 2 of the site selection criteria.²⁵⁴

7.65 The significance of the impacts on the invertebrate features of the Ramsar site has not been assessed, contrary to relevant CIEEM guidance²⁵⁵. Similarly, no account has been taken of the presence of seven non-lepidoptera species listed on the Scottish

²⁵¹ [CD001.029: ES Annex B, Appendix B.1 – Coul Links Natural Heritage Desk Study, Table 1, p3](#)

²⁵² [CD001.007: Environmental Statement \(2017\), Table B.5, p188](#)

²⁵³ [CD001.007: ES Non-Technical Summary and Environmental Statement, p 203](#)

²⁵⁴ [CD005.003: Dornoch Firth and Loch Fleet Ramsar Citation - Site Information Sheet & Ramsar Sites Criteria](#)

²⁵⁵ [APP002.004: CIEEM Guidelines for ecological impact assessment in the UK & Ireland, Box 13 and para 4.3](#)

Biodiversity List, which are of principal importance to Scottish Ministers, as defined by the Nature Conservation (Scotland) Act 2004.

7.66 There is not enough evidence to support Dr McMullen's claim that the 'edge effect' could be beneficial to invertebrates. He also suggests that flying insects are able to bypass obstacles, whereas they only fly for a small part of their life cycle.

7.67 The importance of Fonseca's seed fly has been underplayed in the ES, which evaluates the species as being of national importance. The IUCN has published a red list assessment for this species²⁵⁶, which considers Fonseca's seed fly to be Globally Endangered due to its limited distribution and the threat to its habitat from residential and commercial development. This is the second most severe category in the internationally adopted red list system, which is used for species that are likely to become extinct if current threats to their survival are not removed or avoided, and places the Fonseca's seed fly in the same conservation category as Asian elephants, tigers and the Blue whale.

7.68 The intrinsic risk of extinction to Fonseca's seed fly was highlighted by SNH's invertebrate specialist in October 2017.²⁵⁷

7.69 The Fonseca's seed fly has been known to science for 30 years, during which there have been numerous surveys around the Moray Firth; yet the known global range of this species is 8.1km of the Sutherland coast from Dornoch Point in the south to Coul Links in the north. The area of potential habitat at Coul Links is the most extensive of the four locations along the coast where Fonseca's seed fly has been found, and surveys have shown that this species is likely to be distributed across the application site. As a result, it is likely that the application site holds far more than 1% of the EC population of this species, and the Fonseca's seed fly must therefore be treated as of international importance.

Adequacy of mitigation

7.70 The ES correctly advises that relatively little is known about the habitat requirements of the Fonseca's seed fly²⁵⁸. It is thought that the larvae develop in the seed heads of composite flowers (likely to be sow thistle and ragwort), but it is not known where the species pupates or (precisely) when it flies. The suggested mitigation includes the retention of areas of composite flowers. Given the limited information about how the species is using the site, and the lack of knowledge about the size of habitat areas required, it is impossible to define what mitigation is required to retain appropriate habitat. Until we know more about the fly, SNH advises that we have to assume it is distributed throughout the site, and that we cannot judge whether the levels of disturbance would be tolerable or safe, or whether there would be a significant effect.^{259 260}

7.71 Table B.22 of the ES²⁶¹ shows the impact on habitat, rather than the impact on Fonseca's seed fly, and it is not enough to simply consider the habitats. The table suggests that a herbicide/insecticide pollution event would be reversible, but if it killed larvae in the area it would be irreversible.

²⁵⁶ CM20: *Botanophila fonsecai*. The IUCN Red List of Threatened Species 2018, Macadam, C. (2018)

²⁵⁷ CC15: SNH memos re Coul Links – Loch Fleet SSSI, Fonseca's seed fly, 13 October and 27 October 2017

²⁵⁸ [CD001.007: Environmental Statement \(2017\), p211](#)

²⁵⁹ CC15: SNH internal memos dated 13 October and 27 October 2016 re Fonseca's seed fly

²⁶⁰ [CD002.017: Scottish Natural Heritage – response dated 24 November 2017](#)

²⁶¹ [CD001.007, ES Non-Technical Summary and Environmental Statement, p212](#)

7.72 The proposal to fund a PhD into the ecology of Fonseca's seed fly does not represent mitigation. It is inadequate and inappropriate, as a PhD typically takes 3-4 years to complete, and practical mitigation measures must be in place prior to the destruction of habitat to ensure the continued survival of the species. Without knowing the outcome of the PhD research there can be no confidence that any mitigation measure proposed could be implemented on the application site, or whether it would be successful.

7.73 Research into the habitat requirements of the species must be undertaken prior to the determination of the proposal, to provide an adequate assessment of the environmental impacts on Fonseca's seed fly, and to allow appropriate mitigation measures to be developed, agreed and implemented before construction begins.

7.74 Furthermore, no mitigation is offered for the potential impacts on the nationally important invertebrate assemblage at Coul Links, without which there remains a risk of damage to the qualifying invertebrate interest of the Ramsar site and the Scottish Biodiversity List species on site.

7.75 Paragraph 5.36 of the CIEEM guidance explains the precautionary principle, and advises that the evaluation of significant effects should always be based on best available scientific evidence. Here the desk study failed to consider Red List species and species of conservation concern.

7.76 In closing submissions, the Conservation Coalition contends that Coul Links is an exceptional site for invertebrates. This is reflected in the Ramsar site designation (though not listed as part of the SSSI designation) and species records which show that the invertebrate assemblage is of national importance.

7.77 Mr Macadam, though not an expert in EIA, is a fellow of the Royal Entomological Society with 25 years of invertebrate experience including numerous site surveys for SNH, who has published 35 papers and reports and three books on invertebrate ecology.

7.78 The proposed development would result in the loss of wetland habitats, including areas of dune slacks where specialist invertebrates may be located, and there would be changes to site management through irrigation. SNH's objection dated 25 May 2016 refers to the Ramsar site wetland invertebrate interest, and confirms that there is insufficient information to be able to conclude whether or not there would be an impact.

7.79 The development could have irreversible adverse impacts on the globally endangered Fonseca's seed fly, which has not been recorded in surveys commissioned by SNH at Little Ferry to the north, or in records of the wider Moray Firth area. The ES does not adequately assess these impacts, and the results of the PhD would be too late to inform the design and avoid such impacts. Therefore, a precautionary approach should be taken in considering the impacts to this globally endangered species.

7.80 In conclusion, insufficient environmental information has been provided, and the current rich assemblage of invertebrates, including species which form part of the Ramsar site listing, is at risk from the proposed development.

Other representations

7.81 The issues relating to other invertebrates which were raised in written representations have already been discussed above.

REPORTERS' CONCLUSIONS

7.82 Whilst the lepidoptera species of interest at Coul Links are not referred to in the Ramsar site citation, the site qualifies under Criterion 2a by regularly supporting rare plants and animals, including invertebrate fauna. Similarly, the sand dune habitat at Coul Links (which supports the lepidoptera assemblage) is one of the notified features of the SSSI.

Butterflies and moths

Scoping and surveys

7.83 We appreciate that the applicant placed reliance on the advice of SNH, the Scottish Government's nature conservation advisors, during the scoping stage of the environmental impact assessment of the project. The applicant's ecological consultants decided that there was a need for further consideration of the three lepidoptera species mentioned in correspondence (Northern Brown Argus butterfly and Small Blue butterfly, and the micro-moth *Caryocolum blandelloides*).

7.84 The applicant's desk study used records from local recording groups and historic surveys, and commissioned the Highland Biological Records Centre to search for biological records within the study area.

7.85 The applicant also made contact with Dr Prescott of the local branch of Butterfly Conservation Scotland, who was in the process of collating all the records for the site, but it appears that many of the species of conservation concern which he highlighted were not mentioned in the ES scoping.

7.86 We note that the BCS records found 246 species of lepidoptera on the site, in comparison with the 178 species noted in the applicant's desk study.

7.87 The applicant did not make a formal request for data to BCS at the scoping stage, despite CIEEM guidance which indicates the important contribution of specialist NGOs in providing expertise, site specific data and contextual information.

7.88 The guidance also advises that the level of detail required in an EIA will be 'proportionate to the scale of the development and complexity of its potential impacts'. In this case the large scale of the development within an application site of over 300 hectares, and the complexity of its potential impacts on a range of protected habitats and species, might have suggested that a more detailed examination was required.

Butterfly and moth species

7.89 Of the 246 species recorded at Coul Links 66 are under threat, scarce or of recognised importance to biodiversity. Two of the species of moth (*Stigmella spinosissimae* and *Caryocolum blandelloides*) are Red Data list species, and 26 (including the Northern Brown Argus and the Small Blue) are on the Scottish Biodiversity List.

7.90 In particular, seven species of lepidoptera found at Coul Links are designated as a high or medium threat priority and/or are nationally scarce, including the Portland moth and Lyme Grass moth. Coul Links has a nationally (UK) important population of Northern Brown Argus, a priority species for the UK BAP which has declined by over 50% in the past 40 years. The Portland Moth population is also of UK importance, and the populations of *Stigmella spinosissima*, *Caryocolum blandelloides* and Lyme Grass moth are of national (Scottish) importance. Coul Links is the most northerly site in the UK for *syncopacma sangiella*, which is scarce in Great Britain.

7.91 On that basis, we have no reason to doubt the assessment of Dr Young (an expert on lepidoptera who has published over 200 research papers on invertebrate ecology) that the application site contains an unusually rich assemblage of butterflies and moths, including some rare species. We also accept that the variety of species is due in large measure to the unusual range and extent of the habitats at Coul Links.

Impact on habitats and species

7.92 We acknowledge that, unlike the applicant's witnesses, Dr Young is not experienced in EIA or ecological impact assessment, but he does bring a high level of expertise and specialist knowledge of the species of butterflies and moths that have been recorded at Coul Links, which is relevant to the assessment of the potential impacts of the proposed development on lepidoptera.

7.93 Dr Young's evidence indicates that each lepidoptera species has very particular habitat requirements, depending on its foodplant, micro-habitat and micro-climate, and is therefore susceptible to changes in its environment. Because most butterflies and moths occupy an interconnected network of habitat patches within flight range of each other, the loss of individual patches would reduce their survival chances – particularly since many lepidoptera do not fly across (even relatively small) barriers.

7.94 The development and management of a golf course at Coul Links would reduce, fragment and isolate the areas of habitat for butterflies and moths, by the formation of tees, greens and fairways and the construction of buildings, access roads and car parking areas. For the reasons given in the preceding paragraph, all of the seven most significant species of lepidoptera could potentially be affected by habitat loss, even where the species' foodplant is widespread across the site.

7.95 Any changes in hydrology, soil moisture or fertility could also have an adverse impact on the habitat of lepidoptera such as Northern Brown Argus, Small Blue, Portland Moth, *Caryocolum blandelloides*, *Stigmella spinosissima* and *Syncopacma sangiella*.

7.96 Dune stabilisation, in particular, could be detrimental to the several lepidoptera at Coul Links which require mobile dune habitats. The Small Blue butterfly feeds on Kidney Vetch which relies on blown sand smothering competing plants; the Lyme Grass moth larvae feed on Lyme Grass which depends on accreting sand; the Portland Moth larvae burrow in the bare sand; *Caryocolum blandelloides* and *Syncopacma sangiella* require sandy conditions; and the Northern Brown Argus feeds on the Common rock-rose (which would be likely to be impacted adversely in the long term if the dunes were stabilised).

7.97 We acknowledge that the proposed management of grass swards, control of invasive gorse and bracken and creation of small bare sand scrapes could be beneficial for some species. It is proposed to agree the details of habitat management for lepidoptera in the Coul Links Site Management Plan.

7.98 We also note that the design layout for the golf course has endeavoured to avoid the likely preferred habitats of the Northern Brown Argus (unimproved grassland) and Small Blue (open dune) butterflies, and the micro-moth *Caryocolum blandelloides* (open dune).

7.99 However, in practice we consider that it would be difficult to construct and maintain the development at Coul Links with associated infrastructure in a manner which prevented the diminution and fragmentation of these habitats. It would also be difficult to avoid damaging the distinctive habitats of the other nationally important lepidoptera species whose ecological requirements have not been examined by the applicant.

7.100 On the basis of the evidence before us we can only find that there are 'potentially significant effects' rather than 'likely significant effects' on lepidoptera, but we conclude that there are real unresolved concerns about the potential impacts of the proposal on certain species of butterflies and moths at Coul Links, including Red Data list species and other species of conservation concern.

Other invertebrates

Scoping and surveys

7.101 Once again, the applicant relied upon SNH's advice which required specific survey work on the Fonseca's seed fly but did not recommend further work on the invertebrate assemblage at Coul Links.

7.102 However, the review by the Highland Biological Recording Group (using records on the National Biodiversity Network Atlas) found 109 non-lepidoptera species in the study area in addition to the 301 identified in the applicant's desk study. Of the combined total of 410 species, 24 are listed species of conservation concern, eight are of national importance and seven are on the Scottish Biodiversity List.

7.103 The CIEEM guidance states that an objective starting point for identifying the important ecological features which need to be considered in ecological impact assessment are the sites, habitats and species that provide the key focus for biodiversity conservation in the UK. The schedule includes Ramsar sites, the Scottish Biodiversity List, UK and local BAP priority species, and species of conservation concern. Appendix 3 refers to the National Biodiversity Network as a source of contextual information for ecological impact assessment.

7.104 On that basis, and given that invertebrate fauna are mentioned in the Ramsar citation (albeit that the four invertebrate species listed on the information sheet are not present at Coul Links), we might have expected the ES to have surveyed the key invertebrate species at Coul Links and examined them in more detail, in the absence of which we find it difficult to assess the potential impact of the proposed golf course on the relevant species and their particular habitat.

Fonseca's seed fly

Range and conservation status

7.105 The one non-lepidoptera invertebrate species which the applicant has studied in greater detail is Fonseca's seed fly, a very rare species which lives on coastal sand dunes in East Sutherland. A specialist survey was conducted for the ES in June 2016, which identified four individuals at Coul Links: two females on the mid-dune and one female on the fore-dune, in the north east part of the site; and one male on semi-improved grassland within the hind-dune at the southern end of the site.

7.106 The UK Biodiversity Action Plan identifies Fonseca's seed fly as a priority species for conservation because: (a) it is an apparently endemic UK species; and (b) it is known from a single site, and is under demonstrable threat.

7.107 The study for the ES increased the known global range by almost a third from 6.3km to 8.1km, comprising the section of coast from Dornoch Point to Coul Links. SNH's invertebrate expert advised that Fonseca's seed fly is intrinsically at risk of extinction.²⁶² This concern is highlighted in the IUCN red list assessment in 2017 that Fonseca's seed fly is globally endangered due to its limited distribution and the threat to its habitat.

7.108 Gibbs commented in 2013 that Fonseca's seed fly is particularly susceptible to extinction, because of its limited distribution and small population, which leaves it 'subject to random demographic fluctuations and environmental vicissitudes'.²⁶³ He advised that the protection of this fly requires knowledge about its life history.

7.109 There has been no formal study into the size of the Fonseca seed fly population, and it is possible that further surveys of the east Sutherland coast might identify other colonies of the species. However, based on current scientific data we can only conclude that Fonseca's seed fly is a very rare species, which is recognised as a priority species for conservation and as vulnerable to extinction. Since its known global range is restricted to an 8km length of coast in East Sutherland, Fonseca's seed fly must be regarded as a globally, and not just a nationally, endangered species.

Potential impact

7.110 The ES confirms that relatively little is known about the life cycle of Fonseca's seed fly and the ecological requirements of its habitat. The applicant therefore proposes to fund research into the ecology of the species, to inform the long-term conservation management of Coul Links.

7.111 The 2013 study by Gibbs for SNH could not ascertain any host plants, but found larvae of related fly species in the flower heads of ragwort and sow-thistle, and suggested that if Fonseca's seed fly develops in the capitula of composite species it is likely to be ragwort. The limited data indicate that Fonseca's seed fly has a requirement for bare sand on accreting foredune, but the presence of the species across the stabilised dunes and the lack of host plants on the foredune suggest that it does not complete its entire life cycle there.

²⁶² CC15: SNH memos re Coul Links – Loch Fleet SSSI, Fonseca's seed fly, 13 October and 27 October 2017

²⁶³ CM14: Survey and ecology of *Botanophila fonsecai*, Gibbs 2013 – SNH Commissioned Report No. 618

7.112 We consider that it is unwise to conclude that the north east of the site is important for the species on the basis of a sample size of three females that were found there. Gibbs concluded that Fonseca's seed fly may feed, mate and lay eggs on different micro-habitats within a whole sand dune complex, from patches of composite plants to more open or bare sandy areas.

7.113 We agree with SNH's invertebrate specialist that, without a sound understanding of how Fonseca's seed fly uses the site, where it feeds and pupates and when it flies, and the location and extent of its habitats, we ought to assume that it is distributed throughout the site when assessing the potential ecological impact of the proposed golf course development. We also share his conclusion that, in the absence of this knowledge, it is impossible to make a reliable prediction of the likely effects (and their significance) of the proposal on this endangered species at Coul Links.

7.114 The unresolved concerns include potential direct loss of habitat and host plants, the effects of dune stabilisation and disturbance, and the (potentially irreversible for the specimen concerned) effect of herbicides or pesticides on this species of mobile flying insect. Plainly, these effects could be very significant for this extremely rare species.

Proposed mitigation

7.115 The ES indicates that the layout of the golf course would avoid the accreting front dunes where the three females were found, and would largely avoid the semi-improved neutral grassland habitat where a single male was discovered in the 2016 survey. However, the ES also acknowledges that it is unclear how important these and other areas are to the Fonseca's seed fly, so we are not in a position to determine the extent to which it would be feasible to avoid the habitat of this species at Coul Links.

7.116 The applicant also proposes to retain areas for composite flowers (e.g. ragwort), but without a detailed assessment of the location of such habitat in relation to the proposed golf course layout, we cannot assess whether it is practicable to avoid those areas if the development were to proceed.

7.117 We note the proposal to fund a PhD student or dipterist to research the unknown ecology of Fonseca's seed fly, and the intention thereafter to manage the site accordingly, but it is unlikely that the results would be known for at least three years, by which time the golf course would have been developed and would be in operation.

7.118 At this stage we do not know what would be the implications of the research findings for the development proposal. In any case, we consider that any informed mitigation to protect Fonseca's seed fly would have to be agreed and in place before any work took place and before the golf course was open for business. Otherwise, there is a real risk of harm to this endangered species during the construction and operation of the proposed development.

Overall conclusions

7.119 Overall, we conclude that the proposed golf course development has the potential to have a significant adverse impact on the important invertebrate assemblage at Coul Links, including scarce and priority species of butterflies and moths, and the globally endangered Fonseca's seed fly.

CHAPTER 8: IMPACTS ON DESIGNATED NATURE CONSERVATION SITES

BACKGROUND

8.1 The land at Coul Links forms part of the following sites designated for their nature conservation value:

- Loch Fleet SSSI – 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 eider);
- Dornoch Firth and Loch Fleet SPA – protected for its range of non-breeding waterfowl and breeding osprey; and
- Dornoch Firth and Loch Fleet Ramsar site – also protected for its non-breeding waterfowl, breeding osprey and its range of coastal features.

8.2 Coul Links also lies adjacent to the Moray Firth proposed SPA, protected for its marine birds. The Ramsar site and SPAs are international designations, whereas the SSSI is of national importance.

8.3 Much of the parties' evidence which we summarise in the other chapters is of relevance to the effects of the development on the designated nature conservation sites. We take all of that evidence into account in our conclusions in this chapter. The summaries of the parties' cases in this chapter are therefore relatively brief, being limited to additional points not already covered. Some of our conclusions in earlier chapters are also of relevance to this one.

The Loch Fleet SSSI

8.4 The SSSI citation document²⁶⁴ provides further detail about the SSSI and its notified features. A Site Management Statement²⁶⁵ for the SSSI (last reviewed in 2011) identifies a number of 'Objectives for Management (and key factors influencing the condition of natural features)'.

8.5 The second of these objectives is to restore the condition of the sand dune habitat. To achieve this, encroaching scrub is to be removed from the dune system so as to move the sand dunes feature towards favourable condition. Grazing of stock at appropriate levels is suggested as a means of helping to achieve this.

8.6 The fifth objective is to maintain the population of breeding birds and to avoid significant disturbance to these birds during the breeding season.

8.7 A 2014 Site Condition Monitoring Report²⁶⁶ records the condition of the sand dune feature of the SSSI as unfavourable (no change). This is based on a series of detailed targets for each of the habitat types which make up the sand dune feature.

²⁶⁴ [CD005.001 - The Loch Fleet Site of Special Scientific Interest Citation](#)

²⁶⁵ [CD005.002 - The Loch Fleet Site of Special Scientific Interest Site Management Statement as prepared by SNH](#)

²⁶⁶ [CD005.008 - SNH Site Condition Monitoring Report for Loch Fleet SSSI \(2014\)](#)

8.8 The ES covers the SSSI from paragraph 5.5.3.4. Table B.26 assesses potential impacts in relation to the site management objectives. The only likely significant effect (before mitigation) identified is that on dune heath, as part of the sand dune notified feature. The effect on this feature after mitigation is assessed as positive. For the management objectives relating to birds, the table refers to ES Annex A: Ornithology. Paragraph 4.6.1.1 concludes, having considered the potential impacts on the breeding bird assemblage of the SSSI, that there would be no likely significant effects on the qualifying features or integrity of the site.

8.9 SNH has internal guidance on Development Management and the Natural Heritage.²⁶⁷ Its 'Notes on SSSI advice' aim to explain why small losses to a site are important. Longevity of adverse impact is also said to be important.

8.10 Paragraph 212 of SPP states that development that affects a SSSI (or other nationally designated site) should only be permitted where:

- the objectives of designation and the overall integrity of the area will not be compromised; or
- any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.

The Dornoch Firth and Loch Fleet SPA

8.11 The SPA is designated²⁶⁸ for its range of non-breeding waterfowl and breeding osprey. The SPA qualifies by regularly supporting populations of European importance of osprey and bar-tailed godwit (both Annex 1 species), and of greylag goose and wigeon (both migratory species); and by regularly supporting over 20,000 individual waterfowl, including nationally important populations of curlew, teal, scaup, redshank, wigeon, greylag goose and bar-tailed godwit. The assemblage also includes nationally important populations of dunlin and oystercatcher.

The Habitats Regulations 1994

8.12 The Revised Guidance Updating Scottish Office Circular No. 6/1995, which was issued by the Scottish Executive in 2000, explains the implementation in Scotland of the European Commission Habitats and Birds Directives.²⁶⁹

8.13 The Habitats Directive aims to contribute to the conservation of biodiversity by requiring Member States to take measures designed to maintain or restore certain natural habitats and wild species at a favourable conservation status in the Community, giving effect to both site and species protection objectives.

8.14 The Birds Directive requires Member States to take sufficient measures to preserve a sufficient diversity of habitats for all species of wild birds naturally occurring within their territories (Articles 2 and 3) in order to maintain populations at

²⁶⁷ [CD005.007 - SNH Development Management and the Natural Heritage Guidance](#)

²⁶⁸ [CD005.004 - Dornoch Firth and Loch Fleet Special Protection Area Citation and Conservation Objectives](#)

²⁶⁹ [CD005.006 - Circular 6-1995 Nature Conservation - 'The Habitats and Birds Directives' \(Updated June 2000\)](#)

ecologically and scientifically sound levels; and requires Member States to take special measures to conserve the habitat of certain species of conservation concern and of migratory species (Article 4).

8.15 The Habitats Regulations require Scottish Ministers to exercise their nature conservation functions to secure compliance with the requirements of the Habitats Directive (Regulations 3(2) and 3(4)). Public authorities are obliged not to permit developments or operations damaging to an interest to be protected within a European site, unless there are imperative reasons of overriding public interest.

8.16 Paragraph 14 of the Revised Guidance indicates that a development that would have an adverse effect on the conservation interests for which a Natura 2000 site has been designated should only be permitted where:

- there is no alternative solution; and
- there are imperative reasons of over-riding public interest, including those of a social or economic nature.

8.17 Scottish Ministers expect there to be few cases where it is judged that imperative reasons of over-riding public interest will allow a development to proceed which will have an adverse effect on the integrity of the internationally important SPA or SAC designations. The judgement will involve an assessment of the importance of the development and whether it is sufficient to override the nature conservation importance of that site. Developments must pass the most stringent tests.

8.18 Paragraph 15 of the Revised Guidance is in the following terms:

“Where there is no alternative solution, each case will be judged on its merits but the following guiding principles will be relevant in deciding whether imperative reasons of overriding public interest are demonstrated:

- a need to address a serious risk to human health and public safety;
- the interests of national security and defence;
- the provision of a clear and demonstrable direct environmental benefit on a national or international scale;
- a vital contribution to strategic economic development or regeneration;
- where failure to proceed would have unacceptable social and/or economic consequences.”

8.19 Paragraph 16 explains that the ‘relative importance of the SPA or SAC within the European network will also weigh in the balance of considerations. Some sites are designated for habitat types and species that are listed as ‘priority’ under the Habitats Directive. These must be subject to particularly stringent scrutiny. In these cases the Directive requires considerations other than human health and public safety or overriding environmental reasons to be subject to an opinion from the European Commission.’

8.20 Annex E to the Guidance explains the application of the Regulations to development affecting SPAs and SACs. Regulations 48 and 49 specify the requirement on competent authorities to undertake appropriate assessments to consider the effect of plans or projects on European sites. Paragraph 42 of Annex E advises that the Scottish Executive had chosen to apply the same considerations to listed Ramsar sites.

8.21 Annex E, Appendices A and B set out the appropriate process for considering development proposals affecting SPAs and SACs.

The Dornoch Firth and Loch Fleet Ramsar site

8.22 The Convention on Wetlands of International Importance especially as Waterfowl Habitat²⁷⁰ is an international treaty for the conservation and sustainable use of wetlands, which was signed at Ramsar, Iran in 1971.

8.23 Article 2 of the Convention states that each contracting party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance. Article 3 indicates that the contracting parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List.

8.24 The Ramsar citation²⁷¹ for the site explains the criteria under which it qualifies. Further detail is provided in the associated Information Sheet.

The Moray Firth proposed SPA

8.25 The Moray Firth is proposed to be designated as a Special Protection Area because it supports important wintering and breeding populations of marine birds. The proposed qualifying interests are shag, eider, goldeneye, common scoter, great northern diver, scaup, long-tailed duck, red-breasted merganser, red-throated diver, Slavonian grebe and velvet scoter.

THE CASE FOR THE APPLICANT

The Loch Fleet SSSI

8.26 Only 13.4ha of the SSSI would be directly impacted, around 1% of its total area and less than 6% of the portion south of Loch Fleet. Sand dune habitat alone extends to 180ha within the SSSI, and its overall integrity would not be compromised through the direct impact to this small amount of habitat.

8.27 Sand dune habitat is one of six habitat types that are each identified separately as notified natural features of the SSSI. There is no significant adverse impact identified by SNH on the other habitat types.

8.28 SNH concluded that the development would not have significant adverse impacts upon the breeding bird assemblage of the SSSI (and therefore of the Ramsar site). Dr Cosgrove agrees.

8.29 SNH agreed with the applicant that appropriate mitigation measures could be secured by conditions to protect the SSSI breeding bird assemblage.

8.30 Dr Cosgrove explained at the inquiry that one must consider the SSSI as a whole, as an assembly of features. An effect on site integrity would be one sufficient to change

²⁷⁰ [CD005.010 - Ramsar 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat](#)

²⁷¹ [CD005.003 - Dornoch Firth and Loch Fleet Ramsar Citation - Dornoch Firth and Loch Fleet Ramsar Site Info Sheet \(RIS\) & Ramsar Sites Criteria](#)

biological processes. Using the management objectives from the Site Management Statement (and considering whether these would be compromised) was the best way to consider integrity, since it is a systematic and transparent approach.

8.31 Proper regard must be had to mitigation measures, including the CLSMP, which would assist in meeting the SSSI site management objectives. Many of the relevant management objectives would be delivered as a result of the project.

8.32 In closing submissions it is pointed out that SNH's Site Integrity Assessment just focusses on the issue of integrity, ignoring the objectives of designation which SPP requires be taken into account.

8.33 The approach of SNH in contending that the objectives of designation arise from Section 3 of the 2004 Act is misconceived. This would require the decision maker in each case to consider the contribution a site makes not just in a Scottish or UK context but also a European one. Section 3 is only concerned with the designation process, not development management.

8.34 There is no guidance from the Scottish Government on the definition of 'objectives of designation' or of 'the overall integrity of the area', or on how to reach judgements about whether they have been compromised. It is not part of the legal regime under the 2004 Act to have tests based on the 'integrity' of the SSSI. There are no conservation objectives for SSSIs. Therefore paragraph 212 of SPP should be read as a whole, and not subject to overly-legalistic interpretation.

8.35 But the test in paragraph 212 should be considered in the context of Section 1 of the 2004 Act. The primary consideration is the conservation and enhancement of biodiversity. Under Section 12 the Scottish Ministers must take reasonable steps to further the conservation and enhancement of features specified in the SSSI notification. The measures proposed by the applicant to conserve and enhance those features weigh in favour of the grant of planning permission.

8.36 The objectives of the designation are the qualities for which it has been designated. This requires consideration of the SSSI citation and the protected natural features of the site. The management objectives for the site also explain the objectives of designation, i.e. what SNH intends to achieve.

8.37 SNH was wrong to conclude in its Site Integrity Assessment that a significant adverse effect on one feature of the SSSI (sand dune habitat) would mean that the integrity of the whole SSSI would be adversely affected. The integrity must relate to the whole SSSI and all the protected natural features, not just to a small part of one of them. It would be possible to have significant adverse effects on a SSSI feature, or on more than one, that do not go so far as compromising its overall integrity.

8.38 Even if it was judged that the mitigation measures would not be effective, the loss of 4.47ha of dune heath within the Coul Links part of the SSSI would not compromise either the objectives of designation or the overall integrity of the SSSI. The same would apply even on the basis of SNH's calculations for loss of habitat.

8.39 SNH has not considered the second bullet of paragraph 212, which is whether the effects on the SSSI are outweighed by benefits (including environmental benefits) of

national importance. Within the Coul Links part of the SSSI, the nationally important sand dune habitat is in unfavourable conservation status and decline will continue without intervention. Therefore the proposed development, by reversing this, would deliver environmental benefits of national importance.

The Dornoch Firth and Loch Fleet SPA

8.40 The starting point is to assess whether the proposed development is likely to have a significant effect, or effects, on a European site. Dr Wright has not carried out an assessment of likely significant effects in relation to the qualifying species. She identifies possible or potential effects from generic scientific papers, and then treats them as though they are likely significant effects.

8.41 The Conservation Coalition concludes that bird populations (including some non-qualifying species) 'are at risk from the proposed development', but that is not a test of any legal or policy relevance whatsoever, and bears no relationship to the SPA test contained in Regulation 48 and SPP paragraph 207.

8.42 No golf course infrastructure is planned for habitat areas regularly used by wintering SPA species, so no significant direct adverse habitat loss of SPA bird habitat was predicted. Mitigation measures would include the cessation of winter shooting of SPA wild bird species, the closure of the course during the winter, and measures to discourage visits to the most sensitive habitats. SNH agrees that there would be no significant effect on SPA qualifying interests and that the integrity of the SPA would not be compromised.

8.43 The value of Coul Links for SPA wintering wildfowl is therefore predicted to increase substantially in the long-term with the development of the golf course and its associated management. The proposal would not adversely affect the integrity of the SPA. SNH and the council concur.

The Dornoch Firth and Loch Fleet Ramsar site

8.44 The Ramsar citation is primarily concerned with the protection of wetlands and water dependent habitats and species. In this case there are the same qualifying Ramsar and Dornoch Firth & Loch Fleet SPA wild bird species. The project is expected to benefit wintering teal and wigeon (protected under the SPA and Ramsar designations), by ending existing wildfowl shooting at Coul Links and managing disturbance from walkers and dogs.

8.45 Dr McMullen said at the inquiry that the noteworthy flora listed at section 19 of the Ramsar site information sheet were not necessarily qualifying features of the site. The presence of a species does not make it a qualifying feature. Dr Cosgrove did not accept that, because Fonseca's seed-fly was now on the IUCN Red List, it should be considered as part of the invertebrate assemblage of the Ramsar site.

8.46 In closing submissions, it is re-iterated that the effects on the Ramsar site, in accordance with SPP and the recent Scottish Government clarification, are to be considered through the effects on the SSSI and the SPA. The only exception is Baltic rush, the effects on which would not be significant.

The Moray Firth proposed SPA

8.47 The proposal would not adversely affect the integrity of the proposed SPA. SNH and the council concur.

THE CASE FOR SCOTTISH NATURAL HERITAGE

The Loch Fleet SSSI

8.48 Professor Angus' analysis²⁷² of the sand dune SSSIs in eastern Scotland identified 19 dune systems within 12 SSSIs. Dune slacks occur at 10 of the 19 sites, but are major features only at five. Only the Loch of Strathbeg and Coul Links have significant dune slacks within systems free from major golf, forestry, military training areas or industry. This identifies Coul Links as having particular national value.

8.49 There would be a likely significant residual effect on the sand dunes that form one of the notified interests of the SSSI. That effect would arise because of both the residual direct impact on dune heath and dune slack habitats, and the anticipated indirect impacts including from nitrates and from freezing the dynamism over parts of the system. Habitat fragmentation and the associated edge effects would result in significant disruption to environmental continuity. The scientific importance of the Coul Links dune system would be seriously compromised. The development would make it impossible to return the dunes to favourable condition.

8.50 The wording of paragraph 212 of SPP does not directly mirror the legislation in relation to Sites of Special Scientific Interest. It needs to be interpreted having regard to the particular legal terminology used in relation to the category of designated site in question.

8.51 Site-specific objectives of designation are not prepared for SSSIs, although related management objectives are set out in the Management Statement. For this reason, it is SNH's practice when addressing the first bullet of paragraph 212 to focus on the issue of integrity.

8.52 Integrity is not a concept covered in the 2004 Act, but the SSSI Selection Guidelines²⁷³ equate it with ecological coherence. Assessing whether a development would undermine the overall integrity of an SSSI involves a consideration of the extent to which it would have a significant adverse effect on the condition of the site's natural features. Another potentially relevant consideration is the extent to which the development would undermine the management objectives in the Site Management Statement.

8.53 By virtue of being notified, each notified natural feature met the 'special interest' criteria in terms of Section 3 of the 2004 Act. The reference in paragraph 212 of SPP to the 'overall integrity of the area' means the overall integrity of each notified natural feature within the whole area covered by the notification. The adverse effect on the integrity of the sand dune feature would therefore mean that the overall integrity of the SSSI would be compromised.

²⁷² [SNH 028 - Topic Paper by Professor Stewart Angus](#)

²⁷³ [SNH 105 - Joint Nature Conservation Committee - Guidelines for the selection of biological SSSI's - Part 1 - Rationale, Operational Approach & Criteria for Site Selection](#)

8.54 Where the integrity of an SSSI is compromised, it follows that there will also be compromise to the contribution which the site makes to the series of sites²⁷⁴ identified for their special scientific interest. Compromise to site integrity is therefore highly likely to compromise the objective of notification.

8.55 In cross-examination Professor Angus took the view that the first management objective for the SSSI (about maintaining the condition, distribution and extent of a number of habitats) should have included sand dune habitats. He conceded that it may not have been included because the relevant objective (the second) for sand dunes was, instead, to restore its condition. However, there are still good areas of sand dune habitats which ought to be maintained.

THE CASE FOR NOT COUL

The Loch Fleet SSSI

8.56 The development would have significant adverse effects on the SSSI (see Dr Dargie's calculations for direct and indirect habitat loss at paragraphs 5.280-5.283 above). A significant adverse effect on site integrity is unavoidable if a golf course is developed within the SSSI and on the land towards Embo, south of the SSSI boundary.

THE CASE FOR THE CONSERVATION COALITION

8.57 Coul Links forms an integral part of the Ramsar site, SPA and SSSI with clear ecological connectivity of the bird interest across this whole site.

The Loch Fleet SSSI

8.58 The description of Coul Links in the SSSI citation underlines its national importance for its geomorphology, habitats and associated assemblages of plants and animals. Many of the features at Coul Links are not found elsewhere within the SSSI. The citation highlights the importance of the dune slacks and also the diversity of habitats, noting that Coul Links has richer flora than Ferry Links on the other side of Loch Fleet.

8.59 Impacts to the SSSI include direct and indirect loss and changes to sand dune habitats and plant communities, and disturbance of qualifying bird species (as well as permanent loss and changes to their supporting habitats). One can look at the effects on individual habitats but it is also important to look at the totality of these effects, and the effects of fragmentation. The mitigation proposals put forward by the applicant are not sufficient to mitigate for these impacts.

The Dornoch Firth and Loch Fleet SPA

8.60 The effects of the proposed development would be contrary to all of the SPA's conservation objectives, with impacts including:

- The direct loss of at least 14ha of SPA habitat.

²⁷⁴ [CD005.012 - Extracts from the Nature Conservation \(Scotland\) Act 2004](#) – Section 3(3)(a)

- Disruption to the structure, function and supporting processes of habitats supporting SPA species through impacts such as habitat fragmentation, changes in hydrology, and water quality.
- Disturbance of SPA qualifying species, during the construction and operation of the golf course.

8.61 The mitigation proposals put forward by the applicant are not sufficient to mitigate or compensate for these impacts. Due to the inadequacy of the bird survey work for the ES, it is not possible to properly assess the effects on the SPA and its qualifying species.

8.62 The site would not meet the SPA conservation objectives to avoid significant disturbance to breeding and wintering birds, maintain the population of the species as a viable component of the site, and maintain the distribution of species within the application site.

8.63 As already stated in Chapter 6, the Coalition is not aware of any case where such a significant area of SPA habitat (or Ramsar site) has been lost without the requirement for compensatory habitat creation.

The Dornoch Firth and Loch Fleet Ramsar site

8.64 The Ramsar site's tidal flats are the most northerly and substantial extent of intertidal habitat for wintering waterfowl in Britain, as well as Europe. This is important therefore in maintaining the latitudinal distribution of these species within Europe.

8.65 The development is likely to have a significant effect on the Ramsar site and its listed features because it would destroy the completeness of the dune system, impacting on Annex 1 habitats, and because it would have adverse impacts on important bird populations.

8.66 In addition, the ES (and further information) does not adequately assess the effects on the Ramsar site and its listed features. In particular it does not allow an adequate assessment of impacts on nationally-scare aquatic plants, birds and British Red Data Book invertebrates. The mitigation proposals are not sufficient to mitigate or compensate for these impacts. Therefore it has not been demonstrated beyond reasonable scientific doubt that there will not be adverse effects on the integrity of the Ramsar site and its features.

8.67 Putting this in wider context, Mr Hughes comments that, as one of our most important habitat types for biodiversity and ecosystem services, wetland habitats get a special mention in the Sustainable Development Goals indicators. Coul Links' wetlands habitats are thus important as part of the national and global efforts to conserve these valuable ecosystem types. The Goals are incorporated in Scotland's National Performance Framework. The Scottish Biodiversity Strategy aims to deliver on the 20 aims of the UN Convention on Biological Diversity.

8.68 If the proposed development is consented, the integrity, ecological character and essential functions and purpose of the site could be irreparably damaged. This means that Scotland and the Scottish Government would have failed to uphold their commitments as signatories to the Ramsar Convention.

REPORTERS' CONCLUSIONS

8.69 We note the evidence of SNH and other objectors in relation to the particular special qualities and values of Coul Links. However, regardless of those, it is the tests set out in the relevant policies and legislation which we apply in reaching our overall view on the effects of the development.

The Loch Fleet SSSI

8.70 The SSSI citation document lists the eight qualifying features (all of them biological) of the site. It is the likely effects of the development on these which informs our assessment on the effects on the SSSI as a whole. The features potentially affected by the proposed development are the sand dunes (vegetation), and the breeding birds assemblage.

8.71 The descriptions of these features in the citation document are helpful. The vascular plant assemblage feature seems to be restricted only to flowering plants. However the description of the sand dune feature makes reference to the variety of vascular plants associated with it. This would seem capable of including Baltic rush and other vascular plants. In any event, in considering the effects on the sand dune feature we find it appropriate in the first instance to focus on the various habitat types within it rather than the individual species which are components of these.

8.72 The Site Management Statement 'outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced.' Therefore this too informs our conclusions on the effects of the development on the SSSI.

8.73 It seems likely that the reason the second objective in the Site Management Statement is about restoring the sand dunes feature is because it was found to be in unfavourable condition. It is very clear from the explanatory text that the reason this feature was at that time judged to be in unfavourable condition was because of the encroaching scrub such as gorse, pine, birch and willow. This supports the applicant's view that the effects from invasive species (including the likely future effects depending on whether or not development is consented) is an important consideration in this case.

8.74 The 2014 Site Condition Monitoring Report is helpful in considering the likely effects of the development on the sand dunes feature. This is because of the detailed targets for each of the habitats which make up that feature, and which support the overall conclusion in the Report on its condition. We can consider the likely effects of the development on the SSSI, positive and negative, with reference to some of these targets.

8.75 Our overall findings in Chapter 5 are highly relevant to any conclusion on the effects on the sand dunes feature. There we find that, for Coul Links, there would likely be significant adverse effects on the dune heath, dune slacks and dune juniper, and on the overall system of sand dune habitats. We make such a finding in full recognition of the potential benefits which the CLSMP could deliver, in particular from the control of invasive species.

8.76 We refer to several of the targets from the Site Condition Monitoring Report in our conclusions in Chapter 5. In addition to those, the first target for each of the habitats which

make up the sand dunes feature is that the extent of the habitat is maintained, other than due to natural processes. Given the losses of habitat (including within matrices) we identify for dune heath, dune slack, dune grassland and semi-fixed dunes, we think that, post development, each of these targets would be less likely to be met. Although there is no differentiation in the values ascribed to each of the targets, it seems to us that the extent of each habitat present is an important measure of the overall condition of the sand dunes feature.

8.77 In relation to 'strand, embryo and mobile dunes', which we take to be relevant to the semi-fixed dunes, the third target is that there should be no anthropogenic increase in factors leading to the decrease of natural mobility in the system. The fifth target is that the zonation from beach to fixed dune should be intact over at least 95% of the coastal frontage. In light of the concerns we express in Chapter 5 about those elements of the course which would be on semi-fixed (or 'open') dunes and closest to the shore, it seems to us that the construction of these holes would have the potential to make it less likely these targets would be met.

8.78 Overall, we conclude there would be very significant adverse effects on the Coul Links part of the sand dune feature of the SSSI. Coul Links makes up only part of the sand dune feature of the SSSI – there is also the dune system at Ferry Links on the north side of Loch Fleet. However both are important parts of the SSSI, and they have differing characteristics – for example the lack of dune slacks at Ferry Links. Therefore we are clear that the effects on the overall sand dune feature for the SSSI would be significantly adverse.

8.79 Looking at all of the relevant targets for the sand dune feature in the Site Condition Monitoring Form, and even taking into account the potential benefits for some of these targets in controlling invasive species and from other elements of the proposed CLSMP, we conclude that the development of the golf course would mean that the feature would be more likely, rather than less, to be found in unfavourable conservation status in the future. The development would make it less likely that the second SSSI site management objective would be achieved.

8.80 We find in Chapter 6 that the development is likely to have a significant adverse effect on breeding birds, which are also a notified feature of the SSSI. It would run counter to the SSSI management objective of avoiding significant disturbance to these birds during the breeding season.

8.81 Like the applicant, we are not convinced that consideration of the 'objectives of designation', in applying the test in paragraph 212 of SPP, requires any detailed analysis of the contribution which the SSSI makes to the representativeness and diversity of the wider suite of designated nature conservation sites. Likewise we would exercise caution in trying to discern precise and legalistic meaning in the wording of that paragraph, which by necessity is policy which is intended to set the framework for an exercise of planning judgement. We think that the SSSI citation document and the protected natural features it identifies (informed also by the Site Management Statement) are the best guide to understanding the objectives of designating the site.

8.82 Insofar as the integrity of the site is concerned, the applicant correctly points out that it is the integrity of the whole site, not just one or more of its features, which is the correct test. However, we think that the following extract from page 47 of SNH's Development

Management and the Natural Heritage guidance is highly relevant to the consideration of integrity:

“All parts of a SSSI collectively assume ‘special interest’. This is why damage to one small bit of the site affects the site’s ‘integrity’ or ‘wholeness’. Damage to any one feature cannot rationally be justified by the survival of the larger fraction since, once begun, there are no logical stopping points. The setting of arbitrary limits to incursion would undermine the credible basis for SSSI selection.”

8.83 Paragraph 8.1 of the JNCC site selection guidelines cover similar ground. On this basis, and given the effects we have identified in relation to the sand dune and breeding birds features of the SSSI, we find that both its objectives of designation and its overall integrity would be compromised.

8.84 In relation to the second bullet of paragraph 212, the applicant argues that there would be biodiversity benefits to the SSSI which would be environmental benefits of national importance. However given our overall conclusion of significant adverse effects on the sand dunes and breeding birds features (and our wider conclusion on the SSSI), we disagree. We consider the question of whether there are any nationally important social or economic benefits from the development in Chapter 11 and in our overall conclusions in Chapter 13.

8.85 The applicant also points to the requirements of Sections 1 and 12 of the 2004 Act. Section 1 is the general biodiversity duty and we return to this in Chapter 13.

8.86 Section 12 applies to the exercise by a public body or office-holder of any function (in this case the development management function) which affects land which forms part of a SSSI. That body or office holder must consult SNH in relation to that function and have regard to its advice.

8.87 In exercising the development management function, Section 12 requires that reasonable steps be taken, so far as is consistent with the proper exercise of that function, to

- further the conservation and enhancement of the natural features specified in the SSSI notification; and
- maintain or enhance the representative nature of any series of sites of special scientific interest to which the SSSI notification contributes.

8.88 In light of our conclusions above, we judge that the development of the golf course would, overall, impede the conservation and enhancement of the natural features of the SSSI. We are not aware that the site is part of any particular series of SSSIs.

The Dornoch Firth and Loch Fleet SPA

8.89 The shadow habitats regulations appraisal for the applicant acknowledges that the proposal is not necessary to manage the site for nature conservation.²⁷⁵ We are not convinced that the project is directly connected with the management of the site for nature conservation, as we consider that any nature conservation benefits to the SPA arising from measures in the proposed site management plan would be substantially outweighed by the

²⁷⁵ [CD001.028: ES Annex A – Shadow Habitats Regulations Appraisal for SPA Bird Species](#)

negative effects of the proposed golf course development on the SPA qualifying interests (discussed below).

8.90 We find that the diminution of the unique dune slack habitat (including where it occurs in habitats mapped by the applicant as matrices), and the significant disturbance to birds using the wetted dune slacks, would be likely to reduce the use of Coull Links by qualifying bird species such as teal and wigeon, and thereby compromise its function as a refuge for SPA water birds at high tide and during severe weather. Furthermore, there is the risk of disturbance to water birds using the adjoining foreshore and SPA species foraging on the farmland to the west of the site; nor can we discount the possibility that people and machinery on the golf course could disturb flocks of water birds on the shores of Loch Fleet close to the site.

8.91 Because of the potential loss of bird habitat and likely disturbance to bird species from construction and operation of the golf course, we conclude that the proposal runs contrary to the conservation objectives for qualifying interests of the SPA to 'avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained'.

8.92 For similar reasons, we conclude that the proposal runs contrary to the conservation objective for SPA qualifying interests to ensure for the qualifying species the long-term maintenance of the following:

- distribution of the species within the site;
- distribution and extent of habitats supporting the species;
- structure, function and supporting processes of habitats supporting the species; and
- no significant disturbance of the species.

The Dornoch Firth and Loch Fleet Ramsar site

8.93 In relation to the correct approach to our assessment of impacts on (and the application of policy to) the Ramsar site, we note evidence in the written submissions on policy and legislation from the applicant, Not Coull, the Conservation Coalition and Peter Batten. We note also what some of the written representations on the application have to say about this matter.

8.94 The Revised Guidance Updating Circular 9/1995,²⁷⁶ issued in June 2000, stated that it was a matter of policy to apply the same considerations to the protection of Ramsar sites as if they were classified as SPAs. Ministers stated much more recently (for example the statement by the Cabinet Secretary for Environment, Climate Change and Land Reform on 18 April 2018) that it continued to be Scottish Government policy to apply the same level of protection to Ramsar sites as that which is afforded to designated Natura sites.

8.95 The Assessment Report²⁷⁷ from the Planning and Architecture Division following notification of the application to Ministers stated that it would be necessary to undertake an appropriate assessment for the Ramsar site to give effect to the above policy position.

²⁷⁶ [CD005.006 - Circular 6-1995 Nature Conservation - 'The Habitats and Birds Directives' \(Updated June 2000\)](#)

²⁷⁷ [CD007.004 - Report on the Application by the Scottish Government Planning and Architecture Division dated 16 August 2018](#)

8.96 However, recent guidance²⁷⁸ makes clear the Scottish Government's current position on how it expects its policy on the protection of Ramsar sites to be implemented. It refers to the policy approach set out in SPP, and explains that this approach is achieved through the co-designation of all Ramsar sites with Natura sites and/or SSSIs. The guidance states that where Ramsar interests coincide with Natura qualifying interests, they are thereby given the same level of legal protection as Natura sites. Where, instead, the Ramsar interests match only SSSI features, they receive protection under the SSSI regime.

8.97 This approach, therefore, is the one we apply to this application. The matters raised by some of the inquiry parties such as whether (and if so why) the content of the guidance note may alter the previously expressed policy position of the Scottish Government, or why there was no consultation prior to the issuing of the guidance, fall outwith our remit.

8.98 For the reasons already stated above, we consider that the potential loss of bird habitat and disturbance of qualifying species would be likely to result in an adverse impact on overwintering birds, including wigeon and teal, which are protected under the Ramsar site designation.

8.99 In the light of the 2019 guidance, we find that the impact on Ramsar site birds, including internationally important wintering populations of waterfowl and waders, is already addressed in the assessment of impacts on the SPA which covers essentially the same concerns.

8.100 We also find that the impact on Ramsar site sand dune habitats and plants has effectively already been considered in the assessment of impacts on the SSSI.

8.101 However, certain features of the Ramsar site are not mentioned in the qualifying interest of the SPA or the notified natural features of the SSSI, including alder woods, aquatic plants and British Red Data Book invertebrates. Although we are unaware that any of the particular invertebrate species which feature in the list (in the Ramsar Site Information Sheet) of noteworthy fauna occur at Coul Links, other species of Red Data list lepidoptera and an endangered species of seed-fly are known to occur there. We have found that the proposed development has the potential to have an adverse impact on threatened species of invertebrates within the Ramsar site.

The Moray Firth proposed SPA

8.102 SNH withdrew its objection relating to disturbance of non-breeding eider on the Moray Firth proposed SPA, in the light of the mitigation measures set out in the RAMP. Eider are found offshore at the mouth of Loch Fleet and into the Moray Firth, and they sometimes roost on the beach to the north east of Coul Links.

8.103 We would not expect that non-breeding eider in the Moray Firth pSPA beyond the mouth of Loch Fleet and offshore to the east of Embo beach would be close enough to be significantly disturbed by the construction and operation of the proposed golf course at Coul Links. We therefore conclude that the presumed conservation objectives for the proposed SPA would not be compromised.

²⁷⁸ [APP002.014 - Scottish Government Advice and Guidance Implementation of Scottish Government policy on protecting Ramsar sites \(22 Jan 2019\)](#)

CHAPTER 9: IMPACT ON PUBLIC ACCESS AND ENJOYMENT OF THE LINKS

THE CASE FOR THE APPLICANT

9.1 [Chris Haspell](#)²⁷⁹ explained that the applicant proposes to manage public access to the site by means of the Recreational and Access Management Plan (RAMP), which would be secured by planning condition.

9.2 The currently proposed RAMP²⁸⁰ has been developed through an iterative process, taking account of consultations with SNH. It has been designed to manage the potential disturbance to wildlife in sensitive locations, and to improve the access to the links for golfers and non-golfing visitors to the area. It would also aim to address the intrusive use of all-terrain vehicles and discourage other detrimental uses of the site, and would improve visitors' enjoyment of the area at different times of the year.

9.3 The RAMP advises that there are no public roads into Coul Links. Existing access is taken from Embo and from the private track to Coul Farm from the junction of Four Penny Road. There is also a private track accessing the Loch Fleet foreshore in the north.

9.4 The Sutherland core path (SU09.03: Embo-Coul Links railway track) between Dornoch and Skelbo Street, which forms part of the John O'Groats Trail, runs through the application site. The core path crosses the proposed location of holes 1, 9, 10, 11, 12 and 18, and the competition tee for hole 13.

9.5 In recent years this core path has become overgrown in sections, and volunteers have been working to hold back the progression of invasive species. However, the very good visibility along this path would assist the managing of interactions between walkers and golfers playing at the majority of the holes crossed by the path. The applicant proposes a planning condition in which the use of the core path by members of the public would take precedence over golfers playing over it. Golfers would therefore give way to walkers, riders and cyclists on the core path.

9.6 It is anticipated that the RAMP and the wider Site Management Plan would include management of the core path, which could be enjoyed by golfers and other visitors alike.

9.7 Suitable sign boards would be installed where the core path crosses the golf course, to make visitors aware of what to expect when crossing the course, why certain areas should be avoided, responsibilities under the Scottish Outdoor Access Code, and any potential dangers. The existing railway hut/bothy on the site would be converted into an area information hub, which would explain the history of Embo and the surrounding area and the features to be observed on site, and could be used as a short respite in bad weather.

9.8 The golf course would be closed between 1 December and 31 March, and temporary signage would be installed in winter to direct visitors away from certain sensitive areas (such as dune slacks), and guide them to a more suitable route. Appendix 2 (summer operations) and Appendix 3 (winter operations) to the RAMP provide details on all sensitive

²⁷⁹ [APP001.001: Inquiry Report by Chris Haspell](#)

²⁸⁰ [CD001.005: Recreational Access Management Plan Rev.6 \(2018\)](#)

areas, protection and mitigation measures. These matters are addressed in greater detail in Chapter 6 of this report.

9.9 The RAMP (agreed with SNH) proposes the creation of an additional 2.9 km of new paths, to allow the visitors to experience the site from elevated locations, and to contribute to the conservation of the sensitive habitats on the site. It is intended that the circular route would be used in winter to limit the potential for disturbance to habitats, by directing dog walkers and other visitors away from the most sensitive areas.

9.10 Most links courses in the UK are criss-crossed by public footpaths, and golf courses in Scotland can be accessed under the right to roam. Public footpaths cross fairways on several occasions at many local golf courses including Brora, Golspie, Royal Dornoch, Tain, Wick, Fortrose and Rosemarkie, and yet none experiences serious access issues or high risks of injury.

9.11 In closing submissions, the applicant contends that the proposal is a unique opportunity to manage public access in a way to minimise disturbance to nature conservation interests, while improving the experience of visitors and providing a new recreational asset for local residents.

9.12 Currently most public access to Coul Links comes from Embo to the south. Apart from the core path, which has become overgrown in sections, Coul Links is much less frequently visited than the beach at Embo. An average of five people cross Coul Links each day. Shooting, which involves parties of four people, takes place between 1 September and 31 January, typically once every three weeks, but the main forms of recreation are from walkers, dog walkers, bird watchers and local people and visitors frequenting Embo beach.

9.13 The applicant has committed to maintain access to the site through formal paths at all times during construction and operation of the development, as detailed in the RAMP which would include clear signage and the provision of safe walking routes along the route of the existing access road through the development. The site management plan would manage gorse and other invasive species, and thereby improve passage along the section of core path within the site.

9.14 The council's Access Officer concluded that the loss of land for the exercise of access rights on the greens and tees is unlikely to be significant apart from the paths and informal desire line affected by the 15th hole, and that the public would be able (subject to the provisions of the RAMP) to access or pass over almost all of the remainder of the proposed golf course. The Access Officer confirmed that golf courses in Scotland, including links courses at Dornoch, Tain and Golspie, have traditionally provided the public with a variety of recreational access. The Access Officer's suggested conditions have been adopted within the applicant's schedule of proposed conditions.

9.15 Although the Access Officer had some concerns about the impact on the visual amenity of users of the core path, the Area Planning Manager considered that the proposed development would not be contrary to Policy 77: Public Access of the Highland-wide Local Development Plan.

9.16 The majority of the concerns raised about public access are not issues of principle, but are management matters which can be controlled by planning conditions. There is no reason why Scotways/Ramblers Scotland could not participate in the approval of the details

which address the safeguarding and management of public access. The RAMP would build in regular monitoring requirements, to review its implementation and update the document. The proposed signage would highlight the right of way in favour of walkers, riders and cyclists, and remind visitors of their responsibilities under the Outdoor Access Code.

9.17 Mr Mackay of Scotways accepted that the path and walking route created by Royal Dornoch Golf Club shows that golfers and walkers are not mutually exclusive, and that there would be good visibility for golfers and walkers where the core path crossed the proposed course at Coul Links.

9.18 It is misconceived to refer to 'emerging limitations on access over disturbance to birds'. Currently the irresponsible exercise of access rights (in particular, disturbance from dog walkers) contributes to the disturbance of protected birds at and adjacent to the site. The RAMP would guide and manage, but not limit, public access. Greenkeepers would act as a warden system, enhancing protection of the links. The golf course would be closed from December to March, when public access rights would not be constrained by playing of golf.

9.19 The Big Dune at Coul Links is susceptible to the effects of trampling, and encouraging people to use alternative routes along the ridge crest or to the beach would assist in establishing vegetation cover on the windward side, and help to stabilise the beach and dune.

THE CASE FOR LOCAL AREA COMMUNITY GROUP

9.20 [Councillor Linda Munro](#) considers that, with sensitive development like what has been achieved at Machrihanish Dunes in Kintyre, the course would enable many more people to appreciate the value of Coul Links through carefully managed activity. Visitors to the course at Machrihanish are briefed on where to go, walking routes to take and designated areas they must not enter.

9.21 [Struan Robertson](#) comments that the paths at Coul Links have become overgrown since livestock grazing ceased in the area, and the vegetation is becoming progressively impenetrable due to invasive species. Mr Robertson rarely encounters anyone on the walk around Coul Links, whereas Royal Dornoch Golf Club has created a well-used perimeter track.

THE CASE FOR RAMBLERS SCOTLAND AND SCOTWAYS

9.22 [John Mackay](#) regards Coul Links and its frontal beach as an integral part of the Loch Fleet basin, with shared scenic qualities and conservation interests. The area has high natural heritage value, and in turn high recreational value. It was a candidate for National Scenic Area status, and is now a Special Landscape Area in addition to the suite of nature conservation designations.

9.23 Coul ranks highly in comparison with the other links on the coastline between the four firths (Beaully, Cromarty, Dornoch and Loch Fleet) due to:

- the unspoiled character of the coastal edge, with limited human influence;
- the distinctive geomorphology of the whole sand dune complex;
- the quality of the wider setting of the Links;

- the unusual extent, quality and diversity of the natural habitats across much of the dune complex;
- the dynamism of the setting, especially at its northern end where the processes of dune creation are still active; and
- the high recreational value of the whole dune complex, with conventional holiday users on the beach, and areas, especially at the north end, where solitude and some wildness can be enjoyed.²⁸¹

9.24 The national and local policy protection of this area should take priority over other claims. The impact of the proposed development would extend over a high proportion of Coul Links, with significant fragmentation of the habitat cover. It would not be an unobtrusive development, as the core of the Links would be transformed from a near-natural setting to a managed sport and recreation facility.

9.25 The proposal to place tees and greens (for holes 15 and 17) high up on the rear side of the frontal dune would create a potential point of friction between golfers and those using the beach. There is currently a lightly used path along the crest of the dune, which is a longstanding part of beach enjoyment and should remain part of the public recreation space. Bringing golfers and beach users too close together in this setting is likely to cause a risk of disturbance and annoyance, leading perhaps to barriers and signage. Also, heavy usage would eventually call for the hardening of paths where dune crests are narrow and fragile. The crossing 'decks' between the back dune and the main course to the west would be an unwanted hard intrusion within the back-dune slack area.

9.26 Another unresolved problem is that the line of play of seven holes crosses the core path. Moreover, there are issues where important details have yet to be devised: i.e. the potential congestion of use between golf and local resident needs close to Embo, behind the dune at its southern end and contained in the limited area between the village and holes 14 and 15; the applicant's thinking about public crossing of the course; and the formal boundary to the course where the statutory limitation on access rights to passage would commence.

9.27 Ramblers Scotland and Scotways are concerned about potential restrictions on public access, and the applicant's proposal to use signage to reduce disturbance to overwintering birds. Precautionary action of this kind could be non-compliant with the purposes of the access legislation²⁸². Indeed, the causes of downward trends to bird populations are diverse, and are not mainly about recreational disturbance. Coul Links is a special place which is lightly visited but very highly valued, and which needs a sensitive management approach that also has proper regard to the public right to be on the land.

9.28 The applicant's proposals rely heavily on a circular diversionary path to the south of Coul Farm, which could be pleasant in decent weather but not that enticing.

9.29 In conclusion, Coul Links is not the right location for this golf development, and given the high-quality setting of the Coul-Fleet basin the proposal does not pass the relevant national and local policy tests which are set out in NPF3, SPP and the local development plan.

²⁸¹ [Scotways and Ramblers Scotland – inquiry report](#)

²⁸² [RSSW10: Guidance – Managing access with dogs in protected areas to safeguard breeding birds](#)

9.30 In closing submissions, Ramblers Scotland and Scotways maintain that Coul Links is a special place, and that there would be a loss of public access to enjoy the natural heritage. Access rights across golf courses are limited to 'passage', and crossing routes have yet to emerge at Coul. Construction of the course would significantly diminish the natural character and recreational value for the public of what would be left of the Links.

9.31 The application proposes to substantially modify a nationally and internationally significant nature conservation site for the purpose of golf, but there is no case for the strong protection of the SSSI to be set aside. The long-term public interest must lie with the conservation value of the site.

THE CASE FOR NOT COUL

9.32 In closing submissions, Not Coul contends that Coul Links golf course would not be a public place, despite the provision of walking tracks. Common sense indicates that golfers paying top dollar for the privilege of playing golf there would not be willing to give way to walkers. The Land Reform (Scotland) Act 2003 still applies, yet the activities of walking and golf would not seem to be easy bedfellows.

REPORTERS' CONCLUSIONS

Current recreational use of Coul Links

9.33 We note the views of the council's Access Officer that the development would negatively affect the visual amenity of core path users. The landscape and visual impact of the proposal is considered in Chapter 10 of this report.

9.34 For the purposes of this chapter we agree with Scotways and Ramblers Scotland that the recreational value of Coul Links stems in large part from its undoubted scenic value (which is recognised by the inclusion of part of the site within the Special Landscape Area). Unusually for this stretch of the Moray Firth, the extensive dune system at Coul Links is largely unspoilt by human influence. The application site affords fine views over Embo beach and the Dornoch Firth to the east, and to Loch Fleet and the hills behind to the north.

9.35 However, we note that Coul Links is not used intensively for recreation at present, though there is a core path along the former railway line to the west of the main dune system, and an informal path from Embo football pitch and Back Street along the crest of the fore dunes. The section of the core path between Dornoch and Skelbo Street forms part of the John O'Groats Trail long distance footpath, but at present it appears to be used mainly by local (Embo) residents, and probably visitors to the nearby holiday park, for dog walking and circular walks returning along the beach. Desire lines can also be discerned between Coul Links and the beach.

9.36 There is currently unrestricted access throughout Coul Links, but due to the uneven topography, vegetation and seasonal flooding it is difficult terrain for walking. Consequently, it appears that relatively few people use the land for recreation beyond the established paths referred to above. This finding is borne out by the applicant's estimate that on average only 35 people visit the site each week at present.

Potential impact of the proposal

9.37 When the golf course was in operation Coul Links would be used much more intensively for recreation. An estimated average of 375 golfers per week would play the course in the summer months, and in doing so they would visit parts of Coul Links which are rarely accessed at present. It is also possible that the additional tourists drawn to the area would seek to make greater use of the existing walking routes along the beach, the dune crest and the core path.

9.38 The change in the use of the land to a golf course would affect the exercise of access rights, which could not be exercised on tees and greens. Whilst other areas (fairways) could be accessed for rights of passage, they could not be used for general recreational activities.

9.39 There is also the potential for conflict between the different recreational activities where existing paths traverse the proposed golf course, in particular where the core path would cross the fairways of holes 1, 9, 11, 12 and 18, and in front of the tees at holes 10 and 13. Further, it could arise where paths and a desire line cross the fairway at hole 14, and the fairway, tees and green at hole 15²⁸³, and where the established path along the dune crest would cross or skirt the course in the vicinity of the tees at hole 16, the fairway and green at hole 17, and the tees at hole 18.

9.40 We appreciate that it is common for public footpaths to pass through golf courses, including fairways, and that walkers and golfers appear to coexist satisfactorily at local links courses including Royal Dornoch and Golspie. We also acknowledge the applicant's intention to take steps to ensure that walkers, cyclists and horse riders using the core path take priority over golfers. However, we doubt that a planning condition could be effectively enforced which sought to require golfers to give way to legitimate users of the core path. Golfers, whose visit might be subject to time constraints, might be understandably reluctant to allow an interruption to their round of golf at up to seven potential locations across the course.

Mitigation measures

9.41 The proposed mitigation measures also have implications for public access and the enjoyment of the links. The conversion of the bothy to an information hub and shelter would clearly benefit users of the core path and other visitors to Coul Links, as would the proposal to remove any invasive species which create an obstacle to access.

9.42 The proposal in the RAMP to create a new 3km circular path on the west side of the site would also be beneficial to walkers in general, though we agree with Scotways and Ramblers Scotland that this route is likely to be more popular with local dog walkers than visiting tourists, who might prefer to be closer to the beach and the sea which would remain the principal attraction.

9.43 The intended winter closure of the golf course, and the provision of signage to direct visitors away from sensitive areas, are discussed in Chapter 6 above. We appreciate the need to minimise the disturbance to bird interests which could be caused by the operation

²⁸³ [CD002.027: Report to the North Planning Applications Committee on 5 June 2018](#)

of a golf course, whilst we acknowledge that adherence to these measures would reduce the current largely unfettered ability to roam throughout Coul Links.

Overall conclusions

9.44 We conclude that the golf course proposal would allow Coul Links to be enjoyed by many more people than the small number who currently use the land for recreational purposes. It would also make it easier to access certain parts of the site which are seldom visited at present, though the proposed access restrictions which would be necessary to avoid disturbing nesting birds would somewhat constrain access to parts of Coul Links.

9.45 The development would straddle the core path on the west side of Coul Links, and we consider that there is a real possibility that the operation of the golf course would interfere with the currently unhindered enjoyment of the core path and the informal path along the dune crest.

9.46 More generally, non-golfers would not be able to exercise access rights on areas given over to tees or greens, or use land devoted to fairways for general recreational purposes. The Scottish Outdoor Access Code²⁸⁴ underlines the potential limitations on public access over golf courses with the following advice:

“Members of the public can only exercise access rights to cross over a golf course and in doing so, must keep off greens at all times and not interfere with any golf games. To avoid damaging the playing surface, cyclists and horse riders need to keep to paths at all times and not go on to any other part of a golf course. Golf course managers can ask people to avoid using particular routes when fertilisers or pesticides have been used, usually for no more than a few days.”

9.47 The Code advises that responsible behaviour by the public is to allow players to play their shot before crossing a fairway; be still when close to a player about to play; and follow paths where they exist.

9.48 We conclude that the relatively unrestricted public access which is currently enjoyed at Coul Links would be materially constrained if the golf course proposal were to proceed, even taking account of the suggested measures in the RAMP and in planning conditions. However, we consider that the currently low intensity of recreational use of Coul Links, and the high level of support for the proposal from the local community who use and enjoy the Links, serve to reduce the significance of the potentially negative impact on public access.

²⁸⁴ [RSSW003: Scottish Outdoor Access Code, 2005](#)

CHAPTER 10: OTHER ENVIRONMENTAL IMPACTS

LANDSCAPE AND VISUAL EFFECTS

Background

10.1 We deal with the effects on public access to the site, including the amenity of those taking such access, in Chapter 9. We focus here on landscape and visual effects, albeit that includes effects which would be experienced by those accessing the site for recreation.

10.2 The northern part of Coul Links is part of the Loch Fleet, Loch Brora and Glen Loth Special Landscape Area. The Dornoch Firth National Scenic Area lies around 4km to the south. The eastern part of the site is characterised as Long Beaches, Dunes and Links in SNH's 1998 Caithness and Sutherland Landscape Character Assessment (LCA). The western part is Small Farms and Crofts Surrounded by Woodland. The boundary between the two areas does not quite follow the line of the former railway line (which seems a more natural boundary), although that may reflect the limitations of the scale of the mapping used in the LCA.

The Environmental Statement

10.3 Chapter 9 of the ES addresses landscape and visual amenity but the main evidence is contained in the accompanying appendices D.1²⁸⁵ Landscape and Visual Impact Assessment (LVIA) and D.2²⁸⁶ Visualisations.

10.4 The ES advises that the design approach is to intervene as little as possible and work with existing landform and vegetation to add to the character of the golf course. The design is responsive to its location and avoids the loss of any key landscape elements or features.

10.5 The evidence in the LVIA is that the principal landscape and visual effects would occur during construction, when significant effects on landscape elements would arise. There would be a significant beneficial effect on the area of the felled conifer plantation. Landscape effects during operation would be limited, and not significant. Visual effects would be only locally significant, and restricted to locations within the site itself.

10.6 The LVIA concludes that there would be no significant effects on the National Scenic Area. It provides a more detailed assessment of landscape character than that in the LCA, identifying five landscape character units. It generally assigns a higher value to the coastal and dune system landscapes (and to the Special Landscape Area) than it does to the agricultural landscape further west. It does not identify any significant effects on the Special Landscape Area or on any of its five landscape character units.

10.7 Ten viewpoints were selected to illustrate views of the golf course from the surrounding land – four of these within the site and a further four on its boundary. The assessment in the LVIA is that there would be no significant visual effects on receptors outwith the immediate confines of the area to be developed – this wider area being

²⁸⁵ [CD001.054 - ES - Annex D - Appendix D.1 - LVIA](#)

²⁸⁶ [CD001.055 - ES - Annex D - Appendix D.2 - VPS](#)

represented by viewpoints 1 (Littleferry), 4 (Fourpenny), 7 (Skelbo Castle) and 8 (on a path to the north of the site).

10.8 During construction, significant visual effects are predicted for stretches of the core path which runs through the site (for example at viewpoints 5 and 6) and at other locations within (viewpoints 9 and 10) and on the southern (viewpoint 2) and western (viewpoint 3) edges of the site. Once construction is complete, the assessment is that significant visual effects would remain within the site only, for example at viewpoints 6, 9 and 10.

Issues raised in consultations and representations

10.9 The council's access officer did not agree with the conclusion in the LVIA that the limited occurrence of significant effects would ensure that the distinctive character of the coastal landscape would be retained. There would also be a significant effect from the primary dune, which was not assessed. This does not support, it is stated, a conclusion that there would be limited effects – in reality there would be an effect on the amenity of those accessing Coul Links for recreation.

10.10 Supporters of the development pointed to the suitability of the site for a golf course, the sympathetic approach to design and the opportunities for positive future management of the landscape.

10.11 Objectors raise concerns about the landscape and visual effects of any coastal defence works required, and about the effects on the wild land qualities of the area. There would be significant visual impacts on walkers and other recreational users on the beach, and within the dune system.

10.12 Not Coul's first objection letter includes a review (summarised in the letter itself but provided in full at Annex 2) of the LVIA methodology by Mark Steele, a landscape architect.

10.13 The Mark Steele review questions the LVIA approach to:

- identifying the study area, because cumulative effects could extend beyond the 3km radius chosen;
- valuing visual receptors – Mr Steele places a greater emphasis on the value of the view to the visual receptor;
- ascribing significance – Mr Steele considers that Table 4 in the EIA is inconsistent; and
- dealing with cumulative effects – a cumulative assessment with existing golf courses in the Long Beaches, Dunes and Links landscape character type should have been undertaken. This type should also have been identified as being of high susceptibility because of this potential for cumulative effects.

10.14 Mr Steele does not take issue with the five landscape character units identified in the LVIA. He comments that it is unclear why the LVIA places a medium/high rather than high value on the Dune Slack unit.

10.15 As components of the Long Beaches, Dunes and Links, the Beach/Coastal Edge, Primary Dunes, Dune Slack and Links Habitat units should all in Mr Steele's view have been identified as being of high susceptibility. Further, by proceeding on the basis that golf courses are characteristic of the receiving landscape, the LVIA understates the magnitude of change which would be caused by the development. An LVIA that properly addresses

the capacity of the landscape to accommodate further golf course development would be likely to find significant adverse effects on the Long Beaches, Dunes and Links landscape character type and on the associated units identified in the LVIA.

10.16 In respect of the Special Landscape Area, Mr Steele's opinion is that an LVIA that properly addresses the capacity of the landscape to accommodate further golf course development would be likely to find significant adverse effects on the Special Landscape Area where this coincides with the Long Beaches, Dunes and Links.

10.17 Mr Steele does not consider that the ten viewpoints chosen to illustrate likely effects are fully representative since they do not include viewpoints for residents and tourists on Embo Street, or recreational users of the beach given the closeness of the 15th and 17th holes and the possible need for coastal defences.

10.18 Rather than the computer-generated visualisations, Mr Steele asserts that fully rendered photomontages would have better assisted consideration of the magnitude of effects. With more viewpoints and photomontages, his view is that it is likely that a greater number of significant visual effects would have been identified. This would likely have included users of Embo Street, users of the beach near the 15th and 17th holes and walkers on elevated parts of the sand dunes. Sequential cumulative visual effects could occur for users of the core path and the beach.

10.19 Overall, Mr Steele concludes that the proposed development would not fulfil the stated aim of the proposal to respect 'the environmental integrity of the landscape character and appearance of this unique area'.

The council's view

10.20 The report to the 5 June 2018 meeting of the North Planning Applications Committee notes that the site is located within a relatively self-contained area to the north of Embo, with limited wider visibility. Views of the development would mostly be short-range, most notably from Littleferry and from more elevated sections of the A9 to the west. Informed by the material in the LVIA, the committee report recognises that some of the landscape and visual effects would be significant, but concludes that the overall effect is not significantly detrimental.

Reporters' conclusions

10.21 The applicant has confirmed that there would not be, and indeed the proposed conditions preclude, the introduction of any hard coastal defence works, so we exclude any consideration of the potential effects of these. We note Mr Steele's critique of aspects of the LVIA methodology, but ultimately we must reach our own view on the significance of the landscape and visual effects of the development.

Landscape effects

10.22 We were not provided with a copy of the Caithness and Sutherland LCA, to which both the LVIA and the Mark Steele review refer. We are therefore not certain about whether golf courses should be considered characteristic of the Long Beaches, Dunes and Links landscape type. The use of the word 'links' in the title could indicate that they are. In

addition, the LVIA quotes from the LCA that ‘Most areas of this landscape are used for recreation, mainly walking, but also for organised activities such as golf links...’.

10.23 Mr Steele also quotes an extract from the LCA which begins ‘There may be demands to expand the existing golf courses within this landscape...’, and another which states that ‘most [golf courses within Caithness and Sutherland] are located within this particular character type’. Mr Steele also states that other golf courses exist within this type to the north and south of the proposed development. Therefore the LVIA is probably correct to proceed on the basis that golf courses are indeed part of the character of this landscape type.

10.24 Mr Steele is correct to highlight²⁸⁷ that the advice in the LCA for the Long Beaches, Dunes and Links character type is that the planning of new golf courses within it should take into account cumulative impacts, and that there is the potential for them to become a key landscape characteristic. But the LCA does not state that golf courses becoming a key characteristic of this landscape type is to be avoided. Nor does it follow that, as Mr Steele argues, the advice implies that this landscape type ought to be considered highly sensitive to golf course development. Nothing quoted to us from the LCA says so. Rather, it recommends consideration of cumulative effects because golf courses are already a feature (and, it would seem, characteristic) of this landscape type.

10.25 The LVIA predicts that there would be significant effects on ground cover during the construction period as a result of the stripping out and preparation for seeding which would take place across the golf course footprint. These effects would become non-significant once the new turf is established. There would be a significant positive effect in removing the remains of the felled conifer plantation.

10.26 Similarly, the LVIA predicts short-term significant effects on the Long Beaches, Dunes and Links and the Small Farms and Crofts Surrounded by Woodland landscape character types within the site. Likewise for their component units identified in the LVIA – agricultural land, dune slack, links habitat and primary dunes. Again these are assessed as reducing to non-significant effects after the course is established. Landscape character effects outwith the site are assessed as non-significant at all times.

10.27 We do not take issue with the identification of significant effects on landscape elements and landscape character within and on the edges of the site during the construction phase.

10.28 The course layout would avoid the core path and seeks to minimise effects on features such as dry stone walls. The existing farm complex buildings would mostly be retained and reused, and the design also seeks to minimise the amount of earth moving. Therefore we concur that, after establishment of the course, effects on landscape features would not be significant.

10.29 The above aspects of the design of the development also inform our conclusions in respect of impacts on landscape character. Again, we agree that there would be significant effects during the construction phase. Following establishment of the course, our judgement is that the effects on landscape character might be somewhat greater than is envisaged in the LVIA. The golf course, in particular the tees and greens (and the car park

²⁸⁷ Page 7 of the Mark Steele Review

and club house) would result in a more formal, managed landscape character across the site. Some of the other changes in ground cover, for example fairways replacing areas of dune heath, and the smoothing out of some contours, would also affect the character of the site.

10.30 However, we also recognise that, as stated in the LVIA, in its operational phase the golf course would have fairly similar characteristics to the current landscape of the site. Landform would be similar as would the vegetated (albeit more manicured in places) land cover. We do not doubt the intention to recreate the look and feel of a naturalistic links golf course. Given that such golf courses already appear to be characteristic of the Long Beaches, Dunes and Links type, we do not foresee that the changes to the site would result in a significant effect on that landscape character type, or on its components identified in the LVIA.

10.31 The same applies to the Small Farms and Crofts Surrounded by Woodland landscape character type. Although golf courses would seem less characteristic of this type, the LCA²⁸⁸ does appear to describe it as a varied and fairly complex landscape containing small villages and being dominated by the activity of people. The golf course development would extend over a fairly limited strip along its eastern edge, and would not result in a significant effect on its character.

10.32 Some current recreational users of Coul Links will appreciate its qualities of wildness. As we note above, the introduction of the golf course would be likely to introduce a more formal and managed presence to the dune system. This would be likely to diminish the enjoyment some users may take from its perceived wildness. However the site is not identified by SNH for any particular wild land qualities. Although we take this effect into account, we do not consider that the site has wild land qualities such that the reduction of these by the development would constitute a significant environmental effect.

10.33 Noting the largely self-contained nature of the site and the limited nature of the views into it, we agree that there would be no significant effects on landscape character outwith the site itself.

10.34 It is stated in the LVIA that the need for an assessment of cumulative effects was scoped out primarily due to the absence of similar forms of development nearby. In respect of landscape character, it is conceivable that the development of a further golf course within the Beaches, Dunes and Links could lead (regardless of its proximity to other golf courses) to a significant cumulative effect from golf courses on this landscape type across Caithness and Sutherland as a whole. However, we have no compelling evidence which points towards such an outcome. We note above the relatively 'low-impact' approach to development in respect of landscape effects, and the fact that golf courses already seem to be characteristic of this landscape type. Therefore we do not consider that there would be such a cumulative effect.

10.35 It is apparent from the evidence that there would be no significant effects on the Dornoch Firth National Scenic Area. Appendix D (iii) of the LVIA contains information from the Loch Brora & Glen Loth Special Landscape Area citation. This is a fairly extensive area of 210 km², stretching from the northern part of the site up the coast as far as Helmsdale and Strath Ullie. Under 'Sensitivity to change' in Appendix D, there is nothing listed which

²⁸⁸ See page 21 of the LVIA

highlights concerns about golf course development. Given our conclusions above about the lack of significant effects on landscape character beyond the construction phase, we do not discern any significantly adverse effects on the Special Landscape Area.

Visual effects

10.36 Given the extent of the works involved during construction, we agree that there would be significant visual effects on receptors within the site itself. This would include (but would not be limited to) the core path (for example viewpoints 5 and 6) and viewpoints (for example 9 and 10) within the site. We also agree with the LVIA that such effects would be experienced from the edges of the site.

10.37 But we agree with Mr Steele that the effects would not just be limited to the edge-of-site viewpoints (2 and 3) provided by the applicant. Those walking along the dunes on the eastern edge of the site would likely be subject to significant visual effects. So too would people on the southern edge of the site, but we do not think that further south, on Embo Street, the construction works would be so prominent as to represent a significant effect.

10.38 Given the self-contained nature of the site we agree with the LVIA that (as indicated by the photographs and visualisations provided by the applicant), beyond the site itself and its margins there would be no significant visual effects during the construction period. The addition of further viewpoints from this wider area around the site would not have greatly assisted our consideration of such effects.

10.39 The above conclusions of no significant visual effects for receptors beyond the immediate environment of the site hold good for the operational phase, where the establishment of the golf course turf would serve to lessen the magnitude of the visual effects experienced during the construction phase.

10.40 We agree, again with the LVIA, that recreational users of the site would generally experience significant visual effects. These would include users of the core path at viewpoint 6 (and at viewpoint 5 and various other locations along the path) and elsewhere at viewpoints 9 and 10. It is not terribly helpful to go further than concluding that there would be the potential for such effects on recreational receptors across much of Coul Links.

10.41 Given the distances to other golf courses, we think that it would be fairly rare that there would be sequentially cumulative effects with other golf courses on users of the beach and the core path. Although this could occur for long-distance walkers on the John O'Groats trail, the limited effects on landscape character mean that this would not amount to a significant environmental effect.

CULTURAL HERITAGE

The Environmental Statement

10.42 Chapter 9 of the ES covers cultural heritage. Appendix F.1²⁸⁹ provides information on all the known cultural heritage assets within 1km of the site. Appendix F.3²⁹⁰ provides a map of these. The ES advises that the design process has meant that the course layout avoids many of the assets within the application site.

²⁸⁹ [CD001.060 - ES - Annex F - Appendix F.1 - Coul Links Cultural Heritage V2](#)

²⁹⁰ [CD001.061 - ES - Annex F - Appendix F.2 - Coul Links Cultural Heritage V1](#)

10.43 The only statutory designated asset within the site is the B-listed Coul Farmhouse. There are records of a number of non-statutory assets within the site, mostly relating to the post-medieval and modern periods. A possible pre-historic hut circle and a pre-historic cairn (noted in earlier records) could not be identified during site walkovers.

10.44 The sites of the previously recorded hut circle (site 10) and cairn (site 5) would be directly affected and any remains present could be subject to considerable levels of removal or disturbance. The same applies to another circular structure (site 8) previously recorded but not identified on site. The effects on these assets is assessed as unknown, although it is acknowledged that they could be significant if important remains of these sites are indeed found to be present.

10.45 Similarly, the effects on a series of four cairns (site 23) and two possible oval-shaped pits (site 25) are unknown, again because of the uncertainty about what remains of these assets. Otherwise, effects on the other known cultural heritage assets within the site (including the farm complex buildings which are to be converted for reuse) are assessed as either minor or negligible, and not significant. It is acknowledged that there may be further unknown archaeological remains within the site which could also be affected.

10.46 Within 1km of the site are two scheduled monuments - the ruined Skelbo Castle and the remains of the Grannie's Heilan Hame Chambered Cairn. There are also the A-listed Embo House and a number of B-listed buildings at Skelbo Farm and at Littleferry. Table F.7 summarises the assessment of the effects on the settings of these and other assets within 1km of the site, with none suffering more than a minor (non-significant) effect.

Issues raised in consultations and representations

10.47 Historic Environment Scotland had no substantive comments on the proposals. The council's archaeology officer requested that the applicant submit an archaeological management plan or written scheme of investigation for approval, to be controlled by a planning condition. The Dornoch Area Community Council suggested that there should be an archaeological watching brief.

10.48 The council's historic environment team consider the farm complex buildings to be listed by virtue of being within the curtilage of Coul Farmhouse. There was support for the intention to renovate and re-use these buildings.

The council's view

10.49 In relation to the proposed re-use of the curtilage-listed buildings, the committee report notes that there would be further detailed applications for planning permission and listed building consent. Officers' views are that the indicative proposals, as set out in the Design and Access Statement,²⁹¹ are acceptable, with the sensitive use of existing structures being preferred to more extensive new building.

10.50 The council has proposed a planning condition which would provide for a programme of evaluation, preservation and recording of any archaeological and historic features

²⁹¹ [CD001.002 - Design & Access Statement](#)

affected by the development; and a condition clarifying that further applications would be needed for the works to the listed buildings.

Reporters' conclusions

10.51 The Design and Access Statement outlines the proposals for the retention and refurbishment of the cottages, steading and other buildings in the farm complex. ES Appendix ES.5²⁹² shows the proposed plans and elevations for these refurbished buildings although, as noted above, this would be subject to further detailed applications for planning permission and listed building consent.

10.52 That notwithstanding, the drawings provided are fairly detailed. They show the intention to remove much of the modern additions to these buildings and retain and restore much of their older historic fabric. Subject to more detailed assessment through the subsequent applications, we do not consider it likely that there would be significant environmental effects as a result of the proposed retention and conversion of these buildings. Indeed this would be a positive aspect of the development.

10.53 In respect of the other assets which would be directly affected, it is notable that none are statutorily designated. Given this and the (at worst) predicted moderate magnitude of impacts, we are satisfied that, for those assets with known sensitivity, no significant environmental effects would arise. As noted above, there is some uncertainty about the extent of the remains of some other previously recorded assets. Given, again, their non-statutory status, we agree that the proposed condition requiring evaluation, preservation and recording of assets on the site is an appropriate response to such uncertainty.

10.54 Coul Farmhouse would be retained in residential use. The woodland immediately east of the house significantly disrupts its visual relationship with the farm complex (and indeed with the dune system), although the functional relationship can still be understood. The farm complex buildings would be converted to become the caddie building, professional shop, administration office and other buildings. The dune system would of course change from part of the farm to a golf course.

10.55 Views north from the farmhouse would be altered by the golf course and views south, more immediately, by the golf practice area. In our view the magnitude of change in the setting of the listed farmhouse would be greater than the 'minor' as assessed in the environmental statement. And we observe that the council considers the farm complex buildings to be within the curtilage of the farmhouse.

10.56 However, we are mindful of the enclosure and visual containment of the house presently, the intention to retain and refurbish much of the farm complex, and the intention of a 'low impact' design for the golf course itself. Therefore we are satisfied that effects on the setting of the farmhouse would not result in a significant environmental effect.

10.57 Views from and to Skelbo Castle would, given the limited visibility of the site²⁹³ and the nature of the development, be little altered and we discern no significant effect on the setting of the castle.

²⁹² See CD1.74 to CD1.79

²⁹³ See the photographs and visualisation for viewpoint 7, which is near Skelbo Castle, in Environmental Statement appendices D.1 and D.2.

10.58 The various listed buildings within 1km of the site are generally domestic or agricultural and their settings reflect this. However some buildings at Littleferry (viewpoint 1) are associated with the former ferry at that location, and this informs the nature of their setting. Although the development would be visible from some of these buildings it would not introduce a marked change in outlook from them. Given their size and functions (now and previously) we do not consider that the setting of any of these buildings extends to the application site. Therefore we agree with the conclusion that there would be no significant effects on the setting of any cultural heritage assets outwith the site.

TRAFFIC AND TRANSPORT

Background

10.59 The development would involve the creation of a new private access road from the C1026 minor road. This would be a single-track road with passing places, and would meet the C1026 at a new junction at a point about 200 metres south of Fourpenny. The C1026 would be widened from single track to two-way single carriageway between the new junction and the Embo Street junction to the south.

The Environmental Statement

10.60 Chapter 8 of the ES covers traffic and transport. It is accompanied by Appendix E.1 Transport Statement²⁹⁴ and Appendix E.2 Travel Plan.²⁹⁵ It addresses transport impacts during the construction and operational phases of the development.

10.61 There are a number of route options for traffic accessing the site from the A9. But the route eastwards via the A949 through Dornoch and then northwards along the C1026 is considered to be the most suitable for both construction and operational traffic.

10.62 Table E.6 in the ES shows an estimated total of 382 one-way trips (764 total movements accounting for the return journey) by heavy good vehicles (HGVs) during the 12-month construction period.

10.63 Table E.7 breaks this down month-by-month, with the busiest period being the first two months when the new access road is being constructed. It is estimated that there would be 144 movements in each of these months, working out at an average of seven movements per day.

10.64 It is assumed in the tables that all trips are by HGV but it is stated that some of these may in reality be by lighter vehicles. There would, in addition, be an estimated ten movements per day by light vehicles as construction workers travel to and from the site.

10.65 Table E.8 shows the predicted increases in existing traffic levels on local routes during this peak period for construction traffic. The largest percentage increase in traffic flows would be at location ATC1 (on the C1026 south of the new site access junction), where the increase would be 3.1%. The largest increase in HGV traffic would be at the same location – an increase of 12.7%. With the exception of this 12.7% increase of HGVs on this 200m stretch of the C1026, the ES describes the magnitude of increases in both general and HGV traffic during this peak period as negligible.

²⁹⁴ [CD001.056 - ES - Annex E - Appendix E.1 - Transport Statement](#)

²⁹⁵ [CD001.057 - ES - Annex E - Appendix E.2 - Coul Links Travel Plan](#)

10.66 The ES notes that there are no residential properties on this stretch of the C1026, although some pedestrian use was observed. The effects of the increase of HGV traffic in relation to severance, driver delay, pedestrian delay and amenity, and dust and dirt are assessed as negligible. They are assessed as minor in relation to accidents and safety.

10.67 Mitigation of effects during the construction phase would be secured through a construction traffic management plan. Subject to mitigation, the residual effects from construction traffic are assessed as either minor or negligible, and not significant.

10.68 For the operational phase, it is estimated that there would be 360 vehicle movements per day during the busiest times of the golfing season. Table E.10 of the ES shows a predicted increase in vehicle traffic of 65% on the stretch of the C1026 south of the new site access junction, and a 28% increase on this road between the Embo junction and Dornoch. Increases on other parts of the local road network would be below 10%.

10.69 The ES quotes²⁹⁶ IEMA guidance on environmental assessment of road traffic as advising that detailed consideration of impacts is required when increases in predicted traffic flows on a route would exceed 30%. On this basis, only the impacts of the increase on the 200m stretch of the C1026 are considered in more detail in the ES. In relation to severance, driver delay, and pedestrian delay and amenity the effects are considered minor/negligible. The effects on accidents and safety are assessed as minor.

10.70 Mitigation of effects during the operational phase would include road widening on the C1026 between the new site access junction and the junction with Embo Street. An operational travel plan would also be prepared, and a shuttle bus for golfers is proposed to be operated between the site and Dornoch. With mitigation, the residual effects from operational traffic are assessed as not significant.

Issues raised in consultations and representations

10.71 The council's transport planning officials made four consultation responses to the application. The latest response welcomed the proposal to operate the shuttle bus (initially to Dornoch but potentially also to Golspie and Brora). It was agreed that the shuttle bus would pick-up at Royal Dornoch Golf Club to avoid adding to existing congestion in Dornoch Square.

10.72 The proposed works to form the site access were agreed in principle. A proposal to provide traffic calming was welcomed. A number of planning conditions were recommended, including conditions requiring agreement on a construction traffic management plan and an operational travel plan.

10.73 A number of objectors raise concerns about the transport-related impacts of the development. In particular there are concerns about the impacts of further traffic in and around Dornoch, which is said to suffer from congestion in the summer. Safety issues were also raised, including effects on horse-riders using local roads, and the prospect of drivers ignoring speed limits. Further traffic calming measures were suggested, as was the option of a new access road from the A9.

²⁹⁶ See paragraph 8.3.1

The council's view

10.74 The report to the 5 June 2018 meeting of the North Area Planning Committee reflects the advice in the consultation responses from the council's transport planning officials. Officials were content with the proposed access arrangements subject to the conditions recommended, including traffic calming. The council provided draft conditions which would cover the requirements for the construction traffic management plan and the operational travel plan, a traffic management plan for events and details of the access and parking arrangements.

Reporters' conclusions

10.75 Perhaps reflective of the applicant's 'low-impact' approach to design which stresses that there would be low levels of earthworks, the overall numbers of HGVs during the construction period would be modest. Even during the peak period at the start of the construction programme, an average of seven HGV movements in and out of the site per day is very low in absolute terms. It is low in percentage terms other than for the short stretch of the C1026 south of the site access.

10.76 Although there would be a measure of disruption and delay for pedestrians and other road users at some times (in particular during the works to form the new site access junction and to widen the C1026) this is an inevitable consequence of a construction project of this nature. We see nothing in the evidence in relation to construction traffic which gives us cause for concern. We note the modest numbers of vehicles involved, the fairly limited peak period for construction traffic and the mitigation proposed in the form of the construction traffic management plan. Therefore we judge the conclusion in the ES that there would be no significant environmental effects from construction traffic to be a sound one.

10.77 In relation to the operational phase, if the applicant's aspirations are realised and the course were to become a busy one then the amounts of traffic generated would be significant in what is currently a fairly lightly trafficked location north of Dornoch. We agree with the assumption in the ES that most traffic, in particular if so directed by signage, would arrive at the golf course via Dornoch. It seems likely that some other routes would be taken, in particular by visitors travelling south who may choose to leave the A9 using one of the other minor roads from which the site could be reached. But we are content with the conclusion that the overall impacts on other routes would be minor as, post-development, overall levels of traffic on such roads would still be fairly light.

10.78 For the C1026 between the site access and the Embo junction, an increase in traffic numbers of 65% would, on the face of it, be fairly large. But this is a very lightly-trafficked road. For example, the estimated total post-development average daily flows on this section of road of 916 trips²⁹⁷ would still be well below the current flow (1,273 trips) on the stretch immediately to the south, between Dornoch and the Embo junction. Subject to the proposed widening of this stretch of the road, we see no reason to disagree with the conclusions in the ES that any operational-phase impacts on this part of the local road network would not be significant.

²⁹⁷ Table E.10

10.79 Because, elsewhere, predicted traffic increases are less than 30% during the operational phase, the ES does not consider in any detail the potential effects on other parts of the local road network. However, we note the concerns expressed about the potential for increased congestion in and around Dornoch during the summer, when the golf course would likely be busiest.

10.80 An additional 360 vehicle movements per day through the town would, it seems to us, have the potential to add to such congestion. However, we note the potential for the shuttle bus service to mitigate these effects to some degree. We also have regard to the fact that the council's transportation officials, though aware of the summer congestion in Dornoch, do not object to the proposal and indeed have agreed that the shuttle bus should itself aim to pick-up and drop-off at Royal Dornoch Golf Club rather than in the town centre.

10.81 Appendix 2 sets out recommended conditions relating to transport effects during construction and operation, including requiring the agreement of a construction traffic management plan and an operational travel plan which, we assume, the council would wish to cover the shuttle bus arrangements. We note from the council's committee report and internal transportation consultation responses that the details of the improvements to the C1026, and other traffic calming, would be consented by the council acting in its capacity as the roads authority.

CHAPTER 11: SOCIO-ECONOMIC IMPACTS

THE CASE FOR THE APPLICANT

Economic impact assessment

11.1 [Graeme Blackett](#), of BiGGAR Economics Ltd, gave evidence on the potential economic impacts of the proposed golf course development at Coul Links.

11.2 The modelling exercise was carried out in accordance with the Scottish Government's Draft Advice on Net Economic Benefit and Planning²⁹⁸, taking appropriate account of displacement activities, leakage and multiplier effects. Employment impacts are measured in full-time equivalent (FTE) jobs, as is standard practice in economic impact assessments.

11.3 The BiGGAR report in 2016²⁹⁹ (Annex G of the ES) calculated that the development would have the following construction impacts:

- £1.4 million Gross Value Added (GVA) and 25 job years in the local area (Dornoch and East Sutherland);
- £2.5 million GVA and 42 job years in the Highlands; and
- £3.4 million GVA and 77 job years [or around 80 construction jobs] in Scotland.

11.4 The report also found that, in its first operational year, the development could support:

- £4.3 million additional GVA and 120 jobs in the local area;
- £6.2 million additional GVA and around 200 additional jobs in the Highlands (including the local area); and
- £7.9 million additional GVA and around 250 additional jobs across Scotland (including the Highlands).

11.5 The report predicted that, as the reputation of the course grew and the number of golf tourists increased, the economic impact could more than double, so that by year 10 the course could have an annual economic impact of:

- £8.1 million additional GVA and around 250 additional jobs to the local area;
- £13.1 million additional GVA and around 450 additional jobs in the Highlands; and
- £20.1 million additional GVA and 680 additional jobs in Scotland.

11.6 This impact includes the operational impact of Coul Links (i.e. the people employed on site, the impact of expenditure on supplies for Coul Links and the impact of expenditure by Coul Links employees), as well as the wider catalytic effect that the golf course would have on the Scottish golf tourism sector.

11.7 The 680 additional jobs would represent a 3% increase in the total of 20,080 jobs supported by the golf economy in Scotland³⁰⁰, which is a reasonable expectation.

11.8 Not Coul's figure of 2,100 refers to the number of jobs in golf tourism in Scotland, but the higher figure is more appropriate because there would be minimal on-site development

²⁹⁸ [APP006.009: Draft Advice on Net Economic Benefit and Planning](#)

²⁹⁹ [CD001.064: Economic Impact of Coul Links, BIGGAR Economics 2016](#)

³⁰⁰ [NC036: The value of golf to Scotland's Economy – page 28, KPMG 2013](#)

at Coul Links, and most of the economic benefits would be off site in the wider industry sectors. In any case, the comparison with the KPMG figure is invalid, as 'golf tourism' has a different meaning from that in the BiGGAR report.³⁰¹

11.9 Moreover, Coul Links would be operating in a growing market. Analysis by SQW in 2011 estimated that the Scottish golf tourism sector could grow to £138-157 million by 2020 (double the GVA identified by KPMG for its 2011 base year). Year 10 of the Coul Links development is around 2030.

11.10 Table 9.3 of the 2016 BiGGAR report shows that golf tourism would account for 651 out of the 684 jobs associated with Coul Links, because of the nature of the development proposed (which would not be a golf resort).

11.11 The economic analysis in the 2016 report assumes that 15,000 rounds of golf would be played at Coul Links in year one, and 20,000 in year 10 (of which one third would be additional to Scotland, one third would be golf tourists staying for longer, and one third would be displaced from other courses).

11.12 Mr Blackett's inquiry report in January 2019³⁰² has reviewed the 2016 figures. He concludes that they remain reasonable estimates, although conservative when compared to the scale of economic impacts associated with other developments in North America (at Bandon Dunes, Oregon; Cabot Links/Cliffs, Nova Scotia; and Sand Valley, Wisconsin) by Mike Keiser, one of the developers of the proposed Coul Links course. An assessment in 2015 of the economic impact of the Bandon Dunes development highlights the significant and growing contribution of the resort to the local economy through employment, taxes, retail services and tourism, and the wider community benefits.

11.13 Mike Keiser, together with the designers Bill Coore and Ben Crenshaw, are probably the most successful golf course developers in the world.

11.14 It is expected that 50% of visitors would come from North America, and 50% from Scotland, the rest of the UK and elsewhere in Europe. Applying these assumptions, it was estimated that the average expenditure of visitors to Coul Links would be £3,333 per trip.³⁰³

11.15 The Coul Links development would result in a world-class golf course with the potential to transform the dynamics of golf tourism in the area. By helping to create a critical mass of iconic golf courses and enhancing the existing offering, it would encourage more new visitors to come to the region, encourage longer stays in the area and extend the tourism season.

11.16 The development would create a second course in the area with a high global ranking, and would incentivise visitors to Royal Dornoch Golf Club who might otherwise be day visitors to stay overnight to play Coul Links and other local courses. These new visitors would more than offset any displacement from other local courses.

11.17 Due to the nature of the proposed development, many of the economic benefits would be created off-site in the local hospitality, catering and retail sectors. It is estimated that at least 80 additional high-quality hotel rooms would be required in the area, to help

³⁰¹ [Applicant's closing submission, paragraph 14.157 \(i\)](#)

³⁰² [APP006.001: BiGGAR Economics Updated Report on Economic Impact of Coul Links](#)

³⁰³ [CD001.064: Economic Impact of Coul Links – section 7.3, BiGGAR Economics 2016](#)

cater for an additional 14,000 visitor nights each year. Current occupancy is very high, so it is expected that other developers would be attracted to create additional accommodation in the area.

11.18 The socio-economic benefits of the Coul Links proposals can be considered to be of national significance, because they would bring economic benefit to a region where there are few other economic growth opportunities. It is a privately funded opportunity based on the competitive advantage of Dornoch and Sutherland, which could deliver export-based growth. It would support strategies for the development of the tourism sector, in particular the role of Coul Links in developing an additional recognised golf cluster, increasing Scotland's golf tourism competitiveness. Most importantly, it would attract high value tourists, which would increase the productivity of the Scottish tourism sector, in line with Scotland's economic strategy.

11.19 The objectors' concern about the quality of tourism jobs in the Highlands is best addressed by increasing productivity in the tourism sector by attracting more high spending tourists, who have high expectations of the product and service, and support higher quality jobs. The jobs would attract higher pay, with better training and prospects, and would offer close to year-round employment.

11.20 High quality jobs such as those supported by Coul Links would help to retain people in the area, particularly those of working age. They would also attract migrants, who make a significant contribution to the Scottish economy and who pay taxes in excess of the costs associated with their demand for public services.

11.21 There is low unemployment in Dornoch, because many people have already left. It is necessary to provide high quality jobs to attract and retain staff, and to stop more people from leaving the area in search of employment.

11.22 Not Coul's witness, Mr Westbrook, does not take account of international experience, including other courses developed by Mike Keiser, for example at Bandon Dunes where the numbers of visitors have significantly exceeded expectations. He also takes a static rather than dynamic approach, failing to take account of the likely market response to the Coul Links project, including from other courses, in visitor accommodation and the local labour market. Indeed, local courses are already responding, and the market is moving to dampen the displacement effects.

11.23 Mr Westbrook's assumptions on playing numbers are based on rules of thumb, rather than sourced data. His assumptions on displacement from other courses do not consider, for example, the clustering effect and the contribution of joint marketing and the proposed Golf Foundation initiative (see paragraph 11.36 below). Any displacement effects will be offset by additional golfers coming to Scotland, as Coul Links attracted additional, return and referred golf tourists. No account is taken of the training opportunities that would be available, or the stimulus in increasing the labour supply.

11.24 Mr Blackett is not concerned about displacement at the Scottish level, as the other, favoured parts of Scotland would be able to respond.

11.25 Mr Blackett accepted that his predictions rely on: some visitors being attracted to Coul Links who would not otherwise come to Scotland; others spending extra days in Scotland to play Coul Links; and the course achieving a high global ranking (top 100 or

better). If successful, the project would increase to 13 the number of world class golf courses in Scotland which are listed in Golf Digest.

Socio-economic case

11.26 [Nathan Goode](#) of Aventura Consulting Ltd was asked by the applicant to carry out an independent review of BiGGAR's economic impact assessment. He gave further evidence in support of the socio-economic case for the development. His assessment³⁰⁴ is shaped by five considerations:

- tourism is the major economic driver for many of Scotland's rural and remote areas;
- 'high end' golf tourism offers the potential for high value tourist spend and is a catalyst for high quality jobs and consequential economic growth in the area;
- golf tourism at a national level in Scotland needs more high value product such as Coul Links in order to compete internationally;
- the proposed regional clustering strategy would ensure that other local/regional courses and communities in the area would benefit; and
- the applicant's business model would maximise the dispersal of economic benefits through the regional economy.

11.27 Coul Links would be an open pay-to-play course, quite different from the traditional Scottish membership model of a golf course, and therefore would attract more visitors to play. The strategy is to create a uniquely branded links course which attracts high spending golf tourists whose spending power would be felt in the local economy. The developers have the right track record and business strategy to attract high spending tourists.

11.28 Six of Mike Keiser's golf courses rank among the top 100 in the world, and one is in the top 10 (Cabot Cliffs). In 1999 he opened a golf course in a remote coastal location in Oregon (Bandon Dunes), which achieved 23,000 rounds in its first year and nearly 40,000 by 2017.

11.29 The developers are confident that the proposed course at Coul Links would be transformational economically, based on Mike Keiser's track record of developing links courses which attract significant number of new golfers to areas not previously associated with high quality golf. The cachet of a Mike Keiser course, and the track record of his design partners, mean that golf enthusiasts (largely from the US) would travel to Scotland specifically to play the course. Coul Links would increase the chances of American golfers choosing a golf trip to Scotland rather than Ireland. This would be Mr Keiser's first golf course in Scotland, and the proposal is causing great excitement amongst American golf enthusiasts.

11.30 Mr Goode's interviews with experts in the American tourism industry support this contention. For example, the founder of the largest US golf touring company operating in the UK and Ireland explains that:

- American golf tourists have a limited amount of holiday time, rarely spending more than a week on a trip and driven by the desire for 'famous courses' (which would include a Keiser/ Coore-Crenshaw course);
- convenience and 'critical mass' are important to golf tourists;

³⁰⁴ [APP006.002: Coul Links, Socio-Economic Report by Nathan Goode, January 2019](#)

- Coul Links would make this part of the Highlands much more attractive as a destination as tourists extended their stay to play the East Sutherland courses as well as Castle Stuart;
- American golf tourists like to play a different course every day. Tourists would also play the 'secondary' seaside links courses (Tain, Golspie, Brora);
- the Highlands is too far to travel for the one-off 'trip of a lifetime' American golf tourists, who will inevitably aim for St. Andrews;
- Coul Links would appeal to the most valuable 'high end' of the US market comprising golfers who undertake more than one trip; and
- the typical direct spend of an American golf tourist is £550 / £650 a day. A six-day trip would be worth £3,300 to £3,900 and an additional 2 days added to the trip somewhere in the region of £1,100 - £1,300 per person.

11.31 The 'Keiser effect' stems from the strategy of minimalist design, a focus on links golf courses, and engagement with local communities to create economic benefits.

11.32 Todd Warnock, the other developer, has demonstrated a strong commitment to economic development in the local area, having already funded over £10 million of capital expenditure in Dornoch. His developments at Carnegie Courthouse and Links House hotel have provided around 50 FTE jobs in the area, and it is estimated that around £13 million has been generated through jobs and supply chain spend during construction and a 10-year operational period.

11.33 The type of development proposed would create significant benefits for other businesses in the local economy. Coul Links would not seek to trap all the economic benefit on site by creating a resort, but instead would aim to create high value jobs and business opportunities throughout the East Sutherland region. Mr Goode estimates that the indirect (off site) share could be around 73% of the money spent by tourists, amounting to some £6.8 million for the 20,000 rounds projected at Coul Links by year 10.

11.34 Previous Mike Keiser courses (as part of golf resorts) at Sand Valley, Bandon Dunes and Cabot Links & Cabot Cliffs have seen transformational socio-economic impacts in terms of jobs, investment, tax revenues and wider community benefits in the areas where they are located.

11.35 There is already a cluster of golf courses in the East Sutherland area, notably Royal Dornoch, Golspie, Brora and Tain. Adding the pay-to-play Coul Links to the established reputation of Royal Dornoch (a members' club, with limited tee times) would unlock the visitor potential for this group of courses internationally.

11.36 The developers propose to underpin the cluster through the establishment of a Golf Foundation, bringing forward a series of mutual initiatives to encourage visitors to stay and play the less well-known clubs in the area such as Brora, Golspie and Tain. These would include an investment fund, shuttle bus services between the courses, incentive pricing structures, coordinated caddie programmes and potentially a common booking system.

11.37 The development at Coul Links would be important to East Sutherland communities. The golf course would be a major employer in its own right, providing a range of sustainable employment opportunities, with a flexible career path and the potential to align with educational and vocational programmes – hence the strong interest in the development

from the University of the Highlands & Islands (UHI) and SRUC. It would also offer a significant opportunity to the hotel sector in particular.

11.38 Alan Fleming, the programme leader for the golf qualifications at UHI, is enthusiastic about the opportunities to expand the programme in collaboration with the Coull Links applicant. With the applicant he has developed individual modules in the areas of golf management, golf course design, construction and maintenance, marketing and promotion, and placement (recruiting opportunities).

11.39 Although currently not a 'fragile area', East Sutherland is an economy 'at risk', which needs to develop sectors that generate sustainable jobs and career pathways. There are limited career opportunities at present, and an inbuilt tendency for young people to leave the area for post-secondary education and not return. As younger people of working age migrate, East Sutherland faces the challenge of an ageing population which, although a national characteristic in Scotland, is accentuated in the Highland region and seems to be even more acute in Sutherland. A survey of young people's aspirations in 2015 by Highlands and Islands Enterprise suggests that the working age population of the area could decline very rapidly in the coming years, due to the lack of career opportunities.³⁰⁵

11.40 Without developments such as Coull Links, it is difficult to see how these trends could be slowed down, let alone reversed. There are few organisations (outwith the public sector) that could offer significant numbers of jobs, apart from the hotel sector which is dependent on major attractions such as this. There is capacity in local hotels in Dornoch, Golspie and Tain, but the quality needs to improve to cater for the visitors attracted to Coull Links. The development could be the catalyst for a revitalised and growing economy which contributes to Scotland's prosperity and offers a sustainable model for rural economic development.

11.41 Coull Links would be an important development in national policy terms. Tourism is one of the six target growth sectors in Scotland's National Economic Strategy³⁰⁶, and the key opportunity for East Sutherland. The development has the potential to make a significant contribution to the objectives of the National Tourism Strategy for higher value tourism and a greater contribution from the golf sector. It would help extend the playing (and therefore the tourist) season, and support VisitScotland's policy objective of dispersal beyond the standard tourist destinations in Scotland. The proposal would also meet a key element of the Scottish Golf Tourism Development Strategy³⁰⁷, recognising the need for golf tourism to be location specific rather than separated into individual courses.

11.42 Coull Links would be strategically significant because:

- it would meet a national need for more high-quality provision, enabling Scotland to compete for high value tourists, particularly from the US;
- it proposes a regional economic development model which is embedded in the local economic 'ecosystem' and encourages sustainable and inclusive growth; and
- it would contribute to Scotland's international profile and 'brand' more generally, building on one of the country's recognised core attributes, namely links golf.

³⁰⁵ [APP006.010: Young People in Caithness and Sutherland – Attitudes and Aspirations, September 2015](#)

³⁰⁶ [APP006.019: Scotland's Economic Strategy](#)

³⁰⁷ [APP006.020: Scottish Golf Tourism Development Strategy](#)

Closing submissions

11.43 In closing submissions, the applicant submits that the proposal would create a high value-added tourist destination which would be much more than just the 'development of a single golf course'; it would be a golf tourism development of national importance. It would accord with important objectives of national socio-economic policy in NPF 3, SPP, Scotland's Economic Strategy, and VisitScotland's Tourism Development Framework.

11.44 The proposal would deliver the priority areas of investment, internationalisation and inclusive growth, with a catalytic effect on the local/regional market and the national golf tourism market. The business model would spread the economic and social benefits over a much wider area than the Dornoch/Embo area, and the design philosophy would deliver a high value product into Scotland's tourism overseas market.

11.45 The innovative and defining characteristics of the business model include: the proposed Golf Foundation; increased connectivity between the cluster of golf courses; creation of a critical mass of iconic golf courses; significant growth in the regional and national visitor economy in terms of visitor numbers and contribution per head; additional bed nights and benefits for the local economy; and establishment of the Highlands as an internationally recognised golf tourism destination. It would also secure inward investment to generate local employment and create spill-over benefits to the wider economy. The initiative could enhance learning experiences for golf students at UHI and increase their job opportunities following graduation.

11.46 The proposed creation of the Golf Foundation, and the initiatives set out in the draft Charter, have the potential to deliver significant socio-economic benefits to East Sutherland, by developing the area as a global destination for world class golf and golf education. It would assist in replicating the clear economic and social benefits which have been shown at Bandon Dunes and Cabot. The development of the Bandon Dunes Golf Resort in Oregon has provided well paid jobs and income, contributed to the economic prosperity of the region, and put 'the area on the golf tourism map'.

11.47 No public body has objected to the Coul Links proposal on socio-economic grounds, and there is a strong level of support for the proposed development within the local community. The applicant is committed to working in partnership with the local community, and has been in discussion with the Embo Trust about community involvement in the project. Mr Keiser has offered to fund five times the amount that the community manages to raise in order to purchase shares in the business.

11.48 By securing Mike Keiser's involvement in the scheme, with his reputation as one of the world's top golf course developers, together with Coore and Crenshaw, the highly reputed golf course architects, there is every prospect of developing a new golf course that would immediately feature in the Top 30 golf courses in the world. That successful team takes a highly selective approach to site selection, to develop an extraordinary authentic links course which will appeal to American golf enthusiasts who are the core target market.

11.49 The co-developer, Todd Warnock, shares Mike Keiser's business philosophy, and has a proven track record in ensuring that the local community gains from the socio-economic benefits, and in delivering his commitments.

11.50 The project would create high quality golf related jobs, and reduce the current seasonality of employment in the area which is centred around the period from early spring to late summer. Considerable weight should be attached to the national policy importance of the development for its potential contribution towards reversing the worrying trend of outward migration.

11.51 Mr Blackett's economic impact assessment was independently reviewed by Mr Goode, and there has been no substantive challenge to Mr Blackett's methodology, other than the reasonableness of his assumptions. Not Coul's Mr Westbrook relies on anecdotal evidence (discussions with unnamed 'people', and American golfers in the bar at Nairn Golf Club), together with an impact study for the Walker Cup in 1999.

11.52 Mr Westbrook fails to source the assumptions he used to produce a much lower level of net economic benefits than the applicant's, contrary to the Draft Advice. His 'reality check' is simplistic and assumes that the golf tourism market has remained static from 2011-2019. He does not take account of the dynamic effects of golf tourism in response to the development, and thereby overestimates constraints and negative effects. Mr Westbrook also discounts the evidence of experts on US golf tourism to Scotland.

11.53 The Draft Advice requires factors such as 'deadweight' and 'displacement', which are defined in paragraph 13, to be taken into account where relevant to a particular development proposal. Deadweight may be zero if the granting of planning permission would be completely additional to the relevant geographical area. Mr Blackett concluded that deadweight effects of Coul Links did not require to be subjected to detailed assessment. This would be a unique development in Scotland and the UK, involving no public sector funding, and the council has not sought to identify a site for a new world class golf course development in Sutherland.

11.54 The 2016 BiGGAR report took due account of the relevant displacement effects, however. The dispute between the parties primarily focused on the assumed numbers of additional high value golf tourists, predominantly from America, and whether they would bring a significant increase in the number of rounds played at Coul Links and existing courses.

11.55 Mr Westbrook assumes that the proposed Coul Links golf course would just offer 'more of the same', whereas the applicant's evidence shows its position in the global golf tourism market and as part of a cluster. The displacement effects turn on the quality of the product, and the additionality factor that stems from the Keiser/Coore and Crenshaw effect.

11.56 Mr Blackett doubts that any short-term displacement at a local level would cause concern, and, like LACG's independent witness Professor Bell, he does not expect displacement to be an issue on a national level (as the impact on jobs could be absorbed in other sectors of the economy in the affected areas).

11.57 Because of the strategic significance of the proposed development, Coul Links would build on the strengths of the area, and East Sutherland would play its part in delivering economic benefit contributing to the overall strategy for Scotland. The applicant submits that where a development proposal could contribute to the delivery of a nationally important strategy, then it is nationally important.

11.58 The development of the Coul Links golf course is an essential component in developing a Highland cluster into an internationally recognised tourism destination and thereby achieve significant growth in Scotland’s golf tourism sector. This would make a strategically significant contribution to the nationally important economic strategy of increasing competitiveness in the golf tourism sector, attracting high value golf tourists and increasing productivity in the tourism sector.

THE CASE FOR NOT COUL

Economic impact assessment

11.59 [Steve Westbrook](#) was asked by Not Coul to review the economic impact report produced by BiGGAR Economics in 2016. He found that the scale of impacts at the Scotland level seemed too high, and that there was a lack of clarity on how the job figures were calculated or estimated (whether they were seasonal and/or part time, or FTEs). He also queried assumptions about additional trips made to Scotland and extended trips due to Coul Links; the extent of off-course spending by visiting golfers; the variability of ‘jobs’ and GVA ratios between the local area, Highland and Scotland; and an apparent under-estimate of rounds played at Royal Dornoch by members who are not golf ‘tourists’.

11.60 He therefore produced his own independent impact report in December 2017, which was revised and updated in his inquiry statement in January 2019³⁰⁸.

11.61 BiGGAR’s assumptions are made in the absence of a business plan. However, their GVA to job ratios suggest that earnings per job would be low – i.e. generally lower than £20,000 per job – which is relevant to the relative importance of the development in improving the local and Highland economies, and the difficulties that employers would face in recruiting additional staff to meet increased demand.

11.62 Taking into account anecdotal evidence on visitor rounds played at Castle Stuart, Nairn and other relevant courses, 15,000 rounds by year 5 (or 10) with 200 days available to play would be an extremely good out-turn, even assuming that the course achieves its quality and reputation aspirations.

11.63 Golfers who choose to take a golfing holiday in Scotland will have been influenced by a large range of factors, including:

- Scotland’s golfing heritage and the large number of world class and other high quality courses that can be combined in a golfing visit (typically one week, especially for US golfers who are expected to represent a significant proportion of Coul Links visitors). One additional course in the far north of Scotland is unlikely to make much difference to the great majority of these holiday decisions.
- The wish to play on the Old Course at St Andrews (the home of golf), and then choosing which courses near St Andrews and/or elsewhere in Scotland to play on.
- A previous visit which prompted them to return to Scotland to play different courses. If Coul Links can bring itself to the attention of potential repeat visitors, it should have

³⁰⁸ [NC141: Mr Stephen Westbrook – Inquiry Report](#)

some influence on repeat visit decisions, especially to visit the far north of Scotland rather than other parts of Scotland with concentrations of high quality courses.

- A desire to play at Royal Dornoch, and to play at Coul Links rather than another course in the north or elsewhere in Scotland on a holiday of limited length.
- The availability of tee times at particular courses on the day that they are able to play on the course during their itinerary. This will give some trade to Coul Links, especially in its early years, which will have been displaced from other relatively high profile courses in Scotland.

11.64 Taking account of these factors, Mr Westbrook believes that a maximum of 10% (1,500) of his assumed relatively high scenario of 15,000 Coul Links visitor rounds in year 5 would be by golfers who would not have had a golfing break in Scotland without Coul Links.

11.65 His estimates for direct impacts are broadly similar to BiGGAR's, but to estimate off-course spend he has assumed a lower average per golfer per day (£350 compared with £462), which reflects spending opportunities and assumed patterns of stay and non-golfing activities. He considers that Coul Links, together with the East Sutherland golf course cluster, would tend to increase the number of rounds of golf in Highland at the expense of other parts of Scotland – broadly counter-balancing the positive impact in other parts of Scotland from new golfing visitors to Scotland.

11.66 Because of the following uncertainties he believes that the year 5 scenario of 15,000 rounds is also the most likely for year 10: reductions in the playing of golf by younger people, in favour of cycling, gym exercise, etc; the course not achieving the international profile and reputation to which it aspires; difficulties in booking complementary rounds at Royal Dornoch the day before or after; and an increase in the exchange rate for sterling, reducing golfing and other tourism demand in Scotland.

11.67 The project depends on Coul Links securing a high ranking, but it took a while for Castle Stuart to achieve that. It is acknowledged that Mr Keiser has six golf courses in the top 100, and one in the top 10, and that Coore and Crenshaw have two others in the top 100 (one at no. 9). However, the Keiser effect is limited to the US, but we are not only talking about American visitors here.

11.68 Mr Westbrook estimates the impacts for year 5 as 79 FTEs and £2.56 million GVA (at current prices) for the local area, 275 FTEs and £9.02 million GVA in Highland, and 93 FTEs and £3.30 million GVA in Scotland. The projected 79 FTEs could represent 200-300 people working part time.

11.69 This compares with BiGGAR's estimates of 252 jobs in year 1, rising to 444 in year 5 and 684 in year 10 – based on the unrealistic assumptions that the additional visits to Scotland due to Coul Links would grow to one third (7,000 per year) of all Coul customers by year 10, and that one third would be people extending their stay in Scotland.

11.70 KPMG research estimated that golf tourism supported 2,100 jobs in Scotland in 2011, excluding spending by golf tourists playing golf, purchasing golfing supplies, etc. BiGGAR's estimate that Coul Links would generate 684 additional jobs in year 10 includes 651 jobs not related to Coul Links' own employment – i.e. that on any day there would be over 600 FTE jobs because of Coul.

11.71 For just one course, however good, to increase the impact of golf tourism by such a high proportion seems completely unrealistic, even if the KPMG impact figure will by now have grown to around 3,000 jobs. The KPMG figure of 20,000 relates to employment in all jobs in golf.

11.72 The pro-rata impact in Scotland from the Coul Links course from figures in reports on golf tourism in Scotland by KPMG in 2011 and SQW in 2016 would be around 100 FTEs in year 5, which is close to Mr Westbrook's estimate of 93 FTEs.

11.73 Potential construction stage impacts based on a total project cost in the region of £8 million might be 32 FTE years and £1.9 million in the local area, 80 FTE years and £4.8 million GVA in Highland, and 120 FTE years and £7.2 million GVA in Scotland.

Socio-economic impact

11.74 [Genevieve Duhigg](#) reviewed the socio-economic case for the project.³⁰⁹ She has concerns about the impact of the development in an area with low unemployment, high seasonal employment and a small rental sector, and suggests that the unintended consequences of the development should be considered.

11.75 While the trend to part time jobs and the 'gig economy' in the UK may be unstoppable, it is important to consider the possible effect of another large seasonal operation on a small, highly sensitive economy which is already skewed to the summer months. Seasonal employees work long hours and rely on tips or gratuities in summer, and draw down on savings or depend on benefits in the winter, placing huge pressure on families. Seasonal work benefits many families, but it is more difficult to secure a mortgage, and to accommodate the peaks and troughs in income experienced during the year.

11.76 A Scottish Government report in 2018 highlighted that 47% of jobs in tourism are part time, just 40% attract the living wage, and there are far fewer 'high skill' or 'professional' roles in this sector, with a very high proportion of underutilised and over qualified staff.³¹⁰

11.77 Highlands and Islands Enterprise underline that the region faces a number of challenges, including an ageing demographic, lower average wage levels, seasonality of employment, rising house prices, lack of long-term rental accommodation and talent retention.³¹¹

11.78 Dornoch is a very desirable place to live. The average house price in Dornoch in 2018 was £231,000, in comparison with the Highland average of £166,000. House prices in Dornoch and Embo have increased by over 19% in the last five years, against an average of 6% in the Highlands. The Highlands has the second highest concentration of second properties, after Edinburgh.³¹²

11.79 More than 80 properties between Dornoch and Skelbo are listed for rent on Airbnb. Whilst these properties provide valuable revenue locally, boost the economy and support a wide range of businesses, this is a highly seasonal business (typically 12-20 weeks per

³⁰⁹ [NC142: Genevieve Duhigg – Inquiry Report](#)

³¹⁰ [NC031: Tourism in Scotland – The Economic Contribution of the Sector, Scottish Government 2018](#)

³¹¹ [NC032: Highlands & Islands Enterprise \(2018\) Draft Budget 2019-2020](#)

³¹² [NC040: A review of empty and second homes in Scotland, Ciaran McDonald & Andy Wightman MSP \(2018\)](#)

year). The high density of holiday rentals contributes to the growth in house prices and decline of council revenues, and also reduces the stock of affordable long-term rentals, vital in an economy with seasonal and part time workers.

11.80 The unemployment rate in the Highlands is 2.3%, and has been lower than the Scottish and UK average since 2014. Local businesses face strong competition to attract and retain full time and seasonal staff. Consequently, migratory workers are important to the region, especially the tourism sector, and 46% of tourism businesses in the Highlands employ EU staff.

11.81 If the developers' employment estimates are accepted, it will be necessary to explore how the community would absorb the extra workers required, where they would live, what services they would require, and their impact on wages and the net economics of the project.

Closing submissions

11.82 In conclusion, Not Coul submits³¹³ that the proposed development is the wrong development in the wrong place. Whilst the development would create some economic benefit, the consequences of the development would not necessarily make East Sutherland, the Highlands or Scotland better places. The development would not contribute to sustainable communities in the Highlands, and is not of national importance.

11.83 If it were built and attained the desired standard, the proposed golf course would bring a new and welcome seasonal attraction for the golfing visitor, but across the country of Scotland the ripple would be insignificant and virtually non-existent. The proposal would offer 'more of the same' – good quality, testing, seaside golf for well off players. There are at least 84 links golf courses in Scotland, many of which are co-located (e.g. at St Andrews, Prestwick and in East Lothian). 'More of the same' would not necessarily increase Scotland's competitiveness or attractiveness in the global golf market.

11.84 The proposed development would have to compete with many established courses which are blessed with associations with successful golf developers and/or a long and rich heritage. Unlike Royal Dornoch, it would have no Donald Ross and no rich history to rely on. Mr Goode recognised that Mike Keiser is not a 'household name' in the UK, and in the longer term the success of the course would depend in part on where it sits in the industry's rankings.

11.85 Not Coul contends that the applicant's 'dynamic approach' exaggerates the economic impact of the development; mixes part-time employment with full time equivalent jobs; underestimates displacement and misunderstands deadweight; relies unduly on the personalities behind the development; measures socio-economic impacts from the ultimate consumer's perspective; and ignores negative consequences that might reinforce the inequality and socio-economic concerns that already exist in the local area.

THE CASE FOR THE LOCAL AREA COMMUNITY GROUPS

11.86 [Councillor Jim McGillivray](#) (East Sutherland & Edderton ward, Highland Council) drew attention to the significant socio-economic difficulties faced by East Sutherland

³¹³ [Closing submission by Not Coul](#)

communities, particularly very limited employment opportunities and the resulting serious imbalances in demographic profile. This is recognised in the locality plans for Golspie, Brora, Helmsdale and Creich, but there is no public funding to accompany the plans. The area is in great need of substantial inward investment to turn the tide of generations of neglect and emigration.

11.87 Embo, a village of 246 people, has 33% pensioners and only around ten individuals in the 19-30 age group, which means that it might no longer be able to field a football team in the Sutherland Amateur League. The Embo Trust was formed in 2007 to seek to provide land and housing opportunities to retain local young people, using community right to buy. The trust has also been involved in the setting up of Embo Community Shop, and the conversion of the old primary school to a new community hub which was completed in November 2018.

11.88 In the last 20 years Dornoch has lost its council offices, Forestry Commission office and tree nursery, sheriff court, police station, and one major industrial unit (abattoir and meat processing factory, with 50 well-paid jobs). The economic future of the Dornoch area now depends entirely on tourism. The local economy has been sustained in recent years by the elite Carnegie Club operation at Skibo, which attracts guests with high disposable income; the world-class ranking of Royal Dornoch Golf Course; the major investments at Links House and Dornoch Courthouse by Todd Warnock; and the energy and commitment of the Dornoch Area Community Interest Company (DACIC).

11.89 DACIC, which was established in 2007 to enhance and develop the economy and community of Dornoch, has 225 individual members and almost 100 business members. Among its achievements are helping to fund and staff the visitor centre and council service point in the Carnegie Courthouse, creating the successful Dornoch Whisky Festival and the New Year celebrations, new signage and marketing, and becoming a World Host destination in 2015. These initiatives have resulted in increased bed nights, more visitors especially out of the main summer season, and the creation of new businesses and new jobs.

11.90 A world class links golf course at Coul could complement the area of international ecological importance, to the benefit of the economy and the environment. It is supported by 23 local groups and businesses, and 93 local residents, who have signed the Friends of Coul Links Support Charter.³¹⁴ The 2016 HIE Dornoch Vision & Action Plan describes the Coul Links development as 'transformative for all Dornoch'.³¹⁵

11.91 [David Bell](#) (Professor of Economics, University of Stirling) gave evidence on the socio-economic case for the development, on behalf of LACG. The decline of the population of Sutherland from 1755 to the present day, and the forecast to 2041, is shown in Figure 1 of his precognition. The population has roughly halved from the mid-19th century to today, while Scotland's population has almost doubled in the same period. In the 1750s Sutherland accounted for more than 1.6% of Scotland's population, but it now accounts for 0.2% - an eight-fold reduction in population share (Figure 2). It has a very low population density of 6.74 persons per square mile, in comparison with 180 persons per square mile in Scotland as a whole.

³¹⁴ [LACG008: Friends of Coul Links Support Charter, DACIC November 2018](#)

³¹⁵ [LACG003: Dornoch Vision and Action Plan, HIE 2016](#)

11.92 A principal cause of Highland depopulation is the lack of employment opportunities. Figure 3 of Professor Bell's precognition shows that Dornoch and Embo have a significantly older population than Scotland as a whole, and have a chronic shortage of young people between 16-29. The better qualified, who have a wider range of opportunities, are more likely to leave. With a limited availability of well qualified workers, East Sutherland is disadvantaged by its geography and the scarcity of skills.

11.93 Given the paucity of people of working age, it is not surprising that unemployment rates are low in the Golspie & Brora travel to work area. The common response to lack of employment opportunities is to move rather than become unemployed in situ. Professor Bell argues that the demographic challenge facing East Sutherland is so great that displacement effects should largely be ignored. In relation to the displacement effects on Inverness (Castle Stuart), Fife (St Andrews) and East Lothian (Muirfield), the populations of these areas are projected to grow by 11%, 2.6% and 18% respectively between 2016-2041.

11.94 In recent years premium golf courses have been in high demand, while less renowned courses struggle to maintain viability. Golf Digest's most recent ranking of top courses outside the United States is:

1. Royal County Down, Newcastle, Northern Ireland
2. Royal Dornoch, Dornoch, Scotland
3. Royal Melbourne Golf Club, Black Rock, Victoria, Australia
4. Muirfield, East Lothian, Scotland
5. Old Course, St Andrews, Fife, Scotland
6. Tara III Golf Club, Mangawhai, New Zealand
7. Royal Portrush Golf Club, Dunluce, Northern Ireland
8. Shanquin Bay Golf Course, Hainan Island, China
9. Cabot Cliffs, Nova Scotia, Canada
10. Trump Turnberry, Ayrshire, Scotland

11.95 Four of these top ten courses are in Scotland. Royal Dornoch is alone in not having nearby developments which exploit the 'spill-over' effects from its international prominence. While the direct and multiplier effects of Royal Dornoch's turnover of around £2.5 million benefit the area, fewer visitors take the time to play nearby courses as they might, say, in Fife or East Lothian. The provision of another high-quality venue would increase the probability of longer stays and consequent benefits throughout the local economy, including increased productivity and improved job opportunities for young people in the area.

11.96 At present young people are disproportionately dependent on work in the distribution, hotels and restaurant sectors, which tend to be low skilled, low paid and have limited prospects. Opportunities near the major golf clusters in Scotland are much more diverse. Development of a golf course would offer a range of employment opportunities for young people, both directly (mostly skilled and semi-skilled labour) and through the usual multiplier effects.

11.97 Royal Dornoch employed around 52 FTE in 2017-18 with average earnings of around £20,000, close to the average for the travel to work area. The new golf development would have to offer comparable wages, which are substantially higher than those working in hotels and accommodation.

11.98 It is unrealistic to expect significant private sector investment that would generate a substantial number of highly paid jobs in East Sutherland. The development on its own would not reverse the demographic trends, but improvements will only come incrementally. The development would contribute to the productivity and inequality components of the Scottish Government's purpose, through the economies of agglomeration and because the jobs created would reduce income inequality in the area.

11.99 [Duncan Allan](#) (former Highland Councillor and Provost of Dornoch) advised that golf tourism has taken off again in the area following the building of the Dornoch bridge and the resurrection of Skibo estate and the Andrew Carnegie connection. North Highland College was persuaded to establish a campus in Dornoch to teach golf professionals and future golf course managers, with great success. This cathedral town is thus starting to acquire the aura of St Andrews.

11.100 [Alan Fleming](#) (Programme Leader for golf curriculum) explained that North Highland College UHI in Dornoch draws students to the area to study, and encourages students to remain in the area. It has operated a very successful programme in golf management since 2001. The college has now established a BA (Hons) Professional Golf degree (to meet the requirements of the Professional Golfers Association) which complements the existing BA (Hons) Golf Management degree. It already has strong industry links to local clubs, and access to the second-best golf course in the world. Last season students provided seasonal/part-time employees at Royal Dornoch, Golspie and Skibo (Carnegie Club).

11.101 A proposal has been agreed between the developer and UHI identifying five areas of potential collaboration between the university, the students and the developer. The Coul Links development would offer a unique range of learning and development opportunities within the world of golf, which would be attractive nationally and internationally. Students would be able to learn and engage with a world class golf development throughout the process, while also studying for an industry recognised degree in the Highlands of Scotland. Coul Links could act as a catalyst for increasing student numbers and a growth in staff and resources, and investment in the local area.

11.102 [Willie MacKay](#) (Vice Captain, Royal Dornoch Golf Club) stated that visitor numbers at Royal Dornoch have increased to over 12,500 rounds in 2018, with more than half coming from North America (mainly the USA). Golfers that play at Royal Dornoch additionally play other courses in the area. Brora Golf Club has increased its visitor income significantly, with nearly 6,000 golfers attracted to play its traditional James Baird Scottish links course, in response to an improved marketing strategy. The Dornoch Firth Golf Pass has Brora, Golspie, Dornoch and Tain working together.

11.103 Applying VisitScotland's formula of £5 spent in Scotland for every £1 spent on green fees, 10,000 rounds at Coul Links would generate £8.75 million of overall income for the economy, and 15,000 would produce £13.1 million – very significant sums. Mr MacKay considers that the estimate of 10,000 rounds is likely to be exceeded within five years, though BiGGAR's projections are probably too high.

11.104 Focussing on caddies alone, Royal Dornoch's 12,500 rounds provide over £300k to the local economy. A greater proportion of visitors to Coul Links would use caddies. Several caddies have other occupations, some are self-employed and others travel abroad to caddy during our winter period.

11.105 The Scottish National Golf Tourism Strategy 2013-2020³¹⁶ set a target of increasing the total income from golf from £220 million in 2012 to £300 million in 2020. Promoting Scotland as the ‘home of golf’ and investing in major championships (televised worldwide) have been important, along with digital marketing and online booking systems. This target has since been increased to £325 million.

11.106 There is no doubt that Coul Links would add greatly to the offer that tour operators can provide to those coming to play golf in Scotland, especially in the Highlands where they would stay for longer to play more local courses. The most important factor for a golfer is the quality of the golf course, and the majority come to Scotland for a traditional links golf course and a famous golf architect.

11.107 [Neil Hampton](#) (General Manager, Royal Dornoch Golf Course) reported that since the late 1970s Royal Dornoch has grown as a tourist destination through the endorsement of some top players, high listings in several world rankings and a strong marketing plan, including partnerships with other courses in the area. While Royal Dornoch is a members’ club it has always realised the importance of the green fee-paying visitor to its economic future.

11.108 There is no evidence of displacement so far. Royal Dornoch has grown in members and visitors every year since the opening of Castle Stuart in 2009, and the same applies at Cruden Bay and Murcar since Trump International opened. Therefore, it may be assumed that more golfers would visit the area if Coul Links opened, with implications for Brora, Golspie, Tain and possibly Invergordon, Alness, Fortrose and others in close proximity.

11.109 [Struan Robertson](#) (Embo resident) supports the golf course proposal for its own sake, and because it would enhance the area, improve accessibility and benefit the local community and national economy. Greenkeepers have been obliged to leave Embo for employment elsewhere, such as Dornoch, Skibo, Golspie and Elgin, and to England and abroad. Mr Warnock’s track record, and that of Mr Keiser and the designers Coore and Crenshaw, suggest that this is a unique opportunity for the Dornoch Firth area. Nature would survive and thrive under the stewardship of a world class, environmentally sensitive, ecologically aware golf course.

11.110 [Stuart Morrison](#) (Golf Professional, Tain Golf Club) supports the proposal which he believes would be a tremendous addition to the area, refocusing the Dornoch Firth as a golfing destination. Tain Golf Club lost 30% of its membership from the financial crash up to 2018, and visitor rounds declined from 4,000 in 2006/07 to 2,400 in 2017/18. The golf course used to employ five full time greenkeepers, but now has three, and there is only one employee in the bar and catering franchise.

11.111 However, the development of the Dornoch Firth Golf Pass is introducing over £200k per year into the local economy, with golfers staying an average of 3-5 days in the area. With the upturn at Royal Dornoch, Tain Golf Club has seen an increase in visitors and the demand for caddies. The introduction of Coul Links and combining resources could only be a good thing for the East Sutherland and Ross-shire area. Most of the affluent golfers attracted to the area will be on a golfing holiday of two weeks, including 9-12 golfing days.

³¹⁶ [LACG010: Driving Forward Together – Scottish Golf Tourism Strategy](#)

Coul Links would give the client the reason to stay for a few nights in this area. The increased visitor income would help to safeguard and potentially add jobs at Tain Golf Club.

11.112 With an already improving economy Dornoch is adapting to the increased business and developing new accommodation, shops, restaurants, housing and nursery provision. The new houses, and especially the affordable housing, will help to ease demand and reduce house prices in Dornoch.

11.113 [Councillor Linda Munro](#) (North, West & Central Ward, Highland Council) states that golf courses provide a high-quality career path for young people living in Sutherland, and that another championship course would give even more young people the opportunity to train as greenkeepers. This would help to stem the pattern of outward migration, and could indeed attract younger people into the area for new jobs or apprenticeships.

11.114 [Yvonne Ross](#) (Chairperson of Dornoch Community Council and Provost of Dornoch) advised that the community council has consulted the community at every opportunity, and attended every consultation and information event to gauge local opinion on the project. Having considered all points and views, and looking at the benefits for the area, the community council voted unanimously to support the application. At that stage it had received no objections to the development; and to date it has received only six objections.

11.115 The community council took into account the will of Embo residents, and the support of local organisations and neighbouring golf clubs. It considers that the social and economic impact for Dornoch and East Sutherland would outweigh the disruption to the environment, and trusts that management plans would retain the uniqueness of the area and its inhabitants.

11.116 During the early 1990s Dornoch had no affordable housing, training or job opportunities to retain its young people, and was an ageing community. The community decided to open up areas for housing development, and the affordable housing has led to an increase in young people staying in the area. Investment has been attracted and the High Street is thriving. The growth in visitors to Royal Dornoch Golf Club, the North Coast 500 and inspirational marketing has created a vibrant community with a variety of skilled job opportunities. Employers, schools, college and University in Dornoch are working together to provide qualifications tailored to the local job market.

11.117 Mr Warnock, working with DACIC, has retained the service point and developed the tourist information centre in the Courthouse, saving old buildings which the community could not afford to develop and restoring them to the highest standards. These buildings are now thriving, employing many local people.

11.118 [Carol Mackay](#) (General Manager, Carnegie Courthouse) confirmed that the Courthouse now contains four successful businesses, employing a total of 33 staff (of whom 14 work there full-time, and others work part-time or on a seasonal basis). Links House has been carefully renovated as a boutique country house hotel, and together with Glenshiel (a separate building constructed in a complementary style), it employs 34 staff (17 full-time). Royal Dornoch Golf Club employs 73 staff, of whom 34 are full-time. Employees at these three tourism and hospitality sites inject £1.8 million into the local economy. They take out mortgages or rent property in the local area, and their children attend local schools.

11.119 Dornoch and District Community Association runs the Social Club building on School Hill as a community social hub, and organises a festival week, a community market, a bonfire, and a Hogmanay street party, catering for the local population and visiting tourists.

11.120 [Jimmy Yuill](#) (local resident) argued that East Sutherland has historically been overlooked, both socially and economically, by regional and national government. Wedged between Caithness to the north, with its relatively thriving towns of Wick and Thurso, and Easter Ross to the south, with Nigg and Invergordon, it seemed to miss out on the inward investment that is needed to keep a community prosperous.

11.121 Now the opportunity arises for a substantial private investment, costing the taxpayer nothing, with the promise to create employment and revitalise the area, to enhance a sector (golf) that the region understands well and in which the country is a world leader. Apart from these obvious potential benefits, it could also increase community confidence and has already enhanced the positivity of local youngsters, who need to be supplied with jobs in order to remain at home or return to the area.

REPORTERS' CONCLUSIONS

Economic impact assessment

11.122 We note that there is no real contention about the methodology employed in the economic impact assessment by the applicant's consultants, which generally conforms to best practice. The applicant clarified that the employment figures represented full time equivalent jobs (FTEs).

11.123 Although the assessment does not refer to 'deadweight' as we might have expected, we accept that deadweight (i.e. activity that would have occurred anyway in the absence of the development) should not be a factor at Coul Links, which would be a very particular project unlikely to be replicated elsewhere.

11.124 Certain of the key assumptions which underpin the assessment are in dispute between the parties. The Draft Guidance recognises the need to make assumptions, which should be transparent, evidence-based and as accurate as possible, and cautions against 'optimism bias', particularly in large scale, complex projects.

11.125 The Draft Guidance suggests that sensitivity analysis may be helpful where it is difficult to quantify precisely the probability that various events will occur and the impact if they do occur. We agree that it is good practice to consider what might happen if the applicant's expectations were not borne out by experience, and if other circumstances changed.

Socio-economic effects

11.126 We consider the attempts to quantify the potential economic benefits of the development below, but at the outset we find that the golf course proposal at Coul Links has the potential to bring very important socio-economic benefits. Coul Links would be a pay-to-play rather than a membership course, and it would aim to attract high spending golf tourists. It would generate a significant number of jobs, and a substantial boost in

spending, in the local area and beyond. The development would encourage 'high end' golf tourism, and create high quality employment and economic growth in the area.

11.127 We were impressed by the evidence of the Local Area Community Groups, representing the wide range of local organisations and individuals who support and welcome the Coull Links proposal. The LACG witnesses conveyed the informed experience of many who live and work in the area, including community representatives and those with specialist knowledge of tourism and the local golf economy. We note that Dornoch Community Council, which received only six written objections to the proposal, was unanimously in favour of the development.

11.128 Although Dornoch in particular, and the Highlands more generally, enjoy relatively low levels of unemployment, East Sutherland (in common with the rest of the Highlands) has long suffered from the effects of outward migration, which has led to depopulation, declining services and an ageing population. The main reason for depopulation is the lack of employment opportunities in the area, which forces the better qualified to leave in search of work.

11.129 Dornoch and Embo have an acute age imbalance, and the area has experienced the closure of its major industrial employer and many public services in the past 20 years, leaving it highly dependent on tourism, including golf tourism.

11.130 In that context, the proposed development would offer welcome employment opportunities directly in construction, greenkeeping and golf course management, and indirectly in tourism and in the supply chain.

11.131 It would build on and develop the area's existing expertise, training and resources in golf and golf tourism, including the associated programme at the Dornoch campus of UHI. The Coull Links proposal offers a major opportunity to develop the golf related courses at UHI Dornoch, and to provide relevant experience and potential employment opportunities for students. More broadly, the development could be expected to stimulate significant new demand and investment in the area, and create opportunities for local residents to start new golf tourism related businesses.

11.132 Most importantly, we consider that the creation of new jobs in the area would provide younger people with a greater incentive to stay in the locality, and might encourage others to return who have left in search of employment elsewhere. As such, the proposal would be likely to enhance business and community confidence and to have a significantly beneficial effect on the area.

11.133 In recent years the local economy and local services have been supported by the initiative and drive shown by the local community (for example, through DACIC and the Embo Trust), and by business investments (notably, by Mr Warnock at Links House and Dornoch Courthouse).

11.134 We have considered the 'unintentional consequences' of the development that are predicted by Not Coull, but we do not agree that it would result in an over-reliance on low paid, seasonal jobs in the Dornoch area, or that it would place an undue strain on local services. On the contrary, the evidence indicates that the jobs would be relatively well paid, and that the development would help to extend the local tourist season, to the advantage of the many businesses which rely on visitors.

11.135 We note that house prices in the town are well above the Highland average, and that there is an issue with second homes and houses used for Airbnb. However, new housing has been developed in Dornoch in recent years, including affordable houses, and more is planned, which is likely to help to attract and retain young people in the area.

Construction effects

11.136 The construction of the golf course would generate significant economic benefits for a temporary period of around a year, most of which would be experienced outwith the local area. On the basis of the applicant's figures, it would create £3.4 million GVA and 80 temporary jobs to the Scottish economy, including £2.5 million GVA and around 40 temporary jobs to the Highlands, and £1.4 million GVA and around 25 temporary jobs in the local area.

11.137 The developer has estimated that the total capital investment costs for the new course would be around £8 million, which would give a substantial temporary fillip to the local economy, but would be less significant on a regional or national scale. This is unsurprising, considering the limited work that is envisaged to create a traditional links golf course at Coul Links, and the intent to develop a golf course there rather than a golf resort.

11.138 Parties agree that the main economic benefits would be enjoyed when the golf course is in operation, though Not Coul suggests that the benefits would not be as high as the applicant predicts.

Operational effects

11.139 The golf course would directly employ around 20 people, including management posts, greenkeepers, golf professionals and catering staff, with annual staff costs of around £0.6 million. Once again, we consider that this would be an important employment boost for the local area, although we note that the golf course would be a relatively small-scale operation, due to the limited facilities that are proposed at Coul Links.

11.140 The total income for Coul Links was estimated by multiplying the expected number of visitors per year by an average green fee of £175, and assuming that each golfer would spend around £10 in the clubhouse on food and drink and other sundries.

11.141 We discuss the potential usage figures below, but on the basis of the applicant's prediction that Coul Links would receive 15,000 golfing visitors in year one increasing to 20,000 by year 10, it is estimated that Coul Links could generate turnover of around £2.8 million in year one, increasing to £3.7 million by year 10. Subtracting expenditure on supplies of £0.5 million per year produces a GVA for the Scottish economy of £2.3 million in year one, and £3.2 million by year 10.

11.142 BiGGAR also estimates that Coul Links' spending on goods and services in the supply chain could support 8 jobs and £0.3 million GVA in Scotland by year 10, and that staff expenditure could support an additional 4 jobs and £0.2 million GVA throughout Scotland.

11.143 In combination, BiGGAR predicts that the total operational effects (direct effects + supply chain effects + income effects) for Scotland of the Coul Links development at year

10 would be £3.6 million GVA and 33 jobs. In itself, this can be seen as an important positive economic impact, though not significant on a national scale.

Golf tourism effects

11.144 The applicant predicts, and we accept, that the greatest longer-term impacts would stem from the catalytic effect of Coull Links on the local and national golf tourism market, including off-site expenditure on accommodation, food and drink and other tourist services. The SQW study in 2009 found that green fees only accounted for 20% of the expenditure by golf tourists, with the remainder being made up by food and drink (11%), travel in Scotland (4%), accommodation (27%), and 'other' including tourist attractions, souvenirs and hiring caddies (38%).

11.145 We agree that it is reasonable to assume that, in line with Royal Dornoch, 50% of visitors to Coull Links would be drawn from North America, and the remainder would come from Scotland, the rest of UK and elsewhere in Europe. We also accept that the top-quality links course which is proposed would be likely to attract high value golf customers, particularly from the United States, who would spend more money on each trip than the average expenditure of golfing tourists in general.

11.146 Table 3.2 of the 2016 BiGGAR report contains the following information on golf tourism in Scotland, based on research by SQW (we have added the final column):

Origin	% of Green Fee Revenues	Average length of stay (days)	Inflated expenditure (£)	Spending per day (£)
Scotland	70	4.6	961	209
Rest of UK	17	5.4	1,060	196
Other Europe	6	7.6	2,143	282
USA	5	10	4,602	460

11.147 BiGGAR assumes an average daily spend of golf visitors to Coull Links of £667, and an average expenditure per trip of £3,333 having regard to the surveyed expenditure figures in Table 3.2, and the advice of American tourism industry experts.

11.148 VisitScotland's golf visitor survey in 2016³¹⁷ found that overseas golfing visitors spend on average £338 per night during a trip to Scotland, and that North American visitors spend an average of £405 per night. We consider that the BiGGAR figure of £667 appears high in comparison, and in relation to the figures in Table 3.2, even acknowledging the aim to attract particularly high spending golfers to Coull Links.

11.149 North America is predicted to account for only around half of Coull Links customers. The other half would be golfers from the UK and the rest of Europe, who typically spend substantially less per day on their golfing trip. Incidentally, we would not expect less affluent golfers to be unduly deterred by the £175 green fee at Coull Links – there are over 70 courses in Scotland with visitor green fees of over £150.

11.150 Having regard to Mr Goode's evidence, we conclude that expenditure of £667 per day (though much higher than the VisitScotland figure) might be an attainable objective for the particularly wealthy North American visitors that the applicant wishes to attract to Coull

³¹⁷ [APP006.008b: On the Course for Growth, p11](#)

Links. However, it appears an excessive prediction of average spending for all customers given that 50% of visitors would be drawn from the UK and the rest of Europe.

Impact on the local area

11.151 There would be real opportunities for the local economy to benefit from the development, however.

11.152 On the assumption that 80% of golf tourists playing at Coul Links would be likely to hire a caddy (which we regard as a very high proportion, given that 50% of visitors would be from the UK or the rest of Europe), the course could provide employment for around 42 full-time caddies in year one, and 56 by year ten, each of whom might earn around £16,800 per season, if the applicant's estimated number of annual rounds were realised.

11.153 In addition, based on its assumptions on the likely number of rounds played at Coul Links, and golf visitor spending and behaviour, BiGGAR predicts that visitors to Coul Links might spend an additional £1.1 million by year ten on food and drink in the local area. These additional jobs and spending would represent a further substantial boost for the local economy. However, even taking account of the predicted response by local businesses to cater for this increased demand, we would expect that a significant amount of this spending would 'leak' into other parts of Highland and beyond because of the restricted time schedules of golfing tourists and the wider spending opportunities elsewhere.

11.154 We agree with the applicant and LACG that the development of such a high-quality golf course in east Sutherland is likely to benefit, rather than threaten, the nearby golf courses at Dornoch, Tain, Golspie and Brora. This is the experience in Aberdeenshire since the opening of Trump International at Menie. By working together to market the cluster of links courses, and introduce shuttle buses and a shared booking system, the East Sutherland courses would be able to draw more golf tourists to the area, and to encourage them to play more than one course during their visit (and stay overnight in the locality).

11.155 There is evidence that existing hotels in Dornoch, Golspie and Tain have the capacity and potential to take advantage of the increased demand from golfers for high quality rooms which would arise if another top golf course was developed in the area. It would also provide the stimulus for existing operators to upgrade their product, and for other operators to enter the market. Indeed, there are already proposals to upgrade or develop around 150 high quality bedrooms at the Dornoch Hotel and Royal Golf Hotel, Dornoch and Golf View Hotel, Golspie.

11.156 However, we would still expect a significant proportion of golf visitors to Coul Links to stay in hotels outwith the local area, due to the greater supply of high-quality accommodation in Inverness in particular. Others might only have time for a day trip from Inverness, for example. Plainly, the fewer the number of golf visitors staying overnight in the Dornoch area, the lower the local economic benefit.

Total economic effects

11.157 We discuss the significance of the involvement in the project of Mike Keiser, Bill Coore and Ben Crenshaw below. However, Coul Links would be a golf course with minimal facilities, rather than a golf resort, which means that most of the associated jobs and expenditure would be in tourism off-site. For that reason, we find it difficult to compare the

potential economic effects of the Coul Links proposal with the transformative economic impact of Mr Keiser's golf resorts at Bandon Dunes (which directly employs a substantial number of people), Sand Valley and Cabot Links/Cabot Cliffs.

11.158 The VisitScotland study advised that with every £1 spent by a golf tourist £5 is spent throughout the economy, and the applicant suggests that the multiplier is likely to be even higher at Coul Links because of the nature of the proposals there. However, we can find no explanation of the conversion rates which the applicant used to convert estimated visitor expenditure to predicted FTEs, or detailed calculations to support some of the key predictions.

11.159 The expectation in the BiGGAR report that the proposal would generate £16.5 million GVA and create 651 jobs in golf tourism (out of a total of 684 jobs associated with the project) in Scotland by year 10 appears to us to be somewhat optimistic. This would represent about a 30% increase in KPMG's estimate of golf tourism's contribution to Scotland's economy (£57 million GVA) and in the total number of jobs in golf tourism in Scotland in 2011 (2,100). That would seem an extremely unlikely prospect for a single golf course (out of almost 600 courses in Scotland), no matter how high quality, and even in the context of a growing golf tourism sector.

11.160 Given that the BiGGAR report is explicit that the 651 jobs they predict would be generated by the Coul Links proposal relate to golf tourism, we are satisfied that the appropriate comparison is with the total number of jobs in golf tourism in Scotland (2,100), and not the 20,080 jobs supported by the golf economy. The larger figure also includes golf facility operations, golf course capital investments, golf supplies, and golf tournaments and endorsements, which are not at issue here.

11.161 In assessing the likely direct and indirect economic effects of the proposal, it is necessary to examine the critical assumptions which underpin the applicant's conclusions.

Predicted number of golf tourists

11.162 The first key assumption is that Coul Links could attract 20,000 golf tourists per year by its 10th year of operation.

11.163 The 2003 audit of Scotland's golf courses (quoted in the 2016 BiGGAR report) found that an average of 30,000 rounds per year were played on each of the 23 'class one' courses in Scotland. That average may be inflated by the very high number of golfers playing at certain of the famous championship courses, such as the Old Course at St Andrews (44,000 rounds per year), but the evidence suggests that the numbers playing at top golf courses will have increased since 2003.

11.164 If Coul Links achieved the status of a 'class one' golf course, the results of the 2003 audit would support the expectation that it would attract at least 20,000 rounds per year. This would apparently bring it in line with the championship course at Royal Dornoch, where it is estimated that almost 20,000 rounds were played in 2016/17 by visitors, guests, and members from outwith the Highlands.

11.165 The Royal Dornoch course is currently operating at full capacity, which underlines the potential for a top quality golf course at Coul Links to achieve high visitor numbers,

though we acknowledge that it might prove difficult to secure tee times at Royal Dornoch to fit with a round at Coul Links in order to play the two courses on consecutive days.

11.166 We conclude that the applicant's aspiration to generate 20,000 rounds at Coul Links by year 10 is undoubtedly ambitious, but is potentially achievable given the intensity of use at nearby Royal Dornoch and the experience at other developments by Mike Keiser at Bandon Dunes, Cabot Links and elsewhere.

Golf tourism and displacement

11.167 The applicant assumes that:

- one third of golf tourists would extend their stay in the local area to play Coul Links, in addition to other courses in Scotland;
- one third might choose to play Coul Links instead of another course elsewhere in Scotland; and
- one third would visit Scotland specifically to play Coul Links.

11.168 We agree that there is real potential to persuade golfers playing at local courses to extend their stay in East Sutherland to play at Coul Links. We consider that the introduction of a high-quality course at Coul Links would encourage golf visitors who might previously have played Royal Dornoch as a day trip, perhaps from Inverness, to stay at least one night in the East Sutherland area. Coul Links would help to create a critical mass of highly regarded links courses which could attract more golfing visitors to the North Highlands, and encourage those who might have been coming anyway (for example, to play at Castle Stuart) to stay for longer.

11.169 However, for Coul Links to be successful, a substantial number of golf tourists on a limited (typically up to one week) holiday break would have to be persuaded to take their golfing trip (or part of it) in the East Sutherland cluster, instead of visiting one of the more established clusters in Fife, East Lothian, Aberdeenshire, Ayrshire or elsewhere in Scotland. This would boost the number of golf tourists visiting East Sutherland and the Highlands, but given the profile of the golf tourists which Coul Links intends to attract, we would expect there to be a substantial level of displacement from other areas of Scotland containing prestigious golf courses.

11.170 We have accepted that displacement should not be an issue in the local area, due to the beneficial effects of joint marketing of the East Sutherland cluster of links courses, the proposed Golf Foundation, and the significant potential boost in jobs, training and spending in the local economy.

11.171 On the other hand, we are not convinced that the displacement from other parts of Scotland would be offset to any significant extent by additional golfers attracted to the country by Coul Links. We question the assumption that 33% of Coul Links golfers would not be visiting Scotland but for Coul Links, considering the rival attraction of established alternative clusters around internationally renowned championship courses at St Andrews, Muirfield, Turnberry, Carnoustie, and Gleneagles.

11.172 If all or most of those 'Coul customers' were drawn from the 50% of visitors coming from the USA and Canada, the above assumption would suggest that up to two thirds of North American visitors would not have come to Scotland were it not for the Coul Links course, which we regard as a highly unlikely outcome.

11.173 The evidence indicates that golfers are drawn to Scotland in large part by its unique heritage as the 'home of golf' and, at least initially, by a desire to play on the Old Course in St Andrews, and that a trip to the golf cluster around Dornoch would be an option for a subsequent visit, when Coul Links and its neighbours would be in competition with established clusters around world class courses in Ireland and other parts of Scotland.

11.174 Consequently, we would expect that the proportion of golf tourists who would be displaced from another part of Scotland to play at Coul Links is more likely to be between one half and two thirds, rather than one third as the applicant suggests.

11.175 A large part of the applicant's case to justify the high predicted numbers of golfing tourists, levels of expenditure and job creation derives from the 'Keiser effect', which is discussed below.

The proposed developers and course designers

11.176 Todd Warnock is an American entrepreneur who now resides in Dornoch. In recent years he has invested over £10 million in job creating projects in the town at Links House and Carnegie Courthouse, and has demonstrated an ongoing commitment to the regeneration of Dornoch.

11.177 Mike Keiser is the developer of highly rated golf courses in the US and elsewhere in the world, with one ranked in the top ten (Cabot Cliffs, Nova Scotia) in the world and six in the top 100, as judged in Golf Digest's World's 100 Greatest Golf Courses. He focuses on true links courses with minimum design intervention. Mr Keiser has a track record of attracting golfers to areas with no history of high-quality golf, and of engaging with host communities to maximise local economic benefits.

11.178 The golf course designers Bill Coore and Ben Crenshaw also have a very high international reputation, with three courses in the top 100, including two in the top ten (Shanquin Bay and Cabot Cliffs). The team has a highly selective approach to identifying suitable sites for new golf courses. On the basis of the evidence at the inquiry, including the explanation of the design process, we would expect the proposed golf course at Coul Links to be a very high-quality links course, which would be extremely attractive to visiting golfers from home and abroad, particularly North America.

11.179 However, the applicant's evidence on the 'Keiser effect' accepts that he is 'not a household name' in the UK, and is best known in golf circles in the US. As already discussed above, given that 50% of visitors to Coul Links are expected to come from outwith North America, we consider that the suggestion that 33% of all visitors would not come otherwise is unreliable.

11.180 The relative appeal of the new course at Coul Links, even with the Keiser/Coore/Crenshaw 'badge', should be viewed in the context of the numerous rival attractions in Scotland. In 2016 these included the established golf courses at Royal Dornoch (then ranked fifth in the world by Golf Digest), the Old Course at St Andrews (No.8), Muirfield (No.9), Trump Turnberry (No.22), Carnoustie (No.26), North Berwick (No.50), Trump International (No.54), Kingsbarns (No.69), and Machrihanish (No.91). In addition, Castle Stuart, Royal Aberdeen, Cruden Bay and Royal Troon were all included in The World's 100 Greatest Golf Courses.

Uncertainty and the potential for changes in circumstances

11.181 We also have to contemplate what might happen if one or both of the co-developers were unable to see the project through to completion, due to an unforeseen change in their circumstances or investment strategy. Planning permissions run with the land, rather than the applicant.

11.182 The question arises: would the development of a golf course at Coul Links have the same cachet and pull for the target clientele of high value golf tourists, especially from North America, without the Keiser 'brand'? The applicant's evidence would indicate not, in which case the benefits to the local, regional and national economy would be likely to be lower than predicted, and the level of displacement might be higher.

11.183 The high dependency of the golf course on the North American and European markets would also render the project susceptible to variables which could affect the demand for a holiday in this country, including the impact of Brexit, trends in golf tourism and golf participation, and any change in the exchange rate for sterling which made the cost of a golfing break in Scotland less competitive.

11.184 Most critically, the success of the project, and the scale of the economic benefit which it would bring, would rely on the course achieving a high international ranking. Mr Keiser's golf courses have an impressive record in that regard, but there can be no guarantee that Coul Links would attain such a high status, or when it might secure this accolade.

Overall conclusions on economic impact

11.185 Overall, we conclude that the proposed development has the potential to generate a substantial number of jobs and spending in the local area and beyond.

11.186 There would be a modest number of people directly employed in the construction and operation of the golf course, which would be designed as a relatively small-scale operation with minimal facilities. That is an important distinction from golf resorts such as Bandon Dunes which include hotels and restaurants. Most of the associated jobs and spending would therefore be off site, and generated indirectly through golf tourism, including accommodation and food and drink.

11.187 The applicant's suggestion that the proposal would create over 650 jobs in golf tourism by year 10 appears highly unlikely when related to the total size of the golf tourism economy in Scotland.

11.188 Although the total economic impact would be substantial and positive, we consider that it is likely to be significantly lower than estimated by the applicant's consultants. Their predictions rely on unduly optimistic assumptions on the level of average expenditure by golf tourists, and the behaviour of high spending North American golf tourists.

11.189 In particular, we consider that the expectation that 33% of all golf visitors to Coul Links, and by extension up to two thirds of American visitors, would not have visited Scotland otherwise, is unrealistic.

11.190 It follows that, for the new links course at Coul Links, and the associated East Sutherland golf cluster, to thrive it would need to attract golfers who would otherwise have played at established courses and alternative clusters in other parts of Scotland. As such, we would expect the major share of the spending and jobs generated by the Coul Links development to be displaced from within Scotland, rather than additional to the Scottish economy.

11.191 We conclude that the net impacts on a national (Scotland) scale are likely to be substantially lower than BiGGAR predicts.

Is the development of national importance?

11.192 We address the policy tests elsewhere in Chapter 13, but for the purposes of the current chapter we need to consider whether the proposal would be of national importance insofar as it would comply with, or support, relevant national policies.

11.193 We agree with the applicant that the proposal, which would develop golf tourism and increase competitiveness in the North Highlands, is supported in general terms by Scotland's National Economic Strategy, which identifies tourism as a target growth sector. It would promote high value tourism and add to the contribution from the golf sector, in line with the National Tourism Strategy. The Coul Links proposal would extend the tourist season in the Dornoch area, and help to disperse tourism away from the main tourist hubs, consistent with the Tourism Development Framework.

11.194 For the reasons given above, we conclude that the proposed golf course development at Coul Links would have a highly significant beneficial socio-economic impact on the local Dornoch area, and a significant positive impact at a regional (Highland) level. At the Scotland level we consider that the socio-economic impact would be very beneficial, but that the likely volume of employment and expenditure would not, in itself, be nationally significant.

11.195 Nor do we consider that the creation of a potentially 'world class' golf course is intrinsically a development of national importance. If Coul Links were successful in achieving a ranking in the Golf Digest top 100, that would increase the number of highly rated courses in Scotland from 12 to 13. There is no evidence that the nation's golf tourism industry is being held back through a lack of iconic golf courses, and there are already at least 84 links courses in Scotland. In short, there appears to be a generous supply of high-quality golf courses in Scotland, especially links courses, and while another world class course would be a positive addition to that supply, it would not qualify as nationally important on that count.

11.196 Although we are not convinced that it would be necessary to meet a 'national need for more high-quality provision', we recognise that the proposal would build on one of Scotland's key assets, links golf, and encourage sustainable and inclusive growth. As such, it would accord with the related provisions of the National Planning Framework (NPF 3), including the need to support rural communities.

11.197 We also acknowledge that the project would create high quality jobs and extend the season for employment in the area, thereby increasing productivity and reducing income inequality, in accordance with Scottish Government policy.

11.198 In summary, we find that the Coul Links proposal can draw support from a wide range of national policies which aim, amongst other things, to promote 'high end' tourism (golf tourism in particular), create 'good' jobs and develop rural communities.

11.199 However, we do not consider that compliance with, or support from, these national policies in itself elevates the proposal to the status of a development of national importance. By analogy, if a windfarm scheme of whatever size were supported in principle by Government policies promoting renewable energy, would it thereby become a development of national importance?

11.200 We conclude that the Coul Links proposal is of local and regional significance in socio-economic terms, but that the proposed development would not be nationally important in terms of jobs and expenditure, or in national policy terms.

11.201 Nonetheless, we regard the potential socio-economic benefits of the proposal, and the widespread support for the project amongst the local community, as important factors in favour of the application.

CHAPTER 12: PLANNING CONDITIONS

12.1 The council prepared a draft set of planning conditions which it proposes be attached should Ministers decide to grant consent. SNH and the Conservation Coalition commented on some of these. The applicant proposed changes to them, and also a number of additional comments. An updated table³¹⁸ sets out the parties' respective positions on conditions prior to the hearing session we held on the matter. The parties' closing submissions also make reference to some of the proposed conditions. Informed by all this evidence, Appendix 2 sets out the conditions we recommend are imposed, should Ministers grant consent.

12.2 We note below our findings on those conditions where there was not agreement or where, in any event, we recommend significant changes. The numbers referred to below refer to the numbers for the conditions in Appendix 2. None of the parties to the inquiry proposed any planning obligations, and we are satisfied that none would be required.

12.3 The Conservation Coalition requested that it (or RSPB as its representative) be included as a consultee in the discharging of some of the conditions. The applicant considers that this is unnecessary and could lead to delay. The council's preference is also not to include additional consultees in this manner.

12.4 We are sympathetic to the Conservation Coalition's desire, given its extensive involvement in the inquiry, to be consulted on some of the conditions. However, we think that consultation with the relevant statutory agencies (SEPA and/or SNH as appropriate) would be sufficient for ensuring that the details proposed through the various conditions receive due consideration. This would not preclude the council (nor indeed the applicant) from consulting RSPB or others should they wish to do so.

12.5 In its closing submissions Not Coul expressed disappointment that none of the conditions cover biosecurity measures. We are satisfied that the scope of the proposed Environmental Management Plan (condition 13) and/or Construction Environmental Management Plan (condition 14) could cover biosecurity measures if thought necessary by the council, in consultation with SEPA and SNH if need be.

Condition 1 - Compliance with application and Environmental Statement

12.6 The Conservation Coalition expressed concern that, as originally worded, this condition lacked precision because it required the development to be carried out entirely in accordance with the environmental statement, rather than specifying which elements of it must be complied with. It also noted that not all aspects of the RAMP could be put in place prior to the start of development.

12.7 The applicant suggested a revised condition with which the council is content. This clarifies that compliance with the environmental statement is subject to any changes required by the other conditions of the consent. Given the amount of detailed control these other conditions exert over how the development would proceed, and noting that we list the relevant application drawings at Appendix 4, we are satisfied that the revised condition is acceptable.

³¹⁸ [updated composite table of conditions](#)

Condition 7 – Floodlighting system

12.8 SNH wishes to be consulted on the discharging of this condition, and that it includes consideration of impacts on birds. These points are addressed in the applicant's proposed revisions of the condition. The Conservation Coalition also wish consideration to be given to breeding moths. Given that the invertebrate assemblage is a feature of the Ramsar site, we amend this condition to include consideration of impacts on breeding moths.

Condition 8 – Recreation and Access Management Plan (RAMP)

12.9 Scotways wishes to see specific reference in the condition to the need to comply with Part 1 of the Land Reform (Scotland) Act 2003. However, we agree with the applicant and the council that there is no need for the condition to refer to statute which would remain in force and need to be complied with anyway.

12.10 SNH wants to see the scope of the condition widened to include breeding birds associated with the SSSI, not just waterfowl associated with the Ramsar site and SPA. The applicant does not think this is necessary as the Environmental Statement does not identify likely significant effects on breeding birds. However, it is not necessary for there to be such an effect in order for a condition to be appropriate. The removal of SNH's objection³¹⁹ was dependant on the RAMP helping to reduce disturbance on SSSI breeding birds. Therefore we consider it prudent that the scope of the condition be widened to include them.

12.11 The Conservation Coalition would like to see the provisions in Section 3.3 of the RAMP for monitoring by independent ornithologists brought out in the condition itself. However the final RAMP is to be derived from the current version. There is no reason to conclude that these provisions would be removed, and SNH would be consulted on the final version. We therefore agree with the applicant that there is no need to bring this particular aspect of the RAMP into the condition itself.

Condition 10 – Compensatory planting

12.12 The Conservation Coalition wants the condition to state that any off-site planting proposals would need to be screened for the purposes of both Environmental Impact Assessment and the Habitats Regulations. We are not aware of whether any of the compensatory planting would be off-site. In any event, there is no need for the condition to set out what might be required, regardless, by relevant statute and regulations.

Condition 11 – Coastal management

12.13 The Conservation Coalition identifies that future alternative course layouts could have implications for the protected nature conservation sites and might (if they are materially different to the approved layout) need to be the subject of a separate planning application(s). In our view the final wording for this condition as proposed by the council best captures this situation. Although this would ultimately be a matter for the council to determine (in consultation with SNH), we see benefit in the condition stating that position.

12.14 We accept that, since the site is within the Ramsar site, it should also be referred to in the reasons for the condition. Coastal defences (which the condition would preclude) and

³¹⁹ See paragraph (j) of [CD002.020 - Scottish Natural Heritage - response dated 25 May 2018](#)

other coastal management proposals could have implications for SPA birds, so the reason for the condition should also extend to these species.

Condition 12 – Protection of birds during construction

12.15 The Conservation Coalition points out that some construction activity could affect wintering as well as breeding birds. We therefore agree that this condition is expanded to include both. The RAMP (condition 8) deals with bird disturbance during the operational phase and therefore this condition need not duplicate that.

Condition 14 – Construction Environmental Management Plan

12.16 Given that the applicant has already prepared a draft plan, we use the applicant's version of this condition, which makes reference to that draft. We also agree that it is clearer to deal with the appointment of an ecological clerk of works in a separate condition.

12.17 The Environmental Statement, as Mr Haspell clarified, incorrectly says that the initial vegetation stripping of the golf course layout would extend beyond the semi-rough and into the rough. In order to ensure this clarification is properly reflected in the conditions, we incorporate it into the terms of condition 14.

Condition 18 – Use of core paths

12.18 We express doubts in Chapter 10 about the ability to enforce a planning condition which sought to require golfers to give way to path users. The council confirmed at the hearing that the condition would be enforced against the golf course operator to ensure that they were taking the necessary steps to ensure golfers give way to core path users. We therefore have recommended that this condition is recast to require the provision and implementation of a scheme to ensure this is the case rather than, as originally drafted, simply stating that golfers are to give way. We recognise that this could not ensure that every golfer would give way.

Condition 19 – Closed season

12.19 It was agreed at the hearing that, for the avoidance of doubt and on the basis of the proposal for the course to be closed during the months December to March, this should be controlled by means of a condition.

Condition 22 – Mitigation during construction and operation

12.20 Since the schedule of mitigation referred to in the draft condition covers both construction and operational phases, we agree with the applicant and the council that it would be simpler to have a single condition controlling this. It is conceivable that further changes to the schedule might be required as the detailed construction plans develop or in relation to the discharging of other conditions, so the condition should allow for that eventuality. Ultimately the council, in consultation with SNH and SEPA, could take a view on the acceptability of any proposed changes, so we do not foresee any additional or exacerbated adverse effects arising from such a process.

Condition 23 - Irrigation water

12.21 There was discussion at the hearing session (addressed again in the closing submissions) about the appropriate means of controlling the quality and chemical composition of irrigation water for the course. This matter is addressed in our conclusions in Chapter 4. In addition to setting a maximum level for nitrogen in the irrigation water (which could be varied upwards if shown to be acceptable) this condition would also allow the pH value of the irrigation water to be controlled.

Condition 25 – Teal and wigeon protection

12.22 We have altered this condition to clarify which holes on the golf course masterplan layout it refers to. The Conservation Coalition considers that the condition should require greenkeeping works on certain holes to avoid areas at high tide, as far as is possible. However, we note the commitment in the RAMP to time any necessary winter greenkeeping operations on the 13th, 16th, 17th and 18th holes around low tide when possible. Therefore we are content that this matter is already addressed through the provisions of Condition 8 and need not be repeated in this condition.

Condition 26 – Pre-construction species surveys

12.23 Bat roost and activity surveys were undertaken around Coul Farmhouse and steadings. 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 within the steading buildings. A formal Bat Protection Plan would be agreed with SNH and the council. Work would only commence on buildings when this plan is agreed and the work fully licenced.

12.24 We have added a requirement to Condition 4 which requires that pre-construction surveys for bats be no older than 12 months at the time construction commences. We see no particular need in this case for SNH to be consulted on the proposed methodologies for the pre-construction species surveys.

Condition 27 – Coul Links Site Management Plan

12.25 This is an additional condition suggested by the applicant, which the parties support. We make some alterations based on the suggestions by several parties at the hearing, none of which were opposed.

Condition 28 – Translocation Plan

12.26 SNH suggested that the condition makes a clearer reference to post-translocation monitoring and reporting and that it includes a provision requiring implementation. We make these changes, to which the applicant was not opposed.

Condition 33 – Local training and employment

12.27 We noted the existing collaboration between Royal Dornoch Golf Club and the University of the Highlands & Islands in relation to the golf-related degree courses operated by the latter and based in Dornoch. Likewise we note the draft agreement between Coul

Links Ltd and the University on future collaboration. We see great potential for the development to further develop on this collaborative approach, for the benefit of these parties and of course for the students themselves. In this context we are content that this proposed condition is appropriate, and that consideration can be given to further training and employment opportunities beyond those involving the University.

Additional planning conditions not recommended by the reporters

Local procurement strategy

12.28 We do not doubt the applicant's intention to develop a local procurement strategy, and we recognise that this could have local economic benefits. However we see no particular need that this be controlled by means of a planning condition. We have included this condition in Appendix 2a, should Ministers take a different view.

Serious incident reporting

12.29 The council has no wish for this to be controlled through a planning condition, and considers that it duplicates other legislation, for example health and safety legislation. Whilst we note that it would relate to environmental incidents and not only health and safety incidents, we are content that the other proposed conditions are sufficient in covering the potential effects of the development. We have included this condition in Appendix 2a, should Ministers take a different view.

CHAPTER 13: OVERALL CONCLUSIONS & RECOMMENDATIONS

13.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 requires this application for planning permission to be determined in accordance with the development plan unless material considerations indicate otherwise.

13.2 We summarise the contents of the development plan, the provisions of relevant legislation and the key material considerations in Chapter 2. In the current chapter we draw together our main findings and conclusions in each of the topic chapters of this report. In so doing, we take full account of the parties' written submissions and closing submissions.

THE DEVELOPMENT PLAN

13.3 The development plan comprises the Highland-wide Local Development Plan (HWLDP), together with the Caithness and Sutherland Local Development Plan and adopted Supplementary Guidance.

Highland-wide Local Development Plan

13.4 Below we review compliance with each of the most relevant policies and provisions of the HWLDP, before reaching conclusions on overall consistency with the plan.

LDP Vision

13.5 In accordance with the vision for Highland, we conclude that the proposal would help to support the economy by encouraging economic development and creating new employment, including jobs in tourism, and promoting opportunities for investment and diversification in the economy. In relation to Caithness and Sutherland, the proposal would provide high quality tourist facilities, with tourists attracted by the outstanding natural heritage, and would support developments at UHI Dornoch campus.

13.6 However, we have also concluded that the proposed development would detract from, rather than protect and enhance, the special quality of the natural environment due to the likely significant adverse effects on important habitats and species, contrary to the plan's vision of safeguarding the environment across Highland. It would not be consistent with the vision for Caithness and Sutherland to protect and enhance the outstanding natural assets, including habitats and species of national and international importance.

Policy 28 Sustainable Design

13.7 In relation to the criteria of Policy 28, we have found that the proposed development would contribute to the economic and social development of the community, but we have also concluded that it would be likely to have a significant adverse impact on habitats and species of birds within designated areas (SPA, SSSI and Ramsar site).

13.8 We accept that there are unlikely to be suitable alternative sites to develop such a high quality links course in the vicinity, but we are not persuaded that the socio-economic benefit of the proposal overrides the potentially severe damage to the important habitats at Coul Links, or that the adverse impacts of the proposal could be satisfactorily mitigated.

13.9 We have also identified further areas of uncertainty, including the effects of water abstraction and of nitrogen in fertilisers, and the effects on invertebrates, where there is insufficient evidence to demonstrate that significant damage to habitats and species would not occur. We conclude that the precautionary principle should apply here, given the high sensitivity and status of the protected environment of Coul Links.

13.10 We conclude that the proposed development is not compliant with Policy 28. The policy states that developments which are judged to be significantly detrimental in terms of its criteria will not accord with the LDP.

Policy 36 Wider Countryside

13.11 We consider that the proposal would comply with certain aspects of Policy 36, which is a generic policy relating to development proposals in the wider countryside. Specifically, it would be compatible with landscape character and capacity, and would be sympathetic to existing patterns of development in the area. However, despite the minimalist design of the proposed links course, we consider that it would be inappropriately sited within a particularly sensitive, protected sand dune habitat.

13.12 This is not a Fragile Area, as defined by Highlands & Islands Enterprise, but we still attach due weight to the contribution which the proposal might make to maintaining local population and services.

Policy 43 Tourism

13.13 We agree with the applicant that the proposal draws strong support from this policy, as it would enable high quality tourism development, complement existing tourist facilities in the area, increase the length of people's stay and increase visitor spending. However, we do not consider that it would safeguard the natural heritage features of Coul Links which are protected by the SPA, Ramsar and SSSI designations, as envisaged in the fourth criterion of the policy.

Policy 49 Coastal Development

13.14 Our ultimate conclusion is that the proposed development would have an unacceptable impact on the natural heritage value of Coul Links, which forms part of a designated Natura site, Ramsar site and SSSI, contrary to the explicit terms of Policy 49.

13.15 It would also be inconsistent with the non-statutory supplementary guidance (Highland Coastal Development Strategy) referred to in Policy 49, which supports the protection of designated nature conservation sites, and encourages development only where natural systems can sustain it and where socio-economic benefits clearly outweigh the environmental costs.

Policy 57 Natural, Built and Cultural Heritage

13.16 Policy 57 is a key policy against which to assess the application proposal. It has different criteria for features of 'local/regional', 'national' and 'international' importance. Appendix 2 of the plan identifies SPAs and Ramsar sites as features of international importance, and SSSIs as features of national importance.

13.17 Under the second criterion, for a development to be permitted in an SSSI, it needs to be shown not to compromise the natural environment, amenity and heritage resource, and any significant adverse effects must be clearly outweighed by social or economic benefits of national importance.

13.18 We have already found that the proposal would be likely to have significant adverse effects on protected sand dune habitats and the breeding birds feature, and that the potential socio-economic benefits of the development would be of local or regional (rather than national) importance. We therefore conclude that the socio-economic benefits would not be sufficient to outweigh the detriment to the SSSI, a natural heritage feature of national importance.

13.19 The third criterion of Policy 57 states that proposals likely to have a significant effect on a site within a feature of international importance will be subject to an appropriate assessment.

13.20 There is no dispute that, before granting consent, an appropriate assessment would be required in respect of the Dornoch Firth & Loch Fleet SPA and the Moray Firth pSPA. However, the recent advice and guidance on the implementation of Scottish Government policy on protecting Ramsar sites makes clear that where Ramsar interests match SSSI features (as they do, broadly, at Coul Links), they receive protection under the SSSI regime. It follows that an appropriate assessment of the effects on Ramsar interests is not required in this case.

13.21 We have already concluded that the proposal would not compromise the presumed conservation objectives of the Moray Firth pSPA.

13.22 In relation to the Dornoch Firth & Loch Fleet SPA, we have found that the proposed development is not directly connected with or necessary to the management of the site for nature conservation. Because of the potential loss of bird habitat and likely disturbance to bird species, we have concluded that the proposal runs contrary to the conservation objectives for the qualifying interests of the SPA to 'avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained'.

13.23 We have also concluded that the proposal is contrary to the conservation objective to ensure for the qualifying species the long-term maintenance of: the distribution of species within the site; distribution and extent of habitats supporting the species, structure, function and supporting processes of habitats supporting the species; and no significant disturbance of the species.

13.24 We have found that the diminution of the unique dune slack habitat, and the significant disturbance to birds using the wetted dune slacks, would be likely to reduce the use of Coul Links by qualifying bird species such as teal and wigeon. It would thereby compromise its function as a refuge for SPA water birds at high tide and during severe weather, and hence threaten the integrity, or 'wholeness', of the SPA. We are therefore unable to ascertain that the proposal will not adversely affect the integrity of the SPA.

13.25 In such circumstances Policy 57 would only allow development where there is no alternative solution and there are imperative reasons of overriding public interest [our emphasis], including those of a social or economic nature, which do not apply here.

13.26 We have found in Chapter 5 that the proposed development is likely to have significant adverse effects on Annex 1 priority habitats at Coul Links, particularly dune heath, dune slack and dune juniper, including through habitat loss, fragmentation, disturbance and loss of dynamism. We have also found in Chapter 6 that certain Annex 1 bird species in the vicinity are especially susceptible to disturbance.

13.27 We are therefore unable to ascertain that the proposal would not adversely affect the integrity of the SPA, in which case Policy 57 indicates that the proposal is not in accordance with the development plan. This is not a case where there is overriding public interest to allow the development for reasons of 'human health, public safety, beneficial consequences of primary importance for the environment, or other reasons subject to the opinion of the European Commission (via Scottish Ministers)'.

Policy 58 Protected Species

13.28 Policy 58 states that development likely to have an adverse effect on protected bird species (including Annex 1 of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act 1981 species, and birds of conservation concern) will only be permitted where there is no other satisfactory solution, and the development is required in the interests of public health or public safety. We have found in Chapter 6 that the proposed development is likely to cause an adverse effect through disturbance to breeding and non-breeding birds using Coul Links, including Annex 1 and Schedule 1 species, and birds of conservation concern. We conclude that the proposal is contrary to Policy 58.

Policy 59 Other Important Species

13.29 Policy 59 indicates that the council will have regard to the adverse effects of development proposals on other important species, including priority species listed in the UK and Local Biodiversity Action Plans, and species included on the Scottish Biodiversity List, using conditions and agreements to avoid detrimental effects on these species.

13.30 In Chapter 7 of this report we have found that the proposed development has the potential to have an adverse impact on the important invertebrate assemblage at Coul Links, including priority species of butterflies and moths, and the globally endangered Fonseca's seed fly, which are contained in the UK Biodiversity Action Plan and the Scottish Biodiversity List.

13.31 On the basis of the evidence before us, we cannot be assured that the potential impacts could be satisfactorily addressed by conditions or agreements. We therefore conclude that the proposal is inconsistent with Policy 59 of the HWLDP.

Policy 60 Other Important Habitats and Article 10 Features

13.32 Policy 60 states that the council will have regard to the value of other important habitats, including priority habitats listed in the UK Biodiversity Action Plan. Coastal sand dunes are listed as a priority habitat under the UK BAP; however, this policy applies to habitats not protected by nature conservation designations, whereas Coul Links lies within a designated SSSI.

Policy 61 Landscape

13.33 We are satisfied that the proposed golf course has been designed to reflect the landscape characteristics of the area, giving due consideration to the appropriate scale, form, pattern and construction materials, and thereby accords with Policy 61.

Policy 64 Flood Risk

13.34 We do not consider this policy to be applicable to the golf course proposal, as any buildings would not be at risk of flooding.

Policy 65 Waste Water Treatment

13.35 The applicant proposes to install a private waste water treatment system, to be built to adoptable standard. The system would involve tertiary treatment of waste water discharging to a reed bed system, and thence to a surface water ditch with outflow to Loch Fleet. This arrangement could be secured by planning condition, and in any case SEPA has already issued a CAR licence for the proposed system. We therefore conclude that the proposal complies with Policy 65.

Policy 66 Surface Water Drainage

13.36 We understand that SEPA is content with the applicant's proposals for surface water drainage, including the SuDS drainage plans. On that basis we conclude that the proposal is consistent with Policy 66.

Policy 77 Public access

13.37 In Chapter 9 we have already noted that the golf course would straddle the core path which runs north-south along the west side of Coul Links, and have found that the operation of the golf course could potentially interfere with the enjoyment of the core path, and wider access rights in the area. We do not consider that the proposed new circular path would be an adequate replacement.

13.38 Accordingly, we conclude that the proposal does not conform to Policy 77, which provides that where a proposal affects a core path, the existing path should be retained while maintaining or enhancing its amenity value, or alternative access provision should be made which is no less attractive, is safe and convenient for public use.

Conclusions on compliance with HWLDP

13.39 We conclude that the proposal is supported by the aspects of the plan (notably those contained within the vision, Policy 28 and Policy 43) which promote economic development, investment, diversification and employment, particularly in high quality tourism. It would not conflict with the relevant technical policies relating to landscape, flooding, waste water treatment and surface water drainage, or with other policies such as Policies 51 and 52 covering trees and woodlands, or Policy 56 covering travel.

13.40 However, we also conclude that the proposed development is at variance with the key provisions of the plan which seek to safeguard the natural environment of Highland, including habitats and species of national and international importance. In particular, the

proposal is contrary to the relevant policies to protect natural heritage, including important habitats and species (Policies 57-59). Moreover, it is not consistent with the policies on sustainable design (Policy 28), the wider countryside (Policy 36), coastal development (Policy 49) and public access (Policy 77).

13.41 In summary, we conclude that the proposal does not comply with the relevant provisions of the HWLDP, because the socio-economic benefits of the development would not outweigh the harmful impacts to protected habitats and species.

Caithness and Sutherland Local Development Plan

Vision and Strategy

13.42 The proposal can draw support from two of the four 'vision outcomes' within CaSPlan's vision for Caithness and Sutherland in 2035. It would be consistent with the vision of Growing Communities: a 'network of successful, sustainable and socially inclusive communities where people want to live, which provide the most convenient access to key services, training and employment and are the primary locations for inward investment.'

13.43 The proposed development would also support the vision of Employment: a 'strong, diverse and sustainable economy', and the critical role of the tourist industry. The east coast of Sutherland, including the application site is identified as part of a tourism corridor. Elsewhere the plan highlights the importance of tourism as a major source of income for the Dornoch area, with visitors being attracted by history of the settlement, the quality of the local environment and the Royal Dornoch Golf Course.

13.44 However, because of the potential harm to the SPA, SSSI and Ramsar site, we consider that the proposed development would conflict with the vision for Environment and Heritage: 'High quality places where the outstanding environment and natural, built and cultural heritage is celebrated and valued assets are safeguarded.'

13.45 Similarly, the proposal is in line with the statement in the plan's strategy that 'opportunities for work, training and education must be provided for local people to stay in the area', but is contrary to the advice in the next sentence that development 'cannot take place at a cost to the outstanding built, natural and cultural heritage'.

Relevant policies and priorities

13.46 Embo is contained in a list of 'growing settlements', the boundaries of which are not defined in the plan. Policy 3: Growing Settlements sets criteria for development proposals that are contained within, round off or consolidate growing settlements. However, the proposed golf course at Coul Links would be to the north of (and not within) Embo, and would be of such a scale that it could not be regarded as rounding off or consolidating the settlement. We therefore conclude that Policy 3 is not relevant to the proposal.

13.47 Through the production of the RAMP the applicant has fulfilled one of the placemaking priorities for Embo: that significant developments should be accompanied by a recreational management plan to assess any likely increased pressures from recreational access of the sand dunes or disturbance to wintering or breeding birds.

13.48 The proposal has also had regard to the Dornoch Firth and Loch Fleet SPA and Ramsar site, Moray Firth SAC and Loch Fleet SSSI (another placemaking priority for Embo), though we have concluded that it would have a significant adverse effect on the SPA, Ramsar site and SSSI.

Conclusions on compliance with CaSPlan

13.49 We conclude that the proposal is consistent with the parts of CaSPlan's vision and strategy which seek to promote growing communities, employment and tourism, but that it is contrary to the elements which seek to protect the environment and natural heritage, despite the applicant's efforts to mitigate the impact on protected habitats and species.

Supplementary Guidance

13.50 There is no indication that the proposal is at variance with the council's Supplementary Guidance on Developer Contributions, Flood Risk and Drainage Impact Assessment, Sustainable Design Guide or Historic Environment Strategy.

13.51 The council's supplementary guidance on Protected Species supplements LDP Policy 58 which addresses the same topic. We have already concluded that the proposal is contrary to that policy. For similar reasons we consider that the proposal is inconsistent with the supplementary guidance, including the key principles for furthering the conservation of biodiversity.

Overall conclusions on compliance with the development plan

13.52 Overall, we conclude that the proposed development is contrary to the development plan, as the likely detriment to natural heritage is not outweighed by the socio-economic benefits of the proposal.

OTHER MATERIAL CONSIDERATIONS

National Planning Framework (NPF) 3

13.53 There are a number of statements in NPF 3 which are supportive of the golf course proposal at Coul Links, including the central purpose 'to make Scotland a more successful country, with opportunities for all to flourish through increasing sustainable economic growth'. The framework also 'highlights opportunities for rural development that will strengthen our communities. It sets out an ambitious agenda to secure investment in the unique assets of our coast and our islands'.

13.54 NPF 3 specifically draws attention to the tourism and recreational opportunities on the east coast, including links golf courses, the need for population growth to sustain many rural communities and not to constrain development unnecessarily in rural areas.

13.55 On the other hand, NPF 3 cautions that growth should respect 'the quality of environment, place and life which makes our country so special', and there is a need to protect 'our natural and cultural assets'. The natural environment is seen as 'fundamental to a healthy and resilient economy', and 'the environment of our coastal areas' is 'an outstanding, internationally important resource.'

13.56 The Scottish Biodiversity Strategy (referred to in NPF 3) highlights the importance of protected areas in providing jobs, particularly in rural Scotland, in addition to a range of other public benefits.

13.57 We conclude that the strong support in NPF 3 for sustainable economic growth and for rural development, including tourism, to strengthen communities is tempered by a recognition of the need to protect the natural environment and of the importance of biodiversity.

Scottish Planning Policy

The planning system and focus on outcomes

13.58 Once again, due its socio-economic benefits, the proposal can draw general support from the statement in the first paragraph of the document that SPP focuses plan making, planning decisions and development design on the Scottish Government's Purpose of creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. Similarly, Outcome 1 envisages a successful, sustainable place – supporting sustainable economic growth and regeneration, and the creation of well-designed, sustainable places.

13.59 However, the second paragraph of the document acknowledges that there is a balance to be struck. SPP indicates that planning should take a positive approach to enabling high-quality development to deliver long term benefits for the public while protecting and enhancing natural and cultural resources. Outcome 3 envisages a natural, resilient place – helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use. The spatial strategy promotes 'protection and sustainable use of our world-class environmental assets.'

Sustainable development

13.60 SPP introduced a presumption in favour of development that contributes to sustainable development. However, paragraph 28 is explicit that the costs and benefits of a proposal require to be balanced over the longer term, and that the aim is to achieve the right development in the right place – not to allow development at any cost.

13.61 Paragraph 32 of SPP makes clear that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. However, paragraph 33 advises that where relevant policies in a development plan are out of date or the plan does not contain policies relevant to the proposal, the above presumption will be a significant material consideration. The same principle should be applied where a development plan is more than five years old.

13.62 Because the HWLDP was adopted over five years ago, the applicant argues that the development plan is out of date in terms of paragraph 33 of SPP, and therefore that the presumption in favour of development that contributes to sustainable development will be a significant material consideration. We consider the extent to which the Coul Links proposal would contribute to sustainable development below.

13.63 We are unaware, however, of relevant policies of HWLDP which are now out of line with current national policy guidance, apart from the element of Policy 57 (discussed above)

relating to Ramsar sites which has been overtaken by the Scottish Government's recent clarification of its guidance on the matter. We also recognise that HWLDP pre-dates the presumption in SPP in favour of development which contributes to sustainable development

Policy principles

13.64 Of the guiding principles for planning decisions set out in paragraph 29 of SPP, it is important that due weight is given to the net economic benefit of the Coul Links proposal, and to its potential contribution to 'responding to economic issues, challenges and opportunities'. Elsewhere in the document (paragraph 94), SPP advises development plans to align with local economic strategies, recognising the potential of key growth sectors such as tourism.

13.65 In relation to the guiding principles, it is relevant that the proposed golf course would offer 'opportunities for social interaction and physical activity', but it is also necessary to take account of the principle of 'protecting, enhancing and promoting access to natural heritage'. Insofar as the proposal fails to protect designated natural heritage sites (and 'world-class environmental assets'), we consider that it does not match up to SPP's stated outcomes and guiding principles, and hence cannot be regarded as sustainable development for planning policy purposes.

Rural development

13.66 The support for rural development, and growing communities in remote and fragile areas, in paragraphs 75 and 77 of SPP is qualified by the need to protect environmental assets such as 'wildlife habitats that underpin continuing tourism visits and quality of place'.

13.67 Paragraph 89 expects development plans to identify 'largely unspoiled areas of coast that are unsuitable for development', but suggests that there may be 'necessary developments within the largely unspoiled coast where there is a specific locational need, for example for...tourism developments of special significance'.

13.68 We recognise that the golf course proposal could be regarded as a tourism development of special significance, which might be permissible within a largely unspoiled area of coast. However, we consider that Coul Links, due to its presence within an SPA, SSSI and Ramsar site, is also an area 'subject to significant constraints' in that context.

Natural environment

13.69 We consider that the proposal is contrary to the policy statements in paragraph 194 of SPP that the planning system should conserve and enhance protected sites and species, and avoid further fragmentation or isolation of habitats.

13.70 Paragraph 203 states that planning permission should be refused where the nature or scale of proposed development would have an unacceptable impact on the natural environment, and that direct or indirect effects on statutorily protected sites will be an important consideration.

13.71 We acknowledge that designation does not impose an automatic prohibition on development, but we conclude that the golf course proposal at Coul Links would indeed have significant adverse direct and indirect effects on the SPA, Ramsar site and SSSI. We

also conclude that due to its nature and scale the development would have an unacceptable impact on the natural environment.

13.72 As we have already explained in paragraph 13.9 above, we are concerned that certain key impacts of the proposed development on the SPA, SSSI and Ramsar site are uncertain. We conclude that Coul Links is a case where paragraph 204 of SPP advises that the precautionary principle should be applied, as we consider that there is sound evidence that significant irreversible damage to habitats and species could occur, even taking account of the intended mitigation measures and additional surveys and research.

International designations

13.73 Paragraphs 207-211 of SPP address international designations (Natura 2000 sites and Ramsar sites). We have already established that the current proposal is not directly connected with or necessary to the conservation management of the Dornoch Firth and Loch Fleet SPA. Paragraph 207 of SPP confirms that any proposal which is likely to have a significant effect on an SPA may only be approved if the competent authority has ascertained by means of the appropriate assessment of the implications for the conservation objectives that there will be no adverse effect on the integrity of the site.

13.74 We have found in Chapter 6 of this report that the proposal runs contrary to the conservation objectives for qualifying interests of the SPA to 'avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained'.

13.75 We have also found that the proposal runs contrary to the conservation objective for SPA qualifying interests to ensure for the qualifying species the long-term maintenance of the following: distribution of the species within the site; distribution and extent of habitats supporting the species; structure, function and supporting processes of habitats supporting the species; and no significant disturbance of the species.

13.76 Accordingly, we conclude that there would indeed be an adverse effect on the integrity of the Dornoch Firth and Loch Fleet SPA, contrary to the terms of paragraph 207 of SPP. We are not persuaded that there are imperative reasons of overriding public interest, or adequate compensatory measures, to justify a derogation in this case.

13.77 For similar reasons, we consider that the proposal would run contrary to the wintering bird interests of the Dornoch Firth and Loch Fleet Ramsar site, which qualifies under Criterion 3a by regularly supporting in winter over 20,000 wildfowl (including teal), and under Criterion 3c by regularly supporting internationally important wintering populations of teal, scaup, curlew and redshank.

National designations

13.78 Under the terms of paragraph 212 of SPP, permission should only be granted for development affecting an SSSI where 'the objectives of designation and the overall integrity of the area will not be compromised; or any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.'

13.79 In Chapter 5 we have already found that the proposed golf course would be likely to lead to significant loss and fragmentation of important sand dune habitats, and associated plant communities, which are referred to in the SSSI citation. In Chapter 6 we find that the development would have a significant adverse effect on breeding birds.

13.80 We conclude that the proposal is likely to damage the SSSI and its features, compromising the objectives of designation and the overall integrity of the area. We have found in Chapter 11 of this report that the potential socio-economic benefits of the proposal are of local or regional, but not national, significance. Paragraph 212 of SPP indicates that the proposed development at Coul Links should not be permitted in these circumstances.

Overall conclusions on consistency with SPP

13.81 Overall, we conclude that the proposal is consistent with SPP's strong support for economic growth, rural development, growing communities and tourism, a key growth sector in the Scottish economy. However, because of the potential significant adverse effects on protected habitats and species at Coul Links, the proposed development runs contrary to SPP's emphasis on protecting natural heritage sites and world-class environmental assets. We do not consider that it would contribute to sustainable development.

Other policy advice and strategies

The Draft Advice on Net Economic Benefit and Planning

13.82 This is a mainly technical document, which is referred to in Chapter 11 on socio-economic impact. However, it makes clear that economic benefit needs to be set alongside the other guiding principles of sustainability and good placemaking, and any other material considerations.

Scotland's Economic Strategy

13.83 The proposed development can draw support from Scotland's Economic Strategy, which sets out the Scottish Government's approach to increasing sustainable economic growth, and supports sectors such as tourism. It would help to increase competitiveness in the North Highlands. The proposed golf course at Coul Links would be attractive to key international markets, especially North America. The proposal would enhance the links between UHI Dornoch and the private sector, in line with the Strategy, and would offer high quality jobs in a remote rural area, in line with the aim of regional cohesion.

13.84 However, the Economic Strategy also advises that protecting the stock of natural capital, including biodiversity, is fundamental to a healthy and resilient economy.

Scotland's Land Use Strategy 2016-2021

13.85 We consider that the proposal would be consistent with the need to encourage outdoor recreation opportunities, but contrary to the need for land use decisions to be informed by an understanding of the functioning of the ecosystems which they affect, identified in the Principles for Sustainable Land Use within the Land Use Strategy.

PAN 43 Golf Courses and Associated Development

13.86 This planning advice note is now 25 years old but is still extant. Although it provides interesting background information on the topic including trends in demand and the need to take account of coastal erosion, we do not consider that it offers any guidance for or against the proposal, beyond the recognition that new courses can attract or diversify economic development and assist in the promotion of tourism.

VisitScotland's Tourism Development Framework for Scotland

13.87 The Tourism Development Framework for Scotland underlines the vital importance of golf and golf tourism to the Scottish economy, though it acknowledges that the quality of Scotland's environment is the biggest attraction to tourists. We consider that the potential of the Coul Links proposal to extend the tourist season in the Dornoch area, and help to disperse tourism away from the main tourist hubs, would be consistent with the framework.

Dornoch Economic Masterplan

13.88 We consider that this document, commissioned by HIE, lends considerable support to the Coul Links proposal, which would help to cement Dornoch's position as a first-class golf resort, and could provide the catalyst for the provision of high-end tourist accommodation which is seen as a barrier to the achievement of that status.

13.89 The proposal would be consistent with the objectives of the masterplan to: build brand profile (a 'quality golf destination'); increase the number of visitors to Dornoch and South East Sutherland; enable business development, entrepreneurship and private sector investment; and build a local destination supported by community and academic (North Highland College UHI) infrastructure.

OTHER STATUTORY TESTS

13.90 Scottish Ministers must also act in accordance with the following legislation: Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitat Regulations); Nature Conservation (Scotland) Act 2004; and the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.

Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997

13.91 In determining this application Ministers are required by Section 59 of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 to pay special regard to the desirability of preserving the listed buildings on the site (or their settings) and any special features of historic or architectural interest which they possess. As already indicated, we are satisfied that, albeit the details would be subject to future applications, granting this application would not result in any significant adverse effect on any listed building or its setting.

Nature Conservation (Scotland) Act 2004

13.92 Section 1 of this Act imposes a duty on every public body and office-holder [including the Scottish Ministers], in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions. In complying with this

duty regard must be had to the Scottish Biodiversity Strategy³²⁰ (now supplemented by the 2020 Challenge for Scotland's Biodiversity)³²¹ and to the UN Convention on Biological Diversity³²². We have had regard to the terms of the Convention, noting for example the provisions of its article 8 in relation to protected areas.

13.93 Amongst the major strategic objectives of the Scottish Biodiversity Strategy are to halt the loss of biodiversity, and to restore and enhance biodiversity in all our urban, rural and marine environments through better planning, design and practice. One of the action points is to manage the Natura 2000, Ramsar, SSSI and National Nature Reserve site network to protect and where appropriate enhance conservation interests. We consider that the application proposal would conflict with those objectives insofar as it would have a negative impact on biodiversity at Coul Links and on the conservation interests of the SPA, SSSI and Ramsar site.

13.94 Section 2 of the Act requires Ministers to publish a list³²³ of species and habitats which they consider to be of principal importance for furthering the conservation of biodiversity. Coastal sand dunes are one of the terrestrial habitats which feature in the list. We have already found that the proposed development has the potential to have an adverse impact on the important invertebrate assemblage at Coul Links, including priority species of butterflies and moths, and the globally endangered Fonseca's seed fly, which are contained in the UK Biodiversity Action Plan and the Scottish Biodiversity List.

13.95 Insofar as exercising any of its functions may affect land which forms part of an SSSI, Section 12 of the Act requires a public body or office holder to consult SNH in relation to the exercise of the function and to have regard to the advice given by SNH. So far as is consistent with the proper exercise of this function, Ministers must take reasonable steps to further the conservation and enhancement of the natural feature specified in the SSSI notification.

13.96 Taking account of SNH's consultation advice and all of the other evidence before us, we have concluded that the proposed golf course development would not be in the interests of conserving and enhancing the notified sand dune habitats or the breeding birds features of the SSSI.

Overall conclusions

13.97 Accordingly, we conclude that the proposed golf course is likely to have significant adverse impacts on the important natural heritage interests at Coul Links, and that those harmful impacts would not be outweighed by the socio-economic benefits of the proposal. As such, we conclude that the proposed development is contrary to the development plan and national planning policy.

13.98 We therefore conclude, for the reasons set out above, that the proposed development does not accord with the relevant provisions of the development plan and that there are no material considerations which justify granting planning permission.

³²⁰ [SNH 016 - Scotland's Biodiversity - It's in Your Hands 2004](#)

³²¹ [SNH 017 - The 2020 Challenge for Scotland's Biodiversity 2013](#)

³²² [JH001 - JH014 - JH Precognitions References \(All\)](#) – see JH11 and JH12

³²³ [SNH 018 - Scottish Biodiversity List](#)

RECOMMENDATIONS

13.99 We recommend that planning permission be refused.

13.100 If Ministers are minded not to follow this recommendation and to grant planning permission, we recommend that this should be subject to the conditions set out in Appendix 2.

David Liddell
Principal Reporter

Timothy Brian
Reporter

APPENDIX 1: INQUIRY PARTIES

For the applicant (Coul Links Ltd)

Ailsa Wilson QC called:

- Chris Haspell, Project Manager (Coul Links)
- Robert Taylor, Ecology and Environment Division, STRI Ltd
- Peter Cosgrove, Director, Alba Ecology Ltd
- Andy McMullen, Principal Botanist, Botanaeco
- Alan Bowey, Technical Director, Stuart Burke Associates Ltd
- Kenneth Pye, Director, Kenneth Pye Associates Ltd
- Graeme Blackett, Director, BiGGAR Economics Ltd
- Nathan Goode, Director, Aventia Consulting Ltd

For Highland Council

Karen Lyons, Principal Solicitor – Planning, Highland Council

For Scottish Natural Heritage

Marcus McKay QC called:

- Stewart Angus, coastal ecology specialist, Scottish Natural Heritage
- Paul Rooney, Senior Lecturer, Liverpool Hope University

For Not Coul

John Campbell QC (and Simon Crabbe, Advocate) called:

- Tom Dargie, independent environmental consultant
- Jim Hansom, School of Geographical & Earth Sciences, University of Glasgow
- Brian Coppins, Scottish Lichen Database Manager, British Lichen Society
- Steven Westbrook, economist
- Genevieve Duhigg, local business owner

For the Save Coul Links Conservation Coalition

Neil Collar, Partner/Head of Planning Law, Brodies LLP called:

- Lucy Wright, Principal Conservation Scientist, RSPB
- Craig Macadam, Conservation Director, Buglife
- Jonathan Hughes, Chief Executive, Scottish Wildlife Trust
- Mark Young, former Trustee, Butterfly Conservation

For Ramblers Scotland and the Scottish Rights of Way and Access Society

John Mackay, Honorary Advisor, Scotways

For Local Area Community Groups

- David Bell, Professor of Economics, Stirling University
- Cllr Linda Munro, North, West & Central Ward, Highland Council
- Alan Fleming, Golf Programme Leader, North Highland College UHI
- Neil Hampton, General Manager, Royal Dornoch Golf Club
- Willie Mackay, Vice Captain, Royal Dornoch Golf Club
- Stuart Morrison, Golf Professional, Tain Golf Club
- Jimmy Yuill, local resident
- Yvonne Ross, Provost of Dornoch, Chairperson, Dornoch Community Council
- Duncan Allan, former Highland Councillor & Provost of Dornoch
- Carol Mackay, General Manager, Carnegie Courthouse & Courthouse Café
- Struan Robertson, Embo resident
- Cllr Jim McGillivray, East Sutherland & Edderton Ward, Highland Council

APPENDIX 2: PROPOSED CONDITIONS

Compliance with application and Environmental Statement

1. Except as provided for by subsequent conditions, the development shall be undertaken entirely in accordance with the submitted application, the information contained in the Environmental Statement (and its Appendices and Addenda), the approved plans and the specific conditions attached to this consent.

Reason: To ensure the development progresses entirely in accordance with the submitted details, and the mitigation measures contained therein.

Ground contamination

2. No development shall commence until a scheme to deal with potential contamination within the application site has been submitted to, and approved in writing by, the planning authority. The scheme shall include:

- (i) the nature, extent and type of contamination on site and identification of pollutant linkages and assessment of risk (i.e. a land contamination investigation and risk assessment informed by a full Phase 1 Desk Survey of the land within the application site boundary), the scope and method of which shall be first submitted to and approved in writing by the planning authority, and undertaken in accordance with PAN 33 (2000) and British Standard BS 10175:2011+A2: 2017 Investigation of Potentially Contaminated Sites - Code of Practice;
- (ii) the measures required to treat/remove contamination (remedial strategy) including a method statement, programme of works and proposed verification plan to ensure that the site is fit for the uses proposed;
- (iii) measures to deal with contamination during construction works;
- (iv) in the event that remedial action be required, a validation report that validates and verifies the completion of the approved decontamination measures;
- (v) in the event that monitoring is required, monitoring statements submitted at agreed intervals for such time period as is considered appropriate in writing by the planning authority.

Thereafter, no development shall commence until written confirmation that the approved scheme has been implemented, completed and, if required, on-going monitoring is in place, has been issued by the planning authority.

Reason: In order to ensure that the site is suitable for redevelopment given the nature of previous uses/processes on the site.

Archaeological investigation

3. No development or work (including site clearance) shall commence until a programme of work for the evaluation, preservation and recording of any archaeological and historic features affected by the proposed development/work, including a timetable for investigation (Archaeological Management Plan) has been submitted to and approved in writing by the planning authority. The approved programme shall be implemented in accordance with the agreed timetable for investigation.

Reason: In order to protect the archaeological and historic interest of the site.

Renovation of existing buildings

4. For the avoidance of doubt, no approval is given for the alterations and renovation of existing buildings within the site as illustrated by the proposed elevational plans. The plans are indicative only and full details shall be subject to further planning application(s) and listed building consent application(s) as a result of their historical association with the B-listed Coul Farmhouse. Such future planning application(s) shall be accompanied by bat roost survey work including for the months of June and July and including at least one activity survey per building. The survey work shall be undertaken no longer than one year prior to construction work commencing.

Reason: The elevations plans are indicative in nature and the planning authority require detailed plans to allow proper consideration.

Construction Traffic Management Plan

5. No development shall commence until a Construction Traffic Management Plan (CTMP) has been submitted to, and approved in writing by the planning authority in consultation with the roads authority. The CTMP shall generally minimise and control the impact of construction traffic and, as a minimum, shall include the following elements:

- (i) An assessment of the affected roads, identifying measures to mitigate the impact of construction traffic on the routes to the site.
- (ii) Measures to avoid conflict with school opening/closing times and any planned local events.
- (iii) Details of appropriate traffic management measures to be established and maintained for the duration of the construction period.
- (iv) Measures to ensure that all affected public roads are kept free of mud and debris arising from construction traffic.

The development shall thereafter be carried out fully in accordance with the CTMP as approved unless otherwise agreed in writing with the planning authority

Reason: In the interests of road and pedestrian safety during construction.

Travel Plan

6. No development shall commence until a Travel Plan (reflecting, but not restricted to, that version included within Appendix E.2 to the Environmental Statement) has been submitted to, and approved in writing by, the planning authority in consultation with the roads authority. The Travel Plan shall also contain full details of the proposed shuttle bus link and its intended operation as well as full details, in writing and on plan, of proposed overspill parking.

The Travel Plan as approved shall thereafter be implemented.

Reason: In the interests of road safety and to encourage a range of active travel options.

Floodlighting system

7. No development shall commence until full details of any floodlighting system to be used within the site (for both the construction and operational phases of the development) has been submitted to and approved in writing by the planning authority in consultation with SNH. The floodlighting system shall be designed in accordance with the Institute of Lighting Engineers 'Guidance Note for the Reduction of Obtrusive Light' and to minimise impacts on breeding moths and breeding and wintering birds. It shall include full details of the location, type, angle of direction and wattage of each floodlight which shall be appropriate to its location, positioned and angled to prevent any direct illumination, glare or light spillage outwith the site boundary. The floodlighting system shall also set out appropriate energy efficiency technology to be adopted. The floodlighting system as approved shall thereafter be implemented.

Reason: In order to ensure any lighting installed within the application site does not spill beyond the intended target area, or impact adversely upon the amenity of adjacent properties, moths and birds, and is energy efficient.

Recreational and Access Management Plan

8. No development shall commence until a finalised Recreational and Access Management Plan (RAMP) has been submitted to, and approved in writing by, the planning authority in consultation with SNH. The RAMP shall manage public access and reduce disturbance to birds within the Dornoch Firth and Loch Fleet SPA & Ramsar Site and Loch Fleet SSSI, and shall develop the RAMP version 6 (dated 7 February 2018) as prepared by STRI. The RAMP shall as a minimum address the construction period, establishment period, playing season and the closed season of the golf course development and shall include a programme for implementation during all stages of golf course development as well as the playing and closed season.

The RAMP as approved shall thereafter be implemented for as long as the golf course remains in use.

Reason: To reduce disturbance to birds and in the interests of amenity and public safety.

Tree protection

9. No development shall commence until a revised Tree Protection Plan detailing tree protection measures for retained trees on site, in accordance with BS:5837 (2012) has been submitted to, and approved in writing by, the planning authority in consultation with SNH. The Tree Protection Plan as approved shall thereafter be implemented.

Reason: To ensure the protection of retained trees during construction and operational phases

Compensatory planting

10. No development shall commence until a Compensatory Planting Plan (including proposals to offset the 0.39 hectares of stunted or immature trees to be removed as part of the development) has been submitted to, and approved in writing, by the planning authority. Thereafter the development shall be carried out in accordance with the Compensatory Planting Plan as approved. All planting as may be comprised in the approved details shall be carried out in the first planting season following the commencement of development, unless otherwise stated in the approved Compensatory Planting Plan.

Any trees or plants planted as part of the development which within a period of five years from the completion of the development die or, for whatever reason, are removed or damaged, shall be replaced in the next planting season with others of the same size and species.

Reason: To secure compensatory planting to offset the loss of existing trees, as a result of this development.

Coastal management

11. No development shall commence until a long term Coastal Retreat Plan (CRP) has been submitted to, and approved in writing by, the planning authority in consultation with SNH. The CRP shall take account of the Coul Links Coastal Desktop Study prepared by RPS and dated 15 September 2017 and shall identify strategies and alternative layouts to inform future course management if parts of the course become adversely affected by coastal processes. The CRP shall also include a coastal monitoring programme to evaluate and assess any coastal erosion. For the avoidance of doubt, the CRP shall ensure that the Coul Links coastline shall remain free from future coastal defences proposed to protect golf course assets. The CRP as approved shall thereafter be implemented. In addition, for the avoidance of doubt, should any of the alternative layouts presented in the CRP require implementation, these shall be subject to planning application(s) where the layout is materially different to that approved under this permission.

Reason: To secure the long term management of the course in the face of possible coastal erosion; to minimise the impact on the SSSI and Ramsar sites and on SPA birds, and to ensure the coastline remains free from hard coastal defences.

Protection of birds during construction

12. No development shall commence until a Bird Protection Plan (BPP) has been submitted to and approved in writing by the planning authority in consultation with SNH.

The BPP shall outline measures to ensure breeding and wintering birds are protected when construction is taking place. The BPP as approved shall thereafter be implemented.

Reason: To ensure the protection of breeding and wintering birds during the construction phase of the development.

Environmental Management Plan

13. No development shall commence on site until an Environmental Management Plan (EMP) has been submitted to and approved in writing by the planning authority in consultation with SNH. The EMP shall reflect the scope and content of the Environmental Management Plan prepared by STRI and dated June 2017 and for the avoidance of doubt shall include details of timetabling, implementation and monitoring for the construction and operational phases. The EMP as approved shall thereafter be implemented.

Reason: In order to ensure the appropriate management of the course taking into account its natural heritage interests.

Construction Environmental Management Plan

14. No development shall commence on site until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the planning authority in consultation with SNH and SEPA. The CEMP shall reflect the terms of the draft Construction Environmental Management Plan prepared by STRI and submitted as part of the planning application and shall also include site specific details of all on-site construction works, post-construction reinstatement, drainage and mitigation, together with details of their timetabling.

Initial removal of vegetation and of partially decomposed matter on the golf course layout shall be limited to the areas of tees, greens, fairways, semi-rough, bunkers and pathways, as identified in the approved layout drawings, unless otherwise agreed in writing by the planning authority.

Unless otherwise agreed in writing by the planning authority the development shall proceed in accordance with the CEMP as approved.

Reason: To protect the environment from the construction of the development.

Pre-commencement meeting

15. No development shall commence until a pre-commencement meeting has been held on site between the developer and their contractor(s) appointed to undertake the works hereby approved, the appointed Ecological Clerk of Works, the planning authority, SNH and SEPA to ensure work commences in accordance with the approved CEMP referred to in Condition 14 as well as the approved Environmental Statement and its appendices, or as otherwise amended by the conditions of this planning consent.

Reason: To protect the environment from the construction of the development.

Public art

16. No development shall commence until details of public art provision have been submitted to and approved in writing by the planning authority, in line with the adopted Developer Contributions Supplementary Guidance. The public art shall be provided on site and shall be of a level proportionate to the scale of the development and shall be provided by the developer.

Reason: To help create places with distinctive identities and in line with the Highland Council's adopted Developer Contributions Supplementary Guidance.

Bridge design

17. All proposed bridges to be constructed as part of the development shall be designed to accommodate the 1 in 200 year design water flow. In addition, there shall be no in-river supports for any of the four proposed bridges detailed in Approved Environmental Statement Addendum 2 Watercourse Engineering Plan, and any abutments shall be set back from the banks of any watercourse.

Reason: To avoid flood damage risk and for protection of the surface waterbodies.

Use of Core Paths

18. Prior to the first use of the golf course hereby approved, a scheme (using signage and other measures) to ensure that use by members of the public of that section of the Core Path (SU09.03 Embo-Coul Links Railway Track) shall take preference to those golfers playing over the Core Path shall be submitted to and approved in writing by the planning authority.

The scheme as approved shall thereafter be implemented for as long as the golf course remains in use.

Reason: To preserve and uphold access rights and to ensure the safety of users of the core path.

Closed season

19. No golf shall be allowed to be played on the golf course hereby approved during the months of December to March (inclusive).

Reason: To minimise disturbance to over-wintering birds.

Signage during the closed season

20. All golf course signs related to the management of the public on the course shall be removed from the course during the closed season (December to March) subject to any signs installed for the purpose of protection of the natural heritage interests as specified in the Recreational Access Management Plan or to control the public access to land on which access rights are not exercisable.

Reason: In the interests of amenity.

Wastewater strategy

21. The wastewater strategy and subsequent development of the wastewater system for the development shall be provided in accordance with the technical recommendations of report reference SBA 1719_February 2018: Coul Links Golf Course Development, Wastewater Treatment Review and Revision, Stuart Burke and Kiloh Associates Ltd, 05/02/2018. For the avoidance of doubt, the subsequent design, construction, operation and maintenance of all integrated elements of the wastewater treatment facility shall follow the best practice principles of the most recent edition of Sewers for Scotland, and Scottish Water's specification 301 (or more recent edition) - Wastewater Treatment Works, Appendix VI, with particular reference to first-time discrete sewerage systems (also known as packaged plants). All waste water drainage from further development within the red line boundary shown on Drawing EC106722 030 dated 22 September 2017 shall be directed to the wastewater system. No wastewater drainage other than that identified within Masterplanning drawing EC106722 016 (22/09/2017) Proposed Course Layout shall be directed to the system until the system is adopted by Scottish Water.

Reason: To ensure the development progresses in accordance with the approved details with regards waste water.

Mitigation during construction and operation

22. Unless required by other conditions of this planning permission, the development, operation and management of the golf course shall be in accordance with the Schedule of Mitigation prepared by STRI and dated 15 February 2018, including Appendices 1-9 of that document. Any alterations to this document shall be submitted for the prior written approval of the planning authority in consultation with SNH and SEPA and all work shall be carried out in accordance with the approved Schedule of Mitigation.

Reason: To control pollution of air, land and water.

Irrigation water

23. No development shall commence until details of a scheme for the control and monitoring of the chemical composition of irrigation water has been submitted to and approved in writing by the planning authority, in consultation with SNH and SEPA. The scheme shall set out relevant allowable values for the chemical content of the water including, but not necessarily limited to, pH values and the maximum permissible amount per litre of total inorganic nitrogen. Unless a higher value is agreed in writing by the planning authority (in consultation with SEPA and SNH) the maximum allowable value for total inorganic nitrogen shall be 0.2 milligrams per litre of irrigation water. No irrigation water shall be applied to the golf course during construction, establishment and operation other than in accordance with the approved scheme.

Reason: To control the quality and composition of irrigation water applied to the site, to protect the habitats and species of the sand dunes.

Temporary construction compound

24. No development shall commence until details of the location and construction of the temporary construction compound have been submitted to and approved in writing by the planning authority. The compound shall thereafter be constructed in accordance with the approved details, which shall be based on the relevant material from Appendix 6 of the Schedule of Mitigation provided by STRI and dated 15 February 2018.

Reason: To control pollution of air, land and water.

Teal and wigeon protection

25. From December to March (inclusive), green-keeping operations on holes 10-18 (as shown in the Course Masterplan drawing, CD1.109) shall only take place between one hour after sunrise and one hour before sunset.

Reason: To minimise impact on the natural heritage interests of the Dornoch Firth and Loch Fleet Special Protection Area & Ramsar site.

Pre-construction species surveys

26. Within a period of 6 months preceding the commencement of construction, pre-construction otter, pine-marten and badger surveys shall be carried out. The results of the surveys (together with any required protection and mitigation plans) shall be submitted for the written approval of the planning authority in consultation with Scottish Natural Heritage and no commencement of construction shall take place prior to the approval being obtained. A watching brief shall be implemented by the Ecological Clerk of Works (ECoW) during the construction period. Depending on the survey results, an Otter Protection Plan may be required. The ECoW shall have a role in drafting the Species Protection Plan(s) using the information from the EIA Report and pre-construction surveys and shall thereafter oversee implementation of the plan including mitigation and licensing requirements. The development shall thereafter be undertaken in accordance with the recommendations of the Species Protection Plan(s) and watching brief(s).

Reason: To ensure the protection of European Protected Species and other legally protected species.

Coul Links Site Management Plan

27. No development shall commence until a Site Management Plan (SMP) (which shall, except as otherwise addressed below, be based upon and develop the Management Plan Aspirations document produced by STRI and dated 10 September 2017) has been submitted to, and approved in writing by, the planning authority in consultation with SNH. The SMP shall be largely based around the relevant sections of the existing Loch Fleet SSSI Site Management Statement (and relevant updates) and shall aim to achieve favourable condition for the Coul Links part of the Loch Fleet SSSI and contribute towards favourable conservation status for the Dornoch Firth and Loch Fleet Ramsar site and the Dornoch Firth and Loch Fleet SPA.

For the avoidance of doubt, the SMP shall address the following areas of management:

- (i) Control of invasive species;
- (ii) Dune heath management;
- (iii) Conifer plantation habitat restoration (to a mosaic of dune heath and dune grassland outwith holes 10 and 11);
- (iv) Grass sward management;
- (v) Juniper expansion through translocation;
- (vi) Baltic Rush translocation to maintain the current population size and distribution (within a small area of habitat);
- (vii) Shoreweed translocation from the location at hole 13 directly impacted by the golf course;
- (viii) Creation of bare patches of sand; and
- (ix) Expansion of management from the boundary of the Loch Fleet SSSI southwards to Embo.

The SMP as approved shall thereafter be implemented unless otherwise agreed in writing with the planning authority.

Reason: In order to secure the conservation management objectives for the Coull Links parts of the Loch Fleet SSSI, the Dornoch Firth and Loch Fleet Ramsar site and the Dornoch Firth and Loch Fleet Special Protection Area for the lifetime of the golf course.

Translocation Plan

28. There shall be no commencement of development until a Translocation Plan for dune heath has been submitted to and approved in writing by the planning authority in consultation with SNH. The Translocation Plan shall include the translocation of 4.4 hectares of existing dune heath into a receiving environment extending to 6.2 hectares and shall be based upon the document - Dune Heath Translocation Plan (Updated December 2018) as prepared by STRI. It shall include the aims and objectives of translocation, details of the donor site and preparations, the translocation methodology, details of the timings of works, monitoring and management of the translocated dune heath together with aftercare proposals and details of post-translocation monitoring and reporting.

The Translocation Plan as approved shall thereafter be implemented unless otherwise agreed in writing with the planning authority.

Reason: To offset the impact of the loss of dune habitat through the development of the golf course within the SSSI through translocation and the promotion of dune heath processes.

Cessation of winter shooting of wildfowl

29. There shall be an absolute prohibition on the shooting of wildfowl within and from within the site boundary for as long as the golf course remains in use (including the closed season).

Reason: To reduce disturbance and increase survival of wintering SPA waterfowl at Coull Links.

Fonseca's seed-fly habitat

30. No development shall commence on site until a plan showing the areas of *Compositae* flowers (e.g. sow-thistle and knapweed) (Habitat Retention Plan) to be retained as part of the golf course development has been submitted to and approved in writing by the planning authority in consultation with SNH. The Habitat Retention Plan shall be informed by the environmental information on the Fonseca's seed-fly submitted in support of the planning application and shall seek to minimise habitat loss through design of the golf course and ancillary development.

Reason: To ensure that important areas of *Compositae* flowers are retained on site to support the Fonseca's seed-fly.

Fonseca's seed-fly study

31. Prior to the golf course being brought into use, a plan for the study of the Fonseca's seed-fly (Fonseca's Study) shall be submitted to and approved in writing by the planning authority in consultation with SNH. The Fonseca's Study shall:

- (i) identify plants species as both food source and larval hosts with the use of either in-situ netting of hosts plants or DNA analysis of larvae;
- (ii) identify population trends over time by creating and implementing a standard methodology across multiple sites including a programme for monitoring;
- (iii) survey other potentially suitable coastal habitats for the presence of Fonseca's seed-fly;
- (iv) include mitigation proposals through design layout to retain and enhance the on-site habitat which would support Fonseca's seed-fly including areas of *Compositae* flowers;
- (v) commit to monitor and review on site habitat management at Coul Links to ensure it favours seed-fly favoured *Compositae* flowers and responds to the results of the research elements of the Fonseca's Study; and
- (vi) include a programme for implementation.

The Fonseca's Study as approved shall thereafter be implemented.

Reason: To improve the understanding of the ecology of Fonseca's seed-fly and to ensure that on site-habitat management responds to the results of the Fonseca's Study

Ecological Clerk of Works

32. In advance of the commencement of the development, the developer shall appoint an independent Ecological Clerk of Works (ECoW), which appointment shall be in accordance with terms of an appointment submitted to and approved in writing by the planning authority in consultation with SNH and SEPA. The terms of appointment shall include but not be limited to:

- (i) Providing training to the developer and contractors on their responsibilities to ensure that work is carried out in strict accordance with environmental protection requirements;

- (ii) Monitoring compliance with all environmental, hydrological and nature conservation mitigation works, commitments and working practices approved under this permission;
- (iii) Providing a written report to the planning authority on compliance with the matters in (ii) every 14 days (Compliance Monitoring Assessments) throughout the period of the appointment although the planning authority may reduce the frequency of the Compliance Monitoring Assessments if it considers that the developer is complying with the matters in (ii) and the need for such frequent reporting is not, at that time, required;
- (iv) Advising the developer on adequate protection for environmental and nature conservation interests within, and adjacent to, the application site;
- (v) Directing the placement of the development (including any micro-siting, if permitted by the terms of this permission) and the avoidance of sensitive features;
- (vi) Require the ECoW to report to the developer's nominated construction project manager any incidences of non-compliance with the matters listed in (i), (ii), (iv) and (v) above at the earliest practical opportunity.

The ECoW shall be appointed on the approved terms from commencement of the development throughout any period of construction activity and during any period of post construction restoration works unless otherwise agreed in writing with the planning authority.

In the event that, for whatever reason, a replacement ECoW shall require to be appointed, the developer shall immediately advise the planning authority in writing that this has happened and shall as soon as reasonably practicable advise the planning authority in writing of the identity of the proposed replacement ECoW and the terms of his or her proposed appointment for the approval of the planning authority.

Reason: To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the development.

Local training and employment

33. No development shall commence on site until a Training and Employment Management Plan (TEMP) has been submitted to and approved in writing by the planning authority. The TEMP shall set out the measures for promoting training and employment opportunities associated with construction and the operation of the development in the local area, including measures encouraging; the developers working with the local employment and training providers; targets for apprenticeships and work experience opportunities; and measures to monitor the implementation of the TEMP. The development shall thereafter be carried out fully in accordance with the TEMP as approved unless otherwise agreed in writing with the planning authority.

Reason: In order to ensure that the social and economic benefits of the development can be secured, delivering inclusive growth within the area.

Operational traffic management

34. Prior to the first use of the golf course hereby approved, an operational phase Traffic and Access Management Plan (TAMP) shall be submitted to, and approved in writing by, the planning authority. The TAMP shall address those events which may be held at the golf club that may attract a large number of spectators. The TAMP as approved shall thereafter be implemented.

Reason: In the interests of road safety.

Access and parking

35. Prior to the first use of the golf course, the access and parking arrangements noted in the approved Environmental Statement Appendix 6 (Car Park Design and Access Road Design) shall have been implemented and made available for use. The access and parking areas shall thereafter be maintained for as long as the golf course remains in use. For the avoidance of doubt, a total of 85 car parking spaces shall be provided as part of the access and parking arrangements.

Reason: In the interests of road safety and to ensure adequate provision for parking.

Recycling

36. Prior to the golf course being brought into use, a scheme for the storage of refuse and recycling within the application site shall be submitted to, and approved in writing by, the planning authority. The scheme as approved shall thereafter be implemented prior to the first use of the golf course development and thereafter maintained for as long as the golf course remains in use.

Reason: To ensure that waste on the site is managed in a sustainable manner.

APPENDIX 2A: ADDITIONAL PROPOSED PLANNING CONDITIONS NOT RECOMMENDED BY THE REPORTERS

Local Procurement Strategy

No development shall commence on site until a Local Procurement Strategy (LPS) has been submitted to and approved in writing by the planning authority. The LPS shall set out the measures to ensure that the procurement procedures in respect of the development will allow the local businesses and suppliers the opportunity to bid for contracts associated with its construction and operation.

The development shall thereafter be carried out fully in accordance with the LPS as approved unless otherwise agreed in writing with the planning authority.

Reason: In order to ensure that the social and economic benefits of the development can be secured, delivering inclusive growth within the area.

Serious incident reporting

In the event of any serious breach of health and safety or environmental obligations relating to the development during the period of this permission, the developer shall provide written notification of the nature and timing of the incident to the planning authority, including confirmation of remedial measures taken and/ or to be taken to rectify the breach, within 48 hours of the incident occurring.

Reason: To keep the planning authority informed of any such incidents which may be in the public interest.

APPENDIX 3: LISTS OF INQUIRY DOCUMENTS

[List of documents for Coul Links Ltd – 5 April 2019](#)

[List of documents for Save Coul Links Conservation Coalition – updated 8 April 2019](#)

[List of documents for Scottish Natural Heritage – updated 4 April 2019](#)

[List of documents for Not Coul – updated 13 March 2019](#)

[List of documents for the Local Area Community Groups](#)

[List of documents for Ramblers Scotland and Scotways](#)

APPENDIX 4: LIST OF DRAWINGS

CD1.5	Recreational Access Plan Revision 6, including Appendices 1-4
CD1.65	Site Masterplan
CD1.74	Coul Links Large Store
CD1.75	Coul Links Railway Hut
CD1.76	Semi Detached Elevations
CD1.77	Semi Detached Floor Plan
CD1.78	Steading plans
CD1.79	Workshop Plans
CD1.80	Car Park Design 1
CD1.81	Car Park Design 2
CD1.82	Car Park Design 3
CD1.83	Car Park Design 4
CD1.84	Access Road Design 1
CD1.85	Access Road Design 2
CD1.86	Access Road Design 3
CD1.87	Access Road Design 4
CD1.89	Proposed Irrigation Layout
CD1.110	Proposed Borrow Pit 1A
CD1.111	Proposed Borrow Pits 2&3
CD1.116	Temporary Drainage Drawing
CD1.117	Translocation Plan
CD1.135	Proposed Finished Contours 1
CD1.136	Proposed Finished Contours 2
CD1.137	Proposed Finished Contours 3
CD1.138	Proposed Finished Contours 4
CD1.139	Proposed Finished Contours 5
CD1.140	Proposed Earthworks Area 1
CD1.141	Proposed Earthworks Area 2
CD1.142	Proposed Earthworks Area 3
CD1.143	Proposed Earthworks Area 4
CD1.144	Proposed Earthworks Area 5
CD1.147	Haul Routes for Heather Translocation
CD1.151	Location Plan
CD1.152	OS Location Plan
CD1.153	Proposed permanent SuDS and permanent drainage Plan 1
CD1.154	SUDS & Drainage - Plan 2
CD1.174	Revised Haul Route
APP001.038	Plan showing the new location of the Temporary Construction Compound