TOWN AND COUNTRY PLANNING SCOTLAND ACT 1997

TOWN AND COUNTRY PLANNING (INQUIRIES PROCEDURES) (SCOTLAND) RULES 1997 AS AMENDED

OUTLINE PLANNING PERMISSION FOR GOLF COURSE AND RESORT DEVELOPMENT ON LAND AT MENIE HOUSE, BALMEDIE, ABERDEEN

SUMMARY PRECOGNITION OF

PAUL ROONEY
B.A. (Hons), Dip. L.I., M.Sc., C.Env, MIEEM, C.Geog., FRGS, FHEA

Senior Lecturer, Liverpool Hope University

Evidence on behalf of Scottish Natural Heritage

(DPEA REFERENCE CIN/ABS/001)

19 May 2008

Scottish Natural Heritage
16/17 Rubislaw Terrace
Aberdeen
AB10 1XE

1. I am Paul Rooney, Senior Lecturer at Liverpool Hope University. I specialise in coastal dune management and teach sustainability and environmental impact assessment.

2. I have wide experience of dune management in Europe, and I am the Director of the 'UK Sand Dune and Shingle Network'.

3. Between 1996 and 1999 I was the Project Officer for the 'The Sefton Coast Life Project:' (see production SNH 44e). This project worked with the seven links golf courses along the Sefton dune coast, including the Royal Birkdale Golf Club.

4. Between 1987 and 1996 I was responsible for coastal dune sites on the Sefton coast, north west England. They were severely damaged and I was responsible for their restoration, some of the largest dune repair works initiated recently in the UK.

5. I am a Chartered Environmentalist, a full member of the Institute of Ecology and Environmental Management, a Chartered Geographer and Fellow of the Royal Geographical Society.

6. I am a Trustee for the Foundation for Golf and Environment. It is the only independent not-for-profit entity in Europe specifically focusing on the environmental and sustainability aspects of golf at an international level. It operates the Golf Environment Europe Programme.

7. On the 20th March 2008 I was engaged by Scottish Natural Heritage. On Thursday 15th May 2008 I visited the proposed development site to consider the nature of the site and the development proposal. I am familiar with the site and the coastal dune features associated with it.

8. I have a particular insight in to balancing conservation with resource exploitation in the coastal dune environment, especially in the context of links golf.

9. In my summary precognition I will outline the following
    - The importance of naturally dynamic dune processes and an outline of the interdependence and reliance of dune habitats on the dynamic geomorphological processes.
    - The importance of a sustainable view in both time and space, and particularly in relation to naturally dynamic dunes.
    - An assessment of the likely efficacy of the proposed mitigation, translocation and compensation measures proposed by the applicants.
    - A conclusion from a coastal dune management and golf perspective.

10. This summary precognition must be considered with the caveat as detailed in my principle precognition.

11. The area considered by this precognition is defined in the production SNH 11, and described in the precognitions of Hansom and Angus.

12. Coastal dunes are naturally dynamic systems. Their formation is driven by the forces of wind and water, and their vegetation is both influenced by, and influences, the dune topography. Coastal dunes are complex places. This makes them important and valuable for nature conservation.

13. It is the interaction of changing wind and water conditions resulting in moving sand that keeps the naturally dynamic dune system at Menie Links 'pulsing' and 'alive'. These are the key qualities of a dynamic dune system.

14. To appreciate the value of dynamic dunes we must think not just in years or low tens of years, but in hundreds of years. This is called an 'intergenerational' view. It is fundamental to the idea of sustainable development. The proposal fails to take an intergenerational sustainable view.

15. Naturally dynamic dune systems such as Menie Links require space for sand to move from one place to the next, and space for the physical and ecological features of the dunes to form, age and then be consumed by moving sand thereby creating the interest and value for which they are noted.

16. The scale of the impacts on dune habitats is, to use the developer's phrase, considerable. The developer recognizes them as severe adverse (see production T50, section 7.1, final sentence). They are of grave concern both regionally and nationally. Furthermore, the losses should be considered even greater if second proposed golf course is taken in to account.

17. The most significant adverse impact is on the geomorphological processes. These are on such a large scale and of such a significant level as to render the dynamic dune environment significantly compromised. The developer recognises this in the Environmental Statement under the heading titled 'Summary' in Section 6, page 43, and identifies them as major adverse.

18. The impact of golf course construction on dune slacks is both considerable and extensive. In this context, the developer recognises that "*the significance of any small loss of dune slack is important on a national scale*" (see Chapter 7 of the Environmental Statement, p108, third paragraph).

19. The proposal should, as its goal, aim to avoid severe adverse impacts in the first place. Although some efforts to do this are evident in adjusting the proposed course layout, the Environmental Statement identifies the geomorphological impacts as major adverse and the overall impact on dune habitats are considered severe adverse (see sections 6 and 7 of the Environmental Statement and production T50 section 7.1).

20. Mitigation, or reducing adverse impacts to the point where they are no longer significant, in relation to wetland habitats is extremely difficult and known to have a low success rate (see production SNH 49a). As experience in mitigation for coastal dune wetland habitats (slacks) is scarce the success rates are likely to be lower.

21. Dune slacks are particularly difficult environments for which to propose successful mitigation. They are part of a naturally dynamic dune environment (see productions SNH 46b, and SNH 48) and the complex soil and geomorphological conditions found at Menie Links makes successful mitigation and compensation measures highly uncertain.

22. In the Environmental Statement under the heading titled 'Summary' in Section 6, page 43, the applicant describes that *"the development proposes to modify the existing topography and stabilise areas of mobile dunes to allow the creation of the links golf course. This stabilisation is contrary to the SSSI citation and will effectively cause the loss many of the dynamic features of the site, which is the basis of its natural heritage interest. Due to the stabilisation the impact in geomorphology is assessed as major adverse".* This impact is not mitigated.

23. In section 6.7 of the Environmental Statement the developer states that "*it will be necessary to control sand movements at and near specific golf holes, including those that are on or contiguous to the dome. This policy will require stabilization of most mobile sand surfaces. A substantial combination of sand trapping fences, topsoil and / or spraying of stabilizers and grass planting will be required. Many dynamic elements of the geomorphology will be lost as will some habitats associated with sand movements*" Stabilisation of the Menie sand sheet and other mobile features is therefore a damaging operation.

24. Stabilisation of the sand sheet and other mobile features outlined in this proposal is not mitigation, whatever the outcome in terms of habitat creation. Section 7.1.2 of production T50 outlines a mitigation proposal to establish grey dune and heath on the Menie sand sheet. This must not be associated with mitigation at all and must be discounted from the calculation of mitigated habitat. It is a damaging operation for the geomorphological interests. The significance of this damage is not altered by proposals to create habitats on the damaged feature.

25. The proposal takes the clear stance that for the development proposal to proceed, large scale stabilization of the Menie sand sheet and mobile features is required. Mitigation would be best achieved by avoiding the Menie sand sheet, mobile and dynamic dune features altogether and allowing the natural processes to continue to operate and develop.

26. Dune stabilisation is not the favoured understanding and practice of dune scientists and conservationists in NW Europe, particularly with respect to the sustainable conservation management of dynamic dunes. The dynamic approach to dune management is now well established and accepted.

27. The scale of translocations proposed by the developer is very large at 19.4 ha within the SSSI and 35.1 ha for the development area as a whole (see production T50, section 7.1.2, page 26, paragraph 2). The developer recognises that "*it is not certain that such translocation can be done entirely successfully*" (see production T50, section 7.1.2, page 26, paragraph 5)

28. Translocation of dune habitats, especially wet dune habitats, is not well understood (SNH 49a). The established techniques employed on non-dune sites are not proven in terms of success for dunes and will prove difficult. For example, dune soils, sand, gravel and cobbles have a low degree of coherence to form large turves which increases possibilities of success, see production SNH 49c.

29. Production T50 recognizes a failure in maintaining turves intact, in particular those containing "*a high volume of shingle and cobbles, leading to breakage and stone loss*" (see production T50 section 7.1.2 p26, third paragraph).

30. In section 6.10 of the Environmental Statement the developer recognizes that the formation and function of new dune slacks is related to the dynamic dune processes of the Menie sand sheet as it moves northwards leaving deflation surfaces behind. This is a process that simply can not be replicated through habitat translocation, and especially not within an essentially stabilized dune landscape that results from golf course development.

31. Production T50 section 7.1.2 (p26) claims some success for habitat translocation trials. This is a bold claim, especially as the translocation trials are understood to be less than one year old. As residual impacts are being considered it is conspicuous that the developer does not mention the long term.

32. Production SNH 49c identifies that the significance of habitat translocation depends on the value of the site, and that site integrity can be significantly compromised for the highest value sites. Menie Links contain habitats of high quality both within and without the SSSI (see production T50, p25, section 7.1.1 and the precognition by Angus). Therefore, if habitat translocation is to be employed, site integrity would certainly be severely compromised.

33. The approach of compensation is used as to make up the loss of or permanent damage to, biological resources through the provision of replacement areas. However, any replacement area should be similar to or, with appropriate management, have the ability to reproduce the ecological functions and conditions of those biological resources that have been lost. See SNH 45 (p55)

34. Hydrological conditions are complex on the Menie Links, with variations in underlying glacial and marine deposits, combined with a varying and thin sand veneer. As argued previously, under such conditions the possibilities of success for habitat compensation seem unlikely.

35. In conclusion, the proposed mitigation does not adequately value the significance of dune dynamics and the associated ecological succession. The mitigation proposed for the geomorphological and ecological interests does not take a long term view and therefore does not accord with the principles of sustainability.

36. The development proposal does not propose credible measures to mitigate for the severe adverse impacts on the dynamic dune processes. The proposal for dune stabilization is particularly damaging, and the proposed mitigation of grey dune and heath habitat establishment associated with the stabilization of the sand sheet should not be considered as having any relationship with mitigation.

37. The naturally dynamic dune processes are of paramount importance for the long term functioning and values of the site. The proposal would create a major adverse and lasting impact on dune dynamics and geomorphological features.

38. There is a low degree of confidence in being able to adequately and successfully mitigate for the loss of the key dune habitats present on the site. The success rate for translocation of wetland habitats is considered low, and experience of translocation of dune wetland habitats is particularly scarce. These and other factors taken together with the large scale of this operation indicates that there is the potential for failure resulting in considerable loss.

39. New golf course development must choose sites carefully and aim to achieve a sustainable future for both golf and the environment in which it is played. This golf course proposal clearly falls short of the requirement to protect the dynamic dune environment and therefore to achieve a sustainable future for Menie Links.