

5 PROJECT CONSULTATION

5.1 INTRODUCTION

Talisman has carried out an extensive programme of consultation with statutory consultees, non-statutory organisations, interested parties and the public. The purpose of the consultation programme was to ensure that the views and concerns of all stakeholders were fully understood and taken into consideration during the planning and preparation for the Demonstrator Project.

This section describes the programmes undertaken to complete the consultation exercise. The findings are presented in Table 5.1 which identifies the issues that were raised, and gives an initial response from Talisman. The views expressed during the consultation programme are incorporated in the detailed scoping assessment presented in Section 6.

5.2 PRELIMINARY SCOPING STUDY

An important aspect of the extensive consultation programme was the preparation and dissemination of a comprehensive consultation document – The Beatrice Wind Farm Demonstrator Project Scoping Report. The purpose of this report was to describe the potential environmental, socio-economic and visual impacts that might arise from the project to inform and stimulate the process of dialogue, consultation and project development. The scoping report was sent to many interested parties, and was made available on request in hard copy or via the internet as a download from www.beatricewind.co.uk.

5.3 CONSULTATION PROGRAMME

5.3.1 INTRODUCTION

The consultation programme included a series of Talisman-hosted events at various locations around Scotland over a period of several years, aimed at gathering the views of stakeholders and the wider public. The consultation culminated with the release of the scoping report and local consultation events throughout the Moray Firth region that invited the public to participate fully in the consultation.

In detail the consultation programme comprised:

- *preliminary consultation with selected organisations*
- *the production and dissemination of a comprehensive scoping report*
- *the ongoing publication of a newsletter called Windward*
- *the completion of a series of public exhibitions at local venues around the Moray Firth*
- *the maintenance of a website (www.beatricewind.co.uk) with project information and links*
- *written consultation with statutory consultees.*

Figure 5.1 Stakeholders participating in the Dingwall workshop, May 2005.



5.3.2 ORGANISATIONS CONTACTED

During the course of consultation, a wide range of organisations (Appendix 3) was contacted, either directly by Talisman or through the Moray Firth Partnership, and made aware of the proposal and/or invited to specific consultation events.

Statutory consultees were contacted by letter, and were given access to the scoping report (Talisman, 2005) either through the website or sent a printed copy. The specific purpose of these consultations was to identify:

- *important local issues and concerns*
- *issues of environmental importance that may affect the proposed development*
- *existing information that would be of assistance in the assessment of environmental effects*
- *the need for further consultation*
- *planning authority expectations and requirements for the ES and planning application*
- *the status of current and forthcoming planning policy documents.*

Other organisations and individuals contacted with respect to potential telecommunications and air traffic issues are identified in Section 12.

5.3.3 PUBLIC CONSULTATIONS

Early workshops on the concept of a wind farm development associated with the Beatrice platform were conducted in 2003 with key environmental stakeholders to review potential environmental issues of the development concept. Discussion at these events built upon an early report commissioned by Talisman (Talisman, 2001) to identify key environmental issues and potential consenting processes.

Talisman has consulted on the proposal with a broad range of fishermen and fisheries interest representatives.

This has been conducted through specific Moray Firth Partnership Fisheries Action Group seminars, presentation to the UKOOA fisheries liaison seminar, and through direct discussion at other consultation events.

Public consultation was carried out by means of local consultation events, newspaper articles, radio broadcasts, posters, a website and a newsletter. To advertise the events widely, public notices were placed in 11 local and regional newspapers covering the full Moray Firth region and several TV and radio interviews were given to further publicise the exercise.

A series of open meetings for interested individuals and members of the public was then conducted on the following dates and locations:

Wick	25th July	Cromarty	22nd August
Lybster	26th July	Inverness	23rd August
Helmsdale	15th August	Nairn	24th August
Brora	16th August	Burghead	25th August
Golspie	17th August	Buckie	29th August
Dornoch	18th August	Banff	30th August
Tain	19th August	Fraserburgh	31st August

To further publicise the event and the opportunity to consult locally, Talisman distributed posters giving the dates and locations of all the presentations to the following groups, with a request that they be displayed:

- *all community centres in the target area*
- *all libraries and mobile libraries*
- *all Harbourmasters*
- *all venues used for the meetings*
- *all local fisheries offices.*

Every person who requested either a scoping report, newsletter or enquired about some aspect of the project was contacted personally with an invitation to attend the local consultation event.

This intensive coverage ensured that if an interested party could not attend their preferred location, they had information concerning alternatives.

At each local consultation event, presentations were given throughout the day, from noon to 8pm, so that people could attend at a time convenient to them. Information about the project was freely available at all presentations, and members of the public were encouraged to formally submit comments. Approximately 200 people visited the local consultation events.

5.3.4 CONSULTATION MEETING AT DINGWALL, 6TH MAY 2005

As part of the consultation for the project, Talisman asked the Moray Firth Partnership (MFP) to organise a meeting specifically to discuss the scoping report.

The Moray Firth Partnership was established in 1996 to provide a forum to share information, discuss, plan and implement integrated ways of addressing issues arising from the many competing demands on the Moray Firth. Its mission is “to promote integrated management of the natural, economic, recreational and cultural resources of the Moray Firth area in order to retain and enhance a high quality of life for all its residents and visitors”. The Partnership, which is a limited company and Scottish charity, is a voluntary coalition of a wide range of organisations and individuals, with over 600 members. Membership is free and open to anyone with an interest in the Moray Firth. Members include local authorities and statutory agencies, fishing interests, port and harbour authorities, oil and other commercial interests, local community and recreation groups, and individuals who live, work and have an interest in the Firth.

The meeting at Dingwall was aimed at representatives of organisations, community and interest groups. Its purpose was to provide an opportunity for comment on how well the scoping report covered the issues, what else needed to be done to identify and address issues, any further concerns on, and benefits to be gained from, the proposal and how different stakeholders would like to be involved in the consultation process proposed through 2005.

The meeting was attended by 47 participants who came as individuals or representing a wide range of organisations including community councils, local authorities, fishermen’s organisations, salmon boards, Aberdeen University, environmental organisations, harbour authorities, agencies and government. Six representatives from the Demonstrator Project attended and three from the Moray Firth Partnership.

The workshop received a presentation from Talisman on the proposed wind farm Demonstrator Project, and then split into five working groups to discuss and present: (1) their views on the project; (2) the environmental and other risks that the project might present; (3) the environmental and economic benefits that the project might bring; (4) their views on the scoping report; and (5) their suggestions for further consultation.

A full description of the event, the participants, and its outcomes may be found on www.morayfirth-partnership.org/Talisman.html. During the event, many questions were asked regarding technical, economic, social, environmental and safety aspects of the project. Answers to all these questions may be found at the above website, and the main environmental questions, with Talisman’s response, are included in Table 5.1.

A short presentation on the proposed Demonstrator Project was given by Talisman at the Moray Firth Annual conference, on 23 May 2005. Environmental questions raised following this presentation are included in Table 5.1.

5.3.5 RESULTS OF CONSULTATION PROGRAMME

Talisman has also summarised the key questions raised during the consultation programme on the project website, www.beatricewind.co.uk.

Table 5.1 provides a summary of the issues raised by consultees, and Talisman’s initial responses regarding actions taken to address these concerns. All of the issues listed in Table 5.1 are examined in more detail in Sections 6 to 13 of the environmental statement.

Table 5.1 Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Highlands and Islands Airports Ltd	
Assurance required that the radar service provided from RAF Lossiemouth to Inverness and Wick will not be affected. Consultation should be undertaken with Defence Estates to address this issue.	An assessment of the potential impact on the radar service has been carried out (Section 4).
Joint Nature Conservation Committee	
Consider a bird radar study.	A bird radar study has been initiated.
Establishment of baseline: A discussion of, and justification for, the selection of baselines should be included in the ES, particularly with respect to establishing a baseline for measuring effects on sediments and benthic communities and on seabirds and cetaceans.	A detailed review of the baseline conditions in the Beatrice field has been completed (Section 4).
Data on seabird presence and activity in the area should be robust.	A comprehensive review of data has been undertaken, and a year-long survey programme completed in the Beatrice field (Section 4).
Impacts on sand and sediment flow: Site-specific survey data should be included in the ES, to enable survey work to determine the precise location and method of piling and cable-laying.	A detailed description of methods for cable laying and piling is given in the ES (Section 3).
The absence of <i>Modiolus modiolus</i> beds at the site and along the cable route should be established as a minimum.	A site-specific seabed survey using side-scan sonar has been carried out. No evidence was found of the presence of <i>Modiolus</i> reefs (Section 4). In addition Talisman conducted a benthic survey to verify consistency with past surveys of the region and carried out oil and heavy metal analysis of sediments.
The ES should contain information about sediment displacement and suspension caused by construction works (including cable laying), justify the type of scour protection used at the base of the wind turbine generators and seek to quantify the level of scour that may occur during the life of the project.	The issue of sediment displacement and scour protection has been assessed ES (Section 8).
Impacts on designated species: Disturbance to breeding sites and resting places even where not within Natura sites should be avoided, in accordance with the Birds Directive, the Habitats Directive, national legislation and European obligations.	It is not anticipated that there will be any effects on breeding sites used by birds or marine mammals. The potential impact on areas used by designated species for other purposes has been fully assessed in the ES (Section 13).
The discussion of each predicted impact should consider how that impact might affect each relevant designated receptor species. Impacts on relevant Annex I Birds Directive, species and Annex IV Habitats Directive, species should be specifically discussed.	The potential impacts of the proposed Demonstrator Project on each designated species have been fully assessed (Section 8 to 13).

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Joint Nature Conservation Committee <i>continued</i>	
Impacts on seabirds: It should be considered whether or not collision modelling would be appropriate to the proposals.	Collision risk modelling has been considered using both the SNH model and a refinement of the method, using site-specific data gathered over one year (Section 12).
Reference should be made in the ES to Pettersson, J. (2005) <i>The Impact of Offshore Windfarms on Bird Life in Southern Kalmar Sound, Sweden</i> , Lunds Universitet/Swedish Energy Agency.	The information in this report was taken into consideration when assessing potential impacts on birds.
Non-qualifying species: Impacts on a number of species and habitats not protected by legislation should be considered in the ES. Discussion of the relevant species and habitats listed within the UK Biodiversity Action Plan (UKBAP) should be included both within the description of the environmental setting of the project and within the appraisal of impacts.	The potential impacts on those species and habitats listed in UKBAP that are present in the Moray Firth have been assessed in the ES (Section 13).
Noise and marine mammals: The impact on the Moray Firth dolphins, and on other cetacean species, should be fully considered.	The potential impact of noise on marine mammals has been fully assessed using predictive models and site-specific survey data (Section 9).
Since suction piling is the preferred method of construction for this project, JNCC are unsure how data on deepwater pile driving would be available to fully assess the use of driven piles on any full-scale project, and how noise models supporting an environmental assessment of any full-scale project would be verified. JNCC would welcome further discussion on this point.	The two WTGs will be installed using driven piles. The Demonstrator Project itself will provide site-specific data to inform the modelling that might be undertaken in the future for any possible commercial wind farm.
Modelling of source noise levels for the deepwater driven piling operations prior to the construction of the project may be more appropriate than providing assessment data, to inform the assessment of effects of future developments, after the installation of the project.	The source levels expected from pile driving have been modelled and are presented in Section 9. Measurements of actual underwater noise levels will be gathered during installation.
Impacts on cetaceans caused by vessel and helicopter movements involved in the maintenance, maintaining or promotion of the project should be considered. Further consideration of maintenance activities should be made in the ES.	The potential effects of vessels, helicopters and maintenance activities have been quantified and assessed (Section 9).
Impacts on designated sites: The multiple designations attached to various sites of conservation importance mean that the ES must make clear which impacts are being assessed.	It is recognised that the proposed Demonstrator Project may have one or more effects on one or more of the qualifying interests of designated sites. Where appropriate, these have been examined separately in the ES (Section 8 to 13).

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Joint Nature Conservation Committee <i>continued</i>	
Where it can be concluded that a site or qualifying feature/species will not be impacted upon by the proposals, then this should be specifically stated in the ES.	The ES makes clear those features and/or species of a designated site that might be impacted and those that are not likely to be impacted.
Predicted impacts on individual sites (and, in the case of qualifying species, impacts upon specific populations using those sites) will need to be quantified in the ES.	Wherever possible, the magnitude of any potential impact on sites, species or features has been quantified in the ES.
Future marine SACs and SPAs: In terms of the work currently underway to identify and designate marine SPAs and SACs, there are likely to be three main categories of marine SPA – seaward extensions of existing colonies, inshore marine areas used in non-breeding seasons and marine feeding areas.	A detailed and up-to-date review of SACs and SPAs has been carried out. The potential for the proposed Demonstrator Project to impact any aspect of a SAC or SPA has been rigorously assessed (Section 8 to 13).
There are currently no sites formally identified and notified to DEFRA by the JNCC as being suitable for marine SACs in the area of the Beatrice proposals. However, further consideration of Annex I Habitats is being carried out.	As far as it was possible so to do, the establishment of marine SACs was taken into consideration during the review of potential impacts.
Visual and landscape effect of WTG units: The CCW Contract Science Report No. 631 " <i>Studies to inform advice on offshore renewable energy developments: visual perception versus photomontage</i> ", Symonds Group Ltd, should be referred to when assessing visual impact.	This report, and many other guidelines and reports, informed the process of undertaking the visual impact of the proposed Demonstrator Project (Section 11).
Royal Society for the Protection of Birds	
The EIA must assess any possible impact upon the qualifying interests of the East Caithness Cliffs Special Protection Area (SPA) and other designated sites in the area. Bird surveys should be undertaken on both the development site and extend into the SPAs to ensure that there is adequate knowledge of the distribution of birds that could potentially be affected by the proposed development.	The scope of the bird survey programme that has been undertaken at Beatrice, and the scope of the subsequent assessment of potential impact of the proposed Demonstrator Project, have been discussed and agreed with RSPB. It has been agreed that a survey of birds in the onshore SPAs themselves would not be appropriate for an offshore Demonstrator Project of this size.
According to Article 4 of EEC Directive 79/409 on The Conservation of Wild Birds, member states must " <i>strive to avoid pollution or deterioration of habitats</i> " for all wild birds, and particularly those listed in Annex I, outside SPAs.	The potential impacts on birds has been fully assessed, using data from the literature, historical data from surveys of the Moray Firth, and site-specific data for a year-long monitoring programme in the Beatrice field.

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Royal Society for the Protection of Birds <i>continued</i>	
<p>Work required: RSPB would like to see two years' worth of baseline data but as a minimum one full year (e.g. one non-breeding and one breeding season) for the proposed Demonstrator Project. The degree to which individual birds move around or are faithful to patches when foraging is critical in assessing impact on the SPA. The size of catchment for birds using the proposed area and the frequency of foraging trips (diurnally) should also be addressed.</p> <p>Seasonal patterns and the effect of weather and shipping should also be considered.</p>	<p>Two years of baseline data for the Beatrice field were gathered in 1982 and 1983. Talisman's additional one-year study is designed to provide validation of some of the findings of this study, and give greater detail of birds in the proposed development area. This year-long monitoring programme based on the Beatrice Alpha platform has assessed:</p> <ul style="list-style-type: none"> • the presence of different bird species in the area of the WTGs • the numbers of birds present • their presence and numbers in the area in which the proposed demonstrator WTGs would be located • the activities undertaken by birds in the area (flying, swimming, feeding, resting) • diurnal and seasonal changes in species richness, bird numbers, and behaviour • the presence of any obvious "fly-ways" used for diurnal or seasonal migration.
<p>The effect of navigation lighting on the species associated with the site, as well as those that migrate across the area, should be considered.</p>	<p>A review of the literature has been undertaken to assess the magnitude of this effect from two WTG units.</p>
<p>Potential effects on fish stocks either negative or positive should be considered.</p>	<p>The potential effects of the installation and operation of the two WTG units on stocks of fish and shellfish have been assessed (Section 8).</p>
<p>In addition to using a combination of radar and visual monitoring to establish the pattern of use of breeding and other seabirds in the area, RSPB recommends that:</p> <ul style="list-style-type: none"> • a control site is monitored • observations are undertaken throughout the year observations are undertaken over a two-year pre-construction period and a remote monitoring system is put in place, based on the recommendations from the current COWRIE research study. <p>The RSPB's <i>Guidance on methods for studying birds in relation to offshore wind farms</i> should be followed particularly with respect to baseline monitoring.</p>	<p>The potential impacts on birds has been fully assessed, using considerable baseline data from the literature and data from historical surveys of the Moray Firth, as well as site-specific data from a year-long monitoring programme in the Beatrice field. A remote monitoring study is being developed using radar which it is hoped will provide new data on seabird movement in relation to the turbines.</p> <p>Talisman believes that the work undertaken so far is appropriate and proportional to the size and location of the proposed Demonstrator Project.</p> <p>It is stressed that one of the main purposes of the project is to gather more information about the potential impacts of offshore wind farms.</p>

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Scottish Fishermen's Federation	
<p>The wind farm proposals will present challenges to the fishing community, and the Federation should be kept abreast of developments and regularly consulted in respect of the wind farm proposals.</p> <p>Scallop fishermen, though minimally concerned with the demonstrator stage development, raised concerns of a potential lack of access to fishing grounds should the commercial development gain approval. In addition, they were concerned about the level of disturbance that would occur during construction phases.</p>	<p>Talisman's fisheries liaison officer has been in frequent contact with the Scottish Fishermen's Federation during the build-up to the project. Since the project was publicly announced, the SFF has been consulted regularly about the proposed Demonstrator Project.</p> <p>Talisman is working to minimise the overall construction activities to meet their environmental objectives, in line with the concerns of the fishermen and their associations. The current proposal is designed to pose the least disruption to the area and industry. Should a commercial development be planned, concerns of access will be addressed on an individual basis.</p>
Scottish Natural Heritage	
<p>Policy Considerations: Reference should be made to SNH's Policy Statement on Marine Renewable Energy and the Natural Heritage.</p>	<p>Noted.</p>
<p>Nature Conservation Designations: The ES should address likely impacts on the international, national and locally designated terrestrial sites located around the coastline and any mitigation required, including any information required if an Appropriate Assessment is likely to be required to be undertaken by the competent authority (DTI) under the Habitats Directive.</p>	<p>Effects on the qualifying interests of designated sites have been examined in the ES (Section 8 to 13).</p>
<p>The locations and qualifying features of the SPAs and SACs along the Moray Firth coastline should be adequately identified.</p>	<p>A detailed and up-to-date review of SACs and SPAs has been carried out. The potential for the proposed Demonstrator Project to impact any aspect of an SAC or SPA has been rigorously assessed (Section 4 and 13).</p>
<p>The ES should assess all possible impacts, both direct and indirect, on features of European importance.</p> <p>All impacts related to European Protected Species will require to be assessed.</p>	<p>Effects on the qualifying interests of designated sites have been examined in the ES (Section 13).</p>
<p>Ecology. Baseline surveys: Rigorous and robust methodologies to collect and assess data should be devised, which allow the assessment of potential impacts (direct and indirect).</p> <p>SNH is concerned that there may be insufficient data against which to assess impacts and for Talisman to demonstrate that there will be no adverse effect on the integrity of European sites.</p>	<p>Talisman has initiated several site-specific studies and surveys, including ornithological observations offshore, seabed benthic surveys, and cetacean acoustic monitoring surveys. These were discussed with key consultees and are designed to provide specific data to inform the detailed assessment of the proposed two WTG Demonstrator Project.</p>

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Scottish Natural Heritage <i>continued</i>	
<p>Birds: SNH recommends that survey work should span all periods when birds are present during at least one full year. All survey methodologies should be agreed with consultees and should consider:</p> <ul style="list-style-type: none"> • appropriateness to species present with particular emphasis on sea ducks, sea birds and geese • records of presence, numbers, distribution, population turnover and seasonal change • baseline information and surveys of the Demonstrator Project area and the wider Moray Firth for different species and the influence of weather conditions, and should also include night-time surveys • assessment of local, regional, national and international significance of species present • an assessment of potential disturbance and avoidance arising from the operation of the Demonstrator Project • an assessment of the collision risk for sea birds, sea ducks and geese/swans. <p>Assessments should consider the construction and operational phases of the project and detail any impacts identified and any mitigation proposals. Post-construction monitoring schemes, if the Demonstrator Project goes ahead, should also be detailed and, if necessary, a control site against which to compare the results should be identified.</p>	<p>The potential impacts on birds has been fully assessed, using the existing two-year baseline, data from the literature, historical data from surveys of the Moray Firth, and site-specific data for a year-long monitoring programme in the Beatrice field.</p> <p>A year-long monitoring programme based on the Beatrice Alpha platform has been completed. This has assessed:</p> <ul style="list-style-type: none"> • the presence of different bird species in the area of the WTGs • the numbers of birds present • their presence and numbers in the area in which the proposed demonstrator WTGs would be located • the activities undertaken by birds in the area (flying, swimming, feeding, resting) • diurnal and seasonal changes in species richness, bird numbers, and behaviour • the presence of any obvious “fly-ways” used for diurnal or seasonal migration. <p>The ES provides a description of the future monitoring and other work that will be undertaken around the demonstrator site, including studies that will be completed as part of the European DOWNVInD project.</p>
<p>Marine Mammals: All survey methodologies should be agreed with consultees to include:</p> <ul style="list-style-type: none"> • an assessment of the significance of impacts on local, regional, national and international species present • records of presence recorded, including seasonality, utilisation of the Moray Firth, feeding areas and any breeding behaviour within a localised context of the Demonstrator Project and the wider Moray Firth. <p>When surveying bottlenose dolphins, it should be identified whether any surveyed are part of the resident Moray Firth population.</p>	<p>Talisman has initiated several site-specific studies and surveys, including cetacean acoustic monitoring surveys. These were discussed with key consultees and are designed to provide site-specific data to inform the detailed assessment of the proposed two WTG Demonstrator Project.</p> <p>Surveys of marine mammals were undertaken by the University of Aberdeen Lighthouse field station. Data have been analysed to determine if it is possible to say with any certainty if members of the resident population of bottlenose dolphins are among those cetaceans frequenting the demonstrator site.</p>

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Scottish Natural Heritage <i>continued</i>	
<p>Fish: The ES should provide detail of how impacts on fish of conservation importance, particularly salmon, will be assessed.</p> <p>Consideration of impacts during construction and operation will be required to assess whether or not traditional salmon migratory routes/behaviour will be impacted, particularly migratory routes to and from spawning grounds.</p> <p>Basking shark distribution/presence should also be addressed during both construction and operation with any likely impacts identified and, if necessary, mitigation proposed.</p> <p>The Moray Firth supports commercial fin and fishery interests. Consideration of impacts arising during construction and operation will be required, with mitigation proposals, with consideration given to potential impacts on conservation species and habitats.</p>	<p>The potential effects of the Demonstrator Project on fish have been assessed. This has included an assessment of the installation, operation and decommissioning of the two WTGs and the umbilicals linking them to the existing Beatrice AP platform (Section 8).</p> <p>The ES has examined potential impact on commercial fish and shellfish, salmon, and basking sharks.</p>
<p>Marine Benthos and Invertebrate Species: Marine benthic and invertebrate communities survey methodologies should be agreed with consultees, and SNH would recommend that the JNCC Marine Monitoring Handbook – Procedural Guidelines is referred to.</p>	<p>A site-specific seabed survey of the location has been carried out, to inform the assessment of potential impacts on the benthos (Section 4). The acoustic survey methodology was discussed and agreed with the JNCC.</p>
<p>Wider consideration of how the Demonstrator Project impacts on the eco-system as a whole will also be required.</p>	<p>An assessment has been made in the ES of the wider potential effects of the Demonstrator Project on the Moray Firth.</p>
<p>Impacts on sandbanks and coastal processes: SNH recommends an assessment on potential sediment transport and patterns of sedimentation and erosion within the vicinity of the two turbines.</p> <p>If there is any potential for increased turbulence around structures, due to wave reflection and consequent suspension of fine sediments, this will need to be addressed within the ES.</p>	<p>This has been assessed with respect to information on the superficial seabed sediments, and the hydrographic regime in the vicinity of the Beatrice field.</p> <p>Because of the small scale of the two WTG Demonstrator Project, and the relatively small size of the substructures, measurable effects on sediment transportation are not anticipated.</p>
<p>Any assessment should also address the potential for climate change, e.g. assess how sea level change and storminess may affect the project.</p>	<p>These aspects were taken into consideration when designing the substructure and assessing the operating parameters for the turbines.</p>
<p>Landscape and Visual Impacts: Any methodology for landscape and visual impact assessment should follow <i>The Guidelines for Landscape and Visual Impact Assessment</i>, <i>The Institute of Environmental Assessment</i> and the Landscape Institute, 2nd edition, 2002.</p> <p>For the assessment of seascape, <i>the Guide to Best Practice on Seascape Assessment</i> (2001), CCW/Brady Shipman Martin and University College Dublin, should be referred to.</p>	<p>These guidelines, and many other guidelines and reports, informed the process of undertaking the visual impact of the proposed Demonstrator Project (Section 11).</p>

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Scottish Natural Heritage <i>continued</i>	
Landscape/seascape and visual impacts should be considered separately. This separation will also be required for the consideration of cumulative impacts.	Where appropriate, landscape and seascape effects have been considered separately. Final selection of viewpoints was undertaken after consultation.
Cumulative impacts with onshore wind farms located within the radius of the 60km ZVI should be assessed.	Cumulative impacts with other existing or planned wind farms (for which location data are available) has been undertaken.
Consideration should also be given to any onshore assembly sites and whether any landscape and/or visual impacts will arise from this temporary facility.	Potential visual impacts at onshore assembly sites have been considered.
<p>Recreation, Access and Use: Assessment of impacts on commercial and recreational shipping will need to address any navigational closures and safety requirements that may impact on other interests, e.g. lighting on the turbines which may increase bird collisions, etc.</p> <p>Consideration should be given to impacts arising from the increased boat traffic for maintaining the turbines, and also from the fact that structures are present where previously there were none.</p>	<p>Potential effects on commercial shipping and other users of the sea have been assessed in detail. The HSE has confirmed that the two WTGs will become 'supplementary units' as defined in the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995.</p> <p>They will thus effectively become part of the Beatrice installation and will therefore attract an automatic 500m safety zone around them, in accordance with Section 21 of the Petroleum Act 1987. Maintenance activities will be carried out using small vessels deployed from the existing Beatrice platform.</p>
Whale and Dolphin Conservation Society	
Specific questions were raised regarding the planned methods of mitigation to protect marine wildlife from any potential impacts both during construction of the wind farm and its subsequent operation.	Potential impacts and effects of the construction have been evaluated. This has influenced the planned mitigation measures which are likely to include both engineering and non-engineering solutions.
The White Fish Producers Association Ltd	
Consultation should take place at an early stage in the development with our members and representatives.	The White Fish Producers Association has been consulted, and is being kept informed about progress with the proposed Demonstrator Project.
Issues raised by members of the public during the local consultation events	
<p>During the local consultation events members of the public made the following comments, or asked questions or raised concerns about the following issues:</p> <ul style="list-style-type: none"> • Most people had little or no concern with two turbines being located far offshore, but a few people said they may not be happy with a wind farm, on the basis that they would experience a change in the view from onshore. All respondents said they would have no problem with a wind farm offshore that could not be seen from onshore. 	The visual impact of the WTGs has been fully assessed in the ES Section 11.

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Issues raised by members of the public during the local consultation events <i>continued</i>	
<ul style="list-style-type: none"> Some people had concerns about transferring the electricity from an offshore wind farm through the Highlands and into the grid to the south. Large pylons were a cause for concern, and most, if not all, people preferred a subsea route to somewhere south of the Highlands to join the grid. 	<p>The Demonstrator Project will only supply electricity locally to the Beatrice platforms, not to the national grid. No electricity pylons will be built onshore for this project.</p>
<ul style="list-style-type: none"> A few people questioned the impacts of noise and vibration from the two turbines and the effect on people, fish, cetaceans and birds. 	<p>The potential effects of noise and vibration on birds, fish and cetaceans have been fully assessed in the ES (Section 10).</p>
<ul style="list-style-type: none"> A few people were concerned about birds flying into turbine blades. 	<p>The potential collision risk for birds has been assessed in the ES (Section 10).</p>
<ul style="list-style-type: none"> The fishermen at Burghead were concerned about wind farms in the Moray Firth shutting out vast areas to traditional fishing activities in the area. 	<p>The two WTGs of the Demonstrator Project, and the short lengths of buried umbilical linking them to the Beatrice AP platform, will not result in any significant impact to existing commercial fishing operations. The HSE has confirmed that the two WTGs will become 'supplementary units' as defined in the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995. They will thus effectively become part of the Beatrice installation and will therefore attract an automatic 500m safety zone around them, in accordance with Section 21 of the Petroleum Act 1987.</p>
Environmental issues during the Consultation Workshop at Dingwall, May 2005. (Edited from MFP website)	
<p>What are the environmental implications?</p>	<p>The Demonstrator Project will have minimal impact on the environment, although it will undergo a detailed Environmental Impact Assessment (EIA). The full project would also be subject to a dedicated EIA.</p>
<p>What about noise pollution during construction/operation phases?</p>	<p>The noise generated during construction will be fully described in the environmental impact statement. Talisman will minimise the noise generated from the project and mitigate the impact on the environment by adhering at all times to the procedures agreed with the UK Regulatory Authorities. Given the distance of the demonstrator from the shore, about 25km, there will be no impact on the local population.</p> <p>During operation of the turbines, the noise generated will not be significant and given the distance from the shore will have no impact on the local population. The design of the structures will minimise any transfer of noise to the marine environment.</p>

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Environmental issues during the Consultation Workshop at Dingwall, May 2005. (Edited from MFP website) <i>continued</i>	
Will there be any risk to dolphins, birds, or fish?	The DOWNVInD Project will undertake comprehensive studies of the effect of offshore wind farms in the Moray Firth on birds, fish and cetaceans. The impact on these animals and their environment will be fully addressed in the environmental impact statement. The DTI and its statutory consultees and others will provide expert advice during the environmental impact assessment process. Talisman will work with these organisations to ensure that only techniques which pose no threat to these animals are used or effective management and mitigation measures are developed.
What impact will the two turbines have on bird migration?	We do not know at this stage. Our environmental study programme will address this and includes evaluation studies run from the Beatrice platform. These results, together with complementary research being carried out by the Swedish participants in DOWNVInD, will be publicly available.
How visible from the shore both at night (lights) and during daytime will the demonstrator be? Will the turbines be lit?	The distance from shore, about 25km, will minimise the visual impact of the demonstrator. The Government consultation "Future Offshore" stated that developments located more than 15km from shore would have negligible visual impact. There will be statutory navigational lights on the turbines, but given the current lighting in the Beatrice field there will be minimal incremental effect. The level of lighting will be determined by a standard being developed to ensure marine and aviation safety whilst selecting appropriate lights to mitigate visual impacts onshore.
Will there be an exclusion zone around the turbines?	We have recently had a direction on this issue from the HSE. The two WTGs, as described, will become 'supplementary units' as defined in the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995. In this respect they will become effectively part of the Beatrice Installation. They will therefore attract an automatic 500m safety zone as per Section 21 of the Petroleum Act 1987.
Has there been any consultation with fisheries bodies with regard to this project? Is there any danger to fishermen fishing near the demonstrator?	Full consultation will continue with statutory consultees and all other interested parties including fisheries bodies.
Could one of the two turbines have anti-fouling on it and the other not, to see the difference?	We do not use any active anti-fouling on our oil platforms and do not intend to use anti-fouling on the WTG units. All steel surfaces will be protected from corrosion by a glass flake-epoxy based coating with zero added biocide activity.

Table 5.1 (cont) Summary of statutory and non-statutory conservation designations.

ISSUES RAISED	TALISMAN'S RESPONSE
Environmental issues during the Consultation Workshop at Dingwall, May 2005. (Edited from MFP website) <i>continued</i>	
What is the height of the turbines? Will that impact on the interests of the MOD?	The hub of the turbine will be 88m above sea-level. The blades are 63m long. The MOD is aware of the project and has acknowledged that it has no concerns with the proposal.
What are the long term plans after five years?	The two demonstrator turbines will displace power supplied to the Beatrice platform from the national grid for the duration of the Demonstrator Project or the commercial life of Beatrice, whichever is the longer. After this time the turbines would either be decommissioned with the Beatrice platform or incorporated into a commercial development.
Will the turbines be removed at the end of five years?	While the turbines are prototype machines, assuming they are still operational at the end of the Demonstrator Project they will form part of the oilfield infrastructure and remain there until the field is decommissioned. If the demonstrator proves successful the turbines could remain in situ and form part of a commercial wind farm development.
Environmental question raised after presentation on wind farm to the Moray Firth Partnership Annual Conference, 23 May 2005. (Edited from MFP website)	
What will be the effect of vibration transmitted through the structure by the turbines?	There is at present no real knowledge on this aspect and it will be closely monitored as part of the assessment process.

