Forth & Tay Regional Advisory Group

Marine Mammal Subgroup

Wednesday 19th August 2015, 10:30 – 14:30

JNCC Office – Aberdeen

Draft minutes – issued for comment 31st of August 2015

Present:

• Ian Davies (Chair)	*ID* (MSS)
• Kate Brookes	*KB* (MSS)
• Robert Main	*RM* (MSS)
• Karen Hall	*KH* (JNCC)
• Erica Knott	*EK* (SNH)
• Catriona Gall	*CG* (SNH)
• Fiona Manson	*FM* (SNH)
• Nick Brockie	*NB* (SSE - Seagreen)
• Sarah Arthur	*SA* (ICOL – Inch Cape)
• Nancy McLean (Sec)	*NM* (Natural Power – Inch Cape)
• Ewan Walker	*EW* (Mainstream – NnG)
• Phil Bloor	*PB* (Pelagica - NnG)

Introductions and Aims

ID (Chair) welcomed everyone to the first Forth & Tay Regional Advisory Group – Marine Mammals subgroup (FTRAG-MM) meeting.

A draft Agenda had been circulated with invites for the meeting. The aims of the meeting were to:

1. Discuss the Terms of Reference;
2. Obtain up-dates from Developers upon Project status and envisaged timelines;
3. Obtain up-dates on key developments/initiatives relating to marine mammals in the Firth of Forth and Tay from Marine Scotland and Stakeholders; and
4. Discuss key post consent monitoring questions relating to marine mammals for the Forth and Tay wind farm developments.

1. Terms of Reference (ToR)

A general discussion upon the ToR was held. There was general agreement that the FTRAG-MM ToR should reflect those agreed for the Moray Firth Developers and the FTRAG ornithology subgroup ToR. The ToR should include the named representatives (two per developer or organisation), secretary and chair. The ToR should also include a procedure for signing off Project documents and strategies (eg the piling strategies) for a consent condition discharge function. It was agreed any procedures signed off in the FTRAG-MM would not need further approval though the parent FTRAG, and that the ToR should reflect this.

Finalised documents will be made available through the Marine Scotland web pages.

AP1: RM to finalise the ToR and ensure comments from FTRAG ornithology group are incorporated into FTRAG-MM ToR. In order to achieve this, members of the FTRAG-MM group are to provide any comments (not already provided) to RM on the current ToR by the 28th of August.

AP 2: NM to receive named representatives for FTRAG-MM by the 28th of August.

Minutes from the meeting are to be sent via MS-LOT to the parent FTRAG and Marine Scotland Licensing (MS-LOT) before the next meeting. The minutes will also be posted on the Marine Scotland's web site.

AP3: RM to circulate link for relevant Marine Scotland web pages to FTRAG-MM.

2. Obtain up-dates from Developers upon Project status and envisaged timelines

Seagreen – Alpha and Bravo from NB

Seagreen is currently awaiting the JR outcome, and will continue to review and respond to any legal challenge through the appropriate channels. The next steps will be decided once the JR outcome is known.

Inch Cape from SA

Inch Cape Offshore Limited (ICOL) is reviewing the project programme at present, and is expecting to up-date this over the coming months. However, any programme will be subject to change following the outcome of the next CfD announcement. Best case scenario for initiation of construction is late 2017, based on a CfD allocation in late 2016.

ICOL is currently working towards discharging consent conditions, but will reserve consideration of investment in any monitoring strategy until a CfD has been achieved.

Neart na Gaoithe (NnG) from EW

In order to meet aggressive CfD timescales, Mainstream, are progressing at pace through consent condition discharge work for the NnG Project. Activity of late has been concentrated upon onshore works to meet consent condition timelines for the Local Planning Authority consent, and an application has been submitted to MS-LOT for tip height extension (and turbine capacity increase) of the offshore generating station.

Mainstream have appointed GoBe to work with them on the offshore consent condition discharge. The Piling Strategy, Marine Mammal Monitoring Programme and Environmental Monitoring Plan are amongst documents programmed to be submitted to MS-LOT by the end of the year (2015). It is expected that these submissions will be via agreement of

contents by members of the FTRAG group.

Project timelines for Financial Investment Decision (FID; Financial Close) are currently driving timelines. A finalised geotechnical campaign is scheduled for 2016. Pre-piling works are scheduled for first half of 2017; jacket installation on pre-installed pins will follow.

It is recognised by all parties that the timelines for NnG construction are different to those of Inch Cape and Seagreen Alpha and Bravo, and that NnG's accelerated timelines will necessitate Mainstream taking the lead in moving discussions forward within the FTRAG-MM subgroup. It was hoped by all members of the group that agreement could be reached on general conditions for the monitoring work required to facilitate NnG's timelines.

3. Obtain up-dates on key developments/ initiatives relating to marine mammals in the Firth of Forth and Tay from Marine Scotland and Stakeholders

Up-date on Moray Firth Regional Advisory Group marine mammal sub group (MFRAG-MM) from KB

It was acknowledged that much of the discussions within the MFRAG-MM to date have been commercially sensitive, and this information would not be shared with the FTRAG-MM at this stage. Pre-construction monitoring plans have been shared with the FTRAG-MM as these studies are currently underway and provide an indication of methodologies to be employed to inform studies into population level effects potentially arising through the construction of the offshore wind projects in the Moray Firth. The species covered by the monitoring programme were chosen through consideration of the Environmental Statement (ES) and Habitats Regulations Appraisal (HRA) processes, and so concentrate on bottlenose dolphin and harbour seal. Photo ID methodologies are being employed to enable tracking of individuals to inform survival and production rate (fecundity) studies. C-POD deployment is also being continued to inform baseline studies on bottlenose dolphin presence/absence at key locations in the Special Area of Conservation (SAC) and along the southern coastline of the Moray Firth.

Scottish Government, Developers, HIE, SNH and TCE have all contributed to 2015 survey costs. Budgetary uncertainties across government departments may impact future contributions to this study by SNH and MS.

Piling Strategy documents, including Mitigation Plans, are currently being developed by the Moray Firth Developers. These are feeding back into the construction monitoring programmes for the Projects. Mitigation Plans are currently centred on harbour seals and harbour porpoise as these are the key species likely to be present on Smith Bank in appreciable numbers during the installation of the pin piles for offshore construction of the wind farms. These documents will be made available to the FTRAG-MM when they have been signed off (and will then be on the Marine Scotland web pages).

AP 4: RM to co-ordinate with MS-LOT so he is notified when MFRAG documents and information is made available, and can then inform the FTRAG-MM group.

Up-date on Scottish Government contracts from KB

A: Scottish Government is funding an investigation into harbour seal response to Acoustic Deterrent Device (ADD) noise in the Moray Firth. This work is primarily based around the harbour extension work that has been carried out in Moray Firth. SMRU have followed tagged seals, in real time, and triggered ADDs from a vessel when in close proximity (within 1.5 km) of the seals. Animals show response out to distances of approximately 1 km.

B: MS-Science has carried out the deployment of the East Coast C-POD Array for the last

three years, with the funding secured for continued deployment in 2016 (http://www.gov.scot/Resource/0042/00426891.pdf). The deployment covers summertime deployment at 30 locations, 10 spreads of locations at 5, 10 and 15 km offshore, located at intervals down the east coast from the northern extent at Latheron in the Moray Firth to the southern extent at St Abbs within English territorial waters. One in three locations is populated with an SM2M as well as a C-POD, from which it is possible to obtain dolphin whistles, which are being used in a PhD to develop classification of dolphin species in acoustic records.

MS-Science have secured funding for a member of staff to undertake a detailed analysis of the data recorded to date, and preliminary findings should be available within the next few months.

MS has also worked with HiDef to undertake aerial surveys co-incident with the C-POD arrays. Approximately three surveys were conducted across the full extent of the C-POD arrays, with another approximately three surveys being conducted in targeted areas of the Inner Moray Firth, the Southern Trench and the area of the Tay in which the C-PODs are deployed. Reports on the survey results are expected by the end of the month, and will be available, along with data, on MSi. KB will alert FTRAG once these are uploaded.

C: As part of the harbour extension work that has been taking place the Cromarty Firth over the summer (within the bottlenose dolphin SAC), DECC have also funded C-POD deployment in an attempt to monitor displacement of dolphins as a consequence of piling noise. Aberdeen University are undertaking this work.

D: MS is working with SMRU to investigate the decline in harbour seal numbers within the Firth of Tay. SMRU are undertaking a comparative analysis on the demographic rates on the populations that are doing well (predominantly west coast of Scotland) and where the seals are not doing so well (predominantly the east coast of Scotland outside the Moray Firth). The work is currently identifying potential sites for making observations and a haul out in Kirkcaldy is being investigated to determine whether it is suitable to establish demographic rates for the east coast for comparison, in the recognition that data on the east coast population of harbour seals outside the Moray Firth is poor at present.

AP 5: KB to provide a list of all reports to be published shortly on marine mammals under Scottish Government funding.

Up-date on Scottish Natural Heritage contracts from EK

Contribution to the Moray Firth 2015 survey work as described above.

Funded the bottlenose photo-ID work conducted within the Firth of Tay (as methodology as utilised in previous studies, and data all held by SMRU).

Protocol for surveys to undertake seal counts at designated seal hauls on Islay.

Funding of annual seal counts during the breeding seasons – aerial surveys are undertaken that cover all areas of the Scottish coastline every three years.

Up-date on JNCC contracts from KH

Natural England and JNCC are funding the application of the interim to PCOD framework to look at impacts upon harbour porpoise in the southern North Sea.

4. Key post consent monitoring relating to marine mammals for the Forth and Tay wind farm developments

Agreement was reached that monitoring should be conducted at an intensity to generate sufficient data to enable the power to detect a change in the population being studied, and that survey effort should be concentrated upon changes in survivability and fecundity to enable monitoring of population level effects. The species to be identified for construction and post construction monitoring should relate to uncertainties identified with the assessments presented in the various ESs and HRAs undertaken. The aim of the construction and post construction monitoring is to validate the conclusions drawn in the Appropriate Assessments and other analysis that supported the ministerial recommendation, reduce the uncertainty and number of assumptions made in future ESs, and to confirm predicted impacts for the Forth and Tay Projects fall within the presented impact footprints of the respective ESs.

Bottlenose dolphin

It was agreed that bottlenose dolphin would constitute a candidate for construction and post construction monitoring due to uncertainties of species response to piling noise (as identified in the various ESs and HRA) and importance of the species at a Natura 2000 designation level. The route to impact was identified as displacement from / disruption within coastal waters at a distance from piling locations. If no displacement is observed during construction, there may be no requirement for post-construction monitoring.

A discussion was held around East Coast CPOD array, and continuation of this study. Marine Scotland suggested that they believe the current level of funding was likely to continue for the foreseeable future. Perhaps it would prove useful to extend this summer deployment into winter months and/or increase the number of locations in which CPODs were deployed?

This CPOD array would enable detection of reduction in dolphin vocalisation in coastal waters, if it were to occur, during the piling events offshore.

Further survey designs need to address the consequences of any displacement. It was agreed that the most robust methodology for establishing changes in survivability and fecundity was through continuation of the photo-ID work already being undertaken in the Firth of Tay. These photo-ID surveys began in 2004, with consistent data from 2009 within the Firth of Tay and more recent surveys covering a larger area up to the north of Montrose. SMRU and Aberdeen University work together to undertake the photo-ID surveys of the Moray Firth and the Firth of Tay. This year, SNH provided funding to undertake the photo-ID survey in the Firth of Tay to ensure continuity, but a funding gap has been identified for 2016 onwards.

AP 6: PB to provide the Quick 2014 report on the photo-ID work in the Firth of Tay to NM, who will distribute to the group.

Marine Scotland Science has a high degree of confidence that changes to survivability and fecundity within the bottlenose dolphin population of the east coast will be detectable through these photo-ID surveys, as long as the data are combined with those collected in the Moray Firth. Ten surveys are scheduled for the mouth of the Tay in 2015 (it is believed that four had been undertaken at the time of the meeting), and the results of these surveys would feed into, and strengthen, the existing baseline data. Correlation would then be possible between potential displacement from / disturbance in coastal waters with any change in survivability and fecundity of the bottlenose dolphin population.

AP 7: EW to talk to SMRU with regards to establishing a second opinion on the ability of the

photo-ID surveys to detect change in individual animal survivability and fecundity, and whether the current survey design is sufficiently robust to detect change during and post construction.

AP 8: KB to establish an opinion on the value and resource implications of the number of C-POD locations in the East Coast Array and/or the potential for deployment of C-PODs over winter (related directly to the ability to detect change in bottlenose dolphin behaviour during piling events).

Harbour seals

Harbour seals were considered as a candidate for construction and post construction monitoring due to uncertainties of species response to piling noise (as identified in the various ESs and HRA) and importance of the species at a Natura 2000 designation level. The route to impact was identified as displacement from / disruption within regions of the Firth of Tay from piling noise.

While there aren't any sizeable haul outs for harbour seals within the Firth of Tay and Eden Estuary SAC, haul outs of appreciable size exist to the north in Montrose Bay and at Kirkcaldy. The haul out at Kirkcaldy is close to a road, offering good viewing conditions, and offers the best opportunity for photo-ID studies to inform survivability and fecundity. However, as this haul out is relatively new and survey is yet to begin, baseline parameters have yet to be established for this group of animals.

A discussion was held around whether impacts on harbour seals from construction activity (principally piling) would be better served in the Moray Firth where the population has been well studied and baseline survivability and fecundity values are already established.

AP 9: The Developers to discuss the option of collaboration with the Moray Firth marine mammal studies, and potential implications / routes to involvement to establish feasibility. This participation would only be for species of common interest for construction monitoring surveys, and would reflect the availability for animals for survey and likelihood of surveys being able to detect change within the Firth of Forth and Tay.

AP 10: ID to discuss with MS-Licencing and Policy to establish if there is scope for sharing of studies in the manner in the discharge of consent conditions for non-linked projects.

Grey seals

Grey seals were considered as a candidate for construction and post construction monitoring due to uncertainties of species response to piling noise (as identified in the various ESs and HRA) and importance of the species at a Natura 2000 designation level. The route to impact was identified as displacement from / disruption within regions of the Firth of Tay from piling noise.

While SMRU hold good data on fecundity for the grey seals (data collected under NERC core funding), it is unclear how changes to survivability and fecundity would be related back to displacement from / disruption within regions of the Firth of Tay from piling noise. Grey seals are wide ranging, and the piling within the Firth of Tay may be distant from foraging areas and from (no direct impact to) any grey seal pupping ground.

Tagging data exists to show grey and harbour seal movement in response to piling activity in both The Wash and Danish waters. A discussion was held into the funding route for tagging of grey seals undertaken by SMRU, and whether any funding gaps existed. However, any proposal for funding of would require contextualisation of with regards to wide ranging behaviour of grey seals and lack of direct route to impact from construction noise / displacement for this species (see AP 12 below).

AP11: KB to circulate SCOS report for 2014 – link below.

(http://www.smru.st-and.ac.uk/documents/2589.pdf)

AP 12: KB to organise a data gap review for behavioural responses in seals from piling noise. Following dissemination of this review, the FTRAG-MM would then discuss opportunities, appropriateness and funding mechanisms to help fill any data gaps for grey seal / seal species.

Harbour Porpoise

While it was acknowledged that harbour porpoise are likely to be displaced during piling operations within the Firth of Forth and Tay, as with grey seal, it is unclear how changes to survivability and fecundity could be measured to relate to population level changes. Harbour porpoise are such a wide ranging species, is it unclear how any measured changes could be correlated back to displacement from / disruption within regions of the Firths of Forth and Tay from piling noise. In addition, while harbour porpoise were the most common marine mammal species identified across the Firth of Forth and Tay projects, population numbers are not considered to be high within the Firth of Forth and Tay in a Scottish or UK context. Even with extensive study, population parameters for the species in the vicinity of the sites are unlikely to be established by early 2017 when piling has the potential to start.

A discussion was held into the DEPONS project, change in distribution of harbour porpoise as a result of disturbance from piling is modelled to understand the potential for population level consequences. The field work is carried out by tagging porpoises and exposing them to airgun noise to determine the extent and duration of disturbance responses. With the current knowledge base on harbour porpoises and their mobility, it was considered that assuming a common response to construction noise by the species within the North Sea is appropriate. The DEPONS model covers the Firths of Forth and Tay.

Deployment of a C-POD array to monitor presence / absence was discussed. It was considered (a) time to establish a robust, year-long, baseline sufficient from which to detect change over seasonal use was not available and (b) that such an array would inform presence / absence but be unlikely to answer questions with regards to population level effects (survivability and fecundity). It was discussed how harbour porpoises have returned to offshore wind farm sites which pose attractive habitat for the species (eg Horns Rev) while have been slow to return to sites which pose a less attractive habitat (eg Nysted). Current studies suggest that the Firth of Forth and Tay does not pose a particularly attractive habitat for harbour porpoises and so construction impact studies should be viewed with in this light.

AP 13: The NnG team to undertake a review on available harbour porpoise noise impact studies, summarise what surveys have been conducted, the conclusions arising from the studies and undertake a gap analysis with regards to information that may be viably obtained with the Firth of Forth and Tay.

Minke whale

While it was acknowledged that minke whale are likely to be displaced during piling operations within the Firth of Forth and Tay, as with grey seal and harbour porpoise, it is unclear how changes to survivability and fecundity of such a wide ranging species would be correlated back to displacement from / disruption within regions of the Firth of Tay from piling noise. The lack of robust baseline would also hinder detection of change to population parameters. The species was not considered further for construction monitoring.

White beaked dolphin

While it was acknowledged that offshore dolphin species may be displaced during piling

operations within the Firth of Forth and Tay, as with grey seal, harbour porpoise and minke whale, it is unclear how changes to survivability and fecundity of such a wide ranging species would be correlated back to displacement from / disruption within regions of the Firth of Tay from piling noise. The lack of robust baseline would also hinder detection of change to population parameters. While it was acknowledged that if a CPOD array was to be deployed in order to detect change in harbour porpoise presence during piling, change in dolphin species abundance would also be detected. It should be noted that there are still difficulties in identifying dolphin species from CPODs. The numbers of white beaked dolphin likely to be present within the vicinity of the sites are not sufficient to warrant a targeted monitoring campaign in their own right, and, given the discussion on harbour porpoise, the species was not considered further for construction monitoring.

Close

AP 14: Developers to establish the preferred date for the next meeting, as close to late September as possible – but bearing in mind time requirements for the action points above.

AP 15: NM to issue a doodle poll to define where and when the next FTRAG-MM subgroup meeting will be held.