

## MORAY FIRTH RENEWABLES ADVISORY GROUP (MFRAG) MEETING MINUTES

<b>Meeting</b>	MFRAG Main Group	
<b>Date</b>	20 <sup>th</sup> November 2019	
<b>Location</b>	SNH, Battleby	
<b>Attendees</b>	SAMS	Ben Wilson (BW) [Chair]
	Marine Scotland Science (MSS)	Jared Wilson (JW), Marion Harrald (MH) [conf call], Ross Gardiner (RG)
	Marine Scotland Planning & Policy (MS-PP)	Gayle Holland (GH), Nikoleta Papanastasouli (NP), Paul Smith (PS), Janelle Braithwaite (JB) [conf call]
	Scottish Natural Heritage (SNH)	Erica Knott (EK), Chris Eastham (CE) [conf call]
	Fisheries Management Scotland (FMS)	Alan Wells (AW), Keith Williams (KW)
	BOWL	Joe Deimel (JD), Mark Mulqueeney (MM)
	Moray East	Peter Moore (PM), Matt De Angelis (MD)
	Royal Haskoning (Moray East ECoW)	Richard Stocks (RS) [conf call]
	Moray West	Sarah Edwards (SE)
<b>Apologies</b>	Whale and Dolphin Conservation (WDC)	Sarah Dolman (SD), Fiona Read (FR), Kirsty Wright (KW)
	RSPB Scotland	Charles Nathan (CN)
<b>Actions</b>	<ol style="list-style-type: none"> <li>MS-LOT to make final amendments to ToR as discussed and upload to Marine Scotland website.</li> <li>BOWL to provide copy of pre-construction aerial surveys results to MSS.</li> <li>MSS to confirm suitable vessel for acoustic monitoring for BOWL sandeel surveys.</li> <li>BOWL to set up group call to discuss strategy for benthic survey and send survey scope to SNH.</li> <li>BOWL to provide report on findings from biofouling survey and strategy for removal to group.</li> <li>Bowl to look at SSE projects in English waters and see how biofouling is addressed and update the MFRAG group at the next MFRAG meeting.</li> <li>MSS to discuss with JB requirement for biofouling evidence maps (ScotMER).</li> <li>Impacts of biofouling removal on marine mammals and ornithology to be considered at next MFRAG sub-group meetings.</li> <li>MSLOT to confirm herring surveys not included in BOWL PEMP Condition.</li> <li>JW to provide update on INSITE proposal and possible links to fisheries once result announced in March 2020.</li> <li>Developers to lead on this agenda item at next meeting.</li> </ol>	

12. Developers to update PEMPs to include links to relevant ScotMER evidence maps and data gaps.
13. MFRAG secretariat to issue Doodle poll with potential dates for next MFRAG meeting (possibly end of May 2020).

## 1. Introductions and Purpose of Meeting

Introductions.

## 2. Review of Actions from previous meeting (8th May 2019)

Catarina Rei to issue combined comments received on the current Terms of Reference (ToR) from the MFRAG group to the group for comment / approval as soon as possible – COMPLETED.

JD to confirm timescales for provision of reports on the post-construction monitoring surveys. JD currently looking at report for aerial bird survey. Issued to MS as soon as ready – PENDING (discussed in Section 4.2)

JD to provide details on the approach for monitoring marine growth, including monitoring of invasive species. Currently looking at report on marine growth. Issued to MS as soon as ready – PENDING (discussed in Section 4.2)

PS to provide details of the Marine Invasive Species group to the MFRAG group. PS confirmed there have been delays on the report. Report will be ready in about one year – PENDING.

JD - Marine mammal post-construction monitoring proposals for BOWL discussed at last MFRAG-MM meeting (8<sup>th</sup> November 2019).

JD - Ornithology post-construction monitoring proposals for BOWL discussed at last MFRAG-O meeting (26<sup>th</sup> September 2019). This included discussion with SNH on way forward on the funding of the “puffin-cam” monitoring. BOWL monitoring for 2020 will include aerial surveys, and a feasibility study (including site reconnaissance) for gull tagging. Discussions on puffin colony monitoring will continue.

Moray East to submit herring survey report to MS-LOT for approval. This was submitted on 27/06/19

JW to discuss lack of progress on the publication of the diadromous evidence map with at the next ScotMER meeting and provide update to group via email. JW confirmed that the diadromous fish evidence maps were issued in May 2019.

JB to provide an update on the ScotMER work via email to the MFRAG group. JB confirmed that the Developers Symposium has been postponed until March 2020. Updates on priorities and agenda for this will be made available online. All maps to be reviewed by end of March 2020.

BW to send an email to the MFRAG group with background information on the INSITE programme.

MFRAG secretariat to issue Doodle poll with potential dates for next MFRAG meeting (possibly November 2019) - COMPLETED. New Doodle Poll to be issued for next meeting (May 2020).

**3. MFRAG Terms of Reference (ToR)**

EK raised concerns regarding timescale of 10 working days (on paragraph 12 of ToR). Everyone in agreement to change to “within agreed timescales”.

JD requested whether there is an option to add clarity to the third from bottom bullet point on Page 3 referring to the ‘identification of relevant strategic opportunities and proposals for additional monitoring/research activities associated with the Moray Firth developments beyond the immediate requirements of the individual developments PEMPs and EMPs’ that this would be at developers discretion. EK and GH both confirmed that the wording included in this bullet reflects wording from PEMP Conditions included in the Section 36 Consents and Marine Licences and therefore should not require any further clarification or changes. Group agreed with this view. No changes proposed.

Second bullet point from bottom of Page 3 - JD referred to promulgation of data via the Scottish Government website / public and concerns with peer reviews etc. EK suggested amending wording to state that information/data will be made available by the Scottish Government website **once agreed** by MFRAG members. PS noted need to be careful re public requests for information.

GH to remove reference to East Coast Symposium as no longer relevant.

GH suggested amending table of MFRAG group members (Page 6) to only include name of organisation rather than individuals which are subject to change.

New Version of ToR (v6) was voted positively overall from group.

BW raised concerns on longevity of the MFRAG – i.e. where is the end point. General response from group was to continue meetings until considered appropriate (life time of projects). EK suggested that the frequency of meeting would vary depending on stage of the projects (less meetings during operation but may re-convene more regularly as start to look at repowering or decommissioning). BW suggested twice a year. General consensus was to have meeting during operational period on a “as required” basis. Likely to be more frequent initially in light of post construction monitoring but may shift towards annual frequency. Important to avoid pointless meetings e.g. if after 10 years nothing to discuss may not require annual meetings.

<b>Actions</b>	1. MSLOT to make final amendments to ToR as discussed and upload to Marine Scotland website.
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**4. BOWL update**

JD – summer maintenance completed. Project now on winter stand-down.

<b>Actions</b>	No actions
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**4.2. BOWL monitoring update**

Aerial post-construction monitoring completed over Summer – being reviewed by MacArthur Green.

Currently planning benthic surveys to be carried out around June 2020.

Currently planning cod and sandeel surveys for 2021.

RG and MW had information in an email from KW which RG relayed to the group. KW noted MSS happy with repeating the pre-construction cod surveys , including timings (late Feb – March) and methods. Confirmed by MH.

KW. Advice on survey method for sandeel provided to BOWL from MSS in email. BOWL proposing to carry out at same time of year as cod survey (Feb – March). MH this not optimal for determining age of sandeel rather than just presence and absence. Better to carry out sandeel surveys from October to December when buried in sediment. Use acoustic survey and demersal trawl (planned) to give better indication of buried sandeel. KW happy for BOWL to use same demersal trawl equipment as per pre-construction survey since these were designed by MSS technicians.

JD queried whether possible to combine the two surveys (cod and sandeel) and what acoustic equipment would be required e.g. would multibeam echo-sounder (MBES) from fishing vessel be suitable?

MH not sure MBES correct survey method. Suggest more suitable to use MSS vessels. MH to confirm with KW.

JD confirmed BOWL happy to look at using MSS survey vessel.

EK advised to make sure surveys are not overlapping / affecting each other (e.g. INSITE). JW expressed agreement. Surveys required to discharge conditions should take precedence.

JW – feedback on INSITE proposal expected in March 2020.

MH provided positive feedback on benthic strategy – i.e. hypothesis clearly stated and proved. Noted any records of ocean quahog should be reported. Efforts to minimise damage to benthic communities along cable routes also important (JD NOTE – monitoring will be at wind farm site; post-construction monitoring along the cable route has been scoped-out).

**BOWL to set up group call to discuss strategy for benthic survey and send survey scope to SNH. ACTION.**

MH – if MINNS are found during surveys these should be removed. EK suggested the need to double check MINNS Strategy as removal not necessarily best approach for all species e.g. may need method for containment rather than removal as this can increase spread for some species.

CE regarding biofouling surveys, enquired how long structures have been in water to this date and what is the rate of biofouling? JD responded that it was not possible to confirm exact rate prior to analysis of results from the survey, but initial results confirmed a layer of biofoul had occurred in the first year.

JD noted BOWL will need to analyse the data on biofouling to determine rate of build-up and therefore frequency of removal works moving forward. This influenced by potential to risk to integrity of substructures in terms of how much build up can be tolerated.

JD noted initial discussion had been held with MS-LOT regarding licencing of such works. In particular in relation to concerns regarding the feasibility of capturing all removed biofouling material prior to it reaching the seabed (therefore becoming a deposit) – nature of difficulties attributed to large volumes. JD to provide update on volume after calculations have been carried out in the following weeks.

EK raised interest in monitoring what biofouling happens on different structures under water, such as monopiles. EK requested JD to bring findings to group on next meeting so group can comment. Not covered much in impact assessments carried out for currently consented projects.

JW – important consideration in terms of marine licencing and impacts on other receptors. Concern with scale of removal. Not currently identified on the ScotMER evidence maps.

JW suggested to discuss biomass removal of these scales at marine mammal and ornithology sub-group meetings.

BW – can timing of biofoul removal help to reduce volumes e.g. before mussel colonisation?

JD confirm that BOWL does not expect removal to be annual – awaiting survey results to confirm rate of build-up.

JD – keen to identify most sensitive locations in terms of deposits of biofoul on seabed.

EK – O&G industry don't have to do anything but different for offshore wind as closer inshore and different regulations. Review of approaches taken by each industry.

PS – keen to link to policy for decommissioning O&G infrastructure.

MH suggest this matter is raised as a point for further consideration at ScotMER benthic meeting on 21<sup>st</sup> November 2019. In particular implications on benthic habitats and other receptors.

MH queries impact of biofoul removal in terms of the creation of artificial reefs? If removing biofoul no opportunity for this to occur?

EK – important lessons learned for Moray East and Moray West projects – can anything be put in place prior to installation of substructures to reduce rate of biofouling? Or plan for regular inspections to monitor growth rate from point of installation e.g. does it increase or decrease in rate over time? Assume different substructures have different growth rate and tolerances?

BW advised there had been some studies carried out by NLB on growth of biomass on substructures.

JW suggest also look at how this issue being dealt with south of the border.

GH - was BOWL required to carry out herring surveys?

JD – these were scoped out.

<b>Actions</b>	<ol style="list-style-type: none"> <li>2. BOWL to provide copy of pre-construction aerial surveys results to MSS.</li> <li>3. MSS to confirm suitable vessel for acoustic monitoring for BOWL sandeel surveys.</li> <li>4. BOWL to set up group call to discuss strategy for benthic survey and send survey scope to SNH.</li> <li>5. BOWL to provide report on findings from biofouling survey and strategy for removal to group.</li> <li>6. MSS to discuss with JB requirement for biofouling evidence maps (ScotMER).</li> <li>7. Impacts of biofouling removal on marine mammals and ornithology to be considered at next MFRAG sub-group meetings.</li> <li>8. MSLOT to confirm herring surveys not included in BOWL PEMP Condition. Post meeting note – pre-construction herring surveys were completed, based on the results of these it was agreed that construction and post-construction herring surveys were not required.</li> </ol>
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**5. Moray East project update**

PM provided progress update on Moray East in relation to piling activities and HDDs.

Video on results from the Missing Salmon Study which Moray East contributed to as part of discharge of PEMP condition.

Results showed that 50% salmon are lost in freshwater and only 15% in marine.

AW – good to have the results but need to apply caution in terms of the missing salmon. This might be due to salmon in freshwater losing tags (or extruded) rather than actual salmon mortality.

RG – results for salmon movements in the marine environment appear to align with findings from the MSS salmon tagging study in the Moray Firth. Need to explore options to extending the survey further to include additional receivers at location further offshore to better understand movements towards the outer Moray Firth.

EK – is it possible to attach the receivers to substructures?

RG – yes, it would be good if this could be given consideration. Each receiver only covers a small area and having multiple receivers give better coverage and provide more information (create an array).

KW – Also worth looking at other devices.

JW – Also need to understand impact mechanisms better – identify what these are? E.g. predation from marine mammals? Potential for the INSITE project to link back to this if mammals found to increase in operational wind farms?

<b>Actions</b>	9. MSS to provide update on INSITE proposal and possible links to fisheries once result announced in January 2020.
<b>5.2. Moray East monitoring update</b>	
PM confirmed that results from the marine mammal monitoring work and underwater noise monitoring results during piling had been discussed at the MFRAG – MM meeting held on 8 <sup>th</sup> November 2019.	
<b>Actions</b>	No actions
<b>6. Moray West project update</b>	
SE provided brief update on status of Moray West project confirming that work has commenced with discharge of conditions. Further information to be made available for discussion at next MFRAG meeting.	
<b>Actions</b>	No actions
<b>7. Strategic work</b>	
<p>JB suggested for next meeting discussion on strategic work should be led by Developers based on a feedback on how monitoring and research being carried out under the PEMP is linked to filling data gaps identified from the ScotMER evidence maps (strategic work).</p> <p>GH and JW suggested going forward that developers should record these links in the PEMP documents – stating which ScotMER knowledge gap the monitoring is related to.</p> <p>JB is currently working with MSS and SNH to put together a programme for the Developers Symposium which will now be in March 2020. JB to contact all developers with information on this.</p>	
<b>Actions</b>	<p>10. Developers to lead on this agenda item at next meeting.</p> <p>11. Developers to update PEMP to include links to relevant ScotMER evidence maps and data gaps.</p>
<b>8. Next meeting and close</b>	
Date of next meeting will be set for May 2020. RG noting it's a busy time of the year for fishing studies and people involved with it. Been suggested to move it towards June. JD (or JB?) and PM suggested end of May.	
<b>Action</b>	12. MFRAG secretariat to issue Doodle poll with potential dates for next MFRAG meeting (possibly end of May 2020).

<b>List of Abbreviations</b>	
BOWL	Beatrice Offshore Windfarm Limited
Moray East	Moray Offshore Windfarm (East) Limited
MFRAG	Moray Firth Regional Advisory Group
MFRAG-MM	Moray Firth Regional Advisory Group – Marine Mammals Subgroup
MS-LOT	Marine Scotland Licensing Operations Team
MSS	Marine Scotland Science
ScotMER	Scottish Marine Energy Research (previously SpORRAn)
SNH	Scottish Natural Heritage
ScotMER	Scottish Marine Energy Research
SpORRAn	Scottish Offshore Renewables Research Framework (now ScotMER)
UoA	University of Aberdeen
WDC	Whale and Dolphin Conservation