

Minutes of Meeting

Meeting Title:	Forth and Tay Regional Advisory Group (FTRAG) – Main Group Meeting.
Date / Time / Venue:	24 June 2019, 10:30 - 14:00 SSE Training Centre, Ruthvenfield Way, Inveralmond Industrial Estate, Perth PH1 3AF
Attendees:	Nick Brockie (NB), Lis Royle (LR) – Seagreen Adam Payne (AP), Kevin Linnane (KL) – RPS (supporting Seagreen) Ben King (BK), Sarah Arthur (SA) – Red Rock Power (Inch Cape) Ewan Walker (EW) – EDF (Near na Gaoithe) Ian Davies (ID) – MSS – Meeting Chair Gayle Holland (GH) – MS-LOT; Janelle Braithwaite (JB) – MS Policy; Erica Knott (EK) – SNH Karen Hall (KH) – JNCC Alan Wells (AW) – FMS Aly McClusky (AM) – RSPB
Apologies:	Sarah Dolman (WDC)
Minutes taken by:	Adam Payne / Nick Brockie

1	Introductions	Actions
1.1	Introductions of all present were completed.	-
2	FTRAG Terms of Reference (ToR) and Membership	
2.1	It was agreed that the ToR for main group and the ornithology and marine mammal sub groups need to be updated to reflect changes in membership and that a new permanent chair was required to replace Naomi Campbell. It was suggested that Annie Breden from Crown Estate Scotland (CES) would be a suitable chair. It was agreed that MS-LOT should approach CES to secure agreement that she would take on the role.	MS-LOT to approach Annie Breden as potential chair for the FTRAG Group.
2.2	ID agreed that there are issues with the ToR which need to be updated. LR stated the group membership needs to be updated in terms of the personnel and in terms of the organisations and developers, particularly given recent changes in ownership. Alan Wells and David Summers (Tay DSFB, d.summers@btinternet.com) confirmed as representing migratory fish interests. There was discussion of wider FTRAG membership. ID questioned whether other developers with a corresponding condition within their Marine Licence and S.36 Consent should also participate in the group stated. EK questioned whether this was appropriate for Hywind as they have undertaken development of environmental monitoring without participation in FTRAG. ID also questioned whether the Kincardine and Aberdeen Bay project would be appropriate members as neither have explicit requirements within their conditions to participate in FTRAG. SA stated that beyond the reporting of monitoring results there is not much need for their inclusion. BK agreed it could be useful to include Hywind to	

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	<p>capture their monitoring results for comparison against other FTRAG projects. NB questioned if Hywind are included in FTRAG then should Kincardine and Aberdeen Bay also be included? ID proposed 3 options based on the discussion;</p> <ol style="list-style-type: none"> 1. Invite Hywind to the RAG; 2. Remove the Hywind requirement completely; or 3. Develop a new cluster for the Aberdeenshire coast <p>BK suggested a new cluster might be more appropriate than the current set up.</p> <p>LR stated that Moray Firth Regional Advisory Group (MFRAG) worked well because membership was well defined and only included 2 projects. Better to keep the membership of FTRAG as currently defined but also have a Scotland wide process sharing or reporting on monitoring results. ID suggested a fourth option, to keep FTRAG as it is and have a national forum for information sharing across all developers. This suggestion was well received by all. JB suggested this could be included under the Scottish Marine Energy Research (ScotMER) programme? ID agreed to investigate this.</p> <p>There was a general discussion of the timing of such an event. Given the timing of other activities (e.g. CfD, Wind & Wildlife Conference, MFRAG reporting, ScotMER fisheries symposium, Marine Alliance for Science and Technology for Scotland (MASTS) conference) it was agreed that a date in November 2019 was preferred. ID stated that before any decision is made here the Aberdeenshire coast projects and the MFRAG will need to be engaged with to determine their availability and thoughts on such a forum. ID also highlighted potential to use Marine Lab lecture theatre.</p>	<p>Marine Scotland Science (MSS) to investigate whether a national information sharing process can be put in place under ScotMER</p> <p>MSS to investigate possible date for national forum for sharing monitoring information.</p>
2.3	<p>ID returned to the ToRs and required changes. NB suggested it would be best wait for completion of the Moray Firth RAG ToRs, currently being updated, and then update the Forth and Tay RAG documents accordingly so that the groups are aligned. ID agreed that MS will encourage Moray Firth RAG to complete their ToR changes and bring those to the Forth and Tay RAG meeting to adapt and agree as required.</p>	<p>MS to encourage MFRAG to update ToRs</p> <p>MS to bring updated MFRAG ToR to FTRAG for discussion and approval</p>
3	Project Updates	
3.1	<p>LR provided an update on the Seagreen project.</p> <ul style="list-style-type: none"> • Working towards discharging 2014 consent conditions • 2018 optimised application is in determination • Seagreen are preparing for the 2019 Contract for Difference (CfD) auction, results expected in August / September 2019 • Progress on environmental monitoring plans for discussion later in the meeting and also at subsequent Ornithology and Marine Mammals subgroup meetings. 	-
3.2	<p>BK provided an update on the Inch Cape project.</p> <ul style="list-style-type: none"> • Consent received on 17th June for the optimised design • Tier 1 contractors and construction methodologies identified • Preparation for 2019 CfD round. Outcome has the potential to affect approach and programme • Looking to discharge consent conditions next year if CfD bid is successful. • Project now has consent for 72 wind turbine generators (WTGs), 2 Offshore Substation Platforms (OSPs). This results in a reduction in inter-array and export cables from previous consent. • Construction likely to start in Q1/ Q2 2021 (dependant on CfD outcome) 	-

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	<ul style="list-style-type: none"> Project is at an early stage in developing environmental monitoring survey strategies. ICOL will be looking to agreeing similar monitoring proposals to Seagreen and NnG for benthic, fish and sediment monitoring. ICOL will be looking to begin developing and consulting on strategies soon. <p>ID commented that Inch Cape monitoring plans are less well developed than those from Seagreen. BK agreed and stated there were budget constraints until the CfD results were issued, the focus at this stage to discharge the PEMP is consideration of monitoring during construction and that ICOL do not intend to deviate from monitoring proposed by Seagreen and Near na Gaoithe (NNG). EK enquired whether there were any proposals to present to at the FTRAG sub group meetings? SA confirmed that there weren't at this stage</p>	
3.3	<p>EW provided an update on the NNG project.</p> <ul style="list-style-type: none"> EDF have completed the purchase of NNG. CfD is in place and therefore NNG is moving towards construction. Original consent was for 75 WTGs. Revised consented design is for up to 54 WTGs and 2 OSPs. Project heading towards a final investment decisions (FID) and the construction start. Pre-construction work could start as early as Autumn 2019 with offshore construction scheduled for April 2020. Current design is for 3 leg jackets on drilled piles, however there may be some driven piles. Pre-construction surveys currently underway Selection of main contractors in progress <p>EK asked what measures were in place regarding drill arisings and requested further discussion of this, particularly in relation to the potential overlap with the proposed Special Protection Area (pSPA) boundary. EW stated that currently the intention is for disposal of arisings adjacent to the pile, but this will need to be checked.</p> <p>ID enquired if it was assumed there is less noise generated when drilling compared to driving piles? EW confirmed that drilling involved little or no noise, however there is a need to retain the drive option as a backup. EW explained that the NNG site geophysical and geotechnical data is currently being updated. Some geotechnical needs ground truthing and at WTG locations. NNG are also planning unexploded ordnance (UXO) surveys. EW also confirmed that NNG intend to submit a new Marine Licence application for early seabed preparation works in the near future. They are also looking to commence discharge of consent conditions during July to September 2019.</p>	-
4	Monitoring Requirements and Proposals	
4.1	<p><u>Seagreen</u></p> <p>NB introduced the work undertaken by Seagreen to develop monitoring strategies to address the requirements of S36 and Marine Licence conditions. Information presented during this meeting focussed on benthic, fish and scour and local sediment deposition, delivered through RPS support. Subsequent ornithology and marine mammal subgroup meetings will address those topics. Following FTRAG agreement of the proposed monitoring approaches the Project Environmental Monitoring Programme (PEMP) will be finalised and submitted to Marine Scotland Licensing Operations Team (MS-LOT) for approval.</p>	-

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<p>4.2</p>	<p>Benthic Monitoring KL provided a presentation on the development of the Seagreen benthic monitoring strategy. There is high confidence in the assessments undertaken in relation to benthic receptors in the Seagreen 2012 Offshore Environmental Statement (ES). In addition, impacts on benthic ecology are well understood.</p> <p>The strategy focusses on Annex 1 biogenic reef, a key benthic habitat identified in the 2012 offshore ES as sensitive to construction impacts. A review of geophysical data will be undertaken to determine potential presence of possible biogenic reef habitat. If confirmed a pre-construction Annex I reef survey will be undertaken using remote sampling (e.g. via Drop Down Video (DDV) survey). Post-construction a single repeat survey may be undertaken if construction activity occurs within any of the confirmed reef habitat areas. No further benthic monitoring proposed. It was also highlighted that there was a high likelihood of disturbance of any potential reef areas from scallop dredging in the area.</p> <p>KL stated that the approach has been discussed and agreed with Scottish Natural Heritage (SNH), MS-LOT and MSS. MSS had provided feedback on the strategy which required further clarification, consultation and agreement of the strategy. MSS accepted the strategy 21st May 2019.</p> <p>ID asked if the proposed benthic strategy had been accepted by all parties and asked when the geophysical data review will start. NB confirmed acceptance by all parties. The data review is due to commence shortly and the expectation of identifying potential reef area is low, given the outcome of the 2010 benthic characterisation surveys which provided no evidence of reef structures. KL also added that there is a fair amount of bottom trawling which makes the likelihood of substantial reef structures minimal.</p> <p>ID asked if post-construction monitoring is only likely to occur if construction takes place in areas of confirmed reef. NB stated the strategy will be to avoid any areas through micro-siting, but if areas can't be avoided post construction monitoring is likely.</p> <p>ID asked if there was an expectation of much sediment redistribution during operation. NB confirmed this will be covered in the later discussion of scour and sediments.</p> <p>ID asked if any further information was required by the group on the proposed strategy? JB asked if the strategy document had been updated since the first issue. EK asked if the latest version had been shared with the group? NB confirmed the document had been updated and that Seagreen would issue this to the group. LR confirmed that the latest version has been accepted by MSS.</p> <p>EK highlighted that SNH are reviewing the guidelines for Annex I Sabellaria spinulosa reef habitats, with consideration of the data on reefs from Scottish waters (i.e. records of reefs from video footage). This is due to report in November this year. The report may include updated guidelines for Scottish waters, taking into account of JNCC guidelines from the southern North Sea (e.g. Gubbay, 2007 and Limpenny et al., 2010).</p>	<p>Seagreen to distribute the latest version of the strategy which has been signed off by MSS.</p>
<p>4.3</p>	<p>Marine and Migratory Fish Monitoring AP provided a presentation on the marine and migratory fish monitoring strategy proposals. This has also previously been discussed with MSS and SNH.</p> <p>The strategy is based on a review of the conclusions of the Seagreen 2012 Offshore ES and recent information. For marine fish the key species is</p>	<p>-</p>

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herring. No specific monitoring is proposed, however the additional East Coast Marine Mammal Acoustic Study (ECOMMAS) network locations proposed in the pre-construction Marine Mammal Monitoring Programme (MMMP) will provide construction noise data which will enable validation of underwater noise modelling predictions for herring, if required. Recent evidence indicates that herring spawning grounds are further to the north than previously thought. Modelling of potential underwater noise impacts for the 2018 optimised Seagreen project application concluded no significant impacts.

No specific monitoring is proposed for sandeel. No significant impact was predicted in the 2012 ES and more recent evidence suggests there is strong recovery potential post construction. Furthermore, it is expected there would be difficulties in distinguishing any construction effects on sandeel from impacts of scallop dredging.

No significant effects were predicted for migratory fish species, the key species being Atlantic salmon. Latest evidence suggests smolts head straight out to sea, thus potentially occurring in the Seagreen Alpha and Seagreen Bravo sites, consistent with the 2012 offshore ES assessment. However, presence will be brief reducing their exposure to any noise effects. No project specific monitoring for migratory fish species is proposed however Seagreen will investigate with Marine Scotland potential areas to contribute to ScotMER Diadromous Fish programme now the Evidence Map has been published.

AW made the general point that sea trout are also present in the area and asked about the process going forward. NB noted this and confirmed that sea trout could be considered in the strategy. EK stated that the previous discussion and agreement on the strategy had been before the release of the ScotMER Evidence Map for Diadromous Fish. JB stated that at this stage it makes sense to be more strategic with regards to the strategy for diadromous fish. There is a ScotMER diadromous fish steering group meeting scheduled for August. If an appropriate proposal for diadromous fish monitoring is identified it will be brought back to the FTRAG for agreement.

AW stated it seems diadromous fish has not had as much input as other areas covered by ScotMER. EK agreed, the last meeting for migratory fish was back 2017. ID stated that the evidence map was published early in an attempt to get the conversation with developers going.

AW highlighted that migratory fish species are at a crisis point. ID confirmed the issue is high on MS priorities.

JB asked what the process is to look at priorities for studies? NB replied at this stage there is no process. There is no justification for a project driven study for Seagreen therefore the project is seeking guidance from MSS and others on potentially relevant strategic projects that could be put forward for support. EK stated that developer representation will be important at the August migratory fish steering meeting to get a collective understanding of the current position.

ID asked if Seagreen was aware of 'The Missing Salmon Project' being undertaken by the Atlantic Salmon Trust (AST) in the Moray Firth? NB confirmed he was and asked what stage the project was at. ID said that smolts have left the rivers and are now expected to be feeding somewhere around Norway. The acoustic receivers are still deployed awaiting recovery. This is a large task. EK asked about data analysis. AW stated that initial

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	<p>outputs are expected by November. ID suggested that the date may be affected by a change in personnel at the AST.</p> <p>ID sought confirmation that there would be a commitment to further discussion with regards to diadromous fish monitoring in the PEMP. LR confirmed this commitment from Seagreen. . EK stated there needs to be more detail on what projects are expected to contribute to. AW agreed. NB stated that Seagreen recognise this is a general commitment but once the Evidence Map is more defined and discussions with MSS completed the commitment can be refined.</p> <p>ID sought confirmation with the group that the proposed monitoring strategy for marine fish, sandeels and diadromous fish was accepted. This was confirmed by the group.</p>	
<p>4.4</p>	<p><u>Scour and Sediment Deposition Monitoring</u> NB provided a summary of the proposed strategy for scour and local sediment deposition. The consent conditions require such monitoring; however scour is primarily an engineering issue. Therefore no specific monitoring is proposed and an adaptive approach is planned, based on engineering required monitoring. Monitoring requirements will be understood in due course when the detailed project design is completed. NB confirmed that available data provides a robust pre-construction baseline for any subsequent monitoring of scour or local sediment deposition undertaken post construction</p> <p>LR confirmed the approach is similar to that taken for the Beatrice project. ID asked the group for any queries in relation to scour. There were none.</p> <p>NB highlighted that the worst case utilised in the Seagreen 2012 Offshore ES is very exaggerated. Gravity base structure (GBS) were considered in the assessment with ground preparation requirements that potentially mobilise a lot of sediment. GBS are no longer being considered and the actual design will be well within the assessment limits. Further information will be available once detailed design is completed.</p>	
<p>4.5</p>	<p><u>Neart na Gaoithe</u> EW provided a brief summary of current thinking on NNG monitoring (see 5.2 for ornithology, 6.2 for marine mammals). Discussion papers for marine mammals were previously issued in 2015 based on SNH advice at the time. These will be updated and issued shortly.</p> <p>In summary, no monitoring is proposed for scour. No benthic monitoring is proposed, however EK highlighted again the issue of drill arisings within the pSPA boundary. No monitoring of marine fish or diadromous fish proposed, but NNG is open to engagement with ScotMER.</p> <p>As a general point EK highlighted SNH awareness of requirements for marine growth removal at other projects. This may be licensable. Concerns over invasive non-native species were also highlighted, to raise awareness.</p>	<p>-</p>
<p>4.6</p>	<p><u>Inch Cape</u> BK provided a brief summary of current ICOL planning for environmental monitoring (see 5.3 for ornithology, 6.3 for marine mammals).</p> <p>Any benthic ecology changes likely to be driven by sediments related to scour, therefore proposing to link to scour monitoring, which would be part of the engineering requirements. Suggestion that regular geophysical and visual surveys would be sufficient. ICOL would welcome further discussions on this. Monitoring proposals have yet to be developed for marine and</p>	<p>-</p>

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	migratory fish. BK indicated that ICOL would be seeking conversations on these topics in the next few months.	
5	Agenda Item 5: Ornithology Monitoring Update	
5.1	<p>NB stated that there is an FTRAG Ornithology subgroup meeting on 2nd July (the following week). The meeting papers have been issued to the subgroup including the Seagreen Ornithology Monitoring Strategy (OMS) document. The OMS reflects the collaboration between the Forth and Tay developers and includes details of aerial surveys which started in March 2019 for 12 months and tagging to be carried out at St Abbs and Fowlsheugh in 2020. Seagreen are currently investigating opportunities for supporting further studies.</p> <p>AM welcomed the collaborative approach by the projects to develop the ornithology strategy. This was welcomed by Royal Society for the Protection Birds (RSPB). This includes the approach to the puffin tagging being undertaken by NNG. ID also welcomed the collaboration on ornithology (and noted that collaboration on marine mammals was evolving). ID requested that consultees be given fair warning ahead of requests for information or input to discussions.</p>	-
5.2	<p>EW said that NNG ornithology monitoring comprises digital aerial surveys, June 2018 to construction start (expected Apr 2020). GPS tracking on Isle of May during 2018 and 2019 for kittiwake, guillemot, razorbill and puffin. Approach for a gannet study is yet to be agreed. This will be discussed at the FTRAG ornithology meeting.</p> <p>EW also confirmed that post construction/operational monitoring will be discussed within the ornithology sub-group. It is likely that NNG will be monitoring collision risk. However, NNG will wait to see what Aberdeen Bay are doing with regards to collision risk before they finalise any plans/programmes.</p>	-
5.3	BK stated that ICOL were participating in the collaborative aerial surveys as already discussed and would consider further potential studies targeting key species.	-
6	Marine Mammals Monitoring Update	
6.1	<p>NB stated there is also a Marine Mammals subgroup meeting on 2nd July. Papers have been issued, including the Seagreen Pre-Construction Marine Mammal Mitigation Plan (MMMP) which has been discussed and agreed with MS-LOT, MSS and SNH. The Pre-construction MMMP involves augmentation of the existing Marine Scotland ECOMMAS Passive Acoustic Monitoring (PAM) arrays to include Seagreen specific locations. CPODs will be deployed at 5 locations in March 2020 with noise recorders added to deployments at the next service visit. Initially deployment of the units will be for 12 months. NB also highlighted that marine mammal observations were recorded during aerial surveys, including over the Seagreen PAM locations.</p> <p>LR highlighted that monitoring planned by Seagreen next year will depend on the outcome of the CfD auction.</p>	-
6.2	EW stated that the NNG are proposing a similar monitoring approach to Seagreen and will be adding to the ECOMMAS array. Discussion of preferred locations will be undertaken with MSS and with FTRAG-MM.	-

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6.3	BK stated that ICOL were considering similar approach for their marine mammal monitoring.	
7	Next Steps	
7.1	NB stated that the Seagreen PEMP will be finalised after this meeting with the aim of submitting by 12 th July. Seagreen will also be commencing the review of geophysical data imminently to inform any benthic survey requirements.	-
8	AoB	
8.1	<p>ID stated that JB will need to contact the other developers to get an idea of their interest in a forum to share monitoring etc. A potential date during week commencing 18th Nov was suggested.</p> <p>EK enquired about post CfD plans for preparation and submission of Consent Plans and requested developers consider their approach if bids were unsuccessful. EK also highlighted that the forth coming sectoral plan for offshore wind was likely to make SNH very busy next year and probably the developer supply chain (consultants) as well.</p> <p>EK further highlighted experience from MFRAG that management of personnel changes during project handovers, e.g. from construction to operation, should be well managed.</p>	JB to contact other developers to gauge their interest in participation in an information sharing forum
9	Date of Next Meeting	
9.1	LR suggested mid-January onwards would be a suitable timeframe for arranging the next meeting. ID suggested the meeting could be held at the Marine Lab.	Marine Scotland to investigate holding a meeting at the Marine Laboratory in early 2020.