











Meeting:	Forth and Tay Regional Advisory Group – Marine Mammals Subgroup
Location:	Teams
Date, Time:	09/11/21, 10:00-12:00
Date, Time: Attendees:	Caitlin Cunningham (CCU; NatureScot), Claire Gilchrist (CGI; EDF R/NnG), Cormac Booth (CBO; SMRU Consulting), Douglas Watson (DWA; SSE/ Berwick Bank). Erica Knott (EKN; NatureScot), Fiona Manson (FMA; NatureScot), Gayle Holland(GHO, MS-LOT) Jack Lucas (JLU, MSS) Jared Wilson (Chair; JWI; MSS), Karen Taylor (KTA; NatureScot), Kate Grellier (KGR; Natural Power/ ICOL), Keith Thomson (KTH; RRPL/ ICOL), Laila Higgins (LHI; Natural Power/ ICOL), Monica Arso Civil (MAC; St Andrews University), Philip Hammond (PHA; St Andrews University), Nick Brockie (NBR; Seagreen), Polly Tarrant (PTA; EDF R/ NnG), Ross Culloch (RCU; MSS),
	Sarah Arthur (SAR; RRPL/ ICOL), Sarah Canning (SCA; JNCC),
	Sue O'Brien (SOB; MSS),
Apologies	Fiona Read, WDC Martha Lovatt, SSE Kate Brookes, MSS Janelle Braithwaite, MS

Minutes taken by:	Laila Higgins
Date Issued – Draft for Comment:	19/01/22
Date issued - Final:	07/04/22













Agenda Ref	Topic (Actions are identified in bold)	Action status (open/closed)	Action owner and deadline
1.0	Introductions	N/A	
2.0	Previous meeting minutes/actions		
	NS and MS to speak to NE, MMO and The Crown Estate (TCE) about ongoing southern range expansion of the east coast bottlenose dolphin population and potential need to expand the existing monitoring programme into England Update NatureScot currently speaking to Newcastle University.	Open	NatureScot and MSS
	Ongoing MS and NS to discuss contributing to or adding to this programme with MB&BB Update Discussed that given the current status of the project it was appropriate for their attendance.	Closed	NatureScot and MSS
	SMRU Consulting and MSS to arrange a meeting to commence knowledge exchange and agree broad timescales for ECOMASS data analysis. Update Timescales and data exchange on eco datasets ongoing	Ongoing	SMRU Consulting and MSS
	SMRU Consulting to update the plan that was submitted to the FTRAG in May 2020 to cover this amended approach and timelines for how the integration with the ECOMMAS array will work. Update	Closed	SMRU Consulting
	Amended approach and timelines for ECOMASS will vary. Add standing "lessons learnt" item to all FTRAG agendas Update Lesson learned agenda item added to this and will be to future agendas.	Closed	Developers
3.0	Project updates		
3.1	NnG - CGI Offshore construction is continuing with cable installation and burial undertaken, along with boulder clearance in the development area and pre-trenching of inter-array cable		













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	routes. Both substation platforms are on transportation barges to the site. Onshore work is almost complete – should be finished by end 2021.		
3.2	Seagreen - NBR Offshore construction is underway, with boulder clearance, UXO identification and site demarcation. WTG jacket installation commenced in October 2021, with 10 jackets installed to date. First OSP jacket substation and inter-array cable installation due in November. Turbine installation starting in December 2021, with 114 turbines completed by late 2022. In 2023 36 turbines will be installed, with final commissioning in Q4 2023. Operations base in Montrose is nearly complete, and work is ongoing at Export Cable landfall at Carnoustie.		
	EKN queried which project the substructures currently in Dundee belonged to? NBR confirmed not Seagreen, might be NnG JWI noted barges up the Forth with jackets NBR stated that they were sheltering following a refusal on installation. Until a solution is reached the jackets will return to Nigg until ready to go at site again.		
	EKN asked if now the sites were getting more visible from the coast if there had been any feedback from the public. NBR – the majority of interest was from the fishing community and there had been little public interest. JWI noted once turbines are visible on the horizon there is likely to be an increase in public interest. NBR - hopefully be turbines up before the end of the year.		
3.3	Inch Cape - SAR Ben King and Andy Blyth have both moved on since last meeting, KTH has joined Project. Consent variation granted for removal of capacity cap. Geotech ongoing in the Development Area. CfD removed cap, will be entering into next CFD round and the speed of the process will impact on programme. Currently aiming for start of construction in 2023 with commissioning in 2025-26.		













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	Likely to be a monopile solution. Hoping to get a timeline for document discharge issued to group soon to allow resource planning and will be in touch separately for more detailed discussions		
	Questions EKN queried the progress on ICOL updated hammer energy modelling? SAR: Modelling report aiming to be complete for end of this month/December. Piling strategy later next year, dependant on the outcomes of the geotech being undertaken within the Development Area at the moment. Will provide email update in due course.		
3.4	Berwick Bank - DWA ALO is Consents Manager at Berwick Bank. The former Berwick Bank and Marr Bank projects have been combined into one 4.1GW project – Berwick Bank. The project Scoping Report was submitted on 6/10/2021, with the LSE Screening submission on 28/10/2021. EIAR drafting between November 2021 and April 2022, with submission in late May 2022.		
4.0	Monitoring Updates		
4.1	Passive acoustic monitoring (SMRU Consulting) Update provided by CBO Update from last December, purpose of the monitoring is to explore changes around construction, get regional picture of dolphins and porpoise baseline. Trace back changes to anthropogenic and environmental co-variants. Notes sent in April to capture current approach — using C-pods for clicks. Noise loggers for whistles and background noise levels, combining c-pods with noise loggers. Some pods lost, but data collection is looking good. Outputs all processed up to July, due to get more this week. Trends: Broadly consistent peaks in winter into spring Dolphin detections occur closer to shore. Currently can't distinguish dolphin species. PhD student just started who's planning to investigate this further to see if it can be done.		













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4.2	Good detection of porpoises every day, less offshore Interesting pattern: S1 highest dolphin, S2 less. But March it was reversed. Sustained period animals offshore at the wind farm site. Pre-processing for larger analysis, continuing August. Still working on how to summarise noise, but the data has been collected and that is key. Met with Ewan and MSS to harmonise and standardise ECOMMAS data to allow regional data, allow comparison. Bottlenose Dolphin photo ID (St Andrews University)		
	Update provided by MAC 2021 survey started in June, primarily in St Andrews Bay/Tay Estuary, up to Montrose, Firth of Forth when weather allows. Encounters predominately at mouth of Tay Estuary. 2021 was consistent with previous year of surveys. Current data being processed manually using the existing catalogue. Launched citizen science campaign to investigate the southern range expansion. Photo ID data sent in from SE Scotland, NE England and animals have been recorded further south than this. Very slow start in Autumn 2020 as covid, and weather reduced opportunities but 2021 has seen an increase in submissions. Most photos are from shore, some boat. Most sightings along English coast. About 130 submissions, 39 individuals matched to the east coast of Scotland catalogue – some animals haven't been seen in the Moray Firth for some time but these animals are still around, just expanded their range. Efforts have and continue to be made to spread the word and encourage people to submit photographs with location and date.		
	Questions: RCO: Interesting science. Well-marked individuals easier to track. How many photos to sift through? Unknown individual might have not been identified previously, not increased populations? MAC: yes, point is not to treat the citizen science data the same as scientific data, just a who is where exercise. Non-ID		













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animals don't go into catalogue, but tracked to see if ID possible later, e.g. calves. Know population is growing, but not based on citizen sci survey. KGR: From map, are you getting hint of hotspots worth exploring with experienced people /boat temporally and spatially? MAC: Good spread from the citizen science data, but als related to where people tend to visit. Scarborough and Newbiggin good records, other locations no submissions probably because people don't tend to go there. Hoping dedicated surveys at some point and inclusion of photos other organisations. Looking for areas as candidate area dedicated surveys. JWI: Is there interest from English counterparts for dedicatery surveys? EKN: NatureScot are in conversations with EDF-Blyth. Has useful conversation with MMO, but they're thinking about Further discussion with NE/Defra/BEIS to be had GHO: recent meeting where there was rising interest, fundiscussion to happen. RCU: Any indication of further extension of range? React out far enough? MAC: The furthest sightings we get are from a lighthous Sussex, they've been spotted there for some time and so individuals have also been matched between Ireland and east coast of Scotland; so there is a broader picture. How south the range extends we do not know, might not be to see them e.g. not close to shore. E.g. at Berwick upon Tweed we know they're present a bit further north so assume they are there, but as it's a cliff there are no opportunity for sightings. RCU: collection in Portsmouth? MAC: Yes, but not linked. Would be surprised if there we photos and no one's passed them on. Could be other populations.	is ience d so s g for s from as for cated ad out it. arther hing e in ome d the w far easy	













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5.0	Lessons learned/Results sharing		
5.1	Seagreen UXO campaign — presented by NBR Awaiting report from subcontractor. Figure (see slides) presented showing all potential targets from geophysical surveys with magnetometer. Ferrous objects considered to be UXO by experts inspected by ROV, over 1,000 targets were identified before being narrowed down. Of the identified locations, about 2/3rds were fishing debris, cable, rope, bits of engine. Only found 4 UXO, 3 were potentially explosive, one was practice and moved. One of the 3 was a large, British sea mine, 250 kg explosive. Also remnants of older sea mine, possibly did partially detonate. Discussions were had with MS-LOT and MSS prior clearance. A contractor, UXO Control, undertook low yield approach, not as low as deflagration, but low risk of high order detonation from their approach as they use a high pressure water jet. Report due which will include underwater noise report — array of 3 hydrophones at set distances. Will be provided when available. ACTION: NBR to provide UXO underwater noise report to FTRAG-MM group when available ADDs deployed in advance, will be in report to be shared in due course. Questions: EKN: Was the fishing debris identified during the UXO surveys get recovered or left in situ? NBR: depends on what it is, but in this case, none was recovered to shore. Explosive debris is recovered and disposed onshore. JWI: What kind of metallic fishing debris? NBR: For example wire or part of a scallop dredge CGI: Did you have to do extensive dredging in advance to get a clear image? NBR: Yes for the purpose of charge placing CGI: Was there significant marine growth on the UXOs? NBR: The practice shell was very overgrown but there was enough of it visible to identify it was a practice shell.	Open	NBR when available.













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6.0	ScotMER Marine mammal Update		
	ScotMER receptor groups meeting arranged for end of the month (November). Plans for the next ScotMER symposium are to be discuss and what it should cover. Any suggestions please send through to JWI or SOB.		
	ACTION: Send any suggestions of topics/presentations for the next ScotMER Symposium to JWI or SOB.	Open	Developers
	RCU: The Marine Mammal map has been updated within MSS, but still to be finalised which should be soon. The updated map is as expected but will be looking for feedback/input.		in advance of next ScotMER symposium
	SOB: Provided update on OWIC and ECOWind. Update on progress with the PrePARED group.		
	SOB: ECOWIND. Joint NERC and crown estate. To apply for funding, needs to be in group. A lot of academic or research institutions which are not eligible. ECOWIND more for academic research proposals. A few enquiries that will fit alongside PREPARED. E.g. oceanographic. But will be others. Closes November		
	JWI: multiple rounds, will keep calling rounds until they run out of money.		
	Questions:		
	EKN: Symposiums and conferences coming up. MM Scottish Power Renewables. Anything to present?		
	Wildlife and wind conference in April in Netherlands – any presentations from RAG group?		
	PTA: CWW ornithology abstract submitted but not MM EKN: SPR – who organising, no date set yet. Ursula doing a presentation for Moray Firth		
	CCU: no set date, placeholder end of January, were hoping to do it this month but had to postpone.		
	JWI: if people have info, please circulate to this group.		
	The upcoming SPR ornithology conference in December was discussed. PTA to forward invite to SAR. Developers to let MSS and NatureScot if there will be any information presented at the conference on the F&T work.		













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	Links: KTa: https://www.ukri.org/opportunity.consequences-of-offshore-wind/?utm_medium=email&utm_sour. Timeline 28 October 2021 Opening date 25 November 2021 16:00 Outline proposal closing date Week commencing 31 January 2022 Successful applicants invited to submit full proposal 5 April 2022	·		
7.0	Full proposal closing date AOB			
7.0	SAR: Queried format for future meetings – should these be over teams? Reduces travel, easier to get a suitable date etc. Agreement from all that this was preferred going forward. Date for the next meeting was discussed. Agree to go for a similar date (November) in 2022 to tie in with the SMRU Consulting analysis.			