

**Notes of NE / RUK Post Consent Monitoring Seminar
18 March 2015, Museum of London (notes – Rachel Furlong and Gillian Sutherland)**

Rationale for the event: To build on good feedback and relationships developed at Norwich event in March 2014, a chance for constructive discussion away from pressure of cases to develop shared understanding of what we need to do with post consent monitoring for offshore windfarms and how we can do it better. Focus on England because NE wish to develop Natural England and developer relationships but not to exclude other UK/international representatives/experience

The event was very well attended with representatives all of the main developers, consultants, SNCBs and regulators.

Objectives:

- To develop a clear understanding of why, when and where monitoring is needed.
- To provide a consolidated view of what post construction monitoring has given us to date.
- To clarify where the gaps are in understanding impacts or where there is uncertainty and what is needed to address them.
- To develop understanding of acceptable approaches to monitoring (eg collaborative) and the limitations to setting them up.

Key points:

- Recognition from industry, SNCBs and regulators that we need to move away from Round 1 approach to PCM (whereby receptors are monitored regardless of impact and likelihood of detecting change under the BACI (Before After Control Impact) approach) to a smarter, more streamlined, cost effective and focussed form of monitoring.
- 2 aspects to be considered: regulatory targets: testing significance, uncertainty, compliance, validation in the process (eg. EIA results) and strategic issues : models/enforcement/delivery and outputs
- The MMO presented the key points from their review of PCM and the associated regulator response which recognised that PCM is always required, and where it is, it should follow best practice and be targeted to achieve specific research objectives. Licensing conditions must therefore be 'necessary, relevant, enforceable, precise and reasonable' (as set out in the NPPF 2012). It should be proportionate to the significance and a defined duration.
- Standard conditions are controlled by the applicant under the PINS process, so MMO do not see a role for them in defining these.
- Adaptive management is a welcomed approach but developers need to consider inherent risks, eg. changes to requirements can be positive and negative.
- MMO have much experience in the regional approach used by the aggregates industry.
- There was widespread support across industry, regulators and advisors for a collaborative / strategic / regional approach to monitoring which can focus on addressing the key evidence gaps. However, the discussion recognised that there are difficulties in setting up and administering such programmes.
- Important that effort is put into defining the research questions – the goals and objectives - that need answered and designing an appropriate methodology to answer these questions (rather than focussing on the 'nice to know'). Defining monitoring goals can be assisted by the formation of advisory groups with input for regulators, advisors and stakeholders.

- Power analysis and simulations can play a role in the decision making process but we should consider whether we should monitor if the evidence suggests that we are unlikely to detect change or evidence of impact (due to sample size etc).
- Focus should be on validating models: flight height, displacement rates, SPA connectivity not to repeat baseline surveys. Both temporal and spatial scales need to be considered.
- Examples given:
 - Dudgeon – Sandwich Terns: power analysis of displacement, showed high intensity needed to measure high effort. Need to account for natural variability, hard to attribute effects to OWF.
 - Displacement of Red throated divers in East Irish Sea (Dong)
- Can use power analysis to determine the appropriate number of tags to collect the sample size required.
- Density surface modelling can use bathymetry as a co-variate.
- Consider radial or downstream sampling as opposed to BACI.
- Grid 'vs' transect, reduced confidence intervals with grid approach (APEM)
- Common issues: natural variation, too small samples, lower power to detect change, lack of effect evident, suitability of the control site.
- Cumulative effect likely to continue to be a key consenting risk and strategic monitoring at an appropriate scale can help address these gaps in the evidence base. The focus should be on population monitoring not the individual OWF's.
- Examples of National seabird programme: SEAPOP, SEATRAK –time series data from colonies (Kittiwakes, LBBG, Guillemots, Sandwich Tern)
- Need to ensure that data from PCM feeds into evidence base and informs future consenting and PCM decisions.
- Consider when mitigation appropriate vs monitoring.
- Aggregates – Regional monitoring plans, work closely with CEFAS, set limits of acceptable change based on broadscale surveys. Monitor change, share data.
- Richard Caldow of NE supported the principle of strategic, well defined monitoring, stating that monitoring should not try to address unforeseen impacts, non-significant effects or on where no impact is predicted. He did however state this was a personal view rather than a NE one. Monitoring should focus on addressing remain uncertainty and be pragmatic!
- In the NL it is all top down, national MasterPlans. Lessons learnt: base on current knowledge, focus on knowledge gaps, requires creative alternatives and adaptive management (Ecofys).
- However the discussion did not focus on the mechanisms for delivering strategic / collaborative monitoring in terms of how this is administered, who administers this (developers or regulators) and how we deal with differing project timelines.

Outstanding questions / areas for consideration:

- How to prioritise monitoring / define questions to be answered?
- Where to monitor and at what scale?
- How to administer collaborative / strategic research? Role of industry v regulators?

- How to progress collaborative work if projects at different stages / timescales (with added CfD timescale complication). Need to consider individual developers commitment schedules.
- What point do these potential studies come into the monitoring programme, can they be used for existing licences? Variations to be sought? Should they be aligned to baseline (suggest no, different objectives)?
- Can/Should these works be linked to the wider SEA studies?
- Who's responsibility to implement – ultimately the developer but everyone wants in?
- Where does the responsibility lie for future reviews and reflection on existing data (stored in TCE Marine Data Exchange database)?
- How to manage risk of collaborative research for developers? Cannot be reliant on other projects, risk from them not being able to complete.
- What if the strategic studies do not deliver how can it deliver against consent commitments?
- How do we maximise the ability to detect change attributable to OWFs?
- Can we separate the 'nice to have' and precaution 'just in case' from the true goals in answering scientific based hypothesis?