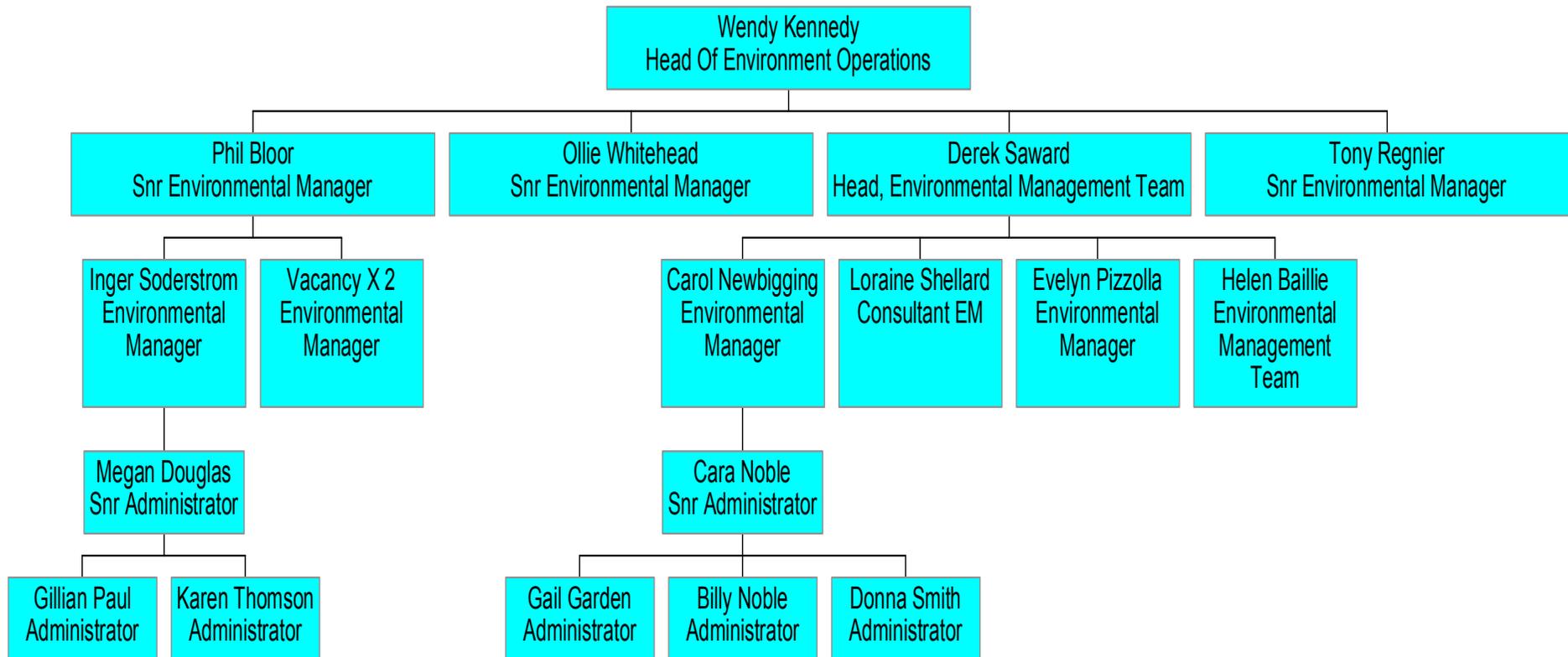


Impact of Noise on the Marine Environment – a Regulatory Perspective



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Over-arching Objective



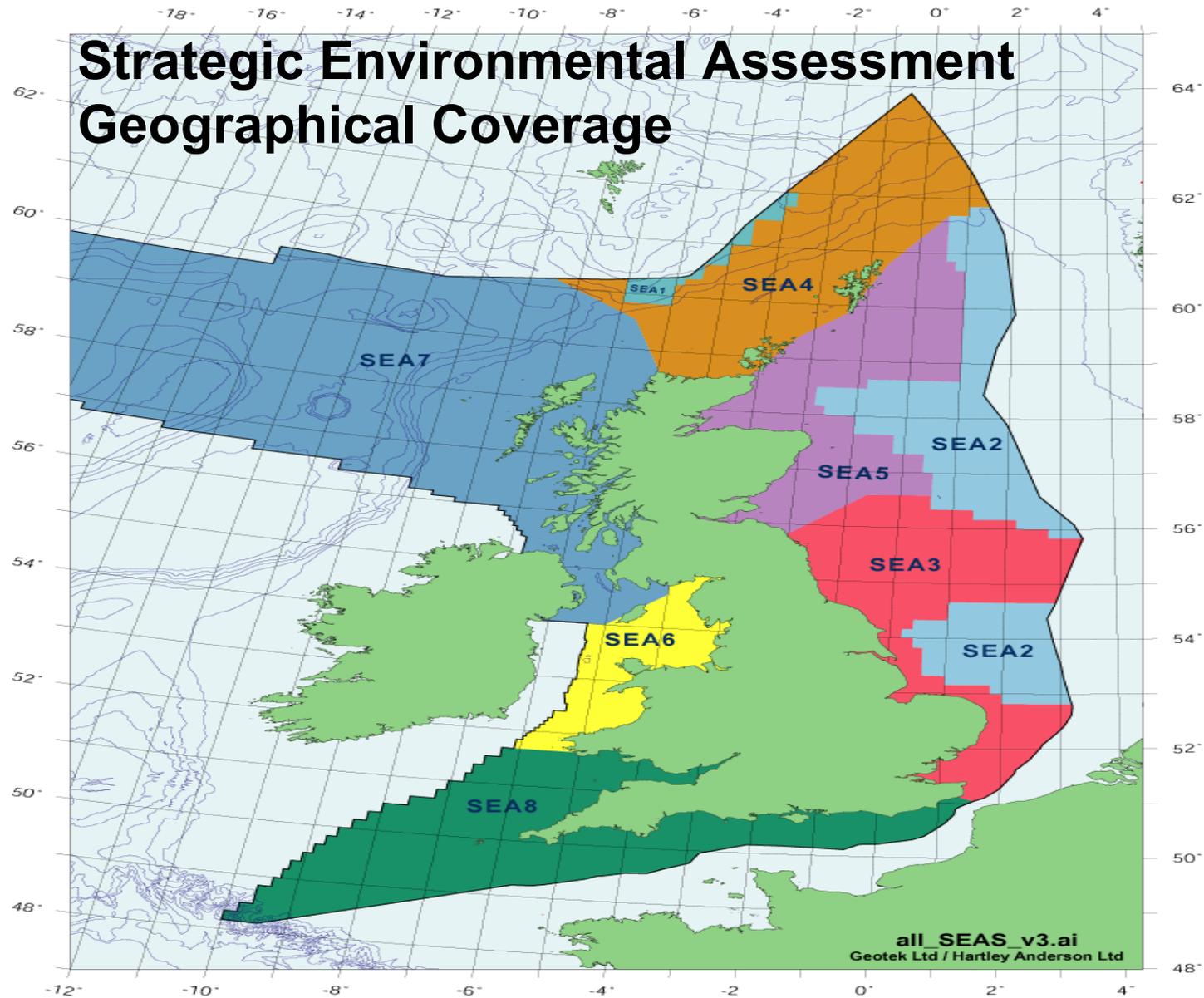
Minimise the Impact of Oil and Gas Activities & Offshore Windfarms on the Marine Environment

What are the concerns?

- Possible effects from noise e.g. seismic surveys
 - Effects on marine mammals
 - Effects on fisheries
- Ranging from
 - Behavioural alteration
 - Sound masking
 - Temporary hearing damage
 - Permanent hearing damage
 - Severe injury/death

How does DTI Regulate the Impact of Noise on the Marine Environment?

- **Strategic Environmental Assessment**
- **Development / Site Specific Assessment**
 - Offshore Petroleum Activities Conservation of Habitats) Regulations 2001
 - Offshore Petroleum Production and Pipe-lines (Assessment of Environmental Effects) Regulations 1999



The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001

“The Habitats Regulations”

- A person shall not carry out UKCS oil and gas activities in such a way as to ‘deliberately kill, capture or disturb . . .’
- **Regulation 4** requires written consent from the Secretary of State for “prospecting or carrying out geological surveys by physical or chemical means” or drilling for the purposes of geological information about the strata, i.e. seismic surveys and shallow boreholes (<350m deep)

Activities Requiring Consent

- Seismic surveys
- High resolution seismic site surveys
- Magnetic surveys
- Gravity surveys
- Borehole seismic
- Shallow drilling

PON14 Application

- DTI consults statutory consultees:
 - Joint Nature Conservation Committee (JNCC)
 - Fisheries Research Services, Marine Laboratory (FRS) – Scottish Waters
 - Centre for Environment, Fisheries, Aquaculture Science (CEFAS) – English and Welsh Waters
- Applicant has to notify a list of other consultees
- Application to be accompanied by an Environmental Assessment when the activity proposed is in sensitive areas, e.g. West of Shetland, Cardigan Bay, English Channel, Moray Firth, St George's Channel

PON14 Consent

Aim

- To protect against injury & ensure disturbance is minimised
- Condition of Consent that JNCC Guidelines must be followed at all times for all seismic and high resolution site surveys
- Consent may require use of marine mammal observers, depending on sensitivity of area & in certain sensitive areas use of Passive Acoustic Monitoring (PAM) may be recommended

Sources of Advice

- DTI Guidance Notes for Industry
 - Guidance notes for oil and gas surveys and shallow drilling can be found: <http://www.og.dti.gov.uk/environment/index.htm>
- JNCC Guidance Notes for Industry
 - Guidelines for minimising acoustic disturbance to marine mammals from seismic surveys can be found: <http://www.jncc.gov.uk>

Post Survey Reporting

- **PON14 Close-Out Form**
 - Must be completed for seismic and high resolution seismic site surveys
- **JNCC Marine Mammal Observer (MMO) Returns:**
 - Location of survey
 - Nature of airgun (frequency, intensity, firing interval)
 - Record of all occasions when airgun used including the duration of watch beforehand and soft start
 - Marine mammal sightings
 - Any difficulties in implementing guidelines
- **JNCC Yearly Report**
 - Compiled in attempt to draw conclusions regarding disturbances

Conclusions

- The potential effects of seismic and other underwater noise on cetaceans remains a significant area of uncertainty & issue of importance for offshore industries
- However mitigation measures already implemented, including updated JNCC Guidelines, use of PAM, use of consent procedure to manage cumulative effects & provide some degree of protection from acute effects
- Research & Development - funded via DTI & JIP