

# ENVIRONMENTAL SURVEYS



## Ecology and Ornithology

A programme of ecological and ornithological surveys has been carried out on the site. The results will be used to ensure that any impacts on wildlife are altogether avoided or mitigated if necessary. In addition, opportunities for biodiversity enhancements that the development could deliver will be explored in consultation with specialist interest groups.

### Ornithology surveys

A comprehensive bird survey programme is currently ongoing to ensure the latest data is collected. This includes breeding and non-breeding seasons. Overall, the aim is to ensure all present bird species are accurately accounted for and any impacts on them is correctly assessed.

### Ecology surveys

The ecology surveys include:

- Extended Phase 1 habitat survey; and
- National Vegetation Classification survey.

## Archaeology and Cultural Heritage

The effects of the Proposed Development on the historic environment, including cultural heritage and archaeology, is currently being assessed.

Surveys have concluded that there are two scheduled monuments within the site boundary, Hundland Hill and Nisthouse burial mound. These features have been taken into account during the design process. The environmental impact assessment will assess the magnitude and significance of effects on heritage assets in the surrounding area.

## Peat

An initial Phase 1 peat survey has been undertaken to establish the peat depth, if any, across the site.

Following the results of this survey the proposed layout has been designed to avoid areas of deep peat. If required, a 'Peat Management Plan' will also be prepared to accompany the wind farm planning application.

## Noise

There are two potential sources of noise:

1. The turbine blades passing through the air as they rotate
2. The rotation of the gearbox and generator in the hub of the turbine

Standing next to a turbine, it is possible to hear a swishing sound as the blades rotate.

Wind turbine technology, year-on-year has continued to improve around the world. As a result the industry has seen improvements not only in electrical output but also importantly reducing noise levels even further.

Generally wind turbine noise levels increase as wind speeds increase, however, so does the background noise level as the wind blows around the local area.

### How is noise assessed and measured?

Noise is measured in decibels - dB(A)

Wind farm noise is assessed based on guidance provided by ETSU-R-97 "The Assessment & Rating of Noise from Wind Farms".

The now completed noise surveys have shown the proposed development would comply with the above regulations. As part of the application process, Orkney Island's Council's Environmental Health Officer will continue to be consulted.



noise monitoring equipment