Pink-footed Geese, Barnacle Geese and Whooper Swans winter or pass through Cumbria mainly between September and early May. They are protected by UK and European legislation. The greatest threat to these species comes from development that affects their feeding grounds, especially wind farms.

Legal and Conservation Status

- Whooper Swan and Barnacle Goose: Annex I Birds Directive (protection through Special Protection Areas, Article 4.1)
- Pink-footed Goose: Birds Directive - regularly occurring migratory species (protection through Special Protection Areas, Article 4.2)

Habitat

All of the birds graze on grasslands during the day including intensively managed agricultural land such as pasture, winter stubble, cereals and root crops.

Whooper Swan - Most Whooper Swans wintering in Britain and Ireland are from the Icelandic breeding population. Whooper Swans favour grazing on intensively managed agricultural land, notably improved pasture, winter stubbles and root crops. The choice of particular pasture fields may be related to the availability of nearby freshwater for drinking, and to the presence of stock. Birds rarely mix with sheep or cattle. Birds may move to roost on estuary mudflats or saltmarshes, or on the sea itself, at coastal sites, but on moonlit nights they may stay inland. Inland feeders may move to roost on adjacent still freshwaters or rivers at dusk.

Pink-footed Goose - The Iceland/Greenland breeding population of Pink-footed Goose winters almost entirely within Britain. Favoured feeding areas are improved grasslands, stubbles, cereals and root crops with nearby estuaries or freshwaters used as roosts (Mitchell & Hearn 2004).

Barnacle Goose - The entire Svalbard-breeding population of Barnacle Geese winters around the Solway estuary. Its preferred grazing habitat is on the estuary’s saltmarshes, although it is increasingly being found on neighbouring intensively-managed grassland.
Cumbria Key Habitats that are particularly important for the above species include:

- Coastal and floodplain grazing marsh
- Intertidal habitats

Ecology

All are arctic-breeding, single-brooded species which maintain pair-bonds for life. In all species family groups migrate together from the breeding grounds, via a moult area and favoured staging areas, to the wintering grounds. Family groups remain together until late winter.

During winter the geese form large mobile flocks; the swans smaller more sedentary flocks of generally less than 30 birds. Barnacle Geese move around the Solway grazing an area down then moving on to a new area. The swans will use favoured feeding areas for a month or more (though they may move to roost). Pink-footed Geese move around the country.

The swans generally move north from Cumbria in late March; geese stay until mid-April, with the last Barnacles leaving in May. Almost all the Solway population of Barnacle Geese gather on Rockcliffe marsh pre-migration.

Distribution

**Whooper Swans** - In Cumbria there are regular wintering areas around the Solway estuary and inland in the lower Esk Valley at Longtown, the lower Eden Valley east of Carlisle and the middle Eden Valley east of Penrith.

**Pink-footed Goose** - The Solway estuary and adjacent farmland is the major Cumbria wintering area. The main roosts are on the Blackshaw and Priestside Banks on the Scottish side, on the sandbanks off Rockcliffe Marsh in both Scotland and England, and in Moricambe Bay at the western end of the inner Firth on the English side. Numbers peak in February and early March when the geese present all winter are joined by birds from Lancashire and Norfolk wintering grounds. At this time geese feed on saltmarshes and fields around Morecambe Bay and the Duddon as well as the Solway.

**Barnacle Goose** – In winter Barnacle Geese are found on fields within or adjoining the Solway estuary particularly around Mersehead and Caerlaverock on the Scottish side and Rockcliffe Marsh and Moricambe Bay on the English side, and do not range far from these areas. Rockcliffe Marsh is the major roost in Cumbria.
Conservation Issues

These birds are vulnerable to disturbance and/or habitat loss at their feeding grounds, and potential collision along, and disturbance to, their flight routes. They are considered particularly sensitive to wind farm developments because:

- They are large and un-manoeuvrable and are vulnerable to collision;
- They often follow discrete flight lines between roosting and feeding areas and make daily flight movements often in low light conditions;
- They may be vulnerable to the effects of displacement by wind turbines which can ‘sterilise’ key feeding areas;
- They occur in discrete, internationally important populations

Planning Considerations

- Developments may impact upon the feeding areas directly or may cause impact on the flight-lines of the birds between the feeding areas and roosting areas.
- Any proposed development would require a survey and assessment of use during the appropriate time of year.
- Any development that would impact upon these birds would require adequate mitigation and, where appropriate, compensation.
- Since Pink-footed Geese, Barnacle Geese and Whooper Swan are protected through SPA designation any development that impacts upon these birds, or the habitat on which they depend, when they are off-site may result in an adverse effect on the integrity of the site itself. This would require the planning authority to carry out a Habitats Regulations Assessment under the Habitats Regulations 1994.
- Any impact to the designated species (or habitat on which the population is dependent), which causes a significant decline in the size, distribution, structure or function of the population within the designated site, should be considered to have an adverse effect on the integrity of the site.
- It should be noted that a clear link would need to be made between the population being impacted upon and the population within the designated site (functionally linked).
- In Cumbria this will be particularly relevant for development within the Core Areas.
- Developers should be encouraged to seek advice from Natural England, RSPB or the Cumbria Bird Club.

Enhancement Opportunities

- Large scale developments can create new, or improve the management of, feeding areas for these birds, both during the operation of the development or as part of the site restoration.
- Pink footed geese are a legal quarry species (during the open season September 1 to January/February), under Section 2, and listed in Schedule 2 Part 1, of the Wildlife and Countryside Act 1981. Large numbers of birds are shot each year. Shooting occurs both on estuaries and on farmland. One form of compensation (associated with developments) is the buying out of shooting rights and the creation of refuges for feeding geese.
Further Information

Spatial Planning Guide for on-shore wind farm developments in Cumbria 2007, RSPB
Wild birds: surveys and mitigation for development projects Natural England March 2015
Wild birds: surveys and monitoring for onshore wind farms Natural England June 2015
Specific Species Information
Goose and Swan Monitoring Programme
Special Protection Areas

Contacts

National:

- RSPB, Newcastle 1 Sirius House, Amethyst Road, Newcastle Business Park, Newcastle-upon-Tyne, NE4 7Y. Tel: 0300 7772 676
- WeBS Secretariat, WeBS Office, British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU. Tel: 01842 750050. Email: webs@bto.org
- WWT, Goose and Swan monitoring programme, Slimbridge Wetlands Centre, Slimbridge, Glos GL2 7BT. Tel: 01453 891900. Email: enquiries@wwt.org.uk

Local

- Cumbria Bird Club, Dave Piercy, 64 The Headlands, Keswick, CA12 5EJ Tel: 017687 80113
- Natural England, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL. Tel: 0300 060 3900

Current Action in Cumbria

- All the above birds are monitored during the winter as part of the Wetland Birds Survey (WeBS) co-ordinated by the BTO, and the Goose and Swan Monitoring Programme co-ordinated by the WWT. Information on these surveys can be obtained from the relevant organisation.