

**Proof of Evidence  
of  
Frederick Robert Gomes  
for the  
Royal Society for the Protection of Birds**

**22nd December 2010**

**Town & Country Planning Act 1990 (as amended)**

**In the matter of:**

**Planning Applications for Construction of a runway extension and erection of a  
terminal building at London Ashford Airport, Lydd, Kent**

**Planning Inspectorate Refs:      APP/L2250/V/10/2131934  
   APP/L2250/V/10/2131936**



## 1. INTRODUCTION

- 1.1. I am Frederick Robert Gomes. I hold an honours degree in Zoology from the University of London.
- 1.2. I work for the Royal Society for the Protection of Birds (the **RSPB**) as Area Manager for East Kent. I am responsible for the RSPB's Dungeness Reserve (the **Reserve**) and the RSPB's newly acquired sites in the Lydden Valley, Kent.
- 1.3. I have spent the whole of my working career in conservation, primarily relating to birds and the management of nature reserves. After three years as a contract warden, I joined the RSPB as a permanent staff member in 1976. Prior to working for the RSPB I worked as an ornithologist and bird ringer at Ottenby Bird Station on the island of Oland, Sweden and for the National Trust in Northumberland, where I spent a summer as a warden on the Farne Islands and a winter working on a sand dune restoration project on the Northumberland coast.
- 1.4. I have extensive experience as a field ornithologist and in the conservation of wetland habitats. During a long career with the RSPB, I have worked at a number of major wetland and estuarine sites, including Leighton Moss, Lancashire, Havergate Island, Suffolk, Minsmere, Suffolk, Langstone Harbour, Dee Estuary, Cheshire and Elmley Marshes, Kent.
- 1.5. In addition, I worked for two years at Geltsdale, an upland, moorland site in the North Pennines where I undertook breeding bird and vegetation surveys prior to the site becoming an RSPB nature reserve.
- 1.6. I have a keen interest in all aspects of natural history and pursue this interest both within and outside of work. I am a member of the British Trust for Ornithology, International Wader Study Group, the Kent Wildlife Trust on which I serve as a reserves management committee member, Kent Field Club – currently President – and special interest groups such as Butterfly Conservation and BEWARS (Bees, Ants and Wasps Recording Society).
- 1.7. I also contribute to a number of national recording schemes. During periods of sabbatical leave from the RSPB I have spent periods, as part of an international expedition to Djibouti,

counting raptors crossing the Bab el Mandeb straits between Yemen and Djibouti and counting and mapping the distribution of waders in Deep Bay at WWF Mai Po Reserve on the Hong Kong Chinese border. I have undertaken two sabbaticals under the guidance of Butterfly Conservation - targeted recording to map the distribution of butterflies at a number of sites in southern Eire for the National Butterfly Atlas and surveying Pearl bordered Fritillary and Wood White on the Burren, Eire.

- 1.8. At the Reserve, I manage a team of six permanent staff and have overall responsibility for delivering the habitat management and visitor operation on the Reserve. I have been the Reserve manager for eight years. At Lydden Valley, I am leading the project team that is developing the creation of a wetland nature reserve on land that is predominantly arable at present.

## 2. **SCOPE OF EVIDENCE**

- 2.1. In my evidence I will describe:

- 2.1.1. the history and status of the Reserve;
- 2.1.2. the nature conservation importance of the Reserve within the context of the international, European and national nature conservation designations that cover the Reserve;
- 2.1.3. the RSPB's objectives for and management of the Reserve;
- 2.1.4. the visitor experience, including the Reserve's educational facilities and use by and importance to local schools and the community; and
- 2.1.5. my concerns about the potential impacts on the amenity and educational value of the Reserve were the applications to expand Lydd airport be allowed.

- 2.2. I do have serious concerns that the significant expansion proposed at Lydd airport could adversely impact rare habitats and species that occur on the Dungeness foreland<sup>1</sup> and on the Reserve<sup>2</sup>. Many of these are features of the designated sites (the Special Protection Area (**SPA**) and the proposed extension to the SPA (**pSPA**), the proposed Ramsar site (**pRamsar**), the Special Area of Conservation (**SAC**) and Site of Special Scientific Interest

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<sup>1</sup> Foreland is a headland of land.

<sup>2</sup> For the location of the Reserve and general location of Dungeness foreland, please see Map 1 in Appendix I.

(SSSI)) and I therefore understand they receive a high level of protection from damaging development which risks adversely affecting them. As others are presenting evidence on these issues at the inquiry, I do not intend to cover these in my proof. However, I am aware of what their evidence covers and support them.

### **3. THE RSPB**

3.1. The RSPB was founded in 1889. It is a registered charity incorporated by Royal Charter and is Europe's largest wildlife conservation organisation, with a membership of over 1 million. The RSPB manages 209 nature reserves in the UK covering an area of 143,217 hectares. The Society places great value on the conservation of the 'Natura 2000' network of sites of European nature conservation importance (made up of SPAs and SACs), as well as the national network of SSSIs notified by Natural England.

3.2. The principal objective of the RSPB is the conservation of wild birds and their habitats. The RSPB therefore attaches great importance to all international, EU and national law, policy and guidance that assist in the attainment of this objective. The RSPB campaigns throughout the UK and in international fora for the development, strengthening and enforcement of such law and policy. In so doing, it also plays an active role in the domestic processes by which development proposals are scrutinised and considered.

3.3. The RSPB has been actively involved in wildlife conservation within Kent for over 100 years, working with a range of partners, including Local Authorities, Kent Wildlife Trust and Natural England. The RSPB has 232,816 members in south-east England, representing some 2.3% of the region's population. In Kent, the RSPB has over 32,900 members and manages 12 nature reserves covering an area of 3,817 hectares.

### **4. HISTORY AND STATUS OF THE RESERVE**

4.1. The Dungeness area (see Map 1 in Appendix I) is famous for its rich and diverse wildlife, much of which can be seen by the many people and schools visiting the Reserve. Throughout the year, visitors can gain exceptional views of the resident birds including breeding marsh harriers and during the winter months can enjoy the spectacle of large

flocks of waterfowl<sup>3</sup>, ducks, geese and swans. The foreland is of outstanding importance for migrating birds, with birds migrating across the Reserve in spring and autumn. The Reserve is also home to a unique variety of aquatic and terrestrial invertebrates including the fascinating medicinal leech and a number of endemic beetle species. Plants, many of which are rare or highly specialised, grow on the shingle ridges and fill the Reserve with colour and scent during the summer months.

- 4.2. The open skies and stunning views from the wildlife hides and paths offer great opportunities for art and photography. The historical significance of the Reserve and the community of Dungeness itself, from both a geological and human perspective, make it a popular education and tourist destination.
- 4.3. The RSPB has had a long involvement with the Dungeness foreland, which is the largest shingle structure in the UK and has the most diverse and extensive examples of stable vegetated shingle in Europe<sup>4</sup>. It first employed local Dungeness residents as “watchers” in 1905 to protect seabirds and scarce birds such as Kentish plover and stone curlew that nested on the coastal shingle from egg collectors.
- 4.4. The RSPB first acquired land on the Dungeness foreland in 1931 to maintain habitat for the large seabird colonies, together with breeding wheatears and small numbers of stone curlews that were in danger of being lost through human disturbance. It was at this time that Kentish plover declined due to increasing coastal residential development along the eastern shoreline of the foreland.
- 4.5. The RSPB's acquisition and management has played a major role in maintaining this special shingle habitat and the associated diverse terrestrial and aquatic flora and fauna. From the initial emphasis on creating island habitat within gravel pits to halt the extinction of the once flourishing seabird colonies, the Society has also undertaken a major reedbed creation project. In recent years, management has also been increasingly directed at non-avian species for which the Reserve is of international significance.

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<sup>3</sup> In the text where the word ‘waterfowl’ is used, this includes swans, geese, ducks, waders, cormorants, coot and moorhen. ‘Wetland birds’ includes all the above together with water rail, herons and egrets, gulls and terns. ‘Waders’ includes wading birds such as curlew, godwits, lapwing, plovers, sanderling and dunlin.

<sup>4</sup> SAC citation. CD14.5.

- 4.6. The Reserve now occupies nearly a thousand hectares of the Dungeness foreland. The outstanding nature conservation importance of the area is reflected in the international, European and national nature conservation designations, which cover the Reserve as follows (see Maps 2-6 in Appendix I):

<b>Designation</b>	<b>Designation Name</b>	<b>Area overlap (ha)</b>	<b>Percent overlap (%)</b>
SPA	Dungeness to Pett Levels	312.4	32.4
SAC	Dungeness	766.7	79.6
SSSI	Dungeness, Romney Marsh and Rye Bay	962.7	99.98
NNR	Dungeness	758.8	78.8

- 4.7. Natural England is also currently consulting on the pSPA and pRamsar, both of which cover the Reserve.

## **5. NATURE CONSERVATION IMPORTANCE OF THE RESERVE**

### **Bird interest**

- 5.1. The geographical location of the Dungeness foreland, projecting into the English Channel and with its proximity to the continent, plus the complex of habitats ranging from dry shingle to water filled gravel pits and grazing marsh, results in the Reserve being a site of great importance for wintering and breeding waterfowl, seabirds, and migrating birds.
- 5.2. Below, I summarise some of the notable bird species and some of the large recorded bird migrations in the area. I mostly use data stemming from surveys undertaken by the RSPB **(RSPB data)**<sup>5</sup> (see Tables 1 and 2 in Appendix II Tab 1 for the raw data) and the Dungeness Bird Observatory<sup>6</sup> **(DBO counts)** (see Appendix II Tab 2). This is because these surveys record bird numbers and movements on a more frequent basis than, for example, the Wetland Bird Surveys **(WeBS)**, which data form a monthly snapshot. So whilst WeBS counts may miss a movement of migrating wetland birds on a particular day, the RSPB data and

<sup>5</sup> Figures from the RSPB Reserve (compiled from MapMate, a dataset held by RSPB Reserves Ecology Department. MapMate is a biological recording software programme, used by the RSPB for recording taxa on its nature reserves).

<sup>6</sup> Dungeness Bird Observatory annual reports.

DBO counts give a comprehensive picture and have a greater chance of recording such movements. I also often refer to maximum counts of birds simply to demonstrate the nature conservation importance of the area.

### **Winter birds**

- 5.3. I give some bird data below which will allow the Inspector to understand the significance of bird movements to which others refer.
- 5.4. During the winter months, several species of waterfowl use the Reserve gravel pits both for feeding and roosting. Max counts for waterfowl using the Reserve during the recent five-year period are shown in Tables 1 and 2 in Appendix II Tab 1.
- 5.5. The Reserve supports up to 2,690 wigeon (RSPB data 2005 –2009). The WeBS maximum for the same period is 1,568 in 2005/06 (RSPB data). Many of the wigeon spend the day feeding on grass fields adjacent to the gravel pits, but at night wigeon fly further afield to marshes beyond the Reserve, west of Lydd town. Large flocks of wigeon may be seen returning to the Reserve in the mid-winter mornings, having spent the night grazing fields away from the Reserve.
- 5.6. The gravel pits on the Reserve support up to 447 shoveler (RSPB data – annual peak count in September 2005), 1% of the international population<sup>7</sup>. Shoveler, which are surface feeding dabbling duck, move between the series of gravel pits on the foreland and flooded grazing marsh.
- 5.7. Dungeness is one of the principal sites in the country for overwintering smew. Although the numbers have declined in the UK in recent years, the recent five-year mean peak counts on the Reserve of 19 individuals (RSPB data) still represents 4.75%<sup>8</sup> of the national population.
- 5.8. The arable fields beyond the Reserve attract a number of geese and swans. In addition to the resident Canada and greylag geese, Bewick's Swans, white-fronted geese and a few

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<sup>7</sup> Waterfowl in the UK 2008/09. July 2010. The Wetland Bird Survey, BTO. 1% of the international population is 400 (pg 67) (see Appendix II Tab 3).

<sup>8</sup> Waterfowl in the UK 2008/09. July 2010. The Wetland Bird Survey, BTO. 1% of the GB population is 4 (pg 82) (see Appendix II Tab 3).

bean geese may be seen. The distribution of these geese and swans changes throughout the winter, in response to factors such as weather conditions and disturbance. Bewick's swans feed mainly in the fields around Cheyne Court (see Map 1 in Appendix I) and Lydd and fly either to Cheyne Court or the Reserve to roost. In recent years the Reserve has been used as a roost site, mainly when the Cheyne Court wetland is drier than normal for the time of year and lacking in surface flooding, is ice covered during freezing weather, or when the swans are feeding more locally between the Reserve and Lydd town. In January 2009, Bewick's swans roosted on the ARC pit (see Map 7 in Appendix I) for ten days during the month. 68 were seen entering the roost between 1600 and 1630 hrs on 6<sup>th</sup> January and 59 flying from the roost between 0800 and 0830 hours on 7<sup>th</sup> January. The peak count in the period 2005 – 2009 was 145 (RSPB data) (1.8% of the national population<sup>9</sup>).

- 5.9. Large flights of greylag geese may be seen departing from the gravel pits on the Reserve flying beyond Lydd to feed during the day and often returning to the gravel pits during daylight hours to drink and bathe. These feeding flocks return at dusk to roost overnight on the Reserve gravel pits.
- 5.10. White-fronted geese that formerly roosted regularly on the Reserve now roost overnight at Cheyne Court on the recently developed wetland. The Reserve still, however, provides an alternative overnight roost site if the flock is disturbed from that site or during freezing weather, e.g. 100 plus were seen arriving at Burrowes Pit (see Map 7 in Appendix I) after dusk on 13<sup>th</sup> January 2009 (RSPB data).
- 5.11. Flocks of larger gulls, great black backed, lesser black-backed and herring gulls are present on the Reserve throughout the winter. Large flocks of roosting gulls frequent the shingle and gravel pits throughout the day and are joined at dusk by birds flying from inland feeding areas. Gulls tend to be undercounted during the monthly WeBS counts because the counting of gulls is optional (see Dr. J Day's proof, paragraph 6.17) and gulls are often inland feeding during the daytime when such surveys are undertaken. However, the following counts give an indication of the numbers present on the Reserve during the autumn and winter months:

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<sup>9</sup> Waterfowl in the UK 2008/09. July 2010. The Wetland Bird Survey, BTO. 1% of the GB population is 81 (pg 29) (see Appendix II Tab 3).



	30.11.05	02.12.05	15.12.05	22.9.06	12.10.06	03.2.07	30.3.07	28.11.08	11.01.09	10.12.10
lesser black backed gull	500	1500	700	960	900		200	300		
great black backed gull	2500	3000	2000			1400	1300	1500		1150
herring gull			2000						1500	

(RSPB data)

- 5.12. Lapwing often use the fields surrounding Lydd and may be seen resting on the gravel pits on the Reserve during the daytime. Numbers vary considerably from month to month within winters and between years. Peak counts for lapwing 2005 – 2010 are shown below (RSPB data):

2005 MAX		2006 MAX		2007 MAX		2008 MAX		2009 MAX	
890	Sep	2000	Feb	1400	Nov	2250	Dec	2617	Feb

- 5.13. Golden plover normally feed on sheep grazed pasture fields around Lydd and on the Walland Marsh (see Map 1 in Appendix I) but often fly to the Reserve to roost on the gravel pits during daylight hours. The arrival of these birds from nearby fields is unpredictable and birds have been seen arriving to roost on the pits at all times of the day. Peak counts are normally in the range of 250 to 500 birds but 3,000 were recorded in November and December 2009 (RSPB data). Appendix III shows two photographs of golden plover in flight over sheep grazed fields immediately west of the airport.
- 5.14. In addition to waterfowl, the Reserve is important in the winter months for wetland bird species such as bittern. Up to eight have overwintered on the Reserve in the period 2005 to 2010 (RSPB data). Bitterns use all reedbed areas on the Reserve. They are frequently seen flying between the gravel pits within the Reserve and occasionally seen flying between ARC pits and Lade pits just north of the Reserve and to ditches west of Hookers pits (see Map 7 in Appendix I).
- 5.15. The reedbeds and pits are used as nocturnal roost sites for marsh harriers, carrion crows, starlings and woodpigeons that disperse widely during the daytime to feed on fields west

and north west of the Reserve (see Map 1 in Appendix I). The Oppen pits<sup>10</sup> on the shingle east of Burrowes pit (see Map 7 in Appendix I) are the principal roost site for both marsh harriers and crows. Peak counts in recent winters are as follows (RSPB data):

5.15.1. carrion crow: 129 in November 2007, 203 in November 2009 and 300 in February 2010<sup>11</sup>.

5.15.2. marsh harrier: 7 in October 2007, 9 in October 2008 and 13 in January 2010.

5.16. The above account gives some indication of the importance of the Reserve for overwintering birds. The Reserve alone may support in excess of 7000 waterfowl (RSPB data) in the course of the winter and in any one month during the winter there may be in excess of 10,000 waterfowl, gulls and waders on the Reserve. The mean of annual peak counts of waterfowl using the Reserve during the period 2005 – 2009 is 12,432<sup>12</sup>.

### **Spring/summer birds**

5.17. 82 species were recorded breeding on the Reserve during the period 2005 –2010 (RSPB data). The status of the scarcer breeding species and annual breeding numbers are shown in Table 2 in Appendix II Tab 1. This total included:

5.17.1. six Annex I species<sup>13</sup>: avocet, bittern, common tern, Dartford warbler, marsh harrier and purple heron.

5.17.2. 16 UK Biodiversity Action Plan (**BAP**) priority species (see Dr. Day's proof paragraphs 5.2-5.6): bittern, corn bunting, cuckoo, dunnoek, grey partridge, herring gull, house sparrow, lapwing, linnet, reed bunting, skylark, song thrush, starling, tree sparrow, yellow wagtail and yellowhammer.

5.17.3. 14 species on the UK Birds of Conservation Concern red list (see Dr. Day's proof paragraphs 5.7 – 5.11): the above BAP list, minus dunnoek and reed bunting.

5.18. In addition to the breeding birds present on the Reserve, there are a number of migrants that stopover at the Reserve on their northward migration. Large flocks of whimbrel and

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<sup>10</sup> In some literature, the Oppen pits are referred to as Fossil pits or Open pits.

<sup>11</sup> Max counts of carrion crow (RSPB data): 129 in November 2007, 115 in December 2008, 203 in November 2009, 300 in February 2010.

<sup>12</sup> All months, not just winter.

<sup>13</sup> Annex I species are species cited in the European Council Directive on the Conservation of Wild Birds 2009/147/EC (CD5.3) and receive special conservation measures.

bar-tailed godwit are observed moving up the English Channel in April and early May and small parties of these cut inland to short cut flying around the foreland, coming in off the sea in the vicinity of MOD Lydd Ranges (see Map 1 in Appendix I). These often stopover to feed for short periods on the Reserve fields or rest on the gravel pit islands, before continuing their onward northward migration.

- 5.19. Diurnal<sup>14</sup> migration of wood pigeons is often witnessed in the spring with 300 observed on 5<sup>th</sup> April 2009 and 1,880 on 2nd April 2006 (DBO counts) (see Appendix II Tab 2).
- 5.20. Non-breeding flocks of Mute swans are also present throughout the summer with feeding flocks present on the fields between the Reserve and Lydd town as well as on the Reserve gravel pits. The field feeding swans frequently return to the Reserve during the day to drink and bathe in the freshwater gravel pits. The maximum in the period 2005 – 2009 was 247 in May 2008 (RSPB data).
- 5.21. During the summer, I have seen between 300–500 great black backed, lesser black-backed and herring gulls roost on the gravel pits and shingle during the daytime. Many of these are immature non-breeding birds.

### **Autumn birds**

- 5.22. By late July<sup>15</sup>, post-breeding dispersal brings many more birds to the Dungeness foreland and the numbers of migrants increases as the autumn progresses. Numbers of migrant birds recorded can fluctuate dramatically from day to day and are often influenced by the weather which can arrest migration if conditions are unfavourable e.g. strong winds in the wrong direction or poor visibility.
- 5.23. On the gravel pits there is a late summer build up of waterfowl numbers. Species such as pochard are often present in peak numbers in the late summer, e.g. the maximum recorded from 2005-2009 was 1,280 in August 2006, the mean of August peak counts recorded in this period being 1,008 (RSPB data). This species favours the deep water of the larger ARC and Burrowes pits (see Map 7 in Appendix I) and is often in association with

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<sup>14</sup> Migration in daylight hours.

<sup>15</sup> Many high arctic breeding birds start their southward migration in July and flocks of more local breeding birds start moving from their breeding sites to congregate on the reserve gravel pits. Some of these early returning birds are likely to be birds that have failed in their breeding attempts.

large flocks of tufted duck that show a similar rapid post-breeding increase in numbers at this time of year. The maximum recorded from 2005-2010 was 729, the mean of peak counts during this period being 544. Mute swan numbers also remain high, with up to 227 recorded in July (RSPB data).

- 5.24. In August, the Reserve gravel pits support up to 5,000 waterfowl and waders (RSPB data).
- 5.25. The Hookers pits reedbed (see Map 7 in Appendix I) is used as an overnight roost site by starlings. Numbers fluctuate dramatically. At its peak in the 1990s, this roost held up to 100,000 birds (RSPB data) but in recent years the peak count has been less, at 10,000 birds. The seasonal use of the reedbed as a roost site also varies from year to year. In some years numbers peak in the summer, whereas in other years the peaks occur later in the autumn/winter.
- 5.26. By September, several species of waterfowl have built up in numbers and reach their autumn peak. Up to 1,350 coot, 660 cormorants and 1,050 greylag geese may be present by September (RSPB data). Cormorants are present at all times of the day but numbers are influenced by the state of the tide and time of day. The biggest counts are normally at dusk, as large flocks fly across the shingle from their feeding sites at sea. Greylag geese fly between the Reserve and Romney and Walland Marshes (see Map 1 in Appendix I) to feed on stubble of arable fields, and large skeins<sup>16</sup> can be seen leaving the Reserve at dawn. Shoveler too, can peak at this time of year with the recent Reserve maximum of 447 recorded in September 2005 (RSPB data).
- 5.27. By October, large numbers of passerine<sup>17</sup> migrants are entering the country and some spectacular movements of species such as starlings and fieldfares can be witnessed. Flocks of both species can be seen coming in off the sea throughout the day and spreading out along a broad front over the foreland as they continue their migration. The scale of these migrations is unpredictable as illustrated by the following figures obtained from the Dungeness Bird Observatory. On 17 November 2005, 1,550 fieldfares passed by the Dungeness Bird Observatory and on the same date, 2,150 were seen passing over the Reserve. In 2006, 10,500 starlings were seen passing north on 3<sup>rd</sup> November and 14,000

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<sup>16</sup> The term used for flocks of geese in flight.

<sup>17</sup> The term used for perching birds. Small to large land birds, e.g. warblers, thrushes.

passed north on 4<sup>th</sup> November (DBO counts) (see Appendix II Tab 2). In contrast to the previous year, no mass migration of fieldfares was recorded.

- 5.28. In 2008, the main movement of autumn immigrant starlings began on 9<sup>th</sup> October and continued to 26<sup>th</sup> November, with large movements in October of 20,000 on 28<sup>th</sup> and in November of 2,000 on 13<sup>th</sup> (DBO counts) (see Appendix II Tab 2).
- 5.29. In 2009, the peak counts of starlings recorded were 7,000 in October and 1,200 on 6<sup>th</sup> November (DBO counts) (see Appendix II Tab 2).
- 5.30. Wood pigeons often feature in these observations of diurnal migrants with, for example, a peak autumn count of 520 on 29<sup>th</sup> October 2005 and 6,000 on 3<sup>rd</sup> November 2008 (DBO counts) (see Appendix II Tab 2).

### **Special habitats**

- 5.31. In England and Wales it is estimated that 30% of the coastline is fringed by shingle<sup>18</sup>. However, most of this length consists of simple fringing beaches, so shingle structures sufficiently stable to support perennial vegetation are a comparatively rare feature even in the UK. Dungeness, in southern England, is by far the largest site, with 2,000 ha (1,600 ha of exposed) of shingle, and there are only five other structures over 100 ha in extent in the UK<sup>19</sup>.
- 5.32. The Reserve contains some of the best examples of undamaged shingle ridge formations on the Dungeness foreland. The shingle supports a range of vegetation communities and transitions between them, and a wide range of successional communities are present on the shingle habitat within the Reserve. These range from coastal pioneer communities to inland terrestrial acid heathland, as well as bare shingle and disturbed areas.
- 5.33. There are a number of natural wet hollows on the Reserve that were formed as part of the beach formation process. These natural pits, referred to as Oppen pits (see Map 7 in

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<sup>18</sup> Doody JP (2001) Chapter 21, Perspective: the Importance of Conserving Coastal Shingle in Europe. Ecology and Geomorphology of Coastal Shingle. Eds Packham JR, Randall RE, Barnes RSK and Neal A (see appendix VII Tab 1).

<sup>19</sup> Buglife – The Invertebrate Conservation Trust, [www.buglife.org.uk](http://www.buglife.org.uk)

Appendix I), are classified as unique in the UK<sup>20</sup>. There are also several flooded gravel pits resulting from gravel extraction which commenced in the 1880s. The pits on the Reserve have been restored for nature conservation and as well as being important winter, passage and breeding sites for waterfowl and other wetland birds, they support many rare and scarce species of plants and animals.

- 5.34. Much of the botanical interest of the natural pits is due in part to the diversity of their physical habitat<sup>21</sup>. The Oppen pits, for example, support a mix of species and communities associated with eutrophic (nutrient-rich), mesotrophic (intermediate nutrient content) and oligotrophic (nutrient-poor) conditions. This diverse nutrient status supports communities of plants and animals that are not found elsewhere on the Reserve.
- 5.35. The complex network of habitats on the Reserve, including the extensive shingle ridge formations, wetland habitats such as natural freshwater pits, fens, ponds and gravel pits and grazing marsh and ditches support a number of UK BAP species, vulnerable, endangered and critically endangered, Red Data Book (**RDB**) species<sup>22</sup> and nationally rare and scarce species.
- 5.36. The water bodies on the Reserve provide ideal conditions for three species that are listed in Schedule 5 of the Wildlife and Countryside Act 1981 as amended<sup>23</sup> (CD5.12): medicinal leech *Hirudo medicinalis*, a rare (RDB category 3) species, great crested newt *Triturus cristatus*, a UK BAP priority species, and water vole *Arvicola amphibious*, a UK BAP priority species.
- 5.37. 3,251 species of animals and plants have been recorded on the Reserve, making it the second most important RSPB reserve for Nationally Scarce or Rare species. It is also fourth for threatened species (these include quite a lot of common but declining species) and total species. The data (see Table 3 in Appendix II Tab 1) illustrates the importance of the Reserve for assemblages of rare and scarce invertebrates and plants and shows this in the context of other RSPB reserves.

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<sup>20</sup> Ferry B & Henderson A (1984) The vegetation of natural freshwater pits at Dungeness – 1: Higher plants. Transactions of the Kent Field Club, 9 (3), pp 142 – 153 (see Appendix VII Tab 2).

<sup>21</sup> For example, they have shallow, gently sloping sides that are largely absent from the nearby artificial pits.

<sup>22</sup> RDB species are species (other than birds) whose continued existence is threatened. RDB species are classified into different categories of perceived risk. The Joint Nature Conservation Committee (JNCC) is responsible for some of the RDB publications reflecting the status of some plant species types in Britain and Ireland. See <http://www.jncc.gov.uk/page-2133>.

<sup>23</sup> Schedule 5 of the Wildlife and Countryside Act lists animals (other than birds) that qualify for protection under the Act.

### **Other noteworthy species**

- 5.38. In the following two sections I highlight some of the notable and rare species and assemblages of plants and invertebrates found on the Reserve including, for example, many that are Red Data Book and/or BAP priority species. The Reserve provides protection for these species and ensures that they are maintained and if necessary, re-established.

### **Plants**

- 5.39. The Dungeness foreland, with its mosaic of habitats from dry shingle ridges, with bare ground and early successional habitats, short herbaceous<sup>24</sup> vegetation, grasslands, low growing scrub to wetlands of various categories, coupled with its geographical location on the south coast is a prime site for both plants and invertebrates.
- 5.40. The foreland is noted for the occurrence of rare and scarce plants and the unusual structure of others such as the local pioneer species on the shingle, prostrate broom (*Cytisus scoparius*, subspecies *maritimus*) and a prostrate form of blackthorn that supports scarce lichen species. Some invertebrates are closely associated with particular plants, such as the nationally scarce species, Nottingham catchfly, the host plant of *Coleophora otitae* (moth, RDB category 1) and White Spot (moth RDB 1). One of the invertebrate species associated with the shingle, the leaf hopper (*Aphrodes duffieldi*) is endemic to the Dungeness foreland. Several sub species and forms are also known solely from the Dungeness foreland and the Reserve, including the pale grass egg moth (*Lasiocampa trifolii flava*).
- 5.41. In some cases a plant may be much more widespread nationally yet its dependant insect is much scarcer. It would appear that the special shingle environment including climate is the key. On the Dungeness foreland, the Sussex emerald moth (a UK BAP and Schedule 5 of the Wildlife and Country Act species) is confined to a remarkably small area on the foreland and within the Reserve even though its food plant, wild carrot has a more extensive distribution.

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<sup>24</sup> Low growing flowering non-woody plants.

- 5.42. Areas of nutrient poor fen on the Reserve also support a number of species that are rare in Kent, such as common cotton grass (*Eriophorum angustifolium*), great fen-sedge (*Cladium mariscus*), marsh cinquefoil (*Potentilla palustris*) and the nationally scarce marsh fern (*Thelypteris palustris*).
- 5.43. The damp silt and sand habitat is also noted for the assemblage of wetland-thread mosses (*Bryum*) species. This assemblage includes Warne's thread moss (*Bryum warneum*), a vulnerable UK BAP priority species that is a colonist of wet sand beside the margins of ARC and Burrowes pits within the Reserve (see Map 7 in Appendix I). The assemblage also includes the moss (*Bryum dyffrynensis*), recently discovered and new to science, first found on the margin of the ARC pit on the Reserve.

### **Invertebrates**

- 5.44. The importance of the Reserve for invertebrates is widely recognised by entomologists. Every year the Reserve is visited by specialists who are constantly discovering species new to the Reserve and in some cases new to Great Britain. For example, in 2010, an ant species (*Ponera testacea*) collected on the Reserve was confirmed as new to Great Britain. Specimens of other ants, that are potentially new to Great Britain, are also currently being determined by international experts on the taxa. Also in 2010, the shrill carder bee (*Bombus sylvarum*), which was last recorded at the Reserve over twenty years ago, was rediscovered in one of the fields that is being managed for bumblebees.
- 5.45. Being the largest shingle foreland in Great Britain, the large spatial extent of the shingle and associated habitats means the Dungeness foreland is especially significant to some types of invertebrates, such as bumblebees that require an abundance of suitable forage plants over a wide area throughout the spring and summer. For example, the Dungeness foreland has an exceptional diversity of bumblebees, with up to eleven species recorded annually. Five BAP species have been recorded on the Reserve in recent years, excluding the now extinct short-haired bumblebee (*Bombus subterraneus*).
- 5.46. The damp silt habitat around the margins of the gravel pits supports a rich assemblage of invertebrates, especially ground beetles including several RDB species and two BAP species of ground beetle (*Badister collaris* and *Dyschirius angustatus*). The ground beetle



(*Omophron limbatum*) that is abundant in this damp silt habitat on the Reserve has been recorded from the margins of waterbodies at Dungeness and Rye Harbour and except for recent records in East Anglia, is not known from any other site in Great Britain.

## **6. THE RSPB'S MANAGEMENT AT THE RESERVE**

- 6.1. In the eighty years since the RSPB's first acquisition, the RSPB has undertaken a huge amount of management to both preserve and improve the Reserve's rare and often unique features.
- 6.2. Management has played a major role in maintaining this special shingle habitat and the associated diverse terrestrial and aquatic flora and fauna. Initially, the management emphasis was on creating island habitat within gravel pits to halt the extinction of the once flourishing seabird colonies. This resulted in the re-establishment of what I understand to be one of the most important breeding sites for smaller gulls and terns in southern England. In recent years the tern colony (common, Sandwich and one or two pairs of roseate terns) has moved along the coast to Rye Harbour, but the RSPB continues to maintain the habitat in suitable condition for breeding seabirds, should they move from their present strongholds at Rye Harbour and northern France.
- 6.3. Terns are known to switch colonies quite regularly; e.g. the Sandwich tern colony at Sands of Forvie, Aberdeenshire, crashed from over 1000 pairs in 1991, to none in 1992, then had under thirty pairs (and in some years none) until 1999 when it increased back to over 200 pairs. By 2003, the number of pairs was back to over 1000.
- 6.4. More recently (2002 – 2006), the Society undertook a major reedbed creation project on Denge Marsh, in the south west corner of the Reserve, as part of the EU Life<sup>25</sup> Bittern Project<sup>26</sup> to provide habitat for bittern and other reedbed birds and wildlife. In 2010, bittern nested here successively for the first time ever and the first purple herons to nest in Britain raised two young at this site. Marsh harriers nested for the first time in 2007 and

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<sup>25</sup> Life is the EU's financial instrument supporting environmental and nature conservation projects, throughout the EU, as well as some candidate, acceding and neighbouring countries. <http://ec.europa.eu>.

<sup>26</sup> Bittern – Urgent action for the bittern (*Botaurus stellaris*) in the UK. EU Life Project Number: EU Life 96 NAT/UK/003057. [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s\\_ref=LIFE02%20NAT/UK/008527&area=1&yr=2002&n\\_proj\\_id=1971&cfid=423407&cftoken=1adf75e7742a0a31-858CC2AB-CCBA-042D-07FCA090D1A64E01&mode=print&menu=false#PD](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE02%20NAT/UK/008527&area=1&yr=2002&n_proj_id=1971&cfid=423407&cftoken=1adf75e7742a0a31-858CC2AB-CCBA-042D-07FCA090D1A64E01&mode=print&menu=false#PD).

the Reserve now supports four nesting marsh harriers in the Reserve reedbeds. Due to the rarity of these birds, this is a significant achievement.

6.5. Management in recent years has also been increasingly directed at non-avian species for which the Reserve is of international significance. This includes, for example:

6.5.1. managing gravel pits for the Reserve's unique assemblage of invertebrates (especially ground beetles and the critically endangered Jersey cudweed);

6.5.2. enhancing neutral grassland fields for the benefit of bees and our suite of rare bumblebees; and

6.5.3. the provision/restoration of ponds for great crested newts and medicinal leeches.

6.6. The table in Appendix IV, adapted from the 2007-12 RSPB Dungeness Nature Reserve management plan, identifies the key features influencing the current management on the site. In summary, this includes:

6.6.1. Features which are the prime reason for the RSPB maintaining the Reserve and which will drive its management.

6.6.2. Features for which there are legal responsibilities (SSSI interest features) and which will influence the management we undertake at the site.

6.6.3. Features for which there are legal responsibilities (SSSI interest features) but which require no active management.

6.6.4. Other important conservation features whose requirements we need to take into account when deciding upon management of the site.

6.7. Much of our management effort during the last ten years has been targeted at wetland creation and enhancement to ensure that the wetland on the Reserve will be maintained in favourable condition and to improve the habitats for breeding waterfowl and seabird assemblages. For seabirds for example, our management aim is to re-establish breeding populations of small seabird species (common tern, Sandwich tern, black-headed gull and Mediterranean gull), some of which moved to Rye Harbour Nature Reserve and possibly to colonies on the French coast a few years ago. To help achieve this, we have maintained the present extent of islands in Burrowes pit and ARC pit (see Map 7 in Appendix I) in suitable condition for breeding seabirds, waterfowl and waders and have created additional islands

at the ARC pit. In 2006/07, we also undertook large-scale island surface management and excavation in both these pits in order to create many more islands suitable for seabirds and waterfowl. These works were externally funded by Heritage Lottery Fund (**HLF**) and Aggregates Levy Sustainability Fund (**ALSF**).

- 6.8. In 2001, we applied to include the Reserve in the EU Life II Bittern project. Following approval in May 2002, we commenced excavation (until 2005/06) to create a new shallow wetland with reedbeds. This has resulted in the creation of another 10.5 hectares of wetland, on what was formally poor quality dry grassland, and will provide additional reedbed habitat for specialised wetland species including bittern, bearded tit, marsh harrier, water rail, water vole, medicinal leech and great crested newt. All works were funded by the EU, Natural England, the Environment Agency and by Defra as part of the Countryside Stewardship Scheme<sup>27</sup>.
- 6.9. The success of this project was recently underlined in 2010 by bitterns (that had previously overwintered and summered here) nesting at the Reserve for the first time. The first purple herons to nest in Great Britain also raised two chicks here in 2010. The wetland has also provided an additional refuge for wintering waterfowl that move between Denge Marsh and the fields surrounding Lydd town.
- 6.10. In recent years, the RSPB has also embarked on a programme of willow scrub clearance in some of the willow carr<sup>28</sup> dominated pits and this, with grazing and mowing, has resulted in the recovery of some nutrient poor fen communities. Species that have reappeared following this management include: bog pondweed (*Potamogeton polygonifolius*), common sedge (*Carex nigra*), brown sedge (*C. disticha*), tufted sedge (*C. elata*), marsh willowherb (*Epilobium palustris*), marsh speedwell (*Veronica scutellata*) and bog pimpinell (*Anagallis tenella*). Clearance has also benefited several species of bog-moss, particularly blunt-leaved bog-moss (*Sphagnum palustre*) and spikey bog moss (*S. squarrosum*), that are now present in large patches.

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<sup>27</sup> Countryside Stewardship was introduced as a pilot scheme in England in 1991 and operates outside the Environmentally Sensitive Areas. Payments are made to farmers and other land managers to enhance and conserve English landscapes, their wildlife and history and to help people to enjoy them.

The scheme has now closed to new applicants and has been superseded by the Environmental Stewardship scheme.

<sup>28</sup> Carr is a type of wetland with peaty soils, generally found in low-lying situations, with a distinctive woody vegetation cover consisting of trees.

6.11. The short-haired bumblebee (*Bombus subterraneus*) was last recorded in the Romney Dungeness area before it was declared extinct in Great Britain, a casualty of the progressive deterioration of the habitat across Romney Marsh and the loss of the flower resources on which it depended. It is now the subject of a proposed re-introduction and the Reserve has been selected by Natural England, Bumblebee Conservation and Hymettus<sup>29</sup> as the release site for the queen bees that will be brought over from New Zealand. The RSPB now manages parts of the Reserve specifically for bumblebees (by changing the grazing regime to allow key plants to flower and provide forage for bees and by increasing the abundance of clovers by spreading locally sourced seed). We hope that such management will ensure this re-introduction project is as successful as many of our other projects and management works have been in the past.

### **The RSPB's aims for the Reserve**

6.12. In summary, our management aims for the SSSI, SPA and SAC (and also the pRamsar) designations on the Reserve are to:

6.12.1. maintain the important shingle ridges.

6.12.2. maintain 140 ha of artificial wetland habitat associated with open water and margins of the freshwater gravel pits (used by, for example, great crested newt, Bewick's swan and shoveler).

6.12.3. manage 60 ha of neutral lowland grassland to provide suitable conditions for breeding lapwing and redshank, a suite of key grassland birds and for BAP bumblebees.

6.12.4. manage 1 ha of artificial damp sand habitats at the margins of the gravel pits for their populations of invertebrates and plants.

6.12.5. manage the important series of natural wetlands (the Oppen pits).

6.13. For the objectives and prescriptions as to how we will achieve these, see Appendix IV.

6.14. To achieve the management aims of the Reserve, the RSPB has invested large sums money (often in partnership with public bodies) and thousands of person hours by paid staff and

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<sup>29</sup> Hymettus Ltd. is the most recent incarnation of an organisation that was originally established, in 1997, as the Bumblebee Working Group. This later became the Aculeate Conservation Group. Hymettus Ltd. is the premier source of advice on the conservation of bees, wasps and ants in Great Britain and Ireland.

volunteers. Many of the latter are long serving and extremely dedicated, turning up weekly to assist the paid staff in their work.

- 6.15. Our future plans include further enhancement of the Hookers and Dengemarsh reedbed area to create additional pools and wet reedbed and the creation of additional islands in the gravel pits for seabirds and other nesting birds, in order to maintain and enhance the SSSI and SPA habitats.
- 6.16. The Reserve delivers a high quality countryside and leisure experience, an opportunity to enjoy a wide range of wildlife and bird spectacle for thousands of people (see section 7 below). We aim to increase our visitor numbers to 35,000 by 2012 by active promotion of the site, publicity and family visits and maintain the site as a centre for environmental education excellence with over 2,500 school visits and 15 repeat sessions per year.

## **7. THE VISITOR EXPERIENCE**

- 7.1. The wildlife and Dungeness foreland's generally tranquil environment makes the Reserve a special place, receiving 29,000 visitors per year<sup>30</sup>. In addition, it is estimated that the Dungeness Estate part of the NNR receives approximately 500,000 visitors per year (Owen Leyshon, Romney Marsh Countryside Project (**RMCP**), pers comm; (see Map 1 in Appendix I)).
- 7.2. The bird attraction of the Reserve is indisputable, with 330 bird species (335 including sub species) recorded on the Reserve<sup>31</sup>. This accounts for 79.5% of the total number of species recorded in Kent and just over half the total number recorded in Great Britain<sup>32</sup>.
- 7.3. There is a wide variety of birds to be seen in all seasons, there is always a chance of a rarity turning up and a number of scarce species are regularly present which makes the Reserve and the Dungeness area in general a special place for both keen birdwatchers and the wider public.

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<sup>30</sup> RSPB internal data; the range in the five-year period (2005/06 to 2009/10) being 28,505 – 30,051 per annum.

<sup>31</sup> Data recorded in the RSPB's MapMate database.

<sup>32</sup> The total number of species recorded in Kent is 415 (source, Kent Ornithological Society: <http://www.kentos.org.uk/Records/DownloadableKentList.htm>) and the UK list, as defined by the British Ornithological Union, is 592 (<http://thebritishlist.blogspot.com/>).

- 7.4. For the more general visitor audience, the attraction is harder to define and convey, but no less tangible. Whilst some birds (e.g. waders on migration, bittern etc) are of a more specialised interest and can sometimes be difficult to observe, more general visitors still have ample chance to spot rare species. Our dedicated staff are available to make a visit a special experience for visitors.
- 7.5. In addition, the quality of the special landscape is an attraction in itself. Although a landscape clearly affected by intrusions such as the nuclear power station, the airport (operating at its present level) and MOD activity, the Dungeness foreland retains its unique character. Despite such human intrusions, a visitor can still experience something very special, which includes the senses of remoteness, wildness, naturalness and tranquillity that one might normally associate with other wild areas away from any nearby development.
- 7.6. The vast scale, openness and views, and the powerful relationships between the land, sea and sky, all heightened by the ever changing and sometimes extreme weather conditions, make the Dungeness foreland a special and exhilarating place. I know of few places in Britain that exhibit these characteristics in the way that they come together here, and I consider that this rare coastal experience is found nowhere else more strongly than on the Reserve.
- 7.7. The feedback from our many visitors confirms that the currently tranquil and unique character of Dungeness foreland is an integral part of any visit to the Reserve and adds considerably to the enjoyment of the place and its wildlife.

### **Visitor surveys**

- 7.8. Since 2007, the RSPB has been collecting visitor surveys across 34 of its nature reserves. I understand that the surveys have been developed in line with industry standards and provide a consistent method for evaluating and monitoring our engagement with visitors. The surveys aim to collate information regarding the profile of visitors, details of their visit, awareness of and attitudes towards visiting reserves, satisfaction and expenditure. This information helps the RSPB understand who and why people visit their reserves, so as to

identify opportunities for connecting more people with nature and providing a high quality visitor experience.

7.9. As part of the visitor survey programme, the RSPB has asked a sample of visitors at the Reserve to complete a questionnaire about their visitor experiences. This is an ongoing survey, but in a preliminary analysis (see Survey 1 in Appendix V for the preliminary results of these surveys):

7.9.1. 87% of 273 visitors questioned (in the periods April to September 2008 and April to September 2009) stated that they came to watch/look at birds.

7.9.2. 31% stated that they visit once or twice a month and 38% that they visit once every six months.

7.9.3. 20% of visitors stated that they live local to the Reserve, 45% that they had come from home on a day trip to visit the Reserve, 29% that they were holidaying in the area and staying near to the Reserve and 6% that they were holidaying elsewhere but made a day trip to visit this Reserve.

7.10. Clearly, the Reserve is important to local people and tourists, both from the region and further afield.

7.11. In answer to the question ‘When planning your trip/holiday, which, if any of these influenced your decision to visit the area’, the following answers were given:

Scenery/landscape	40%	To visit family friends	13%	Peace & tranquillity	45%
The chance to see birds	69%	Historic buildings/sites	15%	Walking/climbing	19%
Opportunity to see wildlife	45%	Newspapers/magazine articles	2%	Other	2%

7.12. The RSPB, assisted by external funders (set out above and below), has invested large sums in developing the visitor infrastructure and interpretation. The £1 million “Heritage Lottery Fund Dungeness Shingle and Wetland Project” (see Appendix VI), to regulate and improve visitor access at the Reserve and on the Dungeness foreland and enhance the habitats for wildlife, was a joint project with the RMCP. The project ran from 2003 to 2006 and was delivered by the RSPB and the RMCP. There were 20 projects within the bid, with each

partner managing ten projects. The Reserve projects enabled us to build a purpose built classroom for field teaching, install new hides, develop trails and employ a part-time education officer<sup>33</sup>. As well as HLF, matched funding for this work was provided by:

- Defra's Aggregates Levy Sustainability Fund,
- Natural England,
- Environment Agency,
- Ibstock Cory Environmental Trust through the Landfill Communities Fund,
- Kent County Council,
- Brett Quarry Environment Fund,
- Folkestone and District Water Services (now Veolia Water),
- The Tory Foundation.

7.13. In addition to the RSPB's own research, there is further visitor information arising from the HLF funding. In 2009, the HLF Policy and Strategic Development Department undertook research that focussed on the benefits that the Fund's projects have provided for visitors to heritage attractions/amenities. These benefits were evaluated through a self-completion survey with visitors (the summary of the HLF survey (Survey 2) is in Appendix V). The research company BDRC were commissioned to undertake the work and fieldwork at the Reserve was undertaken across the period Easter 2009 to summer 2009.

7.14. Overall satisfaction at the Reserve was high. In the summary report provided to the RSPB, almost everyone (97%) of the respondents said that they had "an enjoyable visit" (87% strongly agreeing), with 63% giving it the top rating for overall satisfaction (excellent). The Reserve was seen as well maintained (69% giving it the top score) with two thirds (66%) strongly agreeing that it is a visually attractive site. It was also seen as a place where there was lots to do, three quarters agreed (50% giving it the top score) and 71% strongly agreed that the site was peaceful and gave them a place to relax. A high number of respondents (88%) strongly agreed that the site is important to pass on to future generations. Three quarters of respondents said they would definitely recommend the Reserve to friends as a place to visit and 85% of respondents agreed that this was excellent use of Lottery Funding for this project.

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<sup>33</sup> Known as an RSPB Lifelong Learning Officer.



## **8. WIDER BENEFITS OF THE RESERVE**

- 8.1. Whilst I do not intend to give detailed evidence on economics, I do think it important to highlight (as has been shown in various documents; see below) the wider benefits that nature reserves can provide to their local areas.
- 8.2. Over the last ten years, the RSPB has secured around £1 million in public and private funding for the Reserve. This is detailed above in section 7. This has helped us to preserve the unique character and biodiversity of the Reserve, as well as to undertake habitat creation work, expand our education activities for children and improve access and interpretation for visitors from all age groups and backgrounds.
- 8.3. Although the primary aim of nature reserves is to deliver conservation and enhance the status of the biodiversity in the UK, RSPB reserves are also, by their very nature and position in the countryside, multi-functional. They are active and economically diverse tracts of land, providing employment and contributing to their local communities. In 2009/10, approximately 1.9 million visitors<sup>34</sup> were drawn to these sites and brought considerable financial benefits to often remote and deprived rural areas.
- 8.4. RSPB reserves have been shown to support economic development (via direct, indirect and induced effects) in a variety of ways<sup>35</sup>, namely:
- 8.4.1. direct employment;
  - 8.4.2. spending by employees and volunteers;
  - 8.4.3. direct expenditures by reserves (e.g. on goods and services);
  - 8.4.4. indirect employment, such as via the provision of grazing lets and agricultural tenancies; and
  - 8.4.5. spending by visitors to reserves.
- 8.5. With an annual average of some 29,000 visitors to the Reserve, there are also direct benefits to the Dungeness tourism industry and local economy. In addition, it is estimated

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<sup>34</sup> Internal RSPB figures (estimated).

<sup>35</sup> See Rayment M and Dickie I (2001) Conservation Works... for local economies in the UK (Appendix VII Tab 3) and Shiel A, Rayment M and Burton G (2002) RSPB Reserves and Local Economies (Appendix VII Tab 4).

that the Dungeness Estate Part of the NNR as a whole receives approximately 500,000 visitors per year (Owen Leyshon, RMCP, pers comm).

## **9. EDUCATION**

- 9.1. As well as receiving over 29,000 visitors per year, the Reserve is one of the RSPB's network of environmental education centres and has a flourishing education programme.
- 9.2. Education is a key part of the RSPB's objectives, as set out in the RSPB's Royal Charter which states that one of the Society's Objectives is "To promote knowledge of conservation through Education and Research".
- 9.3. The Reserve's qualified Field Teachers provide curriculum-linked activities on the Reserve and also inspire around 3,000 local children each year through outreach education work, encouraging young people to explore their natural environment. In recognition of the high quality educational experience provided, the Quality Badge for Learning Outside the Classroom has been awarded to the Reserve by external assessment by the Council for Learning Outside the Classroom<sup>36</sup>.
- 9.4. The appointment of a part-time Lifelong Learning Officer<sup>37</sup> and seven part-time field teachers, together with the excellent facilities provided by the new education centre which opened in February 2006, has had a significant effect on the numbers of visitors participating in lifelong learning, and the quality of the experience provided. The Reserve now hosts visits of nearly 900 school children per year<sup>38</sup>.

### **Educational visits**

- 9.5. The groups described in the following paragraphs also contribute to annual visitor numbers at the Reserve.

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<sup>36</sup> [www.lotcqualitybadge.org.uk](http://www.lotcqualitybadge.org.uk).

<sup>37</sup> Lifelong Learning is the provision of both formal and informal learning opportunities throughout people's lives resulting in continuous development and improvement of the knowledge and skills.

<sup>38</sup> Part of the 29,000 annual visitor total.

- 9.6. The field teaching facilities at the Reserve are used by a wide range of visitors; the majority of these consisting of primary school aged children. Some secondary students use the facilities too, whilst we have visits from undergraduate students and adult learners. There are also a number of special schools, with a wider age range, which visit the Reserve on a regular basis, and the Reserve plays host to a number of European schools from Belgium and France each year.
- 9.7. In addition, courses are provided for local children organisations such as beaver scouts, cub scouts, scouts, rainbows, brownies and guides. Courses are also provided for local youth groups. The majority of educational groups using the Reserve's facilities travel from within Kent, East Sussex and south London.
- 9.8. There is also a range of family activity days with approximately 50 being held throughout the year, covering many aspects of wildlife conservation. These take place around the local school holidays with the majority being during the spring and summer months. A well-attended RSPB Wildlife Explorer group with up to 28 members meets at the Reserve on a monthly basis.

### **Community use**

- 9.9. The Reserve staff are supported by an active and enthusiastic team of volunteers and by two residential volunteers who spend between a fortnight and a year living at the Reserve. Local volunteers are mainly from within a 30 mile radius. Residential volunteers come from throughout the UK, and we frequently host international visitors, mainly from Europe. There are currently 75 local volunteers registered at the Reserve who help regularly with a variety of tasks, from helping in the Reserve visitor centre to assisting with ecological, habitat and estate management work. Most of the face-to-face contact experienced by visitors to the Reserve visitor centre is with local volunteers who man the reception desk and shop. Staff and volunteers also participate in events off the Reserve, such as the Lydd Carnival day and the New Romney Countryside Fair.
- 9.10. In addition to this regular help, we are sometimes assisted by professional groups from industry who make use of the Reserve on team building days and members of our RSPB local groups network that provides work parties to assist with habitat management.

- 9.11. The Reserve classroom and facilities are used by Kent based professional organisations for team management meetings and as mentioned above an exhibition room within the education building is used for art and photographic exhibitions by local artists and photographers.
- 9.12. Local community groups, such as local art groups, make use of the Reserve for learning and events.

## **10. POTENTIAL IMPACTS ON THE RESERVE OF EXPANSION AT LYDD AIRPORT**

- 10.1. The evidence I have given in sections 4 and 5 of my proof clearly highlights the unique importance of the Reserve for wildlife. The wildlife includes not only birds, but also a host of other species, some of which are very scarce. I have also shown how the RSPB's long involvement with the Reserve has benefited and improved its wildlife interest and indeed, will continue to do so in coming years.
- 10.2. Other witnesses will detail the impacts of the proposals on these existing and future nature conservation interests and whilst I fully support these concerns, I do not intend to cover these in my proof. However, there is one matter on which I would comment with regard to the maintenance of the interest of the site and the RSPB's obligations as a landowner.
- 10.3. There is a legal obligation to maintain many of these interests and the RSPB often receives public money to do so (as detailed above). If the airport expansion is granted, the RSPB's future plans and, in some cases, the legal obligations to maintain the designated sites and the associated wildlife could, I believe, be compromised. I am also concerned that the airport expansion could frustrate the nature conservation and management work we have done on the Reserve to date.
- 10.4. I therefore believe that it is extremely important to consider the implications of airport expansion now. For example, although I am uncertain as to how visual and noise effects from larger jets specifically impact on birds and populations of SPA species, I am concerned that increased aircraft noise could be a factor in discouraging terns in re-colonising the Reserve. In addition, I fear that the close association between the Dengemarsh reedbed

and neighbouring fields directly under the flight path, where for example Bewick's swans (an SPA species) and some of the SPA waterfowl assemblage feed, could be threatened by airport bird control<sup>39</sup>.

- 10.5. From my own observations of aircraft movements however, I have seen species disturbed and forced into flight (see paragraph 10.10 below). This results in my concern that the increased visual and noise disturbance from larger jets may affect, for example, breeding bitterns and marsh harriers, SPA species that have recently commenced nesting on the Reserve following our management work to attract them. I also fear that our plans to attract breeding terns and small gulls back to the Reserve (by landscaping of the islands in Burrowes and ARC pits) are likely to be frustrated by disturbance of large jets.
- 10.6. I am also concerned that the need for greater airfield safeguarding on an expanded airport at Lydd could jeopardise future wetland enhancement works at the Reserve. Our plans for additional island habitat for seabirds and our plans to enhance our reedbeds to benefit bitterns and other wetland bird species could, I fear, likely be in conflict with future airport safeguarding plans because habitat enhancement is likely to attract more birds in close proximity to the airport.
- 10.7. I have also set out the importance of the Reserve for visitors, education and highlighted the wider benefits to the community. In this section of my proof, I now turn to what I consider the potentially harmful impacts of the proposed airport expansion on these and, as a consequence the general amenity of the Reserve. I do this based on my extensive experience from working for eight years on the Reserve and also at other important wetland sites and RSPB reserves elsewhere in the UK.
- 10.8. I consider an essential part of the visitor experience at the Dungeness Reserve is being able to enjoy the sense of being in a wild place and a sense of tranquillity more usually associated with more remote landscapes. This can still happen now, despite the modifications to the landscape by industrial and other human developments. Most of the manmade structures are peripheral to the Reserve and whilst some neighbouring leisure activities (such as those occurring on nearby water sports lakes) can be intrusive for short periods, for most of the time a visitor on the nature trails can experience quiet enjoyment

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<sup>39</sup> Please refer to the draft Bird Control Management Plan, Appendix 6 of CD1.45.

of the site and a sense of being in a wild place. I believe this view is also supported by the results visitor surveys referred to in section 7 above.

- 10.9. I am very concerned however, that this generally tranquil environment will change with the introduction of larger, jet propelled aircraft. I fear that the balance will be tipped by the impact of the increased frequency, noise and visual presence of the additional large air traffic, exacerbated by the fact that the noise and sight of large aircraft will draw attention to themselves as they move across both the land and the sky in this wide, open landscape.
- 10.10. The most recent, very clear demonstration of this that I experienced was on the morning of 15th November 2010, whilst I was carrying out a bird survey on the ARC pit. As I walked towards the ARC birdwatching hide (see Map 7, Appendix I), the generally quiet scene (with the relatively low background noise levels, mostly from traffic on the Dungeness road) was interrupted by the sound of extremely noisy jet engines revving up to achieve maximum thrust for take off. I was quite startled by the intrusiveness of this noise and its volume was a level which I had not heard before. My attention was immediately drawn to the source of this noise and I was surprised at the magnitude of the sound produced. The plane took off in a northerly direction and then banked left to the north west. As it did so, it disturbed a mixed flock of c1500 - 2000 birds (with my binoculars, I spotted gulls, lapwings, golden plover, pigeons and starlings) from fields north west of the runway, which took flight en-masse and circled for several minutes before settling.
- 10.11. This type of incident strengthens my concerns about the impact of this noise and visual intrusion on visitors and birds on the Reserve, if larger planes with a full load of passengers on board are permitted to take off and land at Lydd. The noise from the engines from large planes (that do not currently use the airport), at maximum thrust for take off, will I fear be aimed directly towards the Reserve on some occasions (e.g. as large aircraft bank right on a southerly take off). High noise levels from larger jets taking off in a southerly direction, along the corridor between the Lydd Ranges and the power stations will (when this route is useable) also have a direct impact (through noise and visual intrusion) along the western edge of the Reserve. I believe this could result in visitors experiencing significantly higher noise levels than under the present situation.

- 10.12. In summary, I believe that the increased disturbance, particularly from large passenger aircraft at Dungeness, will certainly impact on visitor's quiet enjoyment of the Reserve and I am concerned that this will be detrimental to the enjoyment of bird watchers. It may, I fear, result in a reduction in the number of people who wish to visit the Reserve, since the special landscape and elements that make up the Dungeness area would, I believe, be significantly altered and undermined if the applications are permitted.
- 10.13. I consider that increased disturbance from the airport could also detract from the educational experience of the Reserve, potentially reducing the educational benefits and thus the number of overall visits. Sections 7 and 9 of my proof indicate the wide use of the Reserve by a range of visitors, young and old alike. In my view, the value of the current overall experience I describe above for general visitors applies equally to those who seek more targeted educational benefits. I consider it very important that those who come to learn specifically about wildlife at a nature reserve (perhaps for the first time) do so in a way that provides a formative and lasting experience. In my view, the value of this is likely to be greater in a more tranquil environment that helps to enhance the wildness and remoteness of the Dungeness Reserve and supports the quiet enjoyment of its special wildlife. I fear that this experience will be threatened by the increased disturbance I describe above.

## **11. CONCLUSION**

- 11.1. The shingle and wetland habitats on the Reserve are of outstanding importance for wildlife, recognised at national, European and international levels. This is particularly true of the wintering and breeding birds and the assemblage of invertebrates which they support and is demonstrated by the fact that the Reserve has been designated under national, European and international wildlife legislation in order to secure their protection and conservation.
- 11.2. These unique and rare habitats and species are integral to the visitor experience on the Reserve, as is general environment and the current sense of wilderness on the Dungeness foreland and Reserve.
- 11.3. However, it is my belief that a commercial scale airport at Lydd could:

- 11.3.1. negatively impact on the visitor and educational amenity at the Reserve through peak noise events and visual intrusion and changing the area's unique landscape;
- 11.3.2. undermine much of the RSPB's work already undertaken at the Reserve, some partly funded by public bodies; and
- 11.3.3. constrain future nature conservation management, aimed at further improving rare and threatened habitats and species.