



SUSSEX ORNITHOLOGICAL SOCIETY

Registered charity 256936

www.sos.org.uk

Beavers Brook,
The Thatchway,
Angmering,
West Sussex BN16 4HJ

17 December 2021

By email only:



Dear David,

P/153/21 (RES) Approval of reserved matters (appearance, layout, landscaping and scale) following outline planning permission P/140/16/OUT for the erection of 375no. dwellings, together with public open space, play space, drainage, parking and associated infrastructure, landscape, ancillary and site preparation works, with access off Pagham Road (alternative to P/167/21/RES). This site may affect a Public Right of Way.

Land south of Summer Lane and West of Pagham Road, Pagham

This is one of four applications that have been made to discharge Condition 1 of P/140/16/OUT. This condition reads:

The permission hereby granted is an outline permission under s92 of the Town and Country Planning Act 1990 (as amended) and an application for the approval of the Local Planning Authority to the following matters must be made not later than the expiration of 3 years beginning with the date of this permission:-

- (a) Layout;*
- (b) Scale;*
- (c) Appearance;*
- (d) Landscaping.*

Reason: To enable the Local Planning Authority to control the development in detail and to comply with Section 92 of the Town and Country Planning Act 1990 (as amended).

The SOS **objects** to this planning application for three reasons:

- uncertainty about whether Southern Water can handle the increased foul water volumes that would result from this development (our concerns are detailed in "Foul Water Impacts" below), and the consequent risk of increased sewerage overflows into the Pagham Harbour SPA.
- the lack of screening provided by the landscape plans along the western boundary, which will affect birds.
- It appears that the landscape plans will adversely affect bats, including rare Barbastrelle Bats.

We are also concerned about the apparent lack of any progress in developing mitigation plans to compensate for the loss of Brent Geese foraging, which remains a material consideration in assessing development proposals for this central site as well as for the proposed 375 housing development to the north and south of this proposed development.

Landscape proposal's impact on Birds

1. The SOS **OBJECTS** to P/153/21/RES because there is very little screening along the western and southern boundaries of the site both of which include footpaths. Birds using the fields to the south and west for foraging would therefore be likely to be disturbed by humans using the footpath along the western boundary, who would clearly be visible to birds in the field as no screening is being proposed.
2. The Officer's Report on P/140/16/OUT sent to the Planning Committee in 2018, stated (page 39)

The applicant's have identified measures to secure biodiversity gains, (and) increasing the proposed enhancement package to provide greater comfort in relation to any perceived residual impacts on Dark-bellied Brent Geese. The measures identified by the applicant are;

- Enhancing the western boundary by screening with dense tree planting to reduce visual disturbance;*
- Fencing will be included on the western and southern boundaries to prevent dogs accessing land to the south and west when run off their leads.*

The landscape proposals along these boundaries clearly fail to deliver the features highlighted in yellow.

3. The proposal in P/153/21/RES to install a LAP at the southern end of the SUDS along the western boundary would potentially cause greater disturbance to birds foraging in the fields to the west, than the proposals in P/167/21/RES. But neither proposal is satisfactory from a birding point of view.
4. We also object because we believe that dogs could freely access the land beyond the western boundary. This is because the proposed narrow strip of "wetland" planting within the SUDs area along the western boundary shown on Landscape Sheets 3 and 5 would only deter dogs crossing the western boundary when the SUDs is flooded to some depth, which presumably will only be on a very limited number of days each year. Therefore, it appears that dogs would be able to run onto these fields across the dry SUDS depression most of the time. There is also a bridge crossing the SUDS which gives direct access into this field.

Since this SUDS is not part of any waterway we question how viable it would be for any wetland planting in it to survive, especially over the summer.

Brent Geese - Discharge of Condition 30

5. We note that no proposals have yet been submitted to discharge Condition 30, which is as follows:

No development shall commence until the applicant has submitted and the local planning authority (in conjunction with Natural England) has approved the detailed management and maintenance scheme for the adjacent Pagham Harbour SPA Enhancement Land (as defined and referred to within the Agreement under s106 of the Town and Country Planning Act associated with the permission) which shall provide for:

The delivery of habitat enhancements (including some areas of additional planting) for Brent Geese on said land so as to achieve no net loss of foraging habitat for Brent Geese due to the development proposals;

The management of the field boundary vegetation, associated with specific adjoining fields to enhance the sight lines for Brent Geese, making this field matrix more suited to use by them; and

Cessation of bird scaring initiatives on said land;

said measures and scheme to substantially accord with the details set out in Chapter 4 of the Ecology Solutions Ltd "Brent Goose Mitigation Plan" December 2017 submitted in support of the application.

Reason: This condition is necessary to ensure that the management and maintenance of the Pagham Harbour SPA Enhancement Land accords with national guidance and Policy ENV DM2 of the Arun Local Plan. It is considered necessary for this to be a pre-commencement condition because of the need (to) ensure measures are in place to avoid any detrimental impact of the development upon the SPA/Ramsar prior to development commencing.

6. The applicant's response to this condition is to say in their *Ecological Survey Summary Report 2021*, paragraph 5.4

A detailed Management and Maintenance Scheme for the adjacent Pagham Harbour SPA enhancement land, will be prepared in association with Natural England, to satisfy condition 30 of the outline approval. This will be implemented prior to the commencement of development, as per the wording of the condition. The following will be provided for as specified by the condition;

- An habitat enhancement strategy, including new planting and removal of existing vegetation where required, to mitigate for the loss of brent goose habitat from the development area, and enhance this zone for SPA bird species.*

7. Given that the proposed Mitigation site does not provide viable mitigation (see SOS Report P/140/16/OUT – *evidence that the current mitigation proposals will not work*, attached as an appendix to this objection) the developers need to come up within the next two years with new mitigation proposals. This winter (2021/22) the proposed mitigation site has not been planted with any

crops suitable for Brent Geese, so the applicants have only one winter left to try and demonstrate that Condition 30 can be fulfilled.

8. We also believe that the failure to provide alternative foraging for Brent Geese in winter 2021/22, directly contravenes Condition 30 as it means Brent Geese are suffering - they have lost the traditional P/140/16/OUT foraging site and nothing has yet replaced it. This appears to be a failure by Arun DC to enforce condition 30 and a failure by the applicants to observe it. Having brought this to Arun's attention in our July 2021 Report (appended to this letter) we would not expect to see this continue in 2022/23.
9. It is also concerning to report that several hundred Brent Geese were regularly recorded foraging in a field of emerging winter wheat to the west of the P/140/16 site (around Shipverling Barn) on 17 days in November 2021, but that when this became evident the field was sprayed off and has consequently died back. No Brent Geese have therefore been observed using this field since the 27th November.
10. The requirement to provide one-for-one mitigation is, of course, a legal requirement as Brent Goose is a designated species on the Pagham Harbour SPA citation and it is illegal to allow development to go ahead if it impacts a significant habitat used by this Annex 1 species – which this site is. Although this legislation was originally EU law it was converted into UK law by the *Conservation of Habitats and Species Regulations 2017* Act.
11. The development of the P/140/16/OUT site has now been split into two separate developments – 375 houses in the northern and southern parts of the site and a care home with some community facilities in the centre of the site. As the SOS has records of Brent Geese using the whole of the P/140/16/OUT site, including some records with a specific note stating "Behind the village hall" (which of course is at the northern end of the P/140/16/OUT site) Condition 30 will have to apply whatever part of the P/140/16/OUT site is being considered for development.

The impact on Bats of the Landscape Proposals

12. It is noted that the 2021 Ecology Report has identified 12 species of bat using the site, primarily the line of Poplars along the northern part of the western edge. These included the rare Barbastrelle Bat, which was the most frequently recorded species after the three Pipistrelle species. The likely impact of the development and of these landscape proposals on Barbastrelle or other species of bats does not appear to have been addressed. We feel it needs to be, given their current usage of the site. Street lighting from the development would clearly have a detrimental impact on bats and no compensatory arrangements appear to be being proposed.

13. These landscape proposals, therefore, appear to harm bats, which is a further reason why this application should be rejected.

Reptiles

14. Low numbers of Slowworms and Common Lizard have also been identified as using the site. We see that it is proposed that a hibernaculum be erected on the western border to the west of the Hanbury development. It does not look to us as though this would be sited in a quiet enough location to ensure that it would not be disturbed by dogs, cats or humans. We recommend that advice be taken about it being sited in a more effective location.

Foul Water Impacts

15. The Drainage Strategy Report 4.3.4 states

Agreement will be needed with Southern Water as to the connection arrangements and timeline to ensure the existing foul sewer network can support the proposed development

16. However, the Drainage Strategy Report attached to P/155/21/RES, para 5.3, appears to update this statement by saying

The Local Sewerage Undertaker is Southern Water with the nearest Treatment Works being Pagham Treatment Works. Through consultation with Southern Water, the development will be timed to align with the upgrades to the Treatment Works and the connection to the public sewer timed to align with this.

17. We understand that Pagham WTW already has high levels of sewerage discharge which overflow directly into Pagham Hbr SPA. We are not aware that there is a definite plan to upgrade this WTW, and if there is what the timing of this upgrade would be.
18. If it were proposed that foul water is to flow to this WTW we would be very concerned as to the impact of increased levels of sewerage discharges into the SPA were it not substantially upgraded. It should be noted that NE have recently assessed that Chichester Harbour SSSI – and SPA – is in “unsatisfactory, declining” condition in part because of the impact of frequent sewerage overflows into that SPA. The Pagham Hbr SPA could be facing similar problems if steps are not taken to ensure that new developments will not exacerbate the current Pagham WTW overflows.
19. Therefore, we would ask that a condition of planning approval being given to P/155/21/RES is “That development shall not commence until Pagham WTW has been upgraded, or foul water is permanently sent to another WTW that does not overflow into the Pagham Hbr SPA.”

Net biodiversity gain assessment

20. The planning application contains no assessment as to whether the development will provide a net gain or a net loss in biodiversity. It should not be considered for approval until such an assessment is provided.

Yours sincerely,

Richard Cowser
(SOS Conservation Officer).

P/140/16/OUT

Evidence that the current mitigation proposals
will not work.

Richard Cowser
Conservation Officer, Sussex Ornithological Society
4 July 2021

1. CONDITION OF OUTLINE PLANNING APPROVAL

1.1 Arun DC gave Outline Planning Approval to P/140/16/OUT in November 2018. Condition 30, attached to this permission, is as follows:

No development shall commence until the applicant has submitted and the local planning authority (in conjunction with Natural England) has approved the detailed management and maintenance scheme for the adjacent Pagham Harbour SPA Enhancement Land (as defined and referred to within the Agreement under s106 of the Town and Country Planning Act associated with the permission) which shall provide for:

- a) The delivery of habitat enhancements (including some areas of additional planting) for Brent Geese on said land so as to achieve no net loss of foraging habitat for Brent Geese due to the development proposals;*
- b) The management of the field boundary vegetation, associated with specific adjoining fields to enhance the sight lines for Brent Geese, making this field matrix more suited to use by them; and*
- c) cessation of bird scaring initiatives on said land;*

said measures and scheme to substantially accord with the details set out in Chapter 4 of the Ecology Solutions Ltd "Brent Goose Mitigation Plan" December 2017 submitted in support of the application.

Reason: This condition is necessary to ensure that the management and maintenance of the Pagham Harbour SPA Enhancement Land accords with national guidance and Policy ENV DM2 of the Arun Local Plan. It is considered necessary for this to be a pre-commencement condition because of the need (to) ensure measures are in place to avoid any detrimental impact of the development upon the SPA/Ramsar prior to development commencing.

1.2 Highlighted in red are two key elements of these conditions:

- development of the P/140/16/OUT site must result in no net loss of foraging habitat for Brent Geese i.e the mitigation site has to provide one-for-one compensation for the Brent Geese carrying capacity of the P/140/16/OUT site
- the mitigation measures must be in place before any development starts on the P/140/16/OUT site

1.3 This paper establishes what the carrying capacity is of the P/140/16/OUT site based on detailed records of its use by foraging Brent Geese when it was planted with winter wheat in winter 2018/19, and what the apparent carrying capacity is of the three mitigation fields which were planted with winter wheat in each of the winters 2018/19, 2019/20 and 2020/2021, when they were regularly visited and numbers of Brent Geese (including zero counts) were recorded. These records show that over 3 years the mitigation site has only been used on six days over two winters by significant numbers of foraging Brent Geese and that the number of goose days they were used over a four day period last winter were only 3% of the numbers at the P/140/16/OUT site in winter 2018/19. Although work to improve sight lines has not yet been carried out it is now clear that the mitigation fields were much too wet in each of these years to allow winter wheat to grow sufficiently to provide any significant foraging capacity for Brent Geese. As a consequence, it is the SOS's view that the proposed mitigation site will never be able to provide the required one-for-one mitigation (at least if it relies on planted crops to provide the foraging). Moreover, it is clear that the requirement to demonstrate that full

one-for-one mitigation is being achieved before any development commences on the P/140/16/OUT site has not been met.

1.4 It is the SOS's view that Arun DC need to make clear to the developers that development of the P/140/16/OUT site cannot proceed until

- a) alternative mitigation plans for wintering Brent Geese are put in place and
- b) which then demonstrate, before any development work commences, that they provide the one-for-one mitigation set out in Condition 30. In our view this needs to be demonstrated over a three year period, including one "wet" winter.

1.5 Moreover, in view of the proven importance of the P/140/16/OUT site for the Pagham Harbour wintering flock of Brent Geese it is the SOS's view that the P/140/16/OUT site owners should continue to plant an average of 18.4ha of the site with winter wheat in future years and that no geese scarers should be installed on it – unless and until effective mitigation measures are established and are demonstrated to provide the necessary one-for one mitigation capacity. Failure to continue planting the development site with foraging crops whilst the development is on hold would mean that this development proposal would be detrimental to Brent Geese. This would breach the stated reason for condition 30

"..... to avoid any detrimental impact of the development upon the SPA/Ramsar prior to development commencing".

2. RAINFALL

The amount of rainfall can affect the growing conditions for the autumn-planted winter wheat which Brent Geese forage on. Rainfall (in mm) for the months September through February at Pagham for each of the three years considered in this paper was as follows:

	<u>2018/19</u>	<u>2019/20</u>	<u>2020/21</u>
September	40	98	30
October	51	132	210
November	137	146	84
December	133	291	166
January	33	90	106
February	<u>196</u>	<u>147</u>	<u>66</u>
Total rainfall (mm) Sept – Feb	590	904	662

It can be seen that autumn and winter 2019/20 was particularly wet.

Source

<https://www.visualcrossing.com/weatherhistory/Pagham%20West%20Sussex%20England/metric/> (Extracted 25 June 2021)

3. NUMBERS OF BRENT GEESE OVERWINTERING AT PAGHAM HARBOUR SPA

The BTO WeBS (Wetland Bird Survey) count records the total number of Brent Geese (and many other wetland species) recorded each month at sites around the UK, including Pagham Harbour. The WeBS year runs from July to June, and the month with the maximum count is customarily cited as the (maximum) number recorded in each year.

The maximum counts of Brent Geese at Pagham Harbour are as follows:

<u>2011/12</u>	<u>2012/13</u>	<u>2013/14</u>	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	<u>2018/19</u>	<u>2019/20</u>	<u>2020/21</u>
2500	2351	2325	2100	3701	2306	2506	3405	2526	2472

Sources: <https://app.bto.org/webs-reporting/numbers.jsp.com>, except 2020/21, where the source is Ivan Lang, who organises the Pagham WeBS count.

The 10-year average annual maximum is 2619 Brent Geese. As can be seen, the 2015/16 and 2018/19 maxima were particularly high.

4. EVIDENCE OF BRENT GEESE FORAGING ON THE P/140/16/OUT SITE

4.1 Crop plans

The crop plans included in the Brent Geese Mitigation Plan submitted by Ecology Solutions Ltd as part of the approved planning application for P/140/16/OUT showed that between 2011 and 2017 an average of 18.7ha of the 29.2ha P/140/16/OUT site had been planted with winter wheat each year. Consequently, to provide one-for-one mitigation the mitigation site has to provide the carrying capacity of 18.7 ha of this site. i.e. of 64% of the whole P/140/16/OUT site if 100% planted with winter wheat.

4.2 Records up to 2016

In 2017 the SOS held no records of Brent Geese foraging on the P/140/16/OUT fields*, no doubt because birdwatchers went to the Pagham Hbr SPA itself as the best site for recording birds, i.e. these fields were never regularly “watched”.

*Subsequent examination of selseybird.blogspot.com revealed sightings of 2100 Brent by Shipvering Barn on 6 Jan 2014 and 2500 on fields behind the Pagham Village Hall on 20 Jan 2016, and the SOS created records to this effect.

When the P/140/16/OUT planning application came forward local residents objected, pointing out that these fields were regularly used by “many” or “hundreds” of foraging Brent Geese in winter. As a result local birdwatcher Jim Weston organised a survey of residents of Pagham Road (opposite the planning site) to document what they had seen. In early 2017 he put a questionnaire to 32 residents who had lived there for more than 3 years, plus 6 dog walkers who regularly walked along Pagham Road.

In this survey 31 Residents stated that they had seen Brent Geese using the P/140/16/OUT site, 29 on an annual basis and two on a “regular” basis. 27 of these residents stated that they had seen flocks of more than 1000 geese at times. A further 6 local dogwalkers along Pagham Road confirmed that they were used to seeing Brent Geese on the P/140/16/OUT site.



Fig 1. Brent Geese foraging on P/140/16/OUT site on 21 February 2016. (There are circa 300 geese in this picture, but the flock is obviously somewhat larger). Note how long and thick the crop of winter wheat is, and the absence of any standing water.

As photographic evidence of Brent Geese foraging on the site was also provided (see fig 1 above), the SOS created records summarising the responses to this survey. On 23 Aug 2017 SOS provided Arun DC (copied to RSPB and NE) with these records (37 in total) plus a report on the survey itself. A typical one of these records includes the following note *"Resident at xx Pagham Road since 1996 interviewed on 28 July 2017 said that they see Brent Geese annually in fields south of Pagham Village Hall; ranging in numbers to over 1000 on occasions"*.

It should be noted that no one has any memory of goose scaring devices having ever been erected on this site. Every winter many other fields around Pagham and Medmerry are planted with winter wheat. Except for a handful of fields near Church Norton, all the other fields have goose scarers on them. The absence of bird scarers on the P/140/16/OUT site and its proximity to the SPA makes it very attractive to Brent Geese when it is planted with winter wheat.

4.3 Winter 2017/18

The P/140/16/OUT site was ploughed but unsown over this winter. It therefore provided no foraging opportunity for Brent Geese and none were recorded on it during this winter.

4.4 Winter 2018/19

4.4.1 In autumn 2018 all 29.2ha of the P/140/16/OUT site was planted with winter wheat. Attempts were made in October to erect an inflatable man, presumably to act as a visual, but noiseless, goose scarer. This caused much local comment and was

quickly abandoned. In November noise scarers were used, but only briefly. Consequently, these fields were free of goose scarers over most of this winter.

The site was heavily used by foraging Brent Geese:

- Brent Geese were recorded foraging on a total of 73 days between 2 November 2018 and 3 March 2019. There were two periods when their numbers were particularly high:
- In the 28 days between 22 Dec 2018 and 18 January 2019 an average of 2117 Brent Geese were recorded on the site each day (max 3070 on 16 January) – to the extent that they probably grazed the site down. They were then largely absent from the site until it had recovered by 14 February. They were then recorded on 11 days between 14 February and 3 March 2019, when numbers averaged 2271 birds on each of the days they were there (max 3000 on both 15 and 16 February).
- The peak WeBS count of Brent Geese at Pagham Harbour that winter was high, at 3405, so at times a large majority of the flock was regularly foraging on the P/140/16/OUT site.

4.4.2 This was the first winter that detailed recording of Brent Geese's use of this site was carried out. The heavy usage backed up the historical information given by the residents along Pagham Road about the regularity with which Brent Geese foraged on the site. It also demonstrated the major importance of this site for the wintering Pagham Harbour flock of Brent Goose.

4.4.3 Re 2 above, 2018/19 was a notably wet winter. Yet clearly the P/140/16/OUT site drained well and its winter wheat crop was able to grow well and provide excellent foraging for the Brent Geese. Compare fig 2 below with fig 6 of the mitigation site - both photos were taken on 22 Dec 2018.

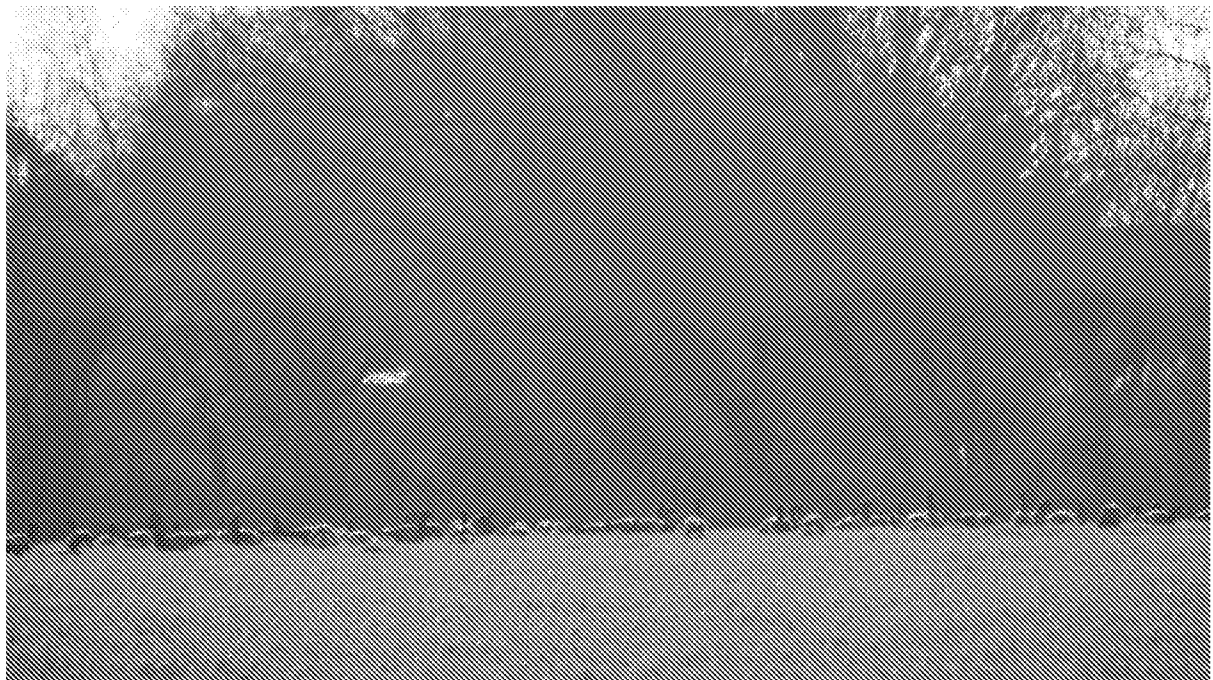


Fig 2. Brent Geese grazing on the P/140/16/OUT site on 22 Dec 2018. There is no standing water and the winter wheat is clearly growing well and providing good grazing for the geese.

4.4.4 With an average of 2117 geese over 28 days in December/January and a second wave of an average of 2298 birds over 11 days in February/March the P/140/16/OUT site supported 84572 foraging geese on these 39 days. This excludes smaller goose numbers recorded on the site primarily in November and early December.

4.4.5 However, it needs to be remembered that all 29.2 ha of the site was planted with winter wheat. For the reasons outlined in 4.1 the mitigation site needs to deliver one-for-one mitigation for geese using only 18.7ha (or 64%) of the P/140/16/OUT site. Adjusting the 84572 number to 64% would mean that 18.7 ha would have supported 54127 geese days of foraging.

4.4.6 Curlew were also recorded using the site on 18 occasions with a peak of 60 on 6 January 2019.

4.5 Winter 2019/20

The site was unsown over this winter, with the earth being left bare. A series of trenches were dug across it and it appeared that archaeological excavations or some such were being carried out. Consequently, the site provided no foraging opportunity for Brent Geese and none were recorded on it during this winter. This activity clearly compacted the soil so that some standing water occurred.

4.6 Winter 2020/21

4.6.1 The site was again unsown over this winter, with the earth being left bare. It was also left undisturbed and by late January there was quite a covering of weeds on it (see fig 3 below).



Fig 3. The P/140/16/OUT site on 26 January 2021 with a thin covering of self-seeded grassy weeds, which attracted 1400 Brent Geese four days later.

4.6.2 Brent Geese were recorded on this site on 14 days between 7 Nov 2020 and 25 Feb 2021, with peak numbers occurring on 30 Jan 2021, when 840 Brent Geese were recorded foraging in the morning and 1400 in the afternoon. Given that the provisional peak WeBS count for 2020/21 was 2472 the afternoon count was of over half the wintering population. Counts on the other 13 days varied between 5 and 320 birds. More than one hundred birds were counted on three of these days (on 15 November -

106, on 28 January - 212 and on 29 January - 320). This clearly shows the loyalty of Brent Geese to the P/140/14/OUT site

4.6.3 Curlew and Lapwing were also recorded using the site on seven occasions each, with peak numbers of 1400 Lapwing on 8 Dec 2020 (plus 1180 on 20 Dec) and 41 Curlew on 30 Jan 2021.

5. THE MITIGATION SITE

5.1 The current cultivatable size of the mitigation site is less than the required 18.7ha

The proposed mitigation site consists of three fields, 9309, 9029 and 1141 covering 19.81ha. However, as explained by Giles Benyon in his letter dated 19 February to Arun DC, at present 3.9ha of 9309 and 1.7ha of 9029 are rank wetland, ie, non-cultivable land. So as currently laid out only 14.21 ha of the mitigation site can be sown with crops instead of the required 18.7ha.



Fig 4. Sept 2019 map showing the mitigation fields to the west of the P/140/16/OUT site.

Note that the central portion of field 9309 has not been cultivated, and neither has the western side of field 9029. Both these areas are rank wetland.



Fig 5. Rank wetland in field 9309, 16 December 2018

As can be seen from figure 5 very significant work would be needed to make the additional 5.6 ha of current rank wetland on the mitigation site into ground on which crops could be planted.

5.2 The mitigation fields are regularly water logged

In all 3 winters 2018/19 through 2020/21 large parts of the three mitigation fields were regularly waterlogged, with large areas of standing water (see fig 6 below). Where parts of the fields were underwater for many days the winter wheat often did not grow at all (as can be seen in the picture of 1141 in figure 7). Where it did grow it often did so very thinly, as can be seen in fig 6 below where bare earth is visible between the winter wheat plants. Contrast this with the thickness of the winter wheat crop on the P/140/16/OUT site shown in figures 1 and 2 above. (The photos in figures 2 and 6 were taken on the same day).



Fig 6. Pagham mitigation fields looking north and showing extensive waterlogging on 22 Dec 2018. Note the large areas of almost bare soil and how backward the growth of most of the crop is. Only limited parts of these fields can provide grazing for Brent Geese at this stage.



Fig 7: Flooded mitigation field, 1 Feb 2021, providing little opportunity for Brent Geese to graze.



Fig 8. Field 1141 in spring (17 May 2021). Note the extensive area in the far distance where no crop has grown and water is still standing. In the middle distance and foreground are other bare areas.

5.3. Crop Plans.

The crop plans included in the Brent Geese Mitigation Plan submitted by Ecology Solutions Ltd as part of the approved planning application for P/140/16/OUT showed that leading up to 2017 the crops grown on the mitigation fields were primarily spring planted. This is normal in fields that are often waterlogged in winter.

5.4 Winter 2018/19

The mitigation site was visited on 53 occasions between 2 November 2018 and 28 February 2019. 1800 Brent Geese were recorded on field 1141 on 18 Dec 2018 and 2400 on field 9309 on 15 Feb 2019. No Brent Geese were observed using any of the 3 fields on any of the other 51 visits. All three fields were planted with winter wheat. The presence of species other than Brent Geese was not recorded.

5.5 Winter 2019/2020

The mitigation site was visited on 72 occasions between 6 November 2019 and 15 March 2020. No Brent Geese were observed using any of the 3 fields on any of the visits. All three fields were planted with winter wheat. The presence of species other than Brent Geese was not recorded.

5.6 Winter 2020/2021

5.6.1 The mitigation site was visited on 76 occasions between 29 October 2020 and 15 March 2021. Brent Geese were observed on 8 occasions as follows:

8 on 24 Nov 2020

7 on 29 Nov 2020

320 on 19 Jan 2021
380 on 20 Jan 2021
510 on 21 Jan 2021
540 on 28 Jan 2021
5 on 11 Feb 2021

All three fields were planted with winter wheat.

5.6.2 In winter 2020/21 records were made of all bird species using the mitigation site. Other species recorded included:

- Records of two other species listed on the Pagham Hbr SPA citation (three records of Black-tailed Godwit and a single record of a single Ruff).
- Five other wader species, including eight counts of over 1000 Lapwing
- Ten species of swan/duck/rail and heron, including 14 counts of more than 40 Eurasian Wigeon
- Six species of gull including 11 counts of 80 or more Black-headed Gulls

These are typical records for flooded fields.

5.6.3 It was noted that the crop in fields 9309 and 9029 was sprayed off in the spring, possibly because it had not grown well. The crop on field 1141 was allowed to grow on although yield per ha sown must have been reduced because of the large area of bare soil where waterlogging had prevented crops growing (see fig 8 above).

5.7 Mitigation site carrying capacity.

The only time that significant numbers of Brent Geese were recorded on the mitigation site in successive days was on the 19 to 21 January 2021. They were there again on 28 January. During these four days the mitigation site supported 1750 days of goose foraging. Contrast this with the 54127 days of goose foraging that 64% of the P/140/16/OUT development site supported in 2018/19 (see 2.4.3) – the mitigation site only supported 3% of the P/140/16/OUT site's capacity. In winters 2018/19 and 2019/20 Brent Geese were recorded on only 2 of the 125 days the site was visited, albeit in good numbers (1800 and 2400), on two separate fields with a two month interval between these records.

5.8 Mitigation site – conclusions.

The mitigation site is wet and drains poorly. Historically it was planted with spring sown crops rather than ones that grew over winter. Over the three winters 2018/19 through 2020/21 it was planted with autumn sown winter wheat. These crops fared poorly and during the crucial months of December, January and February, when wintering Brent Geese are present in good numbers, they were unable to sustain the continuous foraging that the winter wheat crop on the much drier P/140/16/OUT site is able to support. Indeed the mitigation site was visited by birdwatchers on 198 occasions during these three years and Brent Geese were only recorded on them on 10 days. It appears that the current mitigation site can only support about 3% of the of the number of Brent Geese that the P/140/16/OUT site can support.

The cultivatable size of the mitigation fields at 14.2ha is also smaller than the required 18.7ha that Condition 30 requires.

The conclusion therefore is that the proposed mitigation site, when planted with winter wheat, falls very far short of being able to provide one-for-one mitigation for the P/140/16/OUT site.

6. Acknowledgement

My thanks to Jim Weston, who organised the surveys of Pagham Road residents, and the monitoring of the mitigation site (undertaking many of the visits to it himself), and who also provided helpful comments on this Report

Reference

Giles Benyon letter to Arun DC 19 February 2019 - filed in the Documents section of the P/140/16/OUT application under Rep Letter 20 Feb 2019 and Rep L