ecology solutions ltd

HANBURY (PM) LTD

PAGHAM SOUTH

BRENT GOOSE MITIGATION PLAN

December 2017
5633.BGMP.vf1

ecology solutions for planners and developers

ARUN DISTRICT COUNCIL P/140/16/OUT

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1. INTRODUCTION

1.1. Ecology Solutions was commissioned by Hanbury (PM) Ltd to undertake ecological assessment work pursuant to the production of documentation in support of planning application (Ref: P140/16/OUT) submitted in respect of Pagham South, West Sussex in 2016.

1.2. Development Proposals are for the Application Site are for the provision of residential development (up to 400 units) along with public open space, retail and community provisions (including a primary school) associated landscape and biodiversity measures and access. The planning application remains undetermined at this stage.

1.3. As part of that commission, Ecology Solutions were specifically instructed to assess implications of the Development Proposals on nearby designated sites of European/international importance, namely the Pagham Harbour Special Protection Area (SPA) / Ramsar site.

1.4. The findings of that assessment work were set out within the 'Information to enable a Habitats Regulations Assessment' document (December 2016), such that the competent authority (in this instance Arun District Council) had the necessary information before it in order to carry out its duties in considering the application in line with relevant planning policy and legislation, including specifically The Conservation of Habitats and Species Regulations 2010 (hereinafter referred to as the Habitats Regulations).

1.5. Considerations in respect of Brent Geese are required in this instance on the basis that this species is a qualifying interest feature of the Pagham Harbour SPA / Ramsar Site (and SSSI). Whilst no part of the Application Site extends to include land classified / designated as part of the SPA / Ramsar site, the Application Site comprises land which could represent a resource for the wintering Brent Goose population associated with the SPA / Ramsar site. The Application Site adjoins extensive farmland which represents an alternative resource for Brent Geese and indeed some of this land has been demonstrated to support them through detailed survey work undertaken. In addressing the tests of the Habitats Regulations, consideration should be given to potential implications of development proposals for qualifying interest features, on land which may be considered important for such species (i.e. the land is functionally linked to the SPA / Ramsar site).

1.6. The IHRA (December 2016) concluded that (Dark-bellied) Brent Geese would be likely to utilise the Application Site from time to time. This conclusion was based upon an assessment of the suitability of habitats present within the Application Site, data obtained as part of a desk based exercise (including data from the Sussex Ornithological Society - SOS) and third-party information (local residents) obtained through the public consultation exercise. By way of summary, detailed ornithological surveys undertaken in the winter period over 2014 / 2015 showed no use of the Application Site by Brent Geese and no data search information confirmed use of the Application Site, however local residents reported seeing them using the land.

1.7. On the evidence available, Ecology Solutions concluded that the Application Site was not likely to be of any significance for Brent Geese and that the Development Proposals would not constitute a loss of functionally linked SPA / Ramsar site habitat. Notwithstanding this, the IHRA did consider specific mitigation in respect of Brent Geese in addition to that proposed in respect of avoiding increased recreational impacts on the SPA / Ramsar site. That specific mitigation was based around mitigating disturbance impacts on Brent Geese using adjacent agricultural fields to the west of the Application Site. Boundary treatments, including the delivery of vegetative screening and the setting back of the development were the primary measures.

1.8. However, during the determination period associated with the planning application, representations were made to Arun District Council by Pagham Parish Council (PPC), which included a report produced by an independent ecological consultant. SOS and the Royal Society for the Protection of Birds (RSPB) also submitted representations. The information submitted by PPC and SOS centres around an assertion that the Application Site is used regularly by Brent Geese and that it therefore should be classed as being functionally linked to the SPA / Ramsar site. The RSPB highlights its concerns regarding the potential importance of the Application Site for Brent Geese and provides details of what it considers to be suitable additional mitigation measures.

1.9. Whilst Ecology Solutions maintains that there remains no evidence to allow a conclusion that the Development Proposals would give rise to an adverse effect on the integrity of the SPA / Ramsar site, in liaison with Natural England, additional mitigation is now proposed on a precautionary basis. This additional mitigation is proposed in order to give the Competent Authority the comfort that when undertaking its legal obligations under the Habitats Regulations, the relevant legal tests are not failed.

1.10. It is the clear position of Ecology solutions that, with the delivery of the proposed mitigation / avoidance measures directed specifically at Brent Geese, it is considered that there would be no significant adverse effects on the population of Brent Geese associated with the SPA / Ramsar site. This additional mitigation, in tandem with that proposed in respect of other European designated sites considerations (as considered in detail within the IHRA), gives rise to an overall conclusion that no likely significant effect on the SPA / Ramsar site arises, either alone or in-combination, when the plan or project is considered in the light of the tests at Regulation 61(1) of the Habitats Regulations. There is therefore no requirement to undertake an Appropriate Assessment and a safe planning consent can be granted. In relation to the question of whether mitigation, which is inherent in a plan / project, should be included in an assessment considering the likely significance test at Regulation 61(1), the Dilly Lane judgment is relevant. This is considered briefly below.

1.11. The Secretary of State's decision to allow an appeal in relation to applications for a total of 170 new homes on a greenfield site off Dilly Lane, Hartley Witney was challenged in High Court by Hart District Council. The legal challenge was made on the grounds that the Secretary of State had errored in departing from her Inspector's conclusions as to the effects on the Thames Basin Heaths SPA. A key issue for the case was whether mitigation measures should be disregarded when assessing whether the

project would have a significant effect on the SPA. Mr Justice Sullivan ruled in favour of the Secretary of State after concluding that there was no absolute legal rule that mitigation measures should be disregarded in assessing whether the new homes would have significant effect on the SPA. Mr Justice Sullivan states at paragraph 55 of his judgement:

> *"The competent authority is not considering the likely effect of some hypothetical project in the abstract. The exercise is a practical one which requires the competent authority to consider the likely effect of the particular project for which permission is being sought. If certain features (to use a neutral term) have been incorporated into that project, there is no sensible reason why those features should be ignored at the initial, screening, stage merely because they have been incorporated into the project in order to avoid, or mitigate, any likely effect on the SPA."*

1.12. As such, it is right and proper that mitigation or avoidance measures, which form a feature of a plan / project should be viewed as integral to the plan / project and not excluded when considering the likely significance test at Regulation 61(1). This is the approach adopted in this instance.

1.13. The appropriateness of the measures described within this report have been the subject of discussion with Natural England, and the principals of the proposed mitigation have been agreed, see Appendix 1.

2. PROPOSED MITIGATION STRATEGY

2.1. In line with commitments already made as part of the planning application, along the western boundary of the Application Site a wide swath of open space is to be delivered along its entire length. Dense new tree planting will be introduced along the boundary, significantly bolstering existing hedgerows (present along most, but not all of the boundary). This new planting will act to buffer the development from existing arable and grassland habitat to the west and thus alleviate potential impacts from visual disturbance on Dark-bellied Brent Geese.

2.2. It should be noted that there is no proposal to close any footpaths which link with (or provide access to others which link with) the SPA / Ramsar site. It was agreed with Natural England that such a measure was not required, but instead, the use of these paths should be controlled where possible.

2.3. Use of the footpath network linking with the SPA / Ramsar site will not be promoted on any signage associated with the Development Proposals, nor will it be promoted within any literature provided to new residents. Instead, use of on-site open space will be promoted for use, especially by dog walkers and it will be made clear on proposed signage that certain interest features of the SPA/Ramsar site use habitats in the vicinity and these species are sensitive to disturbance.

2.4. In order to mitigate losses to habitats favoured by Brent Geese, located within the Application Site, the following broad measures are proposed:

- Delivery of habitat enhancements for Brent Geese on land contained within a mitigation area to the west of the Application Site;
- Management of field boundary vegetation associated with specific adjoining fields in a wider mitigation area, to enhance sight lines for Brent Geese, making this field matrix more suited to use by them;
- Cessation of scaring initiatives on mitigation land;
- All proposed measures to be the subject of a detailed management plan; and
- Proposed measures to be the subject of a legal agreement ensuring that the mitigation is secured in perpetuity.

2.5. The above measures are discussed in detail below.

2.6. It is however understood that the RSPB and SOS are commencing on a program of habitat mapping with a view to better understanding which areas around the SPA / Ramsar site may be well placed to form part of a strategic approach to mitigating effects of development on Brent Geese. It is therefore possible that in the future, it may be possible for a development proposal, such as that for the Application Site could place reliance upon this strategic mitigation package. Should this be the case, then the Applicant may, in agreement with Arun District Council, make financial contributions towards any agreed strategic mitigation package, in lieu of measures described in this report. However, at the current time, it is proposed that the measures described in this report will be secured and taken forward (in perpetuity).

Creation of a defined Brent Goose Reserve

2.7. In liaison with Natural England, it was agreed that, in taking a precautionary stance to assessment in relation to potential adverse effects on the population of Brent Geese arising from losses of supporting habitat, an appropriate mitigation initiative would be to secure and enhance an area of land for use by the species.

Location

2.8. In defining the land for use as part of this mitigation package, Ecology Solutions has had due regard to the following:

- The land should be available for use, with appropriate landowner consent;
- It should be feasible to deliver enhancement, over the current situation, including considerations as to the efficacy of maintaining foraging resources long-term;
- The ability to deliver the mitigation land in close proximity to the SPA / Ramsar site;
- Current management of the land in terms of suitability for Brent Geese and any existing Brent Geese scaring initiatives;
- Avoiding indirect impacts which would lessen the likely value of the land for Brent Geese, such as public disturbance;
- The land should be capable of enhancement and management for the benefit of Brent Geese, in the absence of any existing legal (or other) obligation aimed at maintaining or restoring habitat for Brent Geese. For example, the land should not form part of the SPA / Ramsar site, where, in such circumstances, Natural England could enforce remedial or management measures aimed at maintaining the favourable conservation status of habitats and species for which the site is designated (e.g. the Brent Goose population).

2.9. In consultation with the relevant landowner an area of land has been agreed and defined for use within the mitigation package. The land is outside of the SPA / Ramsar site boundary and is not the subject of any current obligation in relation to maintaining or enhancing habitat for Brent Geese (or any other species). It is capable of being physically enhanced through habitat creation measures in some areas (as detailed later within this report). It is also feasible to secure on-going (in perpetuity) agricultural management for arable land which will deliver foraging habitat for Brent Geese. The land is adjacent to the SPA / Ramsar site boundary, representing an optimal location for such mitigation habitat, given the protection afforded to the SPA / Ramsar site and recognised importance of that site for Brent Geese. In this location, there are no public rights of way and access to members of the public can be effectively managed (e.g. avoided).

2.10. The proposed location of the mitigation land is shown graphically at Plan ECO1.

Defining an appropriate area

2.11. The Application Site itself has been calculated to be 22.97ha in size.

2.12. Evidence obtained from the detailed wintering bird surveys undertaken between November 2014 and March 2015 did not reveal use of the Application Site by Brent Geese. As discussed within previous submissions (e.g. the IHRA 2016) this would indicate that the Application Site is not important for Brent Geese, though use from time to time is considered likely.

2.13. The evidence available in relation to use of the Application Site by Brent Geese provided by third parties is not sufficient to allow conclusions regarding the relative importance of each field, or parts thereof. The data either lacks detail in terms of numbers, precise locations and dates / frequency, or where such detail is available, it does not actually point squarely at the Application Site itself being of significant importance. Given all the above, it is not possible to quantify with any degree of certainty the amount of land being lost which may be considered to be a valued resource by Brent Geese.

2.14. To a large extent, use of the Application Site by Brent Geese will be dependent upon the cropping regime, winter wheat or Clover based cover crops being of particular value. Other factors dictating use would include, proximity to built form / infrastructure with associated disturbance (e.g. vehicles, people, dogs) and the availability of resources elsewhere (such as within the protected SPA / Ramsar site or other suitable habitat in the local area).

2.15. Ecology Solutions has been provided with information relating to crop rotation for the main fields associated with the Application Site for the last seven years. Data from previous years is not available due to a change in ownership. Relevant information is reproduced in the table below for ease of reference. Information made available by the landowner, including a map showing field locations, is included at Appendix 2. For those fields which form the Application Site, information is highlighted in red.

Field	Gross Ha	2017	2016	2015	2014	2013	2012	2011
SZ8898 8755	4.08	LET	WW	POT	WW	VEG	MZ	WW
SZ8898 8433	7.49	LET	WW	POT	WW	VEG	MZ	WW
SZ8897 7598	14.05	LET	WW LET	WW LET SW	WW LET	WW LET	WW POT	WW LET
SZ8798 9309	7.04	WW FALL	SB FALL	MZ FAL	SW FALL	SW FALL	SW FALL	WW FALL
SZ8798 9029	8.45	WW	SB	MZ	SW	SW	SW	WW

WW = Winter Wheat; SW = Spring Wheat; LET = Lettuces, SB = Spring Barley; POT = Potatoes; MZ = Maize; VEG = Vegetables; FALL = Fallow.

Table 1: Crop rotation within relevant fields 2011 – 2017.

2.16. As can be seen, for the northern field associated with the Application Site (central Grid Reference SZ 8898 8433) crops have been rotated with Winter Wheat (a foraging resource for Brent Geese) planted in 2011, 2014 and 2016 (three out of seven years). In simplistic terms this can be expressed as, a Brent Goose foraging resource being available in 43% of winters over recent years.

2.17. For the southern parcels (central Grid Reference SZ 8897 7598) crops have been rotated to a lesser extent, with Winter Wheat (a foraging resource for Brent Geese) planted in most years.

2.18. Evidence would therefore suggest that, in the absence of any scaring measures to control bird use of the land), a foraging resource would have been available for Brent Geese in the southern part of the Application Site, each year in recent times. However, for the northern field this is plainly not the case and such a resource would have been available in less than half of the years.

2.19. Taking a simplistic approach to calculating the loss of Brent Goose foraging habitat, one could assume a loss of 14ha for the southern fields and 3.2ha for the northern field (43/100 x 7.49 = 3.22). This gives a total of 17.2ha.

2.20. A further 1.5ha (approximately) of arable land associated with a field to the south of those described above is located within the Application Site. Crop data has not been made available for this field. In the event that this were regularly planted with Winter Wheat this would give a total of 18.7ha of Brent Goose foraging habitat.

2.21. Of course, this does not necessarily represent a true picture of current or historic Brent Goose use of the land in question. Even where a suitable foraging crop is planted, there will undoubtedly be areas of each field which are not used by the geese, for example close to Pagham Road and Summer Lane where disturbance from vehicles or people will occur, or in the confined corner of the field in the far south (1.5ha). Also, prior to 2011 it may be the case that Winter Wheat was planted less frequently. Furthermore, there are of course no obligations on the landowner to plant any particular crop in the future, thus there would remain an uncertain as to any future value of the land to Brent Geese.

2.22. In calculating the area of (potential) foraging habitat to be lost, properly quantifying the area to be discounted is considered not to be possible in this instance. For clarification, the information available from detailed surveys did not reveal any use of the fields by Brent Geese and so no data is available to show which parts were and which were not used in the context of this issue. Further, information available from third parties does not assist on this point.

2.23. In this instance, in producing an appropriate and proportionate mitigation package, due regard has been had to the above. A precautionary approach has been adopted using the loss of 18.7ha to guide this assessment, but with a firm acknowledgement that a level of discounting ought to be applied.

2.24. The proposed mitigation package is discussed in detail within the following section.

3. MITIGATION MEASURES

3.1. As previously discussed, the precautionary approach adopted uses the loss of 18.7ha of suitable foraging habitat to guide this assessment, but with an acknowledgement that a level of discounting ought to be applied. The measures are also proposed in the light of the fact that currently there is no security regarding the maintenance of foraging resources within the Application Site and also the extent of suitable habitat in the local area, including that within the SPA / Ramsar site itself.

3.2. In coastal locations Brent Geese are most likely to forage on short dense improved grassland swards with a high abundance of Perennial Rye-grass *Lolium perenne* and an area of between 5 and 6 ha, and located 4-5 km along the coast from coastal roosting sites (Vickery and Gill 1999). Evidence also suggests that Clover within a grassland sward represents an important foraging resource (McKay, Milsom, Feare, *et al*. - 2001). In addition, as evidenced from land in the vicinity of Pagham, the species has increasingly taken to grazing on cultivated grasslands and fields planted with winter cereal crops (Scott and Rose 1996).

3.3. The proposed mitigation package can be summarised as follows:

- Securing an area of farmland adjacent to the SPA / Ramsar site which will be managed for the benefit of Brent Geese long term. This area will include grassland and arable habitat of value to Brent Geese;
- Enhancement of this land for Brent Geese through the creation of wetland scrapes and appropriate grassland with suitable management;
- An undertaking to plant Winter Wheat or a Clover dominated cover crop each year, within arable land to the west of the grassland (currently fallow) to maintain winter foraging resources for Brent Geese;
- Removal of specified field boundary vegetation in order to increase sight lines for Brent Geese, enhancing a wider area of habitat for the benefit of Brent Geese;
- Cessation of bird scaring measures currently in place over the winter period, within the habitat enhancement area and the two fields to the north;
- An appropriate management plan will be produced detailing all actions and responsibilities associated with all measures relevant to this mitigation strategy.

3.4. Further detail in relation to the above broad measures is described below.

<u>Habitat enhancement area</u>

3.5. An area of land approximately 5ha in size has been defined for long term enhancement within this mitigation package. This will be managed for the benefit of Brent Geese, delivering a significant enhancement over the current situation. The extent of this land is shown graphically on Plan ECO1.

3.6. Currently, this land comprises land under regular arable cultivation (including occasional Winter Wheat) and land which has been left fallow in recent years, comprising rank wet grassland / ruderal vegetation with a high

proportion of rushes. It is located adjacent to the SPA / Ramsar site boundary which boarders the defined mitigation land to the south and west. This enhanced habitat will therefore be contiguous with the SPA / Ramsar site and is ideally located to deliver proposed mitigation.

3.7. This area is not subject to pressures from recreational impacts. It is not located close to any public rights of way and no public access is currently allowed, nor will it be in the future.

Physical enhancement of the mitigation area

3.8. It is proposed that the fallow land will be over-seeded with a grassland lay comprising a high proportion of Perennial Rye-grass and Clover. In addition, two wetland scrapes will be created in this area to provide fresh water for drinking and bathing, with spoil graded to provide a low bund so as not to impact significantly of geese sight lines.

3.9. Arable land in the west, will continue to be planted with winter cereal crops (Winter Wheat). In the event that a fallow season is proposed, this land will be planted with a Clover rich cover crop to ensure continued Brent Geese foraging habitat is present over the winter period.

3.10. As can be seen from Table 1 above, in recent years the relevant field (SZ 8798 9309) has only been planted with Winter Wheat on an occasional basis (two years out of seven) with Spring Wheat, Spring Barley or Maize planted in the majority of recent years. Thus, the proposals will represent an enhancement over the current situation.

Enhancing sight lines for Brent Geese

3.11. Vegetation management is proposed at specified field boundaries to enhance sight lines for Brent Geese. This will open up the field structure making the relevant fields more suited to use by Brent Geese (which prefer to use large scale, open habitats). Such measures, in tandem with those proposed in respect of scaring (see below) effectively create enhanced habitat over a far wider area than the circa 5ha described above.

3.12. The southern and northern boundaries of the habitat enhancement area will be subject to management aimed at removing elements of scrub. In addition, scrub will be removed from a field boundary associated with fields to the north. In future years, these field boundaries will be managed to maintain a reduced scrub compliment through cutting and / or herbicide treatment as necessary. In the event that herbicide is used to treat stumps only a glyphosate based herbicide (sanctioned for use near watercourses by the Environment Agency) will be used.

3.13. The above measures will result in improved sight lines within approximately 18.5ha of farmed land.

3.14. Also, the management of field boundary vegetation along the southern boundary of the habitat enhancement area will maintain sight lines for geese at this location. Land beyond the southern boundary is part of the SPA / Ramsar site.

3.15. It is not envisaged that all boundary vegetation will be removed, but instead, specific areas will be targeted in order to open sight lines, but also retaining features which can continue to offer foraging, shelter and breeding opportunities for a range of other (e.g. bird) species. It has been agreed with Natural England that the precise detail of this scrub removal will be defined as part of agreeing the detailed management plan which would be conditioned as part of any planning consent granted.

Cessation of bird scaring measures

3.16. It has been agreed with Natural England that it would be appropriate to cease current bird scaring initiatives employed over the winter period on land which forms part of this mitigation proposal.

3.17. It is proposed that all winter bird scaring initiatives will cease in the habitat enhancement area and also, on the two fields immediately north. This lack of scaring will therefore be relevant to a total of approximately 18.5ha of land which is contiguous with the SPA / Ramsar site.

Management plan

3.18. A detailed management plan associated with all prescribed measures will be produced. Such management will be carried out in perpetuity (in practice defined as 80 years as agreed with Natural England).

Considerations regarding indirect impacts on protected species

3.19. In devising the above mitigation scheme, regard has been had to potential implications for other faunal species and these are considered below.

3.20. No field boundary vegetation management is proposed along the rife which runs along the western boundary of the wider mitigation area. It is noted that removal of scrub in this location could have adverse impacts on landscape grounds and possible implications for interest features of the SPA / Ramsar site and SSSI.

3.21. Water Voles are known to be present within the local area. It is possible that Water Voles may be present within the ditch habitat within the wider mitigation area, or that they may colonise in the future. The removal of field boundary scrub habitat will be undertaken in accordance with an agreed management plan and a precautionary approach to such management will be followed such that no burrows would be impacted. The proposed management would in fact represent an enhancement for Water Voles, creating open sunny banks with a more diverse herb element over time.

3.22. Regarding bats, consideration has been given to the potential loss of foraging and navigating resources for bats. In the context of the site and its surroundings, any impacts are considered negligible. Optimal foraging and navigating opportunities will be fully retained at the eastern and western boundaries of the mitigation area and these link with other more mature boundary features in the local area. Any scrub removal (where relevant) will be targeted with a view to retaining opportunities for other species / groups. Further, the creation of a wet grassland area (with scrapes) area will represent an enhancement in terms of foraging opportunities for bats.

3.23. Due regard would be had for the presence of Badgers when undertaking any habitat management initiatives. Removal of scrub, undertaken in line with a methodology described in the management plan would not give rise to an offence under relevant legislation. Damage to any identified setts can easily be mitigated through the use of appropriate tools / machinery and through an agreed approach to the stockpiling and processing of arisings. Any perceived, potential disturbance impacts can be avoided through the use of appropriate machinery and timing of works (including season and duration).

3.24. No adverse impacts are likely to arise in respect of amphibians (including Great Crested Newts). Data search information does not suggest that Great Crested Newts would be present within the mitigation area and the work proposed would not remove terrestrial habitat suitable for use by amphibians in any event. Potential impacts on common reptiles would be avoided through implementation of an appropriate methodology associated with habitat creation on currently fallow land. Undertaking the habitat creation works in a methodical manner, during warm, dry weather would sufficiently limit the possibility of an offence (killing / injury) being committed, should reptiles be present within this habitat.

4. UP-FRONT / CAPITAL WORKS AND SECURING THE MITIGATION

Up-front / Capital Works

4.1. Fine detail will be provided within a relevant management plan but a summary of the proposals is set out below.

4.2. It is proposed that these measures will be delivered ahead of commencement of development.

4.3. *Scrape creation*

4.3.1. Two scrapes will be created within the land which is currently fallow, each with a total area of circa 0.2ha (e.g. 50m x 50m). These will be excavated using machinery and will have a broadly undulating surface to create a mix of wet and dryer conditions, with an element of permanent water.

4.3.2. Excavated material will be graded out to allow the creation of only a low bund around each feature and drier areas which will support grassland communities.

4.4. *Grassland Creation*

4.4.1. Outside of these scrapes, the currently fallow land will be over-sown with an appropriate proprietary seed mix comprising a significant proportion of Perennial Rye Grass and Clover. The following approach to creation and management is considered appropriate:

- Any remaining loose crop or other material removed;
- Excavated material (from scrape creation) spread to create areas less susceptible to water inundation;
- Initial cultivation to encourage seed germination (weed species);
- Second cultivation;
- Broadcast of seed mixture;
- Use of Cambridge Rollers to ensure seed has good contact with seed bed;
- The sward will be topped no lower than 20cm three times during the first growing season;
- Thereafter, cutting will be undertaken in early spring and autumn, avoiding the bird breeding and plant flowering seasons;
- Cutting will be undertaken to maintain a sward height of around 10cm during September and October;
- In order to avoid disturbance of Brent Geese no cutting would be undertaken during the period November – March inclusive; and
- No fertilisers will be applied to avoid implications for adjacent SPA / Ramsar and SSSI habitats.

4.5. *Field boundary management*

4.5.1. Scrub will be removed in line with an agreed management plan and within the areas defined on Plan ECO1. Stumps will be treated with an appropriate herbicide where deemed necessary. Such work will be undertaken with due regard had to the potential for nesting birds to be

present. In preference, the work will be undertaken in the autumn / winter period. However, on the advice of an appropriately experienced ecologist and following specific checks for active nests where necessary, the works could be undertaken outside of this period.

4.5.2. Thereafter, management to maintain areas free of scrub will be delivered in line with an agreed management plan.

4.6. *Scaring*

4.6.1. Scaring initiatives currently employed on land forming part of this mitigation package (see above and Plan ECO1) will cease from the grant of planning permission.

Securing the mitigation measures

4.6.2. As agreed with Natural England, it is considered that it would be appropriate for Arun District Council to apply a Grampian Condition in relation to the Development Proposals in respect of impacts on Brent Geese. Such a condition would prevent commencement of development until such times as all matters of detail concerning Brent Geese mitigation have been fully agreed.

4.6.3. It is considered that it would be appropriate for Arun District Council to apply a planning condition in respect of the fine detail concerning the management of the mitigation land. That fine detail would be agreed with Arun District Council and Natural England (as relevant) during the Reserved Matters stage of the application.

4.6.4. It is proposed that the measures described within this mitigation package will be the subject of a legal agreement (e.g. either a Section 106 obligation or Unilateral Undertaking), which will be agreed at the Reserved Matters stage, to cover a period of 80 years (in perpetuity) from the grant of planning permission. In determining the outline planning application, it is considered that the aforementioned Grampian Condition and conditioning of the management plan, gives sufficient comfort to the Competent Authority (in this instance Arun District Council) that no adverse effect on the integrity of the SPA / Ramsar site could arise.

4.6.5. Should a strategic approach to mitigation be adopted in the future, it may be that the Applicant wishes to agree with Arun District Council (and Natural England as necessary) that reliance can be placed upon that mechanism for mitigation in respect of the Development Proposals, in lieu of the measures described in this report. At this time, it is however proposed that the bespoke measures put forward in this report are to be secured (as appropriate) and delivered in perpetuity.

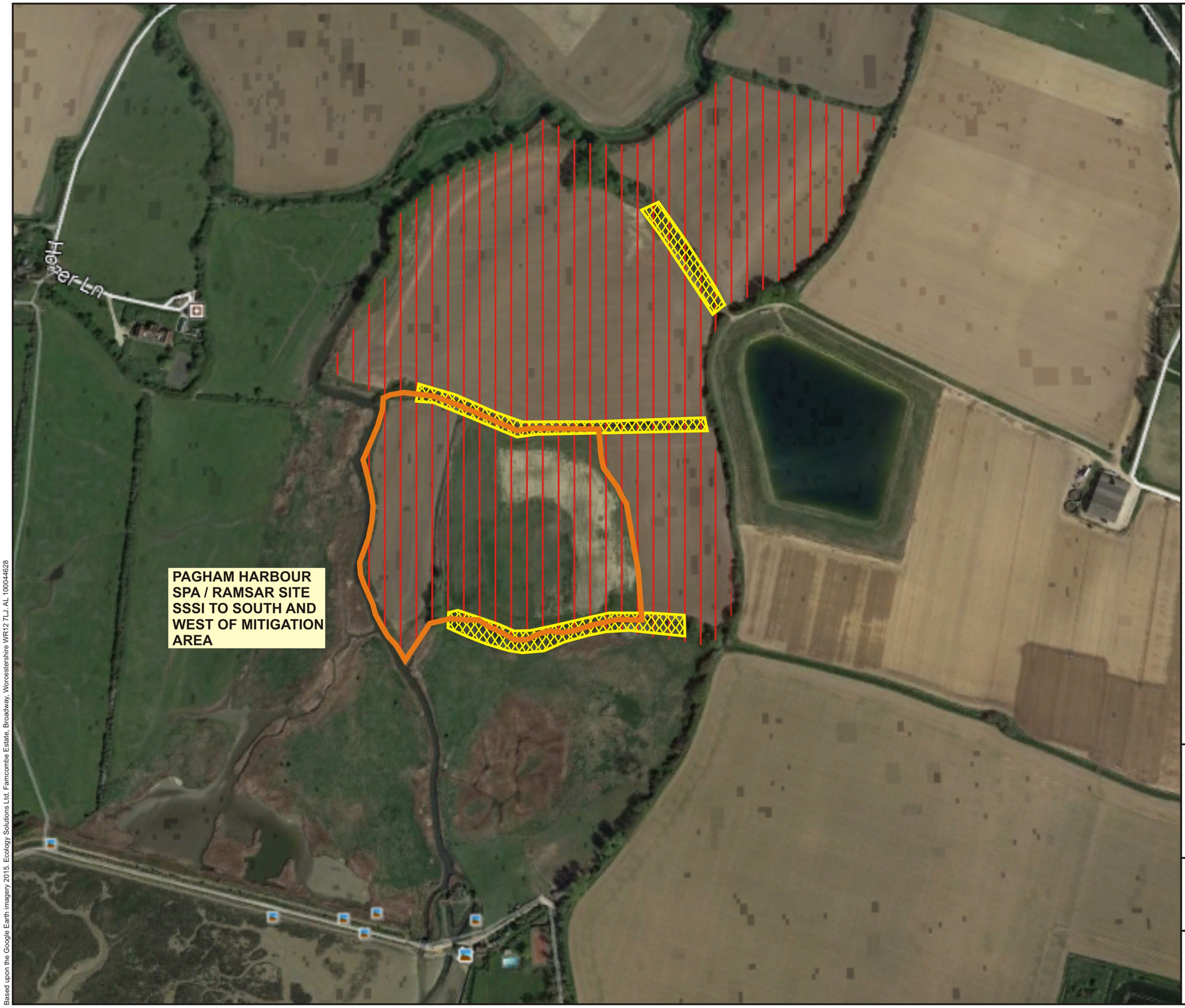
4.6.6. In the light of the precautionary mitigation measures proposed and also the mechanisms by which such measures can be secured long term, it is considered that Arun District Council (as Competent Authority) can be satisfied that the Development Proposals will not give rise to a significant effect on the SPA / Ramsar site when considered both alone and in combination with other plans and projects. A safe consent can therefore be granted.

PLANS & APPENDICES

PLANS

PLAN ECO1

Mitigation Areas Plan



KEY:

MITIGATION AREA WITH GRASSLAND AND WINTER CEREAL CROPS / CLOVER BASED COVER CROP

SCRUB REMOVAL / MANAGEMENT TO ENSURE MAINTAINED SIGHT LINES FOR BRENT GEESE

CESSATION OF WINTER BIRD SCARING INITIATIVES

N

ecology solutions ltd

5633: PAGHAM SOUTH

PLAN ECO 1:
MITIGATION AREAS PLAN

Based upon the Google Earth imagery 2015. Ecology Solutions Ltd. Farncombe Estate, Broadway, Worcestershire WR12 7LJ. AL 100044628

APPENDICES

APPENDIX 1

Letter from Natural England dated 23rd November 2017

Date: 23 November 2017
Our ref: DAS/10802/230714
Your ref: Land S of Summer Lane, Pagham

Karl Goodbun
Ecology Solutions Ltd
Farncombe House
Farncombe Estate
Broadway
Worcs WR12 7LJ

BY EMAIL ONLY

Customer Services
Hornbeam House
Crewe Business Park
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CW1 6GJ

0300 060 3900

Dear Karl

Discretionary Advice Service (Charged Advice)
DAS/10802/230714
Development proposal and location: Housing development on land south of Summer Lane, Pagham, West Sussex

Thank you for your consultation on the above dated 06 November 2017, which was received on the same date. .

This advice is being provided as part of Natural England's Discretionary Advice Service. Ecology Solutions Ltd has asked Natural England to provide advice upon:

- Precautionary mitigation and avoidance measures in relation to loss of brent goose foraging habitat
- Appropriate mechanisms to deliver the mitigation/avoidance measures.

This advice is provided in accordance with the Quotation and Agreement dated 10 November 2017.

The following advice is based upon the information provided at the meeting held on 13 November, including draft maps indicating potential areas for habitat creation. This advice builds on that contained in the letter dated 29 June 2016 (DAS/10802/187760), but does not repeat the advice given previously.

Advice on precautionary mitigation proposals:

- In principle, the location of the proposed habitat mitigation is acceptable, as it is closer to Pagham Harbour Special Protection Area (the SPA) than the Pagham South allocation site. Therefore, if suitable foraging habitat is provided in this location, it should be preferred to the Pagham South site from a goose energetics point of view.
- A combination of wet grassland and arable foraging habitat creation is acceptable, provided that bird scaring techniques are not employed. The arable field should either be in permanent winter cereal cultivation, or with clover introduced into the rotation.
- The wet grassland should be managed to provide optimum foraging habitat for brent geese, by maintaining a scrub-free, relatively short sward (see for example Hassall *et al* 2001[1]). Scrapes should be created to provide permanent standing water, as studies in the Solent have found presence of water to be important. The grassland should be re-seeded, if necessary, with a

[1] Hassall, M; Riddington, R; Helden, A (2001) Foraging behaviour of brent geese, *Branta b. bernicla*, on grasslands: effects of sward length and nitrogen content. Oecologia. Vol. 127. Issue 1. P. 97-104

grassland mix incorporating clover, as this is a preferred food source[2].

- In principle, the proposal to remove scrub and trees from the boundary ditch between the two fields to the north of the proposed habitat creation is acceptable. This will open up the sight lines and potentially make the fields more attractive to brent geese, when they are planted with a suitable crop. However, Natural England recommends that bird scaring techniques are not employed on these fields, to ensure that the work to improve sight lines is effective.
- Advice from my land management colleague is that some light thinning of trees and scrub may be appropriate along the rife, but any more than that would be damaging on landscape and wider biodiversity grounds. Therefore, I recommend sight line work is focussed on the boundary ditch mentioned above.
- The foraging habitat provided should not have access for people or dogs. The habitat proposed is acceptable in this respect as it is not bounded by any public footpaths/bridleways.
- Justification of the area of permanent habitat provided in relation to the area of loss will need to be provided in order for Arun District Council to be able to assess the mitigation proposals. It is Natural England's view that a like for like area is not necessary as the Pagham South site is not planted with a suitable crop every year. For example, if the site is planted with winter wheat one year in three, in principle it could be replaced with an area of permanent habitat a third of the size. However, there will be a minimum field size that will be used by geese and the location of the replacement habitat is crucial. The proposed relatively small area of replacement habitat (though an actual area or ratio of habitat gain to loss was not available at the time of writing this letter) is only acceptable as it is located adjacent to the SPA, with open sight lines towards the SPA, creating a single enlarged area of permanent foraging habitat. In addition, the habitat creation is made acceptable by the inclusion of the suite of measures set out above.
- The package of mitigation measures described above should be provided 'in perpetuity'. In practice, this is being defined as 80 years for the strategic approach to mitigating recreational disturbance. Therefore, the same timeframe should be used for the precautionary foraging habitat mitigation.
- In conclusion, my view is that the package of mitigation measures described above would be sufficient to avoid a likely significant effect on the SPA from the loss of potential foraging habitat as a result of the application to develop on land south of Summer Lane, Pagham.

Advice on delivery mechanisms:

- Arun District Council's advice should be sought on the approach to mitigation being proposed, and on the design of planning conditions to allow the desired flexibility. However, my view is that a Grampian condition to secure the area of habitat creation discussed above would be acceptable.
- At the meeting on 13 November, we discussed the applicant's wish for flexibility in habitat creation, for example the ability to switch from the proposal discussed above, to paying into an alternative area if a strategic approach to providing alternative habitat is put in place. This may be acceptable, provided that Arun DC could devise an appropriate planning condition. However, I am not aware of any other proposals for goose foraging habitat creation that the applicant could contribute to in the foreseeable future. Arun DC will have to assess the acceptability of the mitigation proposed under the Habitats Regulations, therefore, they will have to be certain that the proposals will remove the risk of a likely significant effect on the SPA. As noted above, this certainty is dependent on the location of the habitat provided. Therefore, my recommendation would be to condition the current proposal, and for the applicant to seek a variation in the condition if an alternative became available in the future.
- At the 13 November meeting, we also discussed phasing of mitigation delivery. My view is that

[2] McKay, HV; Milsom, TP; Feare, CJ; et al. (2001) Selection of forage species and the creation of alternative feeding areas for dark-bellied brent geese Branta bernicla bernicla in southern UK coastal areas. Agriculture Ecosystems & Environment Vol. 84 Issue 2 p. 99-113

the alternative habitat should be provided upon commencement of building works, as this is when the impact, ie loss of habitat, occurs. As we do not have survey data showing locations of foraging geese (because the mitigation is being provided on a precautionary basis due to brent goose sightings by local residents), we cannot say that one part of the application site is more important to geese than another. Therefore, it is not possible to say that a particular part of the site can be developed before replacement habitat needs to be provided. As the mitigation measures are relatively simple and straightforward, I would advise carrying them out at or before commencement (subject to seasonal constraints, eg vegetation clearance must be carried out outside the bird breeding season).

- My view is that provided the broad parameters are set out at this stage, and the precise location agreed, a detailed management plan for the mitigation proposals could form reserved matters.

For clarification of any points in this letter, please contact Alison Giacomelli on 0208 225 7693.

This letter concludes Natural England's Advice within the Quotation and Agreement dated 10 November 2017.

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As the Discretionary Advice Service is a new service, we would appreciate your feedback to help shape this service. We have attached a feedback form to this letter and would welcome any comments you might have about our service.

☒ The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

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Specialist Services and Programmes

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Annex 1
European Protected Species

A licence is required in order to carry out any works that involve certain activities such as capturing the animals, disturbance, or damaging or destroying their resting or breeding places. Note that damage or destruction of a breeding site or resting place is an absolute offence and unless the offences can be avoided (e.g. by timing the works appropriately), it should be licensed. In the first instance it is for the developer to decide whether a species licence will be needed. The developer may need to engage specialist advice in making this decision. A licence may be needed to carry out mitigation work as well as for impacts directly connected with a development. Further information can be found in Natural England's 'How to get a licence' publication.

If the application requires planning permission, it is for the local planning authority to consider whether the permission would offend against Article 12(1) of the Habitats Directive, and if so, whether the application would be likely to receive a licence. This should be based on the advice Natural England provides at formal consultation on the likely impacts on favourable conservation status and Natural England's guidance on how the three tests (no alternative solutions, imperative reasons of overriding public interest and maintenance of favourable conservation status) are applied when considering licence applications.

Natural England's pre-submission Screening Service can screen application drafts prior to formal submission, whether or not the relevant planning permission is already in place. Screening will help applicants by making an assessment of whether the draft application is likely to meet licensing requirements, and, if necessary, provide specific guidance on how to address any shortfalls. The advice should help developers and ecological consultants to better manage the risks or costs they may face in having to wait until the formal submission stage after planning permission is secured, or in responding to requests for further information following an initial formal application.

The service will be available for new applications, resubmissions or modifications – depending on customer requirements. More information can be found on Natural England's website.

APPENDIX 2

Information on cropping regimes

Church Barton Farm, Pagham

Cropping 2011 - 2017

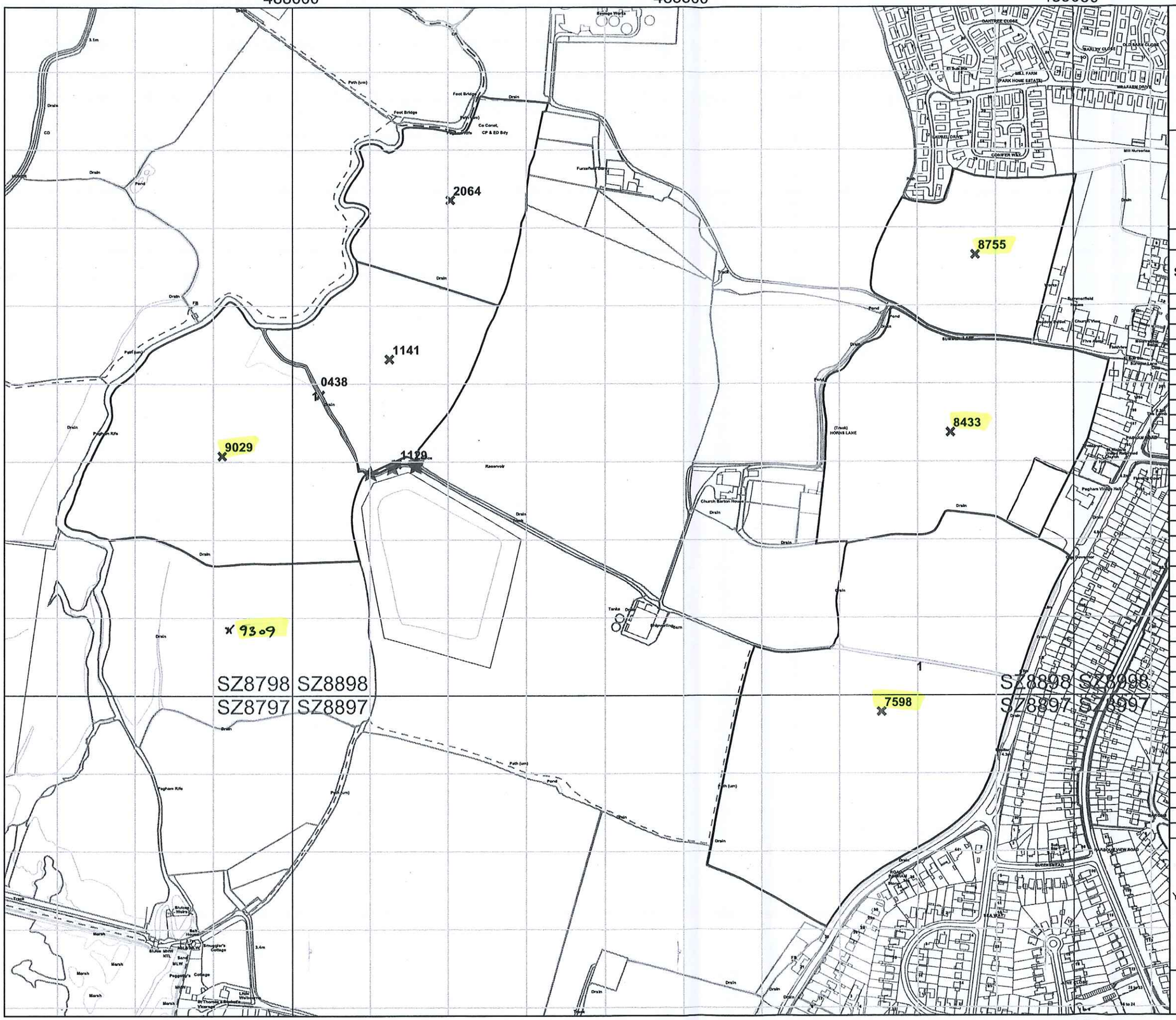
Field	Ha (gross)	2017	2016	2015	2014	2013	2012	2011
SZ 8898 8755	4.08	LET	WW	POT	WW	VEG	MZ	WW
SZ 8898 8433	7.49	LET	WW	POT	WW	VEG	MZ	WW
SZ 8897 7598	14.05	LET	WW/LET	WW/SW/LET	WW/LET	WW/LET	WW/POT	WW/LET
SZ 8798 9309	7.04	WW/FALL	SB/FALL	MZ/FALL	SW/FALL	SW/FALL	SW/FALL	WW/FALL
SZ 8798 9029	8.45	WW	SB	MZ	SW	SW	SW	WW

LET	Lettuces
WW	Winter Wheat
SW	Spring Wheat
FALL	Fallow
SB	Spring Barley
POT	Potatoes
VEG	Vegetables
MZ	Maize

Rural Payments Agency

Rural Land Register (RLR) Map

SBI - 106358007



Legend

- Your RLR Parcel(s)
- SPS Permanent Ineligible Features
- Adjacent Parcel Boundary
- Unconfirmed Boundary

RLR Information

Sheet ID	Parcel ID	Total Area (ha)	SPS Recorded Eligible Area (ha)	English Region
SZ8898	8433	~~7.99~~ 7.49	~~7.99~~ 7.49	N
SZ8898	8755	4.08	4.08	N
SZ8898	0438	0.06	0.00	N
SZ8898	1141	4.32	4.32	N
SZ8898	1129	0.03	0.03	N
SZ8798	9029	8.45	8.45	N
SZ8898	2064	4.44	4.44	N
SZ8897	7598	14.05	13.97	N
SZ8798	9309	7.04	7.04	N

Scale - 1:5000

N W E S 50m 0m 50m 100m 150m 200m

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Date: 16/04/2015

Please return this sheet to us if you want to make any changes to the parcels shown on it.

ARUN DISTRICT COUNCIL P/140/16/CUT