



Lydd Quarry – Area 10

Information in support of an

Appropriate Assessment





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1 INTRODUCTION

1.1 Background

- 1.1.1 Brett Aggregates Ltd have an extant mineral permission to extract sand and gravel from an area of agricultural land know as Area 10 at Lydd, within East Sussex. Area 10 is contiguous with an existing operational quarry and it is proposed to work Area 10 seamlessly with the adjoining land.
- 1.1.2 In accordance with the Environmental Impact Assessment Regulations, Brett has submitted a Review of Mineral Permission (ROMP) application to the Mineral Planning Authority, East Sussex County Council.
- 1.1.3 Concurrently with the ROMP process, Natural England (NE) announced a proposal to extend the Dungeness to Pett Level Special Protection Area (SPA) and Ramsar site which has resulted in the formation of Dungeness, Romney Marsh and Rye Bay potential SPA (pSPA) and proposed Ramsar (pRamsar) site. Under current legislation, as soon as a site is proposed as a SPA it receives the same level of legal protection as a designated SPA. Whilst Ramsar sites have no legal protection in UK statute, the UK Government has stated their opinion in Planning Policy Statement 9: Biological and Geological Conservation, that Ramsar sites should subject to the same level of protection as SPAs and Special Areas of Conservation. However, for the purpose of the following document, the relevant qualifying features for the pSPA do not differ from those of the pRamsar; hence if a significant impact is predicted upon the pSPA, it is reasonable to assume it would also impact upon the pRamsar. The larger, extended pSPA is now contiguous with boundary of Brett's extant permission mineral extraction boundary.
- 1.1.4 NE have advised that even though Brett have an extant permission to work the mineral and the current application is a ROMP application, the application should still be subject to Habitat Regulations Assessment under Regulations 61 and 63 of the Conservation of Habitats and Species Regulations 2010 to ensure the proposed works do not have a significant effect on the integrity of the pSPA.
- 1.1.5 The following document identifies potential impacts that may arise as a result of the proposed mineral workings and examines any effects upon the pSPA and pRamar site. The document has been produced to allow the competent authority, in this case East Sussex County Council, to make an appropriate assessment, as it is required to do under Regulation 61 and 63 of the Conservation of Species and Habitat Regulations 2010.

2 PROPOSED EXTENSION TO THE SPA AND RAMSAR SITE

- 2.1.1 A review under taken by NE has now proposed that the original Dungeness to Pett Level SPA, classified under Directive 79/409/EEC on 2 August 1999, be extended to cover a larger area of 4,048.63 ha, incorporating proposed extensions (2,580.06 ha) and deletions (10.00 ha). The proposed extension now brings the pSPA and pRamsar boundary adjacent to Brett's consented mineral extraction boundary.
- 2.1.2 The citation sheet for the pSPA describes the wider Dungeness, Romney Marsh and Rye Bay as a large area with a diverse coastal landscape comprising a number of habitats, which appear to be unrelated to each other. However, all of them exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site includes the largest and most diverse area of shingle beach in Britain, with low-lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then reclaimed on a piecemeal basis by man. Today this area is still fringed by important intertidal habitats, and contains relict areas of saltmarsh, extensive grazing marshes and reedbeds. Human activities have further modified the site, resulting in the creation of extensive areas of wetland habitat due to gravel extraction. As a whole, Dungeness, Romney Marsh and Rye Bay is important for breeding and wintering waterbirds, birds of prey, passage warblers and breeding seabirds.
- 2.1.3 In relation to the current ROMP review and Brett's proposed excavation of Area 10, the reed bed fringed Widney Fleet is the most significant area of the pSPA as this is directly contiguous with Brett's landholdings and supports wintering birds that are mentioned as qualifying features of the pSPA as shown in Table 1.

Table 1. Annex 1 Qualifying features of the pSPA.

Annex 1 species	Count and season	Period	% GB population
Bewick's swan <i>Cygnus columbianus bewickii</i>	155 individuals – wintering	5 year peak mean 2002/3 – 2006/7	1.9%
Bittern <i>Botaurus stellaris</i>	5 individuals – wintering	5 year peak mean 2002/3 – 2006/7	5.0%
Hen harrier <i>Circus cyaneus</i>	11 individuals – wintering	5 year peak mean 2002/3 – 2006/7	1.5%
Golden plover <i>Pluvialis apricaria</i>	4,050 individuals – wintering	5 year peak mean 2002/3 – 2006/7	1.6%
Ruff <i>Philomachus pugnax</i>	51 individuals – wintering	5 year peak mean 2000/01 – 2004/5	7.3%
Aquatic warbler <i>Acrocephalus paludicola</i>	2 individuals – passage	5 year mean 2004 – 2008	6.1%
Marsh harrier <i>Circus aeruginosus</i>	4 females – breeding	5 year mean 2004 – 2008	2.0%

Annex 1 species	Count and season	Period	% GB population
Avocet <i>Recurvirostra avosetta</i>	31 pairs – breeding	5 year mean 2004 – 2008	3.5%
Mediterranean gull <i>Larus melanocephalus</i>	56 pairs – breeding	5 year mean 2004 – 2008	52.2%
Sandwich tern <i>Sterna sandvicensis</i>	350 pairs – breeding	5 year mean 2004 – 2008	3.3%
Common tern <i>Sterna hirundo</i>	273 pairs – breeding	5 year mean 2004 – 2008	2.7%
Little tern <i>Sterna albifrons</i>	35 pairs – breeding	5 year mean 1992 – 19961	1.5%

- 2.1.4 The SPA also supports 1.2% of the European population of Shoveler on migration. In addition, in the non-breeding season, the area is regularly used by 34,625 individual waterbirds (5 year peak mean 2002/3 – 2006/7), including (but not limited to) Bewick's swan *Cygnus columbianus bewickii*, European white-fronted goose *Anser albifrons albifrons*, wigeon *Anas penelope*, gadwall *A. strepera*, shoveler *A. clypeata*, pochard *Aythya ferina*, little grebe *Tachybaptus ruficollis*, great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, bittern *Botaurus stellaris*, coot *Fulica atra*, golden plover *Pluvialis apricaria*, lapwing *Vanellus vanellus*, sanderling *Calidris alba*, ruff *Philomachus pugnax*, whimbrel *Numenius phaeopus* and common sandpiper *Actitis hypoleucos*.

3 PROPOSED METHOD OF WORKING

- 3.1.1 The sand and gravel deposits that are to be excavated lies mainly beneath the natural water table and the water level will be lowered locally by pumping in order to maximise its recovery and operate in the most efficient manner. Excavation will be by means of a tracked hydraulic excavator standing on the gravel deposit, which will create stockpiles within the workings for rehandling by rubber tyred loading shovel which will haul the material to a field conveyor system for onward transport to the processing plant at the plant site some 2km to the north-east. As and when conditions permit or dictate, the loading shovel will be used both to excavate the sand and gravel and to transport it to the feed hopper, which will be installed on the quarry floor. The field conveyor will be fed via a feed hopper sited no more than about 300m from the working face.
- 3.1.2 Area 10 will be subdivided into phases of working as shown on Figure ROMP 3 (attached as Appendix 1), i.e. 'Winter 2011/12', 'Summer 2012', 'Winter 2012/13' and 'Twilight Working', with the direction of working generally away from the pSPA as shown on Figure ROMP 3. It is intended that the phases will be worked sequentially as their description suggests with any residual mineral in the 'Twilight Working' phase, worked last. When, the pSPA is being used as a winter roost for hen harriers, as determined by the agreed protocol (see Section 4.3), working will be transferred to the 'Twilight Working' phase and the loading shovel, only, will be used and it will travel in a direct route to and from the hopper.
- 3.1.3 No permanent lighting will be installed on Area 10 and when the twilight working requirements are in force the loading shovel would travel using dipped headlights but only after official 'lighting up time' as defined by road traffic acts, i.e. half an hour after sunset.
- 3.1.4 An area shown on Figure ROMP 3 containing the proposed route of the conveyor to Area 11 to the south west of Widney Fleet and beyond will remain undisturbed until all mineral extraction to the south-west has been completed. It is intended that this land will be worked during a summer period but if not, no working would continue later than one hour before sunset.
- 3.1.5 Restoration will be to an open lake with reedbeds at the edges and areas of land restored to permanent pasture and conservation grassland.

4 POTENTIAL IMPACTS

4.1 Identification of Impacts

- 4.1.1 A review of the working process involved in the proposed extraction of mineral resource from Area 10 at Lydd revealed potential impacts upon the pSPA and its qualifying features that warranted further investigation. Each of the potential impacts and their possible effect on the integrity of the pSPA are discussed in turn below. Where a potential impact is identified, the proposed avoidance, and where necessary mitigation, measures are discussed for each identified effect.

4.2 Disturbance to SPA over wintering waterfowl.

- 4.2.1 Survey work undertaken over several seasons has identified moderate numbers of pSPA qualifying features utilising the flooded mineral workings within the immediate vicinity of Area 10, particularly the pit directly to the south. However, it has been determined through survey that a negligible proportion of the qualifying features use the actual arable fields that comprise Area 10. Nevertheless, there is the potential that pSPA qualifying species may be disturbed through increased noise and visual impact as a result of the mineral extraction activities. The level of impact is likely to be minimal as the majority of the birds using these areas will be habituated to vehicle and human disturbance due to the location of the waterbody directly adjacent to a main road, Lydd Ranges, active farmland and existing quarrying activities.

Avoidance measures

- 4.2.2 It is proposed to create a 3.5m screening bund along the southern side of the mineral working area, between Area 10 and the waterbody (see the attached drawing ROMP 3). The screening bund will be constructed prior to the arrival of the qualifying winter waterfowl and will be set back sufficiently far from the intervening sewer as not to impair the sight lines of any feeding or resting birds on the adjacent waterbody. The screen will eliminate the potential visual and noise impact upon the neighbouring waterbody and any pSPA qualifying features that may be present, particular as the majority of the works will be below current ground level. **Therefore it is concluded that there would be no significant impact upon the integrity of the pSPA or its qualifying features as a result of the proposed development through disturbance to wintering wildfowl.**

4.3 Disturbance to roosting hen harriers

- 4.3.1 Historically Widney Fleet has been used by as a wintering roost site by hen harriers, however in recent years data would suggest that due to an overall decline in bird numbers in the area, Widney Fleet is now only used as a satellite roost site to the main roost site elsewhere in the pSPA¹. However, the mineral extraction has the potential to disturb hen harriers

¹ The location of the main, active roosts have been investigated as part of this study, however their location is not given here to prevent the illegal persecution of this species.

either at the roost or heading towards the roost site before dusk when the Widney Fleet roost is in use.

Avoidance measures

- 4.3.2 The normal phasing plan (as shown on the attached ROMP 3 drawing; Appendix 1) has been specifically designed to avoid disturbance to the reed bed during the winter months. The mineral closest to the roost site will be worked during the summer months when the hen harriers are absent. During the winter working scheme, the mineral closest to the roost will be worked first early in the winter period when the potential number of hen harriers is lowest (numbers of hen harriers will generally increase towards a peak in January and February); thus avoiding potential disturbance effects on the pSPA qualifying features.
- 4.3.3 As can also be seen from drawing ROMP 3, the northern most area of mineral has been separated out and will only be excavated under a Twilight working scheme. The Twilight working will be implemented if additional avoidance measures are needed, which has been defined as when a significant proportion of the pSPA hen harrier population is shown to be roosting within Widney Fleet. Weekly monitoring of the reed bed within Widney Fleet will be undertaken commencing one hour before sunset, till after dusk, outside of normal working hours i.e. over the weekend. The monitoring programme, and hence the potential need for Twilight working, will be undertaken during winter months (September to March inclusive) when mineral extraction works are likely to be ongoing one hour prior to sunset. This will only occur outside of normal British Summer Time, i.e. once the clocks 'have gone back'.
- 4.3.4 If a single hen harrier is seen to enter the roost site, mineral workings will continue in line with the normal phasing plan, a single bird is not considered to be a significant proportion of the pSPA population of hen harriers. However, if two or more hen harriers are seen to enter the roost site, the Twilight working scheme will be implemented as two or more harriers are assessed as being a significant proportion of the local pSPA population and hence their disturbance could be considered to be an effect on the integrity of the population. Twilight working will involve switching from the active works area to extracting mineral from the northern most area of Area 10. Working at the far end of Area 10, at over 450m distance with a 3.5m screening mound between the working area and the roost has been assessed to be of sufficient distance that works would not constitute a disturbance factor to any roosting hen harriers.
- 4.3.5 The monitoring frequency of the roost site will then increase and the Twilight working scheme will remain in operation until the number of hen harriers entering the roost returns to one or less. Once the number of hen harriers entering the roost drops to one or less, works will return to the normal phasing plan and the monitoring frequency return to weekly.
- 4.3.6 With the afore mentioned avoidance measures in place **it is concluded that there would be no significant impact upon the integrity of the pSPA or its qualifying features as a result of the proposed development through disturbance to wintering hen harriers.**

4.4 Loss of reed bed

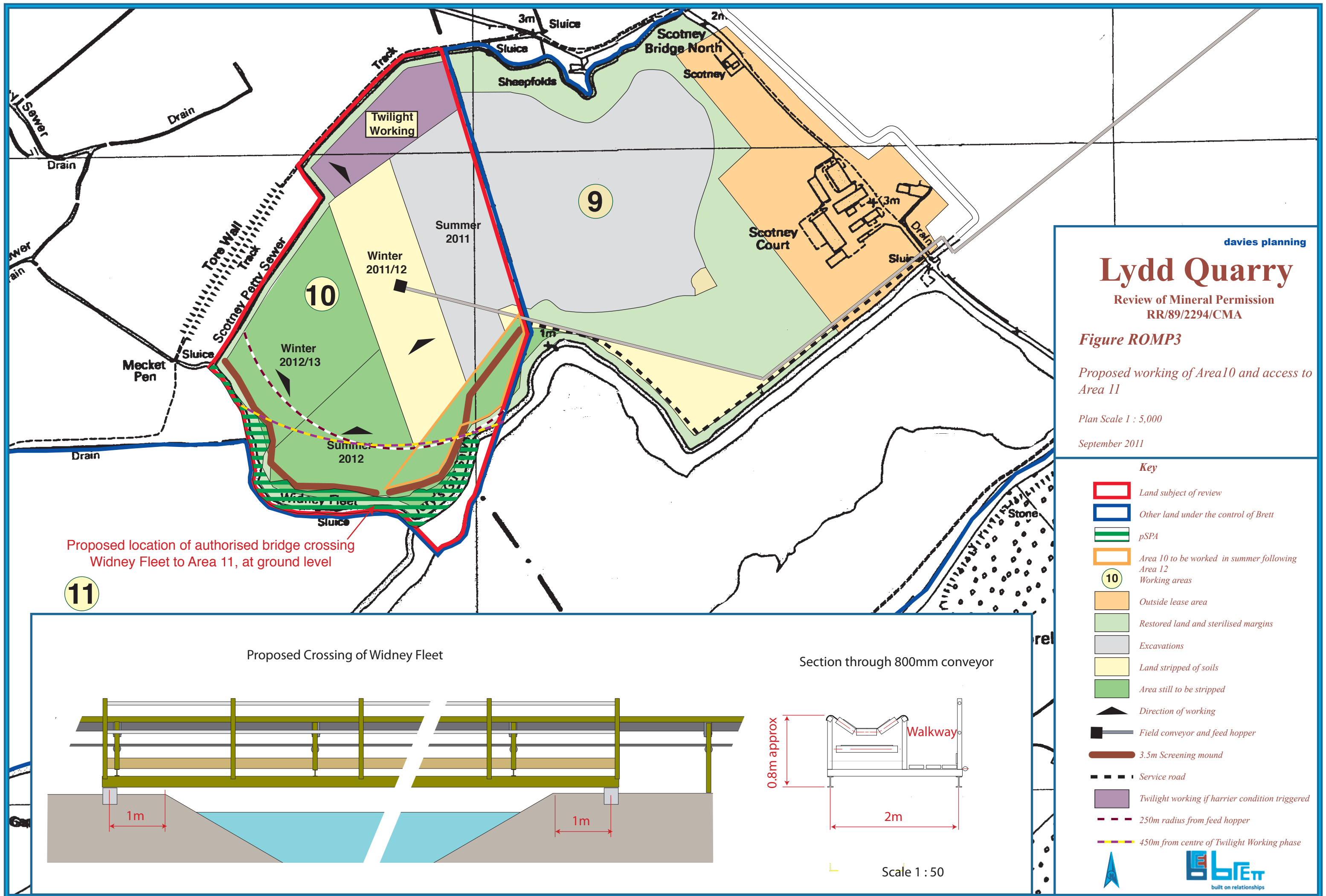
- 4.4.1 In light of the pSPA designation, Brett has redesigned the proposed scheme and has sought an alternative route for vehicular access into the future proposed Area 11 to the west. However, for operational reasons, the mineral conveyor will need to cross Widney Fleet at the south west corner of Area 10 as shown on ROMP 3. Careful consideration has been given to the siting of the conveyor route, with every effort being made to minimise the amount of reed bed that would be lost. However, this still represents a direct land take within the pSPA. The landtake is less than 40m² so is considered negligible in terms of the overall pSPA, but reduces the amount of continuous reed bed available to roosting hen harriers. In the absence of mitigation, this could constitute an impact upon the integrity of the habitat of a pSPA qualifying species.

Mitigation Measures

- 4.4.2 Areas of alternative reed bed will be created within the immediate vicinity of Widney Fleet, as well as the wider area through the restoration scheme of other areas of Brett's mineral extraction activities within Lydd Quarry, offering a greater amount of roosting habitat within the confines of the pSPA boundary as well as outwith the designated area.
- 4.4.3 As there is currently over 6000m² of reed bed along this section of Widney Fleet, which would be increased prior to winter works in the vicinity of Widney Fleet, and the loss of reed bed as a result of the installation of the conveyor represents less than 1%, there would be no impact upon the available roosting habitat for hen harriers. **It is concluded that there would be no significant impact upon the integrity of the pSPA or its qualifying features as a result of the proposed development through loss of reed bed.**

5 RESIDUAL IMPACTS

- 5.1.1 With the avoidance and mitigation measure in place there are no predicted impacts on the integrity of the pSPA or pRamsar site as a result of the proposed mineral extraction of Area 10. Indeed, with the agreed restoration plan of the area providing additional habitats for a high proportion of the qualifying features of the pSPA, the long term result of the mineral extraction will be a net positive gain.





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