








Rev	Date	Notes
A	17/11/20	Initial map production

Legend

-  Mitigation area
-  Grassland managed for waders
-  Broadleaved woodland boundary
-  Uncultivated margin
-  Wader scrape

0 20 40 80 Metres



Winter Bird Mitigation Area

**Newgate Lane North and South, Fareham
Fareham Land LP and Bargate Homes**

Scale at A3: 1:1,600	Project No: A117387	Drawing No: Figure 1	Revision: A
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Drawn by: Ben Blowers	Drawn date: 17/11/2020	Approved by: David West
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APPENDIX E – ON-SITE WINTER BIRD MITIGATION

BASELINE

The site comprises a central parcel of F15, currently designated as a Low Use Site for supporting at least 13 lapwing during the winter of 2014-15.

The purpose of the Bird Mitigation Area is to mitigate the loss of F23, a Secondary Support Area designated for its Local Value (it does not pass the relevant criteria for GB Importance, SPA Importance or SPA Assemblage). Specifically, across four records for F23 are above the Local Value threshold (3rd quartile) for green sandpiper and greenshank. There are also records of use by lapwing, however these fall below the Local Value threshold.

MITIGATION DESIGN

The proposed Bird Mitigation Area will provide an open area in perpetuity of c. 2.0 ha achieving the following key design objectives.

Location

The site is currently part of Low Use Site F15 and is in close proximity to F23 which it is intended to mitigate. Location is therefore suitable.

Clear Site and Flight Lines

The site currently has a reasonably open aspect, limited only by mature trees present on the north, east and south boundaries. This will be maintained within the BCA design. Proposed boundary security measures comprise a ditch, hedgerows and fencing and will not significantly reduce the open aspect of the site. The proposed open area measures c.2.0 ha. Although smaller than F23, the field compartment is currently a Low Use Site and therefore clearly suitable for supporting wintering birds. It is also larger than a number of other sites within the network including F01, F32, F67, F74A and F82.

Human Disturbance

A footpath connection is proposed along the northern boundary of the mitigation area. Proposed boundary security measures comprising fencing, hedgerows, ditches and signage will avoid disturbance of birds on site from new or existing residents.

Seasonal Wetlands

Large seasonal waterbodies forming part of the SuDS network for the site are proposed as part of the Bird Mitigation Area which will provide a suitable foraging habitat for wading birds.

Short Grassland

The site will be sown with a suitable grassland mix to provide short-sward grassland habitats which are optimal for foraging waders (and consistent with the habitat present at F23).

CAPITAL WORKS

Grassland

The mitigation area will be established with a grass mix of hard-wearing grasses suitable for grazing geese (including perennial rye grass *Lolium perenne*) and foraging waders with a high proportion of white clover *Trifolium repens*. The addition of clover into the mix will remove any need for artificial

fertiliser as clover acts to fix nitrogen within the soil, and also helps to support a rich invertebrate biomass.

Grassland will be managed through twice-yearly cuts with the final cut in September to make sure of a suitably short sward for winter foraging.

A 6m uncultivated margin will be maintained around the periphery of the arable grassland areas. This will provide potential nesting and foraging habitat for birds during summer, and provide habitat for invertebrates and reptiles (recorded on site). The provision of this margin will also avoid potential damage or disturbance of boundary hedgerow habitats.

Boundary

The boundary of the Bird Mitigation Area will be secured by a stock-proof fence comprising:

- All fencing should be erected in accordance with BS 1722
- Livestock proof fence – Height 1.2m
- High tensile netting
- Topped by two strands of barbed wire (BS EN 10223-1)
- Intermediate posts - 1.8m at 5m centres
- Box section straining post assemblies (end and turning posts 2.3m by 10cm – 13cm) – at changes of direction or 100m spacing

This fencing will prevent access (including by dogs off-lead) and secure the site for grazing by either cattle or sheep.

A new hedgerow will be planted along the north and south boundaries, with reinforcement of the existing eastern and western hedgerows. A ditch will be created along the north boundary to further deter access to the Bird Mitigation Area. The ditch will be c.500mm in depth and the hedgerow will comprise a minimum of 10 native species, although dominated by thorny species including blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna* to deter access.

Access

Access to the Bird Mitigation Area will be for management and monitoring only. Access will be via a farm access gate at the southern boundary. This will be clearly identified a being for management purposes only with no unauthorised access. This will be a 2m tall mesh gate (approx. 12ft wide) to prevent easy access by climbing.

Wetland

To improve the habitat suitability for wading birds (either qualifying species for the SPA or part of the qualifying assemblage) it is proposed that wetland habitats are included within the mitigation area. These will comprise the following:

- One large basin c. 3,807m².
- The basin will be constructed using cut and fill to create level features, using embankments where necessary.
- Sides will be 1:3 down to a maximum depth of 0.8m.
- The basin will be of irregular shape.

Water supply for the scrapes will come from rainfall and surface water runoff, including runoff diverted from Catchment B within the proposed development. The primary objective is to hold perched water during the winter, but it is anticipated that deeper areas will also hold water for part of the summer and provide an enhancement for breeding birds. Soil will be compacted during construction to create

stable and impermeable banks and bases. Where necessary, i.e. if soils have high permeability, clay soils or a Bentomat Geosynthetic Clay Liner will be imported as a liner.

Signage

Signage will be installed at the maintenance access to the Mitigation Area clearly marking it as private land with no public access.

MANAGEMENT

The following management measures are proposed. The capital works described above are the responsibility of the Developer. Long-term management will be the responsibility of an appointed management body.

Grassland

The fields within the Mitigation Area will be flailed to ground-level to remove existing vegetation and dead growth. This will be using a tractor-mounted flail. These areas will then be prepared for seeding using a disc harrow to a maximum of 150 mm depth to prevent fertile soil being moved below root depth. If necessary, a chain harrow will be used to remove arisings from flailing and prevent smothering of seedlings (this will also help seed-to-soil contact).

The seed mix to be sown will be a suitable grazing mix dominated by hard-wearing grasses (e.g. perennial rye grass *Lolium perenne*) and a minimum of 10% white clover *Trifolium repens*. Seeding will take place by broadcast at a density of approximately 18 kg/ha. Seed should be sown within 10 mm of the soil surface. Due to the inclusion of a high density of white clover in the seed mix, it is not considered necessary to include artificial fertiliser application.

Following sowing, the seed bed will be rolled. This will improve seed-to-soil contact, moisture retention and will minimise establishment of pest species.

Every 10 years, the grassland will be supplemented if necessary by additional overseeding using the same seed mix. Overseeding will be preceded by a light harrow, or chain harrow, to prepare the seedbed without causing significant damage to the established grassland. This will refresh the seed bank and make sure that perennial rye grass and white clover remain the dominant species within the sward.

Management will predominately be through cutting for hay or silage. This will comprise a first cut in late July / August (following majority of breeding bird activity) and a second cut in late September (to achieve a winter sward height of 50-60mm). Alternatively, low-intensity grazing could be conducted.

Field Margins

Margins of 6m width will be maintained around the periphery of the cropped grassed areas. These will be maintained in accordance with RSPB stewardship guidance for rough grass margins.

After Year 1, margins will be cut no more than once every five years in autumn. To maintain habitat variation, cuts of the margins in the northern and southern fields will be separated by one year.

The 3m of the margin adjacent to the cropped grassed areas will be cut annually in autumn to maintain diversity within each area for invertebrates and reptiles. Spraying or fertilising must be avoided within the margins to avoid dominance of undesirable species such as thistles and docks.

Wetland

Wetland habitat will be managed to prevent dense vegetation from establishing in margins to comprise of strimming to ground level every two years in late September – early October.

Desilting will be undertaken as required using an excavator, taking place between April and September.

Fencing

It is proposed that capital works use long-lasting posts to minimise the requirement for replacement during the management period. However spot repairs and rewiring will be required as necessary during the management period. Fencing will be checked for damage or breaches during management visits, with immediate repairs undertaken.

Hedgerow

Hedgerows will be cut in early October (to avoid nesting birds) on a three-year rotation (each year to be one side or the top). During these works, scrub will be removed from the reptile receptor area in the north of the site.

Ditch

The ditch will be managed through periodic clearance in spring when it becomes too densely vegetated. This is estimated to be every five years. Arisings will be left on site.

Desilting will be undertaken as required using an excavator, taking place between April and September.

Signage

It is unlikely that signage will require maintenance but replacements will be made over the lifetime of the project as needed.

MONITORING

It is proposed that long-term monitoring is undertaken using remote camera surveys. These will take place annually for Years 1 – 5 followed by every 10 years from Years 10 to 120. Two cameras will be deployed for a period of five days each month from October to March, one in the north of the mitigation area and one in the south. Cameras will be set to take photographs at 30 minute intervals.

These will subsequently be checked by an ornithologist to confirm the presence or absence of SPA qualifying bird species. Results will be reported to the Owner and LPA.

This will be supplemented by monitoring of the implementation of the above management operations. This will comprise annual site visits during winter in Years 1-10 followed by visits every 5 years from Years 10 – 120 to monitor compliance.

Results will be reported to the Owner and LPA. Should remote camera monitoring determine that corrective action is required, this will be undertaken and a further period of manual monitoring may be required to monitor its effectiveness. This will be agreed with the LPA.

RESPONSIBILITIES

Pre-construction

All capital works associated with the construction of the BCA will be the responsibility of the Developer. This will include any and all management until the Bird Mitigation Area is transferred to the Management Organisation. All works will be completed prior to first occupation and the transfer will only take place upon the completion of an audit by the Management Organisation to confirm the Bird Mitigation Area is in a suitable condition for transfer (i.e. all capital works are complete and have been maintained).

Long-term Management

Long-term management and ownership will be the responsibility of the Management Organisation (likely to be a management company associated with the development). The Management Organisation will have responsibility for the management of the Bird Mitigation Area in-perpetuity.

Step in Rights

The s106 agreement will include a clause allowing Fareham Borough Council to take over ownership and management of the Mitigation Area in the event it were determined the Management Organisation were not considered to be acting or managing the site appropriately, or for other reasons for which Fareham Borough Council considered it inappropriate for the Management Organisation to continue taking responsibility for the Bird Mitigation Area.

FIGURE 1 – BIRD MITIGATION AREA