



Sinah Lane, Hayling Island

Winter Bird Mitigation Strategy



Barratt Homes

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2	17.11.2020	Ben Cooke	David West	Update for resubmission of the proposed scheme

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FIGURES

Figure 1 – Mitigation Plan

Figure 2 – Areas Plan



1.0 Introduction

1.1 Background

WYG was commissioned by Barratt David Wilson Homes in February 2018 to prepare a Winter Bird Mitigation Strategy for land at Sinah Lane, Hayling Island, Havant (the Site).

The Site forms the southern extent of Field H34C which has been monitored for the presence of brent geese as part of the Solent Waders and Brent Goose Strategy. To the north of the Site, H34C is known to provide foraging habitat for up to 450 dark-bellied brent geese (*Branta bernicula bernicula*) over the winter months (based on the scientific surveys carried out to inform this strategy and the application). It is understood that counts from the Solent Wader and Brent Goose Strategy (SWBGS, 2017) have been up to 800 in 2015 and the peak count for 2017/18 was up to 1000 (Heather Richards, Pers. Comm. 2018). A request for updated local records has been made but this data has not been received at the time of writing. It is proposed that this area is enhanced and managed in perpetuity for brent geese over the winter period.

Dark-bellied brent geese are a qualifying feature of the Chichester and Langstone Harbours SPA, along with a broader assemblage of wading birds. The northern part of H34C lies adjacent to the eastern foreshore of Langstone Harbour which is also designated as a Site of Special Scientific Interest (SSSI) and Ramsar Site due to its ecological importance and bird assemblage.

The Solent Wader and Brent Goose Strategy (SWBGS) aims to protect the network of non-designated terrestrial wader and brent goose sites that support the Solent SPAs from land take and recreational pressure associated with new development. The terrestrial wader and brent goose sites are located on land that falls outside of the boundaries of the Solent SPAs. However, as this land is frequently used by SPA species (including qualifying features and assemblage species), it supports the functionality and integrity of the designated sites for these features. This land will contribute to the achievement of the SPAs' conservation objectives and is therefore protected in this context. This land supports the ecological network by providing alternative roosting and foraging sites.

The impact of any future proposals on wintering birds using land adjacent to the site and the nearby Chichester and Langstone Harbours SPA has been identified as a potential constraint. The potential impacts are likely to consist of disturbance due to increased recreational pressure and loss of foraging habitat over the winter months.

This report identifies a strategy to mitigate for potential adverse effects upon brent geese and to make sure that there is no negative impact upon the integrity of the Chichester and Langstone Harbour SPA and Ramsar.

This report has been prepared by Senior Ecologist John Simper MCIEEM.

This issue has been prepared for the resubmission of the scheme alongside all other ecological reports previously completed at the above site. The development proposals for the site remain unchanged (aside from minor non-material changes where ecology is concerned) and no change in conditions on site have been identified (following the completion of ecological surveys in 2018). It was therefore considered that there was no need to complete updated field surveys to support the resubmission.



1.2 Site Location

The site is located within the south west of Hayling Island in and is centred at Ordnance Survey National Grid Reference SZ 70816 99897. The site comprises of an arable field bounded by residential areas to the south and south west, foreshore to the north west, woodland to the north and the Hayling Billy trail and a small copse to the east.

1.3 Development Proposals

The erection of 195 dwellings, associated open space, pumping station, sub station with vehicular access via Sinah Lane and change of use of land from agriculture to a Wader and Brent Geese refuge.



2.0 Baseline

2.1 Existing Data

The site has been monitored as part of the Solent Waders and Brent Goose Strategy and is identified as Field H34C for the purposes of the study. Records from 2010 carried out for the survey indicate that up to 66 brent geese were recorded to be present in the field.

Tyler Grange¹ have also undertaken a series of winter bird surveys during 2011/12, 2012/13, 2015/2016 and 2016/2017 at the site. These surveys revealed that up to 500 brent geese were utilising the site. During the winters of 2012/2013 and 2016/2017 no brent geese were recorded. Tyler Grange stated that the lack of birds observed during 2016/2017 was because the field was ploughed over the winter period and no foraging opportunities were available.

For the purposes of the Tyler Grange surveys the field (H34C) was split into three portions, the northern portion (A), the narrower middle segment (B) and the southern half of the field (C). Areas B and C are within the Site. Area A constitutes the proposed mitigation area (Figure 2).

It is clear from the surveys undertaken by Tyler Grange that each portion has very different usage by brent geese over the winter period.

- Area A: This area was utilised from January to March during 2012 and 2016 with most birds concentrated on the west of the area closer to the foreshore and away from potential disturbance arising from recreational use of the Hayling Billy Trail along the eastern boundary of the field.
- Area B: Tyler Grange only recorded brent geese in this area once when approximately half of a flock of 400 birds ventured onto the field on the 12 January 2016.
- Area C: No birds have been recorded on this area during any of the surveys undertaken by Tyler Grange.

WYG have carried out winter bird surveys on the field during the winter of 2017/2018. These showed that up to 450 brent geese were utilising Area A of the field from November through to February. On one occasion a group of approximately 100 brent geese were recorded within Area B on the 5th of January 2018, these had separated from a larger group of 450 birds that were present in area A. No brent geese were recorded in Area C at any point.

In addition to brent geese Area A is known to provide a habitat to wintering waders on occasion. Tyler Grange have recorded 139 golden plover and one lapwing on one occasion whilst WYG have recorded 9 ringed plover apparently foraging on the Area A on the 19th February 2018.

These surveys were completed using a rigorous scientific methodology in line with that specified by the SWBGS. This therefore represents a suitable evidence base upon which to assess likely impacts and their magnitude.

¹ Tyler Grange (2017). Land off Sinah Lane, Hayling Island Ecological Appraisal.



2.2 Current Management

The current farmer manages the field as part of a crop rotation and it is generally planted with winter cereals every other year. The farmer has stated that winter crops get damaged by grazing brent geese whenever they are planted and because of this they have had to resort to several methods to prevent further damage to the crop. This included the use of gas bangers, kites and in extreme cases (as a last resort) birds are shot under licence.

The farmer has recently planted a 'sacrificial crop' of winter wheat nearby to alleviate pressure on H34C although the efficacy of this is unclear.

Unofficial use by walkers/dog walkers is known to occur in his field and has at times been shown to disturb birds utilising the field during surveys undertaken by WYG in 2017/2018. Walkers tend to use the western edge of the field adjacent to the foreshore and the northern boundary that links the western edge of the field with the Hayling Billy Trail.



3.0 Potential Impacts of development on Brent Geese

3.1 Habitat Loss

The proposed development will result in a loss of 5.7ha of potential foraging habitat for brent geese in field H34C (Area B and C). However, it should be noted that the extensive winter bird surveys conducted on site have never recorded any use of Area C (and minimal use of Area B) by brent geese or other waders, including when conditions were optimal.

3.2 Disturbance

3.2.1 Occupation

In the absence of mitigation there is potential for recreational disturbance to birds using the north of H34C as a result of the increased number of residents. It is considered that the greatest risk is increased numbers of people walking around the northern perimeter of the field along an existing desire line that links the Hayling Bill Trail to the foreshore to the west. In particular increased use by dog walkers is likely to present significant disturbance to foraging brent geese. Impacts as a result of recreation must also be considered in combination with other development in the south of Hayling Island. In combination effects from the nearby development at the Oysters are not anticipated as this development facilitated measures to discourage access to H34C from the Hayling Billy Trail.

Possible disturbance on geese using H34C may also come from recreational use from the Hayling Billy Trail – particularly when gaps within the hedgerow may mean that users are visible to foraging brent geese within the field.

Walkers and dog walkers were noted on several of the surveys conducted by WYG during 2017/2018.

Crop damage by brent geese is regarded as significant within Field H34C, because of which the farmer has chooses to attempt to reduce the damage by using gas guns and kites to push the birds onto other areas. On occasions when severe crop damage is experienced the Farmer also has a licence to shoot brent geese, although this measure appears to be used infrequently and only after other measures have proved unsuccessful. If these measures continue to be used disturbance to brent geese and waders is of course inevitable.

3.2.2 Construction

The development of Area B and Area C of H34C may also result in disturbance impacts during the construction phase. This will primarily be through noise, but visual disturbance may also cause birds in the north of H34C to flush.



4.0 Proposed Mitigation

H34C is currently listed as a Primary Support Area for brent geese under Policy E17 of the Draft Havant Local Plan. In consultation with the RSPB it was identified that the aim of the enhancement of this area, followed by appropriate management in perpetuity, is to improve the quality of the site such that it supports a larger number of brent geese consistent with a Core site. This will adequately mitigate any adverse effects as a result of the proposed development.

4.1 Habitat Creation and Management

In order to maintain and improve the quality of foraging habitat within the mitigation area it is proposed that the land is reverted to grassland which will be suitable for waders and brent geese every year. The objective is to create wet grassland with a mix of perennial rye grass and white clover which provides a nutrient-rich food source for foraging geese. It is anticipated that management of the grassland will be through cutting although grazing could be used as an alternative should a suitable local herd be identified.

Previous measures to prevent brent geese from damaging the crop, including the use of bird scarers (audible or visual) and shooting under licence will cease.

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

- Scrapes to be in two separate clusters of 3 pools set in a complex of max. 0.25ha each.
- The two complexes of pools will be in areas lowered by 100mm – 150mm to aid drainage to the individual pools.
- Pools will have sloping sides down to a max depth of 0.6m and be of irregular shape and size to total c 300m².
- Complex 1 – 20m²/50m²/80m².
- Complex 2 – 30m²/45m²/75m².
- Each pool in the individual cluster to be linked by a meandering ditch c. 1500mm wide and 500mm max depth at the centre.

Water supply for the scrapes will come from rainfall and surface water runoff. 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. Scrapes will be created using an excavator with arisings piled adjacent to the margins to improve water retention and provide bare ground areas suitable for invertebrates. Soakage testing has identified that soils across the site have high permeability therefore a clay cap will be required to make sure the scrapes retain water. Where possible, suitable clays will be reused from arisings during construction. These will be tested to ensure the permeability of the clay is less than 1×10^{-7} m/s. If no suitable clays are recovered, a clay liner will be used consistent with that proposed for the attenuation basin and on-site SuDS. This will be a Bentomat Geosynthetic Clay Liner.

The scrapes will be located to the north of the mitigation area, to minimise potential disturbance from the residential development to the south and maximise the likelihood of use by birds.



It is proposed that access to the mitigation area is provided via a new farm gate at the northern extent of the residential development which will be clearly identified as being for management purposes only with no unauthorised access. This will be a 2m tall mesh gate (approx. 12ft wide) to make sure access by residents is not possible.

The creation of the scrapes and new farm gate should be undertaken before the management of the land is transferred to suitable conservation body. This offers a guarantee that works are undertaken.

4.2 Avoidance of Disturbance

4.2.1 Occupation

The following measures are proposed to reduce the current levels of disturbance within the mitigation area and avoid any additional disturbance as a result of the proposed development. This is in addition to the standard payments to be made to the Solent Disturbance and Mitigation Project to mitigate in combination effects.

Gaps within the fenceline along the Hayling Billy Trail have been repaired as part of the mitigation strategy for the development at The Oysters. To support these measures, it is proposed that infill planting using native hedgerow species (hawthorn, blackthorn, hazel, field maple) is completed to reinforce this boundary. This will further discourage any attempted cutting through this boundary and provide a visual barrier to prevent disturbance of geese within the mitigation area by increased use of the Hayling Billy Trail.

There is existing informal access from North Shore Road which extends along the foreshore and north until it meets the Hayling Billy Trail via a gap in the hedgerow. In order to avoid future disturbance from the use of this path, it is proposed that a fence is installed between the path and the rest of H34C. This will comprise the following:

- All fencing should be erected in accordance with BS 1722
- Livestock proof fence – Height 1.2m
- Rylock green high tensile netting (HT8/80/15)
- Topped by two strands of barbed wire (BS EN 10223-1)
- Intermediate posts - 1.8m sweet chestnut at 2.4m centres
- Box section straining post assemblies (end and turning posts 2.3m by 10cm – 13cm)

The fence will allow a 3m wide path which will allow walkers to avoid areas of mud and the like, and therefore avoid the need to enter the mitigation area.

Further screening planting will be created along the northern boundary of the Site to screen it from the mitigation area. This will be supplemented by the situation of the attenuation basin which will provide further separation between the residential development and created foraging habitat, as well as deterring access by residents and providing additional wetland habitat creation. The lighting layout for the development site will avoid any increase in artificial light spill into the mitigation area.

Interpretation boards will be installed to educate new and existing residents about the conservation status of the SPA and wintering birds and the proposed use of the mitigation area. These will also explain the impacts of disturbance (particularly dogs) and recommend suitable walking routes to



avoid disturbing wintering birds. These will be located at the existing access point to be fenced (as above) and south of the SuDS (proposed wildlife area and walking route).

4.2.2 Construction

It is recommended that the Construction Environmental Management Plan for the site include measures to prevent disturbance during construction.

This should include restricting works to the summer months (April – September) wherever possible. Any works during the winter months (October – March) should include control measures to prevent noise above 69dB within the mitigation area. Suitable measures may include the use of acoustic enclosures or acoustic fencing along the northern boundary of the site. A barrier will also be installed along the northern boundary to avoid visual disturbance during the winter.



5.0 Roles and Responsibilities

Capital works such as the installation of fencing and interpretation boards, scrape creation and landscaping will be completed by the developer during the construction phase. Additionally, a mains water supply with a separate meter (compliant with Water Supply (Water Fittings) Regulations 1999) and a livestock drinking trough will be provided should grazing be adopted for future management.

The trough will be galvanised steel, or concrete, spray-moulded glass-reinforced cement (GRC), or polyethylene and with a ball valve and service box which complies with BS3445. It will be positioned on hard-standing or on well-drained soil (to avoid poaching, erosion or runoff) away from features through which organic manures and sediment could enter waterways.

The exiting of the existing tenancy agreement which covers both the RSPB land to the west will be led and managed by the applicants, alongside the exit from the agreement which covers the development site and remainder of the mitigation area. Upon completion it is proposed that the management of the eastern portion of the mitigation area is transferred to the RSPB along with the land already under their control. The land will be transferred upon completion of an audit to confirm that all capital works are complete, and the mitigation area is in satisfactory condition.

A commuted sum will be provided for long-term management to cover maintenance of the following: fencelines, footpaths, interpretation boards, scrapes and grassland management. This will be secured as part of the Section 106 agreement. The following costs have been calculated using 2017 Countryside Stewardship Grants. This is considered a suitable approach as it is also used in the draft SWBGS Mitigation Guidance (SWBGS, 2018). This covers an 80-year period.

Grassland:

- GS12 Creation of wet grassland for wintering waders and wildfowl – Years 1-10 (£310/ha)
- GS10 Management of wet grassland for wintering waders and wildfowl – Years 11-80 (£157/ha)
- An additional 2 years of GS12 will be allowed every 10 years to allow for sward improvement and scrape management.
- As the mitigation area measures 6.79ha this will result in a commuted sum of £110,215.

Hedgerow:

- Management on 3-year rotation – cutting of one site every 3 years (£27/100m).
- As there is an estimated 400m of hedgerow requiring management this will result in a commuted sum of £2,880.

Fencing

- Replacement of fencing five times in the life of the strategy – every 15 years (£8/m).
- As the fencing measures 1,090m this will result in a commuted sum of £43,600.

Interpretation Boards:

- Replacement of two boards and 1 x viewpoint bench twice in the life of the strategy – years 10, 20 (£1,000/ea).
- This will result in a commuted sum of £4,000.

The total commuted sum will be £160,695.



Following the management transfer and payment of the commuted sum, long term management, maintenance and monitoring will be the responsibility of the managing body (RSPB).



6.0 Management Activities

Management of the main mitigation area will predominately involve management of the grassland. For the first ten years this will include additional grass seeding where necessary which should take place between August and September. It is anticipated that the primary form of management will be cutting. The key objective is to provide forage for brent geese and other waders during the winter, therefore the following timings are recommended:

- First cut – late August (following majority of breeding bird activity)
- Second cut – late September (to achieve winter sward height of 50-60mm)

Alternatively, low-intensity grazing could be utilised as an alternative to cutting. This will be dependent on the identification of a suitable grazing partner. Therefore, the above cutting regime is proposed as the default management, however the managing body (RSPB) will be free to use alternative measures (such as grazing) provided they meet the objectives of the mitigation area.

Other management activities to be completed will include:

- Hedgerows – to be cut in early October (to avoid nesting birds) on three-year rotation (each year to be one side or the top)
- Fences and footpaths – management anticipated to be minimal however fence integrity should be monitored annually and repaired as necessary.
- Interpretation boards – no management anticipated however boards should be replaced if necessary
- Scrapes – management to prevent dense vegetation from establishing in margins to comprise of strimming to ground level every two years in late September – early October.

Monitoring will be required to make sure that the management activities are proceeding and to identify any necessary changes to management to continue achieving the management objective (maintain the mitigation area as a 'core' site for brent geese). It is anticipated that three years of winter bird monitoring will take place followed by annual site visits to monitor management actions.



FIGURES

Figure 1 – Mitigation Plan

Figure 2 – Areas Plan

LEGEND

Development site boundary

Winter bird mitigation area boundary

Proposed hoggin footpath

Proposed infill native hedge mix

Proposed hedgerow screening

Proposed wader scrape of varied depth

Proposed SuDS planting

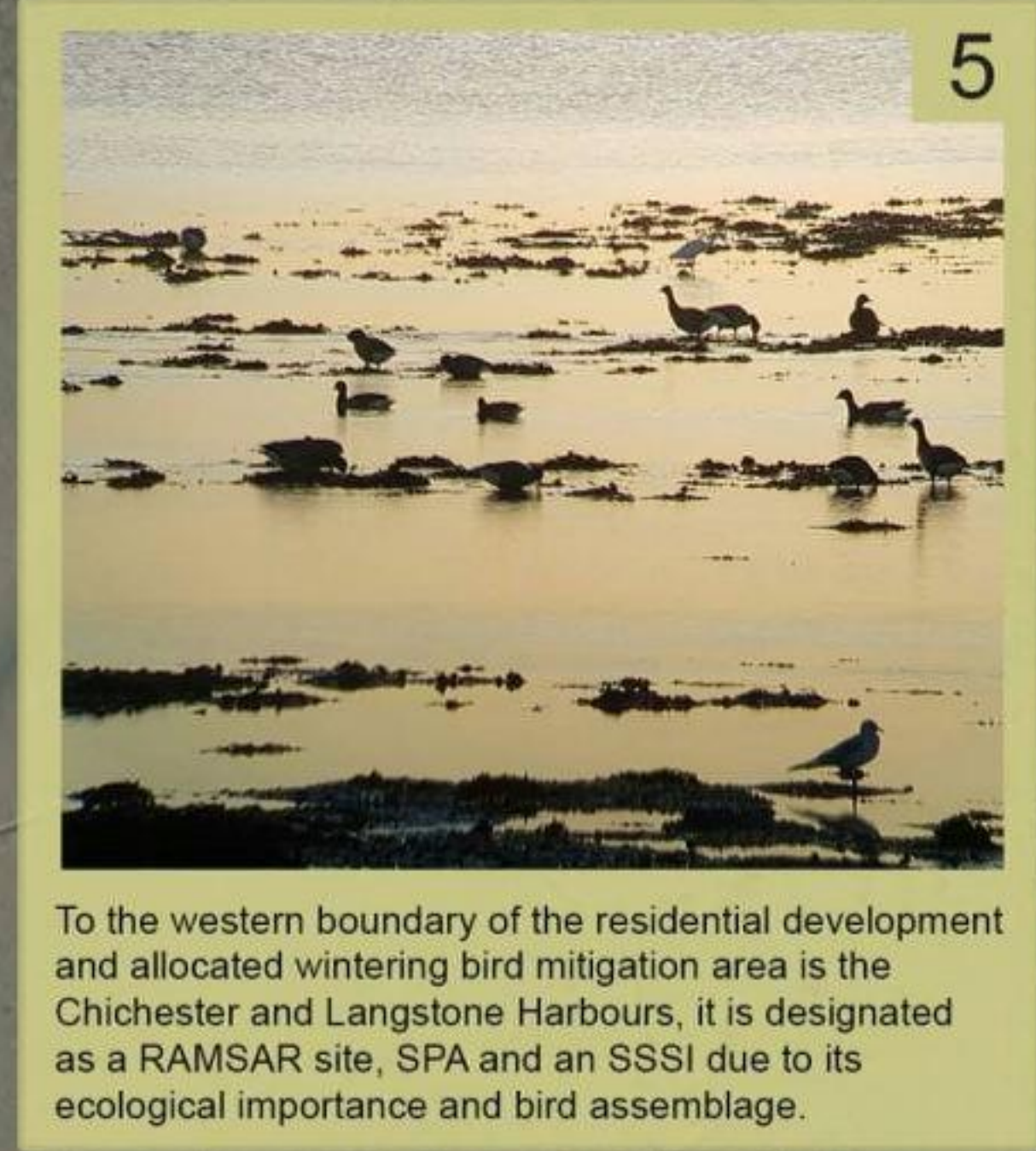
Wet grassland with a mix of Perennial Rye Grass and White Clover

Vehicle maintenance gate

Proposed education board

Proposed livestock fencing

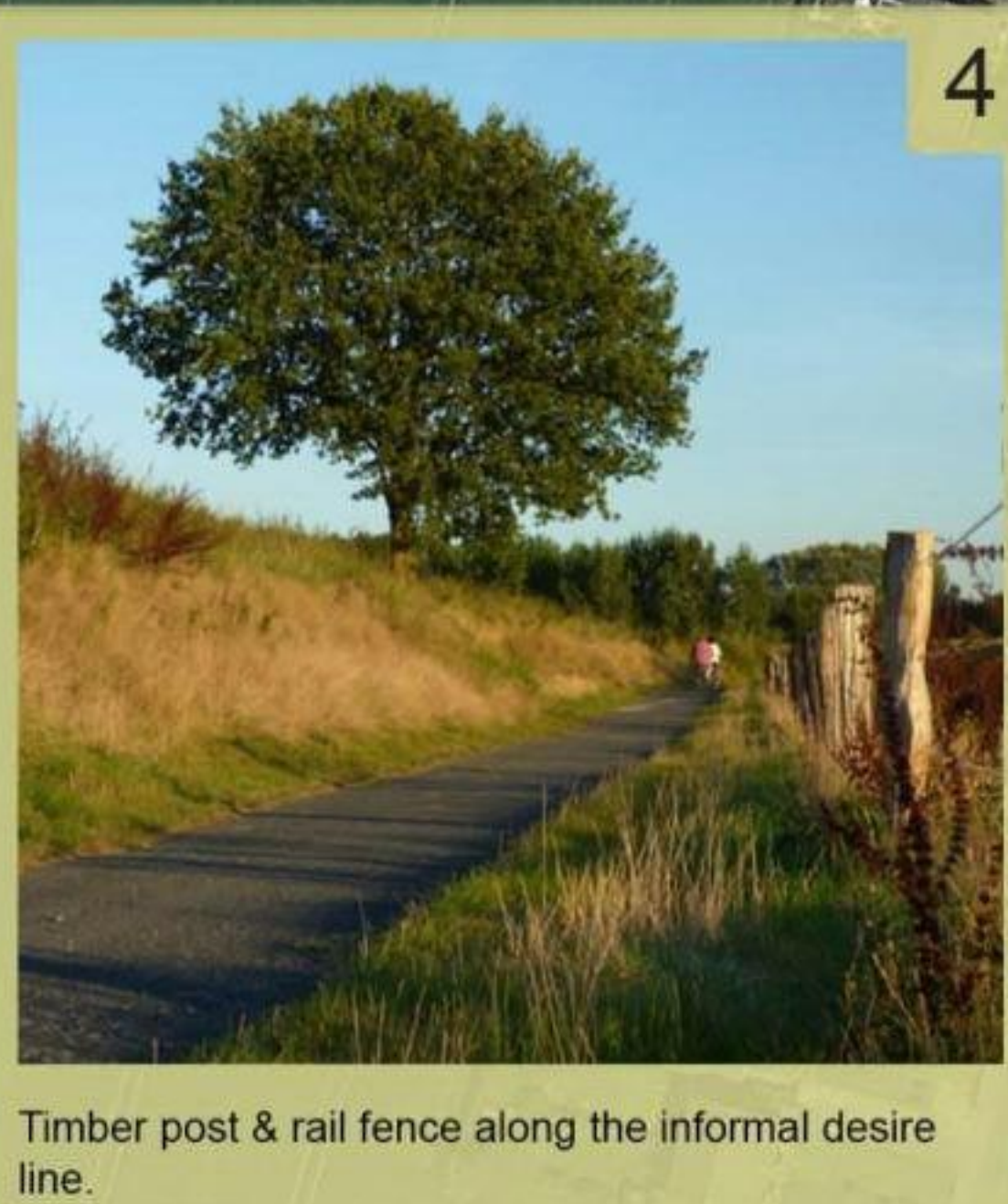
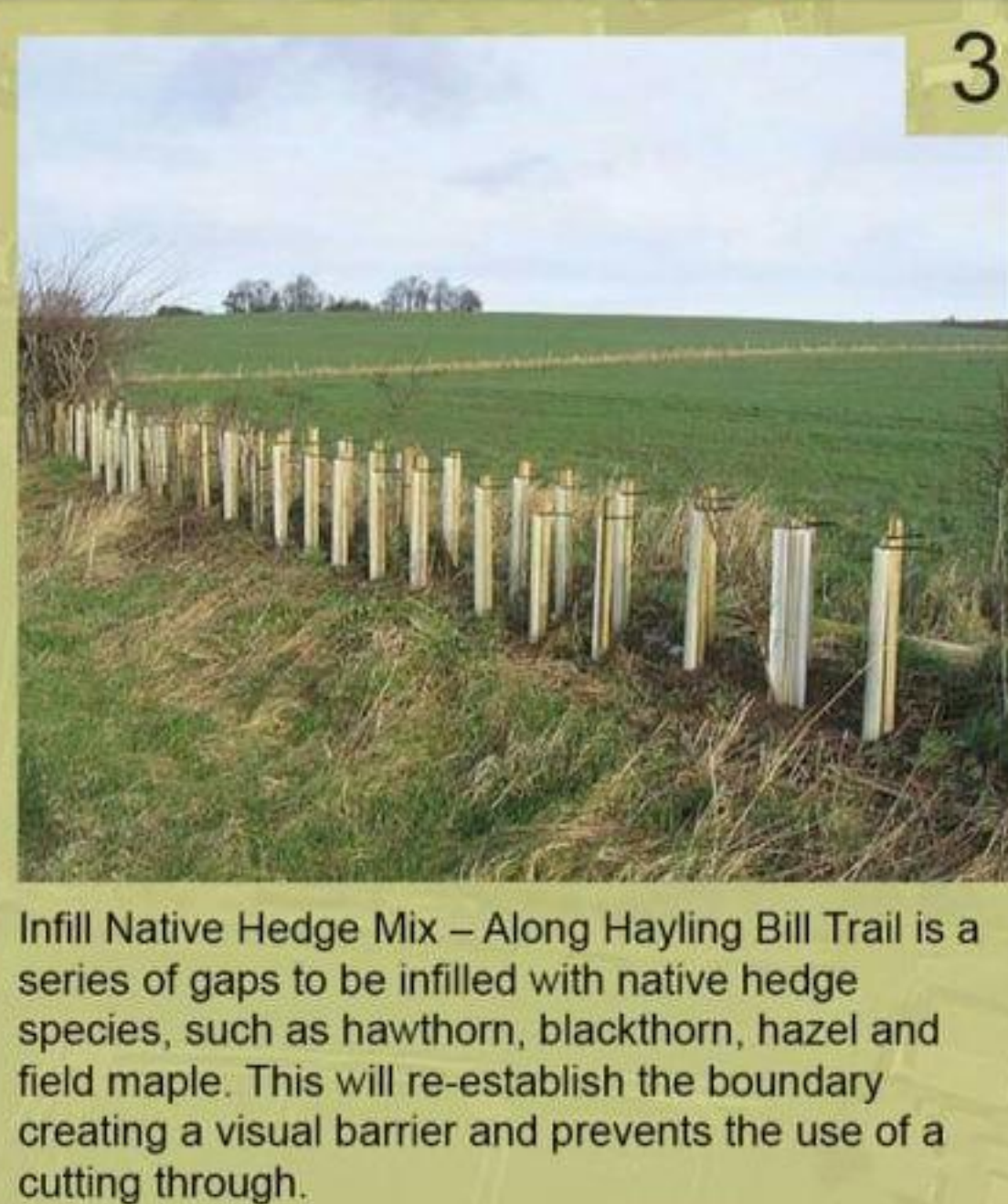
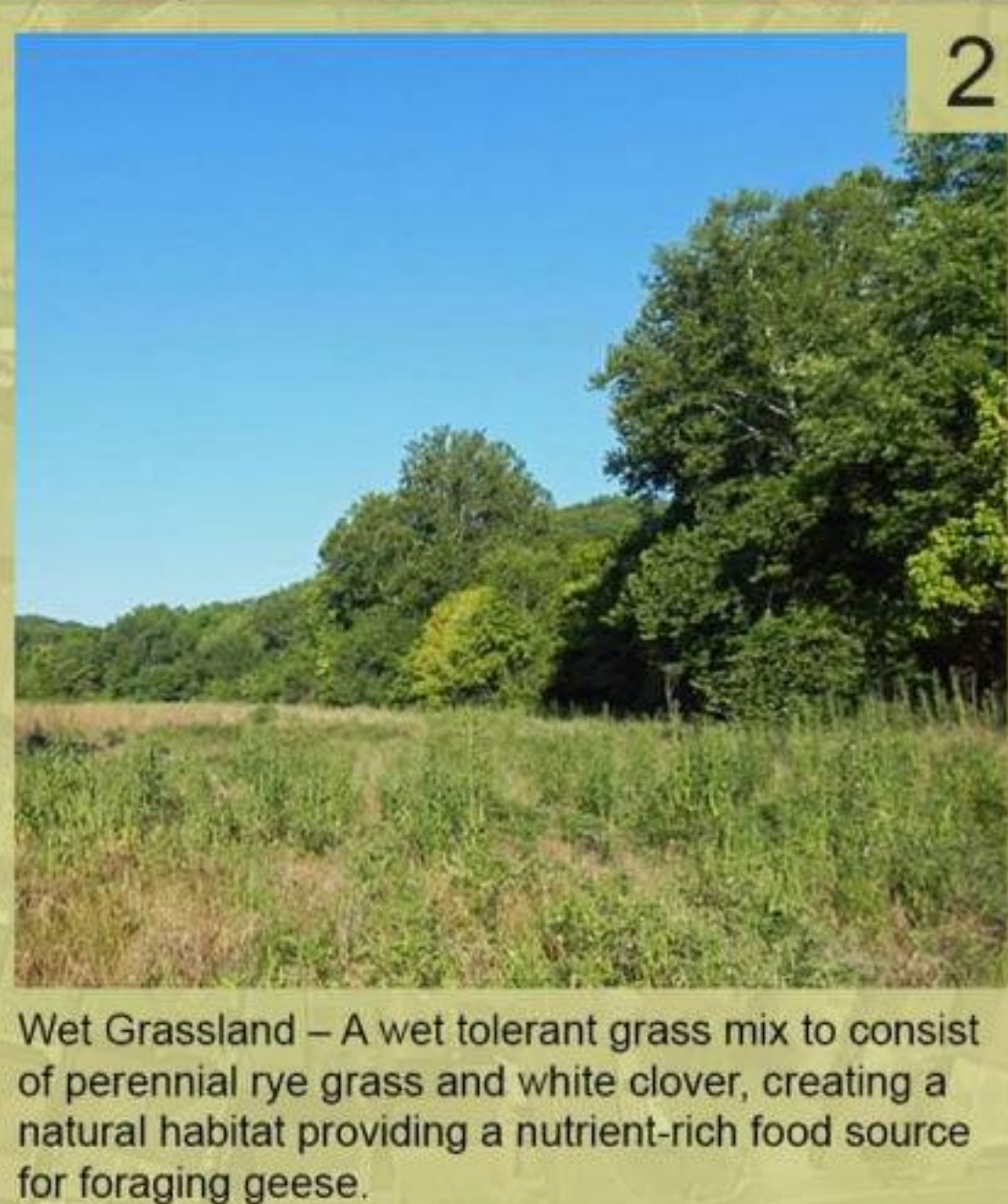
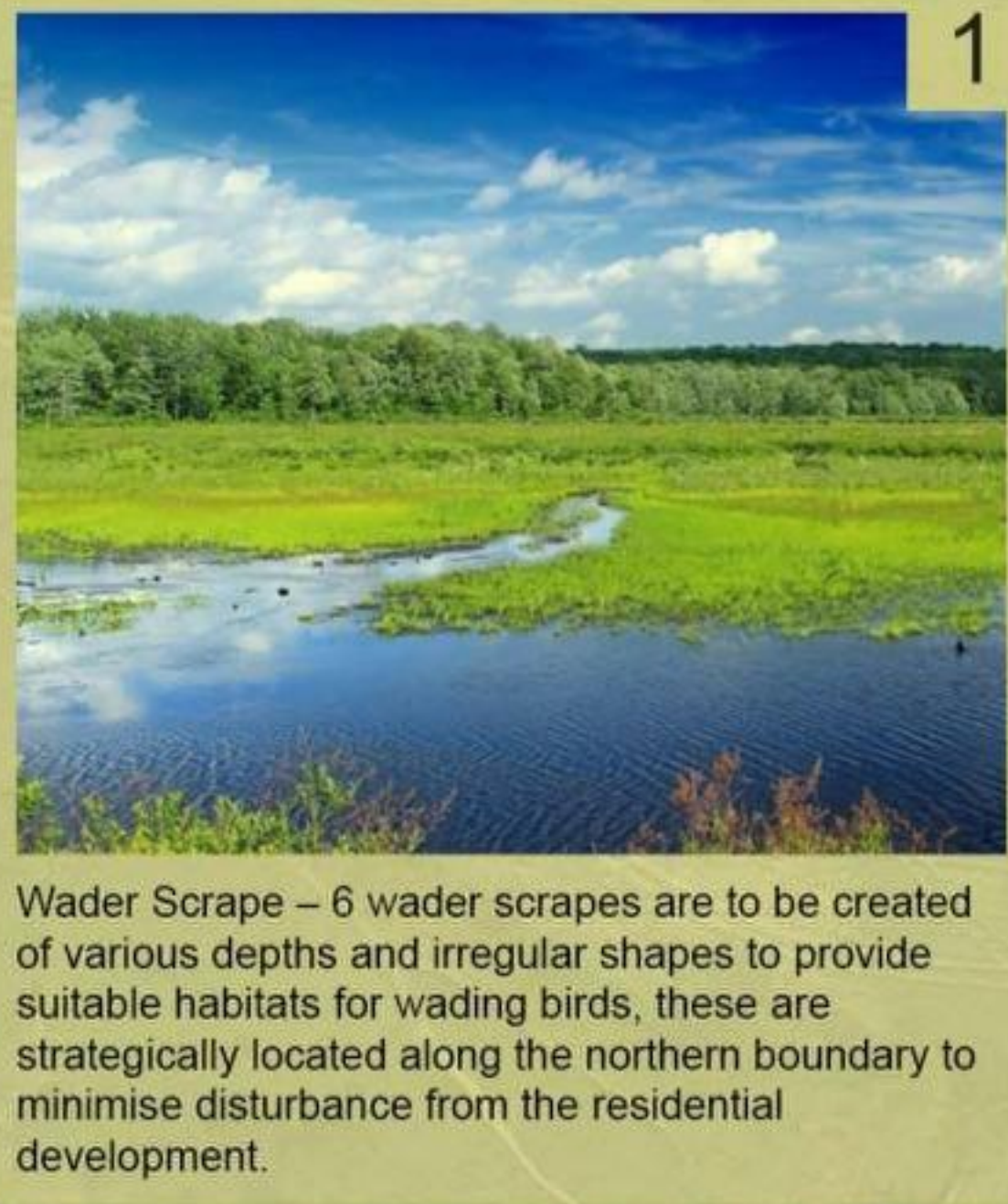
Northern 'Unofficial' Desire Line Path



5

CHICHESTER AND LANGSTONE HARBOUR

To the western boundary of the residential development and allocated wintering bird mitigation area is the Chichester and Langstone Harbours, it is designated as a RAMSAR site, SPA and an SSSI due to its ecological importance and bird assemblage.



Sinah Lane, Hayling Island Winter Bird Mitigation Plan

J	26.10.20	Client comments	IN
I	19.03.20	Comments	PF
H	16.03.20	Comments	PF
C	03.03.20	Comments	JM
F	04.09.19	Comments	PF
D	22.08.19	Comments	JRL
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B	05.07.18	Client comments	JRL
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Rev	Date	Notes
A	05/03/18	Initial map production

Legend

- Development site boundary
- Areas

0 50 100 Metres



Areas Plan

Sinah Lane, Hayling Island
Barratt Homes

Scale at A3: 1:2,750	Project No: A092944-1	Drawing No: Figure 2	Revision: A
Drawn by: Ben Blowers	Drawn date: 18/06/2018	Approved by: David West	

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