

Technical Note: Ecology Work Update Summary



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J10095/APD

1.0 INTRODUCTION

- 1.1 This technical note summarises update Ecological survey and reporting work in relation to the approval of Reserved Matters (appearance, layout, landscaping and scale) following outline planning Permission P/140/16/OUT for the erection of 375 No. dwellings, together with public open space, play space, drainage, parking and associated infrastructure, landscape, ancillary and site preparation works, with access off Pagham Road.
- 1.2 This note should be read in combination with the following documents for clarity.
 - FPCR Update Ecological Survey Report, November 2021.
 - Natural England Response 9th February 2022.
 - Natural England Response 21st April 2023.
 - FPCR Biodiversity Net Gain Metric v 4.0 31st July 2023.
 - Figures 1 and 2 of this note, Biodiversity Net Gain Baseline and Post-development Habitats.
 - DWG 21.129.SK205 Public Open Space Plan.
- 1.3 Following consultation with Natural England and Arun District Council on documents previously submitted for the reserved matters application in 2021, both parties were not satisfied that the conclusions of the Habitats Regulations Assessment agreed at the outline stage could be applied to the reserved matter layout. Therefore, there was no certainty that there would not be impacts on the Pagham Harbour SPA site from increased recreational disturbance arising from the proposals.
- 1.4 Specifically, this relates to the total amount of functional recreational greenspace integrated into the development and the treatment of the western site boundary to avoid disturbance of land classified as being functionally linked to the SPA.
- 1.5 Discussions between the applicant and the LPA resulted in agreement to redesign the development to ensure that adequate space for recreation can be accommodated within the design and the boundary treatment prevents disturbance to the functionally linked land.

- 1.6 The aim of this note is to assess the potential ecological impacts in relation to the updated design of the proposals based on the existing survey information and updates to assessment criteria including Biodiversity Net Gain (BNG) policy. All survey methodologies not specifically referenced in this note are referenced within the appropriate ecological reports previously submitted.

2.0 UPDATE ECOLOGICAL ASSESSMENT

- 2.1 The most recent survey date for each ecological receptor is provided in table 1 below.

Table 1: Ecological receptors and last survey dates

Ecological receptor	Last Survey Date
Site walkover (including badger survey)	April 2023
Habitat baseline assessment	June 2021
Bats static and transect surveys	May to October 2021
Birds (Breeding)	Spring 2021
Birds (Wintering)	November 2021 to March 2022
Riparian mammals	September 2022
Reptiles	May to September 2021

Habitats

- 2.2 The site is distributed between three separate arable fields but does not cover the entirety of all three fields. Separating the fields is a network of ditches, paths and tracks. Small patches of mixed scrub and modified grassland are present, as well as sections of hedgerows along some boundaries. The baseline habitats have been broadly similar through the application period, although have been placed in fallow management for short periods. None of the habitats present are protected in their own right.
- 2.3 The proposals are for areas of residential development with associated roads and pathways, amenity play areas and off-road parking. This results in the loss of all arable habitat, mixed scrub and grassland. The developed areas in the new site design are broadly similar and result in larger areas of green infrastructure being integrated to achieve sufficient areas of on-site recreational space.
- 2.4 The previous proposals were assessed through BNG metric version 2.0 in November 2021. This design achieved a net gain of 7.60% in habitats, 52.7% gain in hedgerow and 24.55% gain for watercourses.
- 2.5 The new proposals have been assessed using BNG metric version 4.0 released in June 2023. The new site design includes increased areas of green infrastructure. These have been designed to integrate newly created habitats including the below.
- Modified grassland around play areas and amenity greens.
 - Other neutral grassland in greenspace around circular walks and buffering sensitive ecological features such as ditches.
 - Mixed scrub along the western boundary to act as screening for the adjacent arable land.
 - Extensive urban tree planting throughout the development.
 - Enhancement of ditches through enhanced buffers and planting.
 - New hedgerow planting totalling 2.17km.

- SuDS with marginal planting.

2.6 These enhancements result in the following gains for biodiversity through the metric.

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	11.38
	<i>Hedgerow units</i>	7.15
	<i>Watercourse units</i>	2.57
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	31.16%
	<i>Hedgerow units</i>	76.63%
	<i>Watercourse units</i>	200.39%

2.7 Overall an increase of 11.38 habitat units from the baseline results in a 31.16% gain. 2.17km of hedgerow planting results in a gain of 7.15 units with a 76.63% gain. Enhancements to the on-site ditches to moderate condition through enhanced buffering and planting will result in an additional 2.57 units equating to a 200.39% gain. This meets the mandatory 10% requirement which will come into force in November 2023.

2.8 All proposed habitats will be specified in a detailed Landscape Environmental Management Plan (LEMP) which will include creation proposals and the management and monitoring requirements of these throughout the development's lifetime. This document can be secured through an appropriately worded condition at the decision stage.

2.9 The update proposals overall provide an enhanced scheme for habitats over the initially submitted design and meet the relevant local policies to enhance biodiversity as part of development.

Protected species

2.10 Whilst there have been significant changes to the developed areas of the development, this reflects an overall decrease in these areas and increase in green infrastructure overall. This also includes the retention of sensitive ecological features as per the previous layout. This includes the buffering of ditches and hedgerows along boundaries.

2.11 Previous surveys recorded protected species including bats, breeding birds and reptiles. Badgers are absent with no setts recorded on site. Water vole are absent from site but present nearby and could expand to the site readily at any stage. Update assessments for transient species including water vole and badger are updated regularly.

2.12 There have been no changes to the baseline conditions since surveys for each of these species were undertaken and there is unlikely to be any significant changes in their extent or distribution at the site due to the arable management of the fields.

2.13 Post development the habitats present will result in net benefits for the protected species recorded at the site.

- The creation of new species rich grassland will benefit foraging bats, birds and reptiles.
- Buffering of hedgerows with habitat and a sensitive lighting strategy will enhance these corridors for commuting bats.
- The creation of new hedgerows, mixed scrub and tree planting will benefit nesting birds.
- The proposed enhancements to ditches will create new habitat for water voles along these and increase their protection with increased buffer habitat.

Impacts on protected species at the site are likely during the construction phase in the absence of adequate mitigation. A Construction Environmental Management Plan (CEMP) should be conditioned through an appropriately worded condition at the consent stage. This should specify

methods to avoid impacting protected species during construction and will include but not be limited to the following.

- The installation of reptile exclusion fences where necessary to prevent populations entering works areas or a suitable translocation methodology, if necessary, based on the proposed construction phasing.
- Tree and hedge protection fencing.
- Protection fencing 5m from the top of ditch banks to prevent works in sensitive zones.
- The covering of all excavations overnight or escape ramps provided.
- No overnight lighting outside of agreed compound areas.
- Clearance of vegetation outside of the nesting bird season from March to September inclusive or under supervision from an Ecologist.

2.14 Further to habitat enhancements which will be secured through a LEMP document, a suite of specific species enhancements will also be specified within this document. These will include but not be limited to the following.

- 1 Manthorpe swift brick per residential unit proposed. These should be installed in minimum groups of 3 on suitable aspects at heights above 4.5m. These bricks are suitable for swifts and a range of other bird species including house sparrows and bats.
- 50 integrated bat tubes to be installed on suitable aspects above 4.5m. These can be Schwegler 1fr or similar.
- 2 house martin towers. These should be of a peak box design or similar and should be installed near power sources so that attractant calls can be played until the towers are adopted.
- 5 reptile hibernacula to be installed in newly created grassland areas.
- 5 beetle banks to be installed in newly created grassland areas.

2.15 Newly proposed habitat areas in association with species specific enhancements will ensure that overall, the proposals will protect and enhance the site for the species recorded at the site post development.

3.0 UPDATE RECREATIONAL IMPACT ASSESSMENT

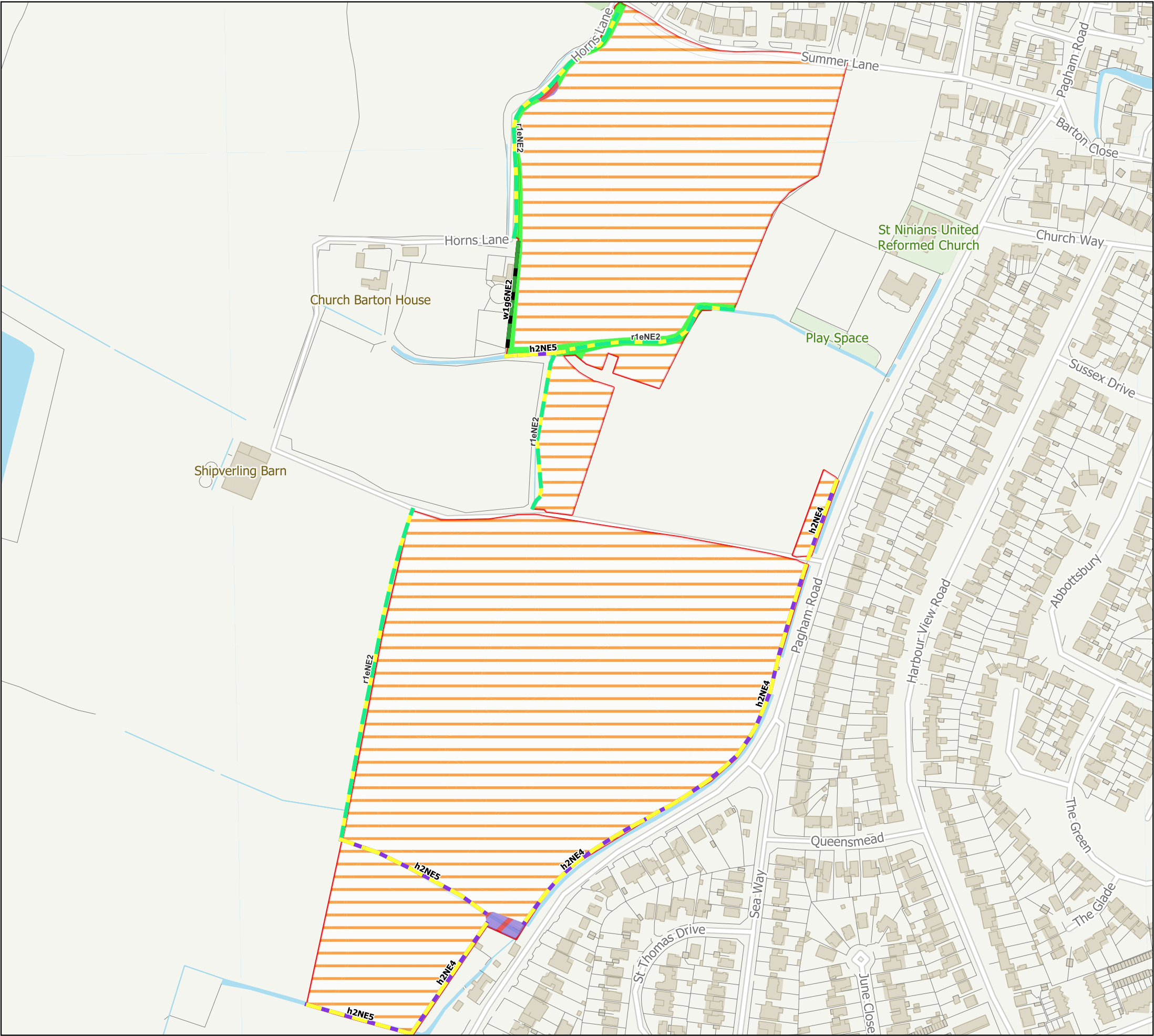
3.1 Consultation with Natural England and Arun LPA in early 2023 regarding the proposals ability to meet the HRA criteria from the outline application resulted in no agreed position between the parties. It was the competent authority's opinion that the site design had less recreational greenspace and would likely disturb adjacent functionally linked land to the SPA and therefore there could not be certainty that the integrity of the Pagham Harbour SPA site would be maintained.

3.2 This led to final discussion in June 2023 between the developer, developers Ecologist and the LPA. It was agreed that a redesign of the site was the only way forward, which has resulted in this submission. The new design has been discussed in scoping meetings with the LPA in June and July 2023 and there was broad agreement between the parties that the new design offers an appropriate solution if the total open space proposed can be secured.

3.3 The previous proposal design included the provision of approximately 2.82ha of open space. This fell below the previous design amount which totalled 3.92ha of which 3.29ha was required as recreational space within the HRA Appropriate Assessment (AA). The new proposals include a

total of 5.58ha open space, of which 5.37 is semi-natural greenspace, with 3.29ha of that fully accessible for recreation. This meets the requirements of the outline HRA and will be sufficient to contribute to taking recreational activity away from the SPA areas.

- 3.4 Previously the western boundary of the southern field parcel of the site was to be a SuDS area with just a fence preventing open access to the adjacent functionally linked land. This boundary now has proposed dense planting with trees to screen the functionally linked land from the site, with a protective fence behind. This is adequate to satisfy the concerns in regard to increased disturbance from visual receptors to brent geese utilising the functionally linked land.
- 3.5 Additional measures to prevent increased recreational disturbance will be integrated into the proposals. The availability of on-site greenspace and local alternative greenspace sites for recreation will be highlighted to local residents through information boards and signage, with leaflets also made available in welcome packs showing greenspace facilities, walking routes and suitable local greenspace provisions for dog walking and other recreational activities.
- 3.6 The developer will also be required to make financial contributions as per policy ENV DM2 b. ii of the Arun Local Plan (Natural Environment). Any proposals for new residential development within the Pagham harbour buffer zone (0 to 5km) will be required to pay a contribution of up to £871 per new dwelling to contribute towards strategic access management measures in accordance with the Local Plan policy ENV DM2 and the Cabinet report dated 13th March 2017.
- 3.7 The total developer contributions to be paid based on the current unit total of 375 dwellings will be £326,625. This figure is subject to change based on the approved unit numbers at the approval stage.



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Key

Red Line Boundary

Baseline Habitats

Cereal crops

Mixed scrub

Modified grassland

Baseline Hedgerows

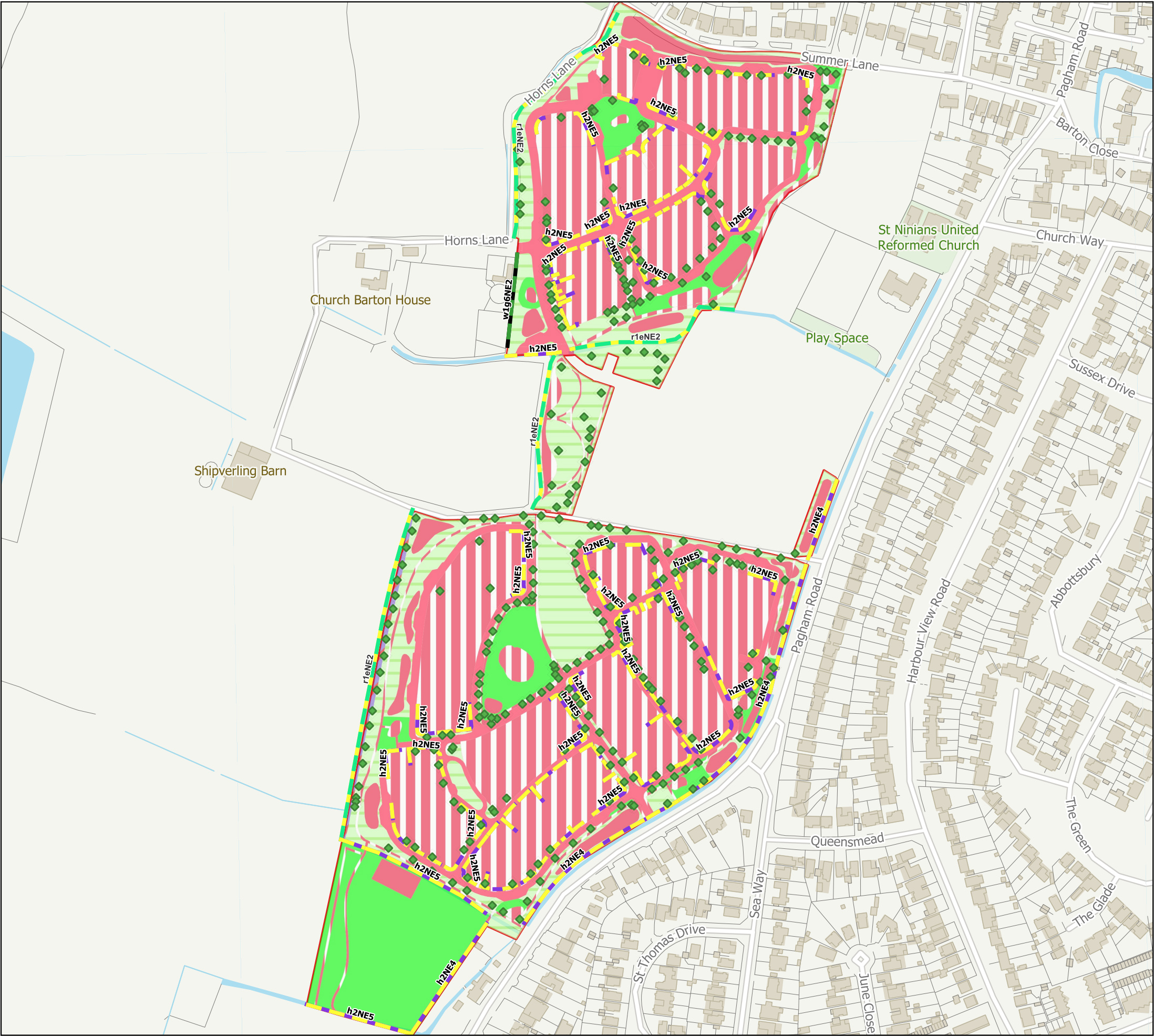
Line of trees

Native hedgerow

Native hedgerow with trees

Baseline Watercourses

Ditches



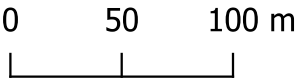
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Key

- Red Line Boundary
- Proposed Habitats**
 - Allotments
 - Built linear features
 - Developed land; sealed surface
 - Mixed scrub
 - Modified grassland
 - Other neutral grassland
 - Sustainable drainage system
- Proposed Hedgerows**
 - Line of trees
 - Native hedgerow
 - Native hedgerow with trees
- Proposed Watercourses**
 - Ditches
- Proposed Trees**
 - Proposed Small Urban Tree





client
Foreman Homes

project
Land West of Pagham Road,
Pagham

drawing title
BIODIVERSITY NET GAIN - PROPOSED
HABITATS PLAN

scale @ A3
1:3,394.86

drawn
LPL / APD

issue date
31/7/2023

drawing / figure number
Figure 2