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**PRELIMINARY ECOLOGICAL APPRAISAL AND
BIODIVERSITY NET GAIN ASSESSMENT:
NORTH VIEW LAKES, GEDNEY HILL**

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EXECUTIVE SUMMARY

ESL (Ecological Services) Limited has been commissioned by Robert Doughty Consultancy Limited to undertake a Preliminary Ecological Appraisal and Biodiversity Net Gain Assessment in order to identify any constraints and opportunities associated with a planning application for 40 holiday units, comprising cabins and static caravans, on land at North View Lakes, Gedney Hill.

Summary of findings:

- Treated water will be discharged into Lamberts Drain to Highstock Drain Connection Local Wildlife Site (LWS).
- Lambert Drain to Highstock Drain Connection Local Wildlife Site, lies adjacent to the proposed development and provides suitable habitat for water voles.
- Habitats on-Site are suitable for use by nesting birds.
- All other species were scoped out of the appraisal due to the absence, low value and/or unsuitability of the habitats present on or adjacent to the Site.
- The Site has a Biodiversity Net Gain baseline of 6.37 Biodiversity Units for habitats, 0.30 Biodiversity Units for hedgerows and 0.21 Biodiversity Units for watercourses.

Summary of recommendations:

- It will be necessary to consult the Environment Agency's general binding rules in order to ensure that any permitting requirements to discharge treated water into Lamberts Drain to Highstock Drain Connection Local Wildlife Site (LWS) are met.
- Further work will be required to determine whether the installation of drainage infrastructure into Lambert Drain to Highstock Drain LWS could impact water voles.
- No vegetation suitable for use by nesting birds must be cleared between March and August inclusive unless it has been hand-searched by an experienced ecologist for active nests in advance. All active nests must be protected from damage until the young have fledged.
- The scheme as presented has the potential to deliver 7.83BU for habitats and 1.28BU for hedgerows, a net gain of 15.88% and 332.32% respectively. For watercourses, further work would be required to assess the feasibility of re-instating various terrestrialised ditches around the North View Lakes complex, or alternatively an off-site solution may be required.
- The surveys must be updated if planning has not been consented by 1 September 2025.

PRELIMINARY ECOLOGICAL APPRAISAL AND BIODIVERSITY NET GAIN ASSESSMENT: NORTH VIEW LAKES, GEDNEY HILL

1 INTRODUCTION

- 1.1 ESL (Ecological Services) Limited (ESL) has been commissioned by Robert Doughty Consultancy Limited to undertake a Preliminary Ecological Appraisal and Biodiversity Net Gain (BNG) Assessment in order to identify any constraints and opportunities associated with a planning application for 40 holiday units, comprising cabins and static caravans, on land at North View Lakes, Gedney Hill (hereafter referred to as the 'Site').
- 1.2 The aim of this appraisal is to:
- Determine any likely effects on any site designated for nature conservation.
 - Characterise the habitats and species present and determine their conservation status.
 - Assess the likelihood of any adverse ecological effects and identify the need for further information if required.
- 1.3 The aim of the BNG Assessment is to:
- Calculate the current biodiversity baseline value of the Site.
 - Assess the likely impacts of the scheme and BNG requirements to achieve a 10% net gain.
 - Identify options for habitat creation and enhancement to achieve a 10% net gain.
- 1.4 A Site location map is given as Figure 1 and a habitat map as Figure 2. Photographs are included within the text. Species are referred to by their English names throughout and species lists including scientific names are given as Appendix 1.
- 1.5 The Statutory Metric Calculation Tool spreadsheet and Statutory Biodiversity Metric Condition Assessments spreadsheet are provided as standalone documents.

2 LOCAL PLANNING POLICY AND LEGAL PROTECTION

2.1 LOCAL PLANNING POLICY

The South East Lincolnshire Local Plan, adopted March 2019.

- 2.1.1 Policy 28: The Natural Environment outlines that:
- All development proposals should provide an overall net gain in biodiversity by:
 - Protecting the biodiversity value of land, buildings and trees, minimising fragmentation of habitats.
 - Maximising the opportunities for restoration, enhancement and connection of natural habitats and species of principal importance.

- Incorporating beneficial biodiversity conservation features on buildings where appropriate and maximising opportunities to enhance green infrastructure and ecological corridors, including water space.
- Conserving or enhancing biodiversity or geodiversity conservation features that will provide new habitat, help wildlife to adapt to climate change and if the development is within a Nature Improvement Area (NIA), contributing to the aims and objectives of the NIA.

3 DESK STUDY

3.1 METHODS

- 3.1.1 The Natural England 'MAGIC' and 'Nature on the Map' websites were consulted to obtain information on any internationally- and nationally-protected sites and for citations of any Sites of Special Scientific Interest (SSSI) or National Nature Reserves (NNR) within 5km of the Site. Information was also sought on any Local Nature Reserves (LNR) within 2km of the Site.
- 3.1.2 The Lincolnshire Environmental Records Centre (LERC) was asked to provide a data report on local sites of conservation interest including Local Wildlife Sites (LWS) and notable species within 2km of the Site.

3.2 RESULTS

- 3.2.1 The LERC data search was provided on 29 August 2024. The results are summarised in Tables 1 and 2 below; pre-2004 records have been screened out. For the purposes of this report, 'Important Species' are those:
- Having statutory protection.
 - Listed as Species of Principal Importance as set out in Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC) (formerly UK BAP species).
 - Listed in the Vascular Plant Red List for England (Stroh *et al.*, 2014).
 - Listed in the Lincolnshire Biodiversity Action Plan (Greater Lincolnshire Nature Partnership, Revised 2015).

TABLE 1. Sites with statutory or non-statutory protection for nature conservation within the search area.

Name, Designation and Description	Proximity to the Site
Nene Washes Ramsar, SSSI, SAC & SPA. This site is one of the country's few remaining areas of washland habitat, which directly supports the survival of nationally and internationally important populations of wildfowl and waders.	10.5km south.
Lambert Drain to Highstock Drain Connection LWS. This linear site extending for 1.7km, is noted for its rich variety of aquatic plants.	Adjacent to the Site.

Lambert Drain LWS. Extending for 2.9km, the site supports a good variety of aquatic plants.	1km west.
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TABLE 2. Important species within the search area.

Species/Group	Proximity to the Site
1 record for amphibians comprising common toad <i>Bufo bufo</i> , 2013.	Approximately 300m west.
160 records for water vole <i>Arvicola amphibius</i> , 2014-2023.	Including in the vicinity of the Site, present in Lambert Drain.
5 records for hedgehog <i>Erinaceus europaeus</i> , 2006-2023.	Closest approximately 350m south.
52 records for at least two species of bats including 9 roost records, 2004-2021.	Closest approximately 100m south. Roost records from Gedney Hill.
75 records for 17 species of protected and priority birds, 2004-2020.	Frequent records from Gedney Hill in the vicinity of the Site.
2 records for 1 species of Schedule-9 plant; variegated yellow archangel <i>Lamiastrum galeobdolon subsp. Argentatum</i> , 2011-2014.	Closest approximately 800m northeast.

3.3 ASSESSMENT

Sites with statutory or non-statutory protection

- 3.3.1 There are no statutorily designated sites within the zone of influence and therefore no adverse impacts are predicted. Lambert Drain to Highstock Drain Connection LWS lies adjacent to the Site, and the potential for an adverse effect is discussed further in Section 4 below.

Important species

- 3.3.2 The significance of records for important species pertinent to the scheme is discussed later in the report.

4 HABITATS AND PLANT SPECIES

4.1 METHODS

- 4.1.1 A Preliminary Ecological Appraisal (PEA) was undertaken on 10 September 2024 by Luke Hartley ACIEEM in accordance with best practice guidelines (JNCC, 2010, CIEEM, 2017). All habitats were characterised by identifying the dominant and typical species and were given a UK habitat classification (UK Hab, 2023); notes were made on adjacent land use. A search was made for any invasive, non-native plant species listed on Schedule-9 of the Wildlife and Countryside Act 1981 (as amended).

4.2 RESULTS

Overview

- 4.2.1 The Site is situated northeast of the village of Gedney Hill, within an existing angling lake complex known as North View Lakes. The wider landscape is characterised by arable land use and land drainage features, with various residential developments and a golf course to the north.

Modified grassland (g4)

- 4.2.2 An area of proposed new cabins at the frontage of the Site to the south will be situated on mown amenity grassland (Photograph 1). Throughout the perennial ryegrass and cock's-foot are herbs including dandelion, ragwort, daisy, selfheal, bristly oxtongue, common chickweed, small-flowered crane's-bill, creeping buttercup and white clover.
- 4.2.3 New cabins to the north of the Site will be similarly positioned on managed grassland (Photograph 2). The sward in this area is much more species-poor, with an abundance of perennial ryegrass and Timothy, and occasional herbs including common nettle, creeping thistle, bristly oxtongue and ragwort.



Photograph 1. Area of new cabins to the south of the Site.



Photograph 2. Area of new cabins to the north of the Site.

Developed land; sealed surface (u1b) & Artificial unvegetated, unsealed surface (u1c)

- 4.2.4 The Site has an existing impermeable road network, as well as artificial surfaces proposed as pitches for new static caravans (Photograph 3).

Other coniferous woodland (w2c): Line of trees [33], Ditch [50], Dry [500], Non-native [523]

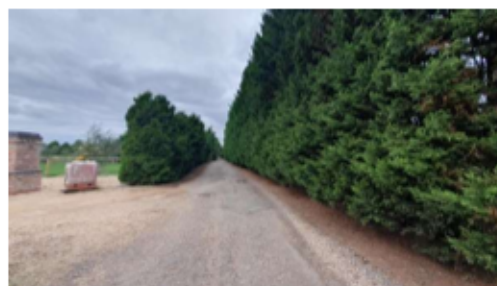
- 4.2.5 Separating the existing road network with the area of proposed new cabins to the north is a leylandii treeline over a very shallow and dry ditch (Photographs 2 & 4).

Non-native and ornamental hedgerow (h2b)

- 4.2.6 Plots for the proposed new static caravans are frequently marked out on the ground by ornamental planting; most commonly cherry laurel.



Photograph 3. Existing artificial surfaces throughout the Site.



Photograph 4. Leylandii treeline.

Other standing water (r1g): Ditch [50]

- 4.2.7 Lambert Drain to Highstock Drain Connection LWS runs through the North View Lakes complex, extending a further 1km northwest. It is an IDB managed drain designated for its aquatic plant communities, including various pondweeds *Potamogeton* spp., and crowfoots *Ranunculus* spp. The banks are steep and routinely managed with arisings from the drain left in-situ on the bank top, resulting in a rough nettle dominated grassland with a narrow fringe of primarily common reed at the bank toe.

Ditch [50], Mesic [501], Scattered scrub [10]

- 4.2.8 To the northwest and southwest of the Site, shallow ditches comprise abundant common reed and developing hawthorn and elder scrub. These were not holding water at the time of the survey, and given the establishment of scrub are likely to remain dry most of the time.



Photograph 5. Lambert Drain to Highstock Drain Connection LWS, at approximate proposed drainage points.



Photograph 6. Common reed dominated and developing scrub ditch along the southwest boundary.

Adjacent land

- 4.2.9 The wider North View Lakes comprises similar cabins and static caravans to those proposed, plus various ornamental and native landscaping, well maintained amenity grassland and three large angling lakes.

4.3 ASSESSMENT

- 4.3.1 With the exception of Lambert Drain to Highstock Drain Connection LWS and its botanical interest, none of the recorded plant species are listed above the 'Least Concern' threat level in the British Red Data Book (Stroh *et al.*, 2014). The habitats, plant communities and individual species are common and widespread in a local and national context.
- 4.3.2 Lambert Drain to Highstock Drain Connection LWS is designated for its aquatic plant diversity, and is therefore recognised as being important at a County level.
- 4.3.3 No Schedule-9 non-native plant species were recorded, though there are records of Nuttall's waterweed *Elodea nuttallii* from Lambert Drain to Highstock Drain Connection LWS.

Recommendations or further work

- 4.3.4 Although no cabins will be situated within 9m of the bank top due to the IDB easement, the Proposed Site Plan (drawing number 817-14_FP_SP02 Rev C) indicates the requirement for three treated foul water discharge points into this LWS. The proposed Tricel Novo wastewater treatment plants treat foul water to BS EN 12566 (The Standard for Small wastewater treatment systems for up to 50 PT).
- 4.3.5 It will be necessary to consult the Environment Agency's general binding rules in order to ensure that any permitting requirements to discharge treated water into a non-statutory designated watercourse are met.

5 FAUNA

5.1 SURVEY SCOPE

- 5.1.1 Having reviewed the desk study, consulted an Ordnance Survey map and aerial imagery to set the Site in a local context and undertaken a Site walkover, the habitats on Site were assessed for their potential use by a range of protected and notable species including amphibians, reptiles, birds, bats and badgers, as per published guidelines.
- 5.1.2 Of those, only birds, water voles and otters are considered a material consideration. All other protected and notable species can be scoped out of the assessment due to:
- An absence of suitable habitat to support a viable population.
 - No evidence of use being found during the PEA.
 - The Site being beyond their known distribution range.
 - The species, even if present, likely being resilient to any effects of the scheme or any effect being negligible and not warranting mitigation.

5.2 BIRDS

Legal protection

5.2.1 The Wildlife and Countryside Act 1981 (as amended) protects all wild birds, their nests and eggs. Under this Act, it is an offence to:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.

5.2.2 Bird nesting sites are not themselves protected when not in use and the common species are not protected from disturbance whilst occupying their nest-sites, however, certain rare breeding birds, listed on Schedule-1 of the Act (e.g., barn owls *Tyto alba*), are also protected against disturbance whilst building a nest or on or near a nest containing eggs or young.

Methods

5.2.3 All bird species observed during the survey on-Site were recorded. The Site was assessed for its potential to support Schedule-1 bird species, as well as being searched for signs of historic nesting use by a range of protected and priority birds.

Results and assessment

5.2.4 A typical assemblage of birds was recorded both on the Site and along the boundary features, although no priority bird species were recorded during the survey.

5.2.5 The Site is unlikely to support nesting Schedule-1 species.

5.2.6 Ornamental planting and treelines around the Site will provide nesting opportunities for a range of common and widespread birds, as does the marginal vegetation of Lambert Drain to Highstock Drain Connection LWS and all other ditches peripheral to the Site, and future use can be expected in the nesting season, which for most species typically runs from March to August inclusive. No further bird surveys are required and standard measures to protect active nests during any vegetation removal will be put in place. As a result, no adverse effect on birds is predicted.

Avoidance/mitigation/enhancement measures

5.2.7 The removal of any habitat suitable for use by nesting birds must be undertaken outside the nesting bird season, which typically runs from March to August inclusive. If this is not possible, an experienced ecologist must carry out a hand-search for active nests before work begins. Any active nest must be cordoned off and left until the young have fledged.

5.3 WATER VOLES

Legal protection

5.3.1 Water voles *Arvicola amphibius* are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally:

- Kill, injure or take a water vole.
- Possess or control a water vole (alive or dead).

5.3.2 It is also an offence to intentionally or recklessly:

- Damage or destroy a structure or place used for shelter or protection.
- Disturb them in a place used for shelter or protection.
- Obstruct access to a place used for shelter or protection.

5.3.3 Water voles are also listed in accordance with Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC).

Methods

5.3.4 Lambert Drain to Highstock Drain Connection LWS was visually assessed from the bank top for features suitable to support water voles, including the permanence and depth of water, the bank profile and its suitability for burrowing and herbaceous vegetation to provide food and cover, as described in Dean *et al.*, 2016. The drains were then categorised using Table 2.1 from Dean, 2021.

5.3.5 The drain was also assessed for features suitable to support otters, including potential holts or laying-up sites and its use as a movement corridor.

Results and assessment

5.3.6 The data search returned frequent records for water voles, including those associated with Lambert Drain to Highstock Drain Connection LWS, which provides 'Optimal' suitability for use by water voles.

5.3.7 Further works to facilitate discharge are proposed by the scheme design, including a packing treatment plant and associated outfall into Lambert Drain to Highstock Drain Connection LWS (as illustrated on the Proposed Site Plan). Installation of which may require localised workings to the banks, and therefore introduce a potential of impact to water voles.

5.3.8 No otter holts or suitable laying-up sites were identified. No works are anticipated to take place at night, thus avoiding any noise or light disturbance to any otters that might use the drain as a movement corridor. As a result, no adverse effect on otters is predicted.

Avoidance/mitigation/enhancement measures

- 5.3.9 A water vole survey is required of all drains and ditches subject to the installation of infrastructure associated with the discharge requirements of the scheme. The optimal survey windows are mid-April to the end of June and July to September.
- 5.3.10 If water voles are present, either in working areas or within 3m of them and impacts cannot be avoided, then water voles can be displaced from working areas during a short, managed programme of vegetation removal carried out under our Natural England Class Licence but this is only allowed in the periods of 15 February to 15 April and 15 September to 31 October.
- 5.3.11 The displacement timings do not align well with survey windows, but it may be possible to undertake a survey in early April, then, if necessary, proceed straight to displacement. This approach is subject to there being a minimal impact on the population and the implementation of appropriate mitigation measures.

6 BIODIVERSITY NET GAIN ASSESSMENT

6.1 METHODS

- 6.1.1 The habitats were condition-assessed during the PEA by the same surveyor, utilising the Statutory Metric methodology (Defra, 2024a). The Metric calculation tool (version 1.0.3, 23 July 2024; hereafter referred to as 'the Metric') was used to determine the value of the Site's biodiversity in terms of Biodiversity Units (BU).

Strategic significance

- 6.1.2 The desk study was utilised to identify and review Local Planning Policy and other relevant documentation detailing local biodiversity priorities and to determine the strategic significance of habitats both within the baseline and the post-intervention scenario.
- 6.1.3 Lambert Drain to Highstock Drain Connection is a LWS, and thus has been assigned a 'High' strategic significance.
- 6.1.4 The remainder of the Site does not lie within any Local Planning Policy Strategies such as Green Infrastructure Networks, Biodiversity Opportunity Mapping Networks or non-statutory biological designations. Therefore, all other habitats have been assigned a 'Low' strategic significance.

Post-development calculations.

- 6.1.5 The Proposed Site Plan (drawing number 817-14_FP_SP02 Rev C) has been used to model the post-intervention value of the Site and to identify all on-Site opportunities to maximise biodiversity gain.

Temporal multipliers

- 6.1.6 Due to the small nature of the scheme, its likely completion within a year, and the opportunity to complete the associated landscaping alongside construction, a delay in starting habitat creation of zero years has been assigned to all habitat creation and enhancement measures.

6.2 BASELINE CONDITIONS

- 6.2.1 The Site comprises five habitat types (2.48ha) generating 6.37BU, three hedgerow types (0.23km) generating 0.30BU and one watercourse type (0.03km) generating 0.21BU. The contribution of each habitat, hedgerow and watercourse type are given in Tables 3, 4 and 5 and are illustrated on Figure 2.

TABLE 3. Summary baseline of habitats present on-Site and their contributing values.

Broad habitat Category	Habitat Type	Condition	Area (ha)	Habitat BU
Grassland	Modified grassland	Moderate	1.0657	4.26
		Poor	0.8604	1.72
Urban	Bare ground	Poor	0.0132	0.03
	Artificial unvegetated, unsealed surface	N/A	0.2704	0.00
	Developed land; sealed surface	N/A	0.2734	0.00
Individual trees	Urban tree	Moderate	0.0366	0.29
		Poor	0.0163	0.07
Total			2.48*	6.37

*Excluding the area of 'Individual trees'.

TABLE 4. Summary baseline of hedgerows present of on-Site and their contributing values.

Broad habitat Category	Hedgerow Type	Condition	Length (km)	Hedgerow BU
Hedgerow	Line of trees - associated with bank or ditch	Poor	0.0231	0.05
	Line of trees	Poor	0.0383	0.08
	Non-native and ornamental hedgerow	Poor	0.1731	0.17
Total			0.23	0.30

TABLE 5. Summary baseline of watercourses present of on-Site and their contributing values.

Broad habitat Category	Watercourse Type	Condition	Length (km)	Hedgerow BU
Watercourse	Ditches	Moderate	0.03	0.21

Broad habitat Category	Watercourse Type	Condition	Length (km)	Hedgerow BU
			0.03	0.21

6.3 POTENTIAL IMPACTS OF THE PROPOSED SCHEME

Habitats

- 6.3.1 The scheme will result in a loss of some habitat to facilitate installation of built infrastructure, particularly the north and south components of the Site. Centrally, a mix of artificial surface and amenity grassland is currently present, which will be resculpted according to the new scheme design.
- 6.3.2 Where there is to be installation of drainage infrastructure on *'Modified grassland'* in 'Poor' condition, this has been treated as a temporary impact, as the habitat will be reinstated to target condition within 2 years.
- 6.3.3 Given the baseline habitats largely comprise 'Low' distinctiveness habitat, with the exception of scattered trees, there are for the most part no trading rules for habitat creation and enhancement, meaning that any other habitat type can be used to achieve the net gain target for habitats.

Hedgerows

- 6.3.4 Loss of all *'Line of trees - associated with bank or ditch'* presented in the baseline will be required to facilitate access roads to the northern extent of the proposed scheme, and some *'Non-native and ornamental hedgerows'* will likely be lost due to the proposed change in layout of the existing central plots.
- 6.3.5 No loss to hedgerow features is expected to facilitate installation of drainage features.
- 6.3.6 Similar to habitats, the hedgerows comprise those which are 'Low' or 'Very Low' distinctiveness, and therefore there are no trading rules for habitat creation and enhancement, with the only stipulation being that alternative hedgerows need to be delivered.

Watercourses

- 6.3.7 Lambert Drain to Highstock Drain Connection LWS will be impacted by the proposed scheme at three points, to install drainage infrastructure. This will comprise very localised works, being the installation of plastic piping near the bank top, with no requirement for concrete headwalls. At no other point will the scheme's redline boundary be within the riparian corridor (within 5m of the bank top). As such, the length of the watercourse pertinent to this BNG calculation has been defined as being 5m either side of each of these small contact points, comprising a 30m total length.
- 6.3.8 Although the pipework shall not encroach on the watercourse channel, being within the bank, the discharge from the pipework can be considered watercourse encroachment. The

packaging treatment plants are designed to discharge effluent as per the requirements of BS EN 12566, though, it could be envisaged that the discharge will at the very least result in localised areas of water chemistry or temperature change as effluent is intermittently discharged. As such, the impact for the purpose of this BNG assessment is considered to be an introduction of 'Major' watercourse encroachment, being defined in the Metric guidance as features that results in localised changes of habitat on greater than 20% of the bank length.

- 6.3.9 To quantify this impact in the Metric, the watercourse has been considered lost and then recreated, applying a habitat created in advance of 5 years to match the final time to target condition of the habitat type, with a new watercourse encroachment of 'Major' applied.

6.4 BIODIVERSITY NET GAIN OUTCOME OF THE PROPOSED SCHEME

Habitats

- 6.4.1 Amenity grassland will either be reinstated or created across the Site, likely comprising a grass dominated mix. For the purpose of this assessment, this is captured as '*Modified grassland*' in 'Poor' condition.
- 6.4.2 An area within the North View Lakes complex has been identified as suitable for BNG delivery. The baseline value comprises '*Modified grassland*' in 'Moderate' condition (Parcel ID 17 illustrated on Figure 2), and thus has been included within the application boundary. This assessment models the potential BNG delivery of this area if the grassland was to be enhanced to qualify as '*Other neutral grassland*' in 'Moderate' condition, through suitable ground preparation, seeding with a native wildflower seed mix, and an appropriate cutting regime. Tree planting could also be explored to provide further uplift when producing a Biodiversity Gain Plan.

Hedgerows

- 6.4.3 The Proposed Site Plan indicates a hedgerow with tree planting along the frontage of the Site in the south. To maximise the biodiversity value of this planting, it will be planted up with a range of exclusively native tree and shrub species appropriate for the local area, with a minimum of five species planted frequently throughout.

Watercourses

- 6.4.4 Due to the challenges of delivering measurable BNG uplift on land drainage features in the current version of the Metric guidance, and Lambert Drain to Highstock Drain Connection LWS being outside the control of the landowner (and managed by the IDB), there are no meaningful opportunities to deliver watercourse habitat creation and enhancements on Site. Opportunities that could be explored within the wider North View Lakes complex are discussed in Section 6.5.3 below.

Outcome of the proposed scheme

- 6.4.5 The target condition for each habitat, hedgerow and watercourse type is detailed in Tables 6, 7 and 8 below and is illustrated on Figure 3.

TABLE 6. Summary post-intervention scenario of on-Site habitats and their contributing values.

Broad habitat Category	Habitat Type	Condition	Area (ha)	Habitat BU
Grassland	Other neutral grassland	Moderate	0.6579	4.47
	Modified grassland	Moderate	0.2860	1.14
		Poor	0.6932	1.38
Urban	Bare ground	Poor	0.0132	0.03
	Artificial unvegetated, unsealed surface	N/A	0.2579	0.00
	Developed land; sealed surface	N/A	0.5754	0.00
Individual trees	Urban tree	Moderate	0.0366	0.29
		Poor	0.0163	0.07
Total			2.48*	7.38

* Excluding area of Individual trees.

TABLE 7. Summary post-intervention scenario of on-Site hedgerows and their contributing values.

Broad habitat Category	Hedgerow Type	Condition	Length (km)	Hedgerow BU
Hedgerow	Line of trees	Poor	0.0383	0.08
	Non-native and ornamental hedgerow	Poor	0.0606	0.06
	Species-rich native hedgerow with trees	Moderate	0.1359	1.14
Total			0.23	1.28

TABLE 8. Summary post-intervention scenario of on-Site watercourses and their contributing values.

Broad habitat Category	Hedgerow Type	Condition	Length (km)	Hedgerow BU
Watercourse	Ditches	Moderate	0.03	0.10
Total			0.03	0.10

6.5 OPPORTUNITIES TO MEET THE BIODIVERSITY NET GAIN TARGET

- 6.5.1 The habitat prescriptions detailed in this assessment have the potential to deliver 7.83BU for habitats and 1.28BU for hedgerows, a net gain of 15.88% and 332.32% respectively.

6.5.2 Further opportunities for biodiversity uplift for habitats could be achieved by:

- Reinstating, creating and enhancing all areas of amenity grassland on the Site by sowing a suitable seed mix, such as flowering lawn mixture, and slightly altering the cutting regime to no shorter than 5cm, with a respite to cutting for 4-6 weeks during the months of May to June each year to allow for flowering.
- Planting native trees where appropriate.

6.5.3 For watercourses, terrestrialised ditches are present around the peripheries of the North View Lakes complex. The feasibility of restoring these could be explored. Key to this is that they maintain sufficient water-levels for at least four months of the year to provide qualifying ditch habitat within the Metric. This may involve excavating the build-up of organic matter and deepening the ditches, together with mechanisms for managing water levels, such as weirs at outfall points into larger ditches and drains.

6.5.4 Alternatively, off-Site solutions for any habitats that cannot be compensated for on-site or within the client's wider landholding, such as watercourses, could comprise:

- **Option 1.** The purchase of BUs from a commercial habitat banking company, such as the Environment Bank. Habitat banks outside South Holland District may be utilised with agreement from the Local Planning Authority (LPA), however, this will affect the number of BUs provided to the scheme as there is a penalty where off-site habitat is distant from the impact site.
- **Option 2.** Exploring the availability of BUs through the biodiversity gain sites register (Defra, 2024b) or the Green Investment in Greater Lincolnshire biodiversity credit marketplace, where independent landowners register their sites to sell BUs.
- **Option 3.** Statutory biodiversity credits can be purchased directly from Natural England (Defra, 2024c). However, these should be seen as a last resort due to their significant cost premium.

7 SUMMARY OF RECOMMENDATIONS

7.1 It will be necessary to consult the Environment Agency's general binding rules in order to ensure that any permitting requirements to discharge treated water into Lamberts Drain to Highstock Drain Connection LWS are met.

7.2 No vegetation suitable for use by nesting birds will be cleared between March and August inclusive unless it has been searched by an ecologist in advance. Active nests will be protected until the young have fledged.

7.3 Water vole surveys are required in the optimal survey window (mid-April to the end of June and July to September) to inform design and installation of treated foul water discharge points, and appropriate compensation measures for the species.

- 7.4 The scheme as presented has the potential to deliver 7.83BU for habitats and 1.28BU for hedgerows, a net gain of 15.88% and 332.32% respectively. For watercourses, further work would be required to assess the feasibility of re-instating various terrestrialised ditches around the North View Lakes complex, or alternatively an off-site solution may be required.
- 7.5 Following granting of planning permission, the Local Planning Authority will issue a pre-commencement planning condition for submission of a Biodiversity Gain Plan, which will provide full details of how the scheme will meet the 10% BNG target, including details of any off-site provisions.

8 REFERENCES

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KEY

 Site boundary

SITE NAME:
North View Lakes, Gedney Hill.

DRAWING TITLE:
Site location map.

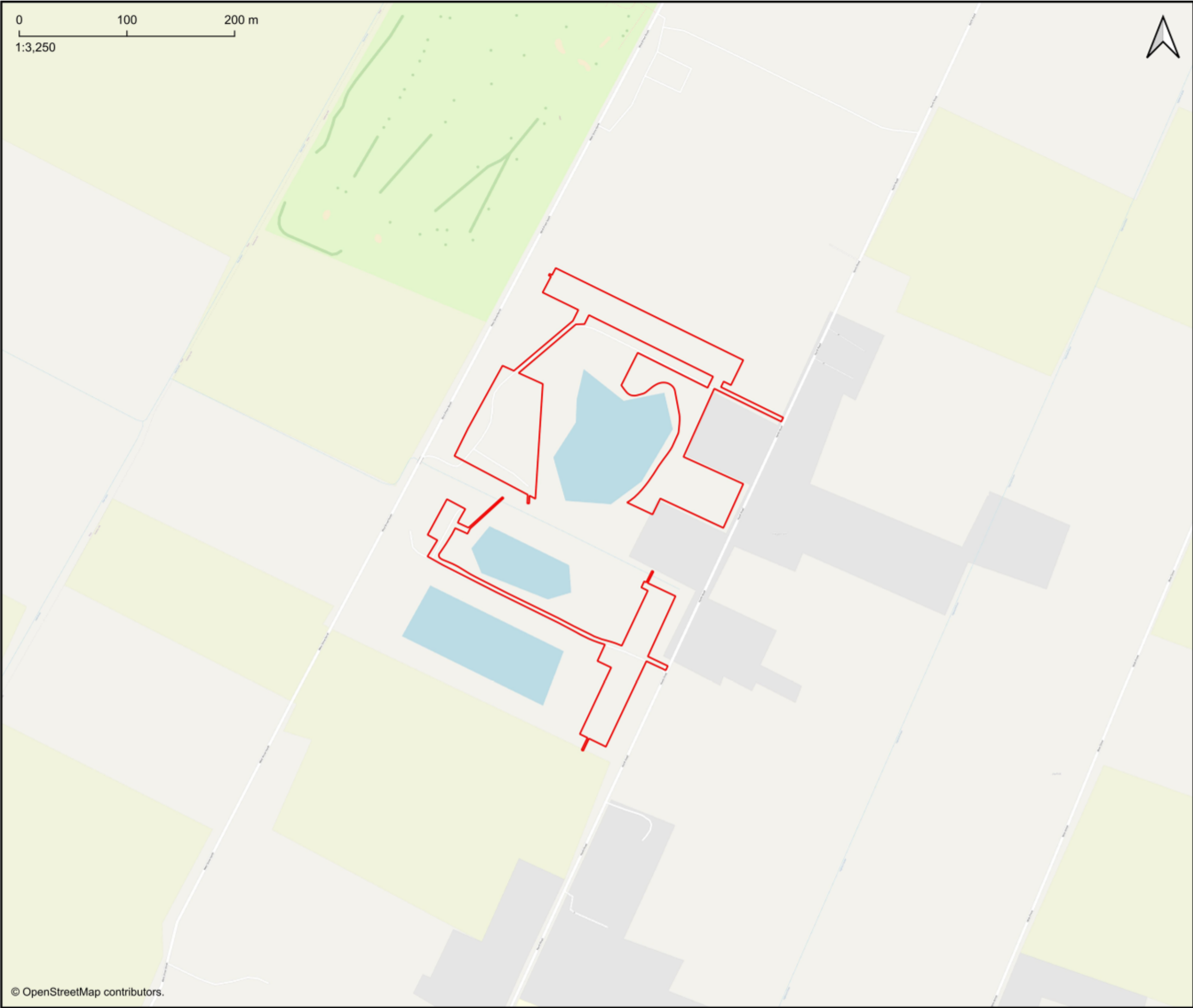
Figure 1
Dwg no.: ES185-L218-005 Date: Apr 2024

esl
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0 100 200 m
1:3,250



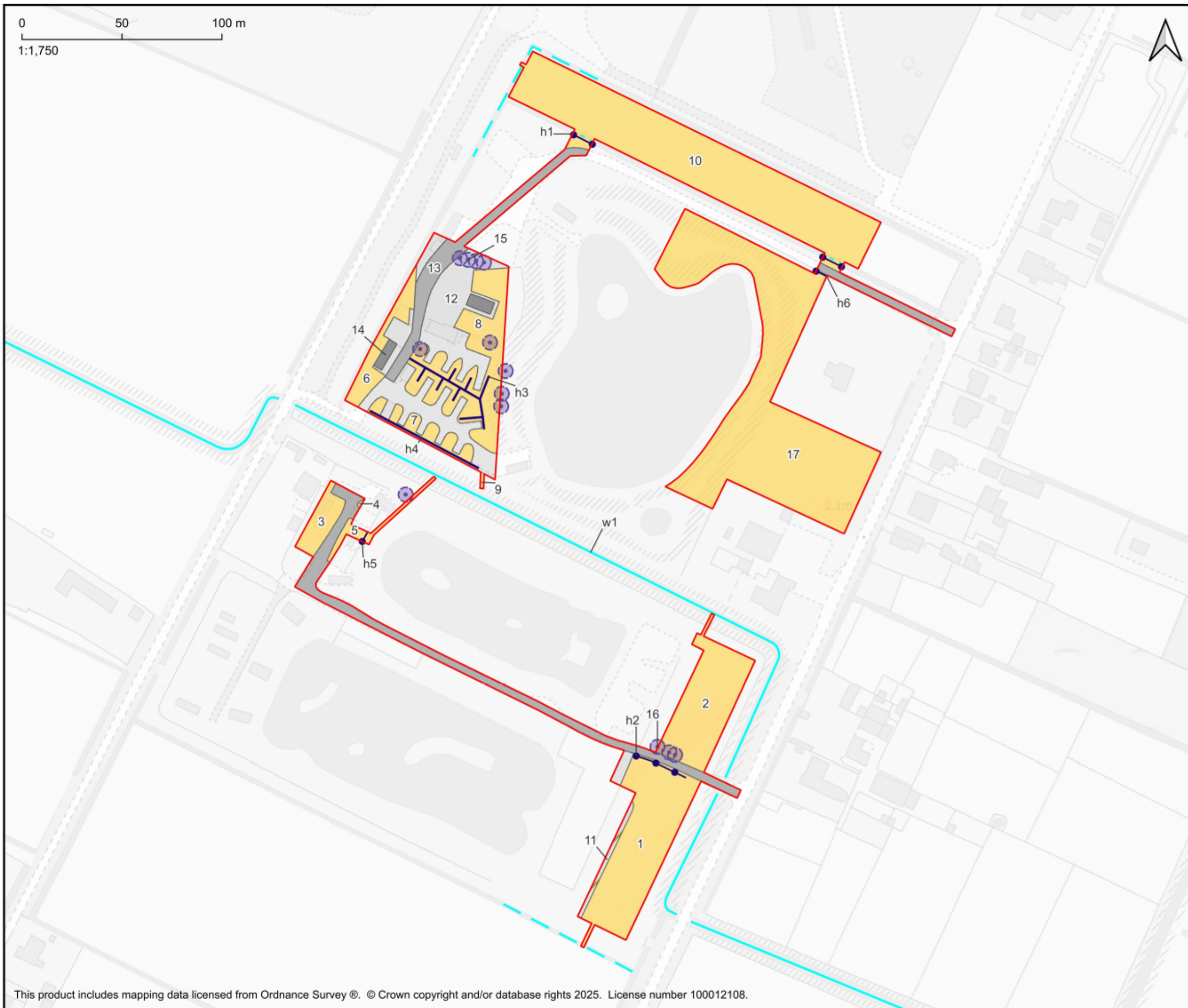
© OpenStreetMap contributors.



KEY

- Site boundary
- w2c - Other coniferous woodland: 33 - Line of trees, 50 - Ditch, 500 - Dry, 523 - Non-native
- w2c - Other coniferous woodland: 33 - Line of trees, 523 - Non-native
- h2b - Non-native and ornamental hedgerow
- g4 - Modified grassland
- u1c - Artificial unvegetated, unsealed surface
- u1b5 - Buildings
- u1b - Developed land; sealed surface
- 510 - Bare ground
- 32 - Scattered trees
- r1g - Other standing water: 50 - Ditch (Lambert Drain to Highstock Drain Connection LWS)
- - - 50 - Ditch, 501 - Mesic, 10 - Scattered scrub

0 50 100 m
1:1,750



SITE NAME:
North View Lakes, Gedney Hill.

DRAWING TITLE:
Habitat map.

Figure 2
Dwg no.: ES185-L218-006 Date: Apr 2025

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KEY

- Site boundary
- ~ Species-rich native hedgerow with trees
- Line of trees
- Non-native and ornamental hedgerow
- Modified grassland
- Other neutral grassland
- Artificial unvegetated, unsealed surface
- Bare ground
- Developed land; sealed surface (Buildings)
- Developed land; sealed surface
- Urban tree
- Ditches

0 50 100 m
1:1,750



SITE NAME:
North View Lakes, Gedney Hill.

DRAWING TITLE:
**Biodiversity Net Gain
post-intervention scenario.**

Figure 3
Dwg no.: ES185-L218-007 Date: Apr 2025

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APPENDIX 1

BOTANICAL SPECIES LIST

English name	Scientific name	DAFOR
Higher plants		
alder	<i>Alnus glutinosa</i>	F
bristly oxtongue	<i>Helminthotheca echioides</i>	O
broad-leaved dock	<i>Rumex obtusifolius</i>	O
Canadian fleabane	<i>Conyza canadensis</i>	O
cherry	<i>Prunus</i> sp.	O
cherry laurel	<i>Prunus laurocerasus</i>	F
cock's-foot	<i>Dactylis glomerata</i>	F
common mouse-ear	<i>Cerastium fontanum</i>	O
common nettle	<i>Urtica dioica</i>	F
common ragwort	<i>Senecio jacobaea</i>	F
common reed	<i>Phragmites australis</i>	F
common sorrel	<i>Rumex acetosa</i>	O
crack-willow	<i>Salix fragilis</i>	R
creeping buttercup	<i>Ranunculus repens</i>	F
creeping thistle	<i>Cirsium arvense</i>	O
curled dock	<i>Rumex crispus</i>	O
daisy	<i>Bellis perennis</i>	F
dandelion	<i>Taraxacum officinale</i> agg.	F
dove's-foot crane's-bill	<i>Geranium molle</i>	O
false oat-grass	<i>Arrhenatherum elatius</i>	F
greater plantain	<i>Plantago major</i>	O
groundsel	<i>Senecio vulgaris</i>	O
Leyland cypress	x <i>Cupressocyparis leylandii</i>	F
perennial rye-grass	<i>Lolium perenne</i>	F
prickly sow-thistle	<i>Sonchus asper</i>	O
red fescue	<i>Festuca rubra</i>	O
ribwort plantain	<i>Plantago lanceolata</i>	F
self-heal	<i>Prunella vulgaris</i>	F
silver birch	<i>Betula pendula</i>	O
small-flowered crane's-bill	<i>Geranium pusillum</i>	O
spear thistle	<i>Cirsium vulgare</i>	O
timothy	<i>Phleum pratense</i>	O
white clover	<i>Trifolium repens</i>	F

English name	Scientific name	DAFOR
white poplar	<i>Populus alba</i>	O
wild carrot	<i>Daucus carota</i>	R
willowherb	<i>Epilobium</i> sp.	F

KEY TO DAFOR (An estimate of plant relative abundance at a site)

D	Dominant
A	Abundant
F	Frequent
O	Occasional
R	Rare