

DESK-BASED ECOLOGICAL ASSESSMENT

FOR ONEILL HOMER
BUCKINGHAM NEIGHBOURHOOD PLAN
MARCH 2024
FN23-109 VERSION 1



Client

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1. INTRODUCTION

1.1 BACKGROUND

Future Nature WTC, as part of the Wildlife Trust Consultancies (WTC), was commissioned by Oneill Homer to undertake a desk-based Ecological Assessment to inform the developing Buckingham Neighbourhood Plan Review.

This report presents the methods used to gather an understanding of the habitats and species present within the interest area and displays the results with the use of maps and written descriptions. Suggestions are made on how opportunities for biodiversity can be maximised through policies in the neighbourhood plan with a summary of policy options provided at the end of the report.

1.2 STUDY AREA

The study area comprises the town of Buckingham in Buckinghamshire and an area around it that has been identified as the potential future expansion area for the period covered by the Neighbourhood Plan Review (the plan boundary). In addition to this, a wider study area has been used when considering habitats and species that have a wider zone of influence and could therefore be affected by activities within a wider area.

To inform the assessment, data was gathered from the following sources:

- Aerial imagery and Ordnance Survey mapping;
- A search of the Multi Agency Geographic Information for the Countryside (MAGIC) website¹ for:
 - statutory designated sites such as Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) within 5km of the plan boundary;
 - priority habitats (comprising those listed under Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006) within 2km of the plan boundary;

¹ Multi Agency Geographic Information for the Countryside (www.magic.gov.uk)

- details of European Protected Species licences within 2km of the plan boundary;
- A data provided by Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC) for records of protected and notable species, invasive non-native species (INNS) and local non-statutory designated sites within the plan boundary.

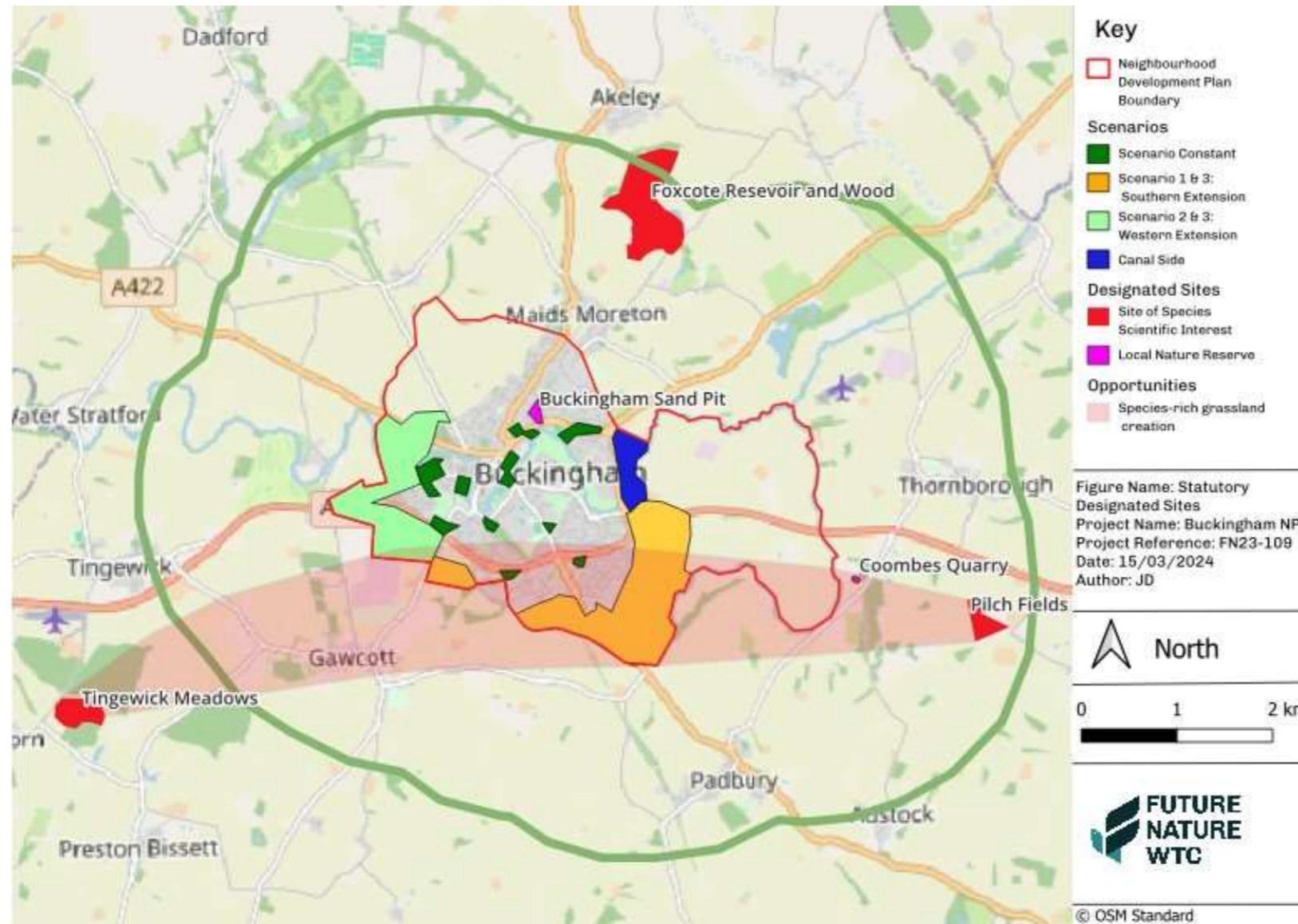
1.3 OBJECTIVES

The objectives of the assessment are to:

- Identify opportunities for improving connectivity between designated sites and priority habitat through the Neighbourhood Plan Review;
- Identify opportunities to create new habitat for protected and notable species through the Neighbourhood Plan Review;
- Identify the key green infrastructure goals for the existing town;
- Identify the key green infrastructure goals for each proposed expansion area; and
- Identify suitable policies for developments achieving a biodiversity net gain.

2. CONSTRAINTS AND OPPORTUNITIES

Figure 1: Statutory designated sites within 5km of the Buckingham Neighbourhood Development Plan Boundary



2.1 STATUTORY DESIGNATED SITES

Foxcote Reservoir and Wood SSSI

- 1,092m from plan boundary.

This unit consists of a reservoir and surrounding grassland. The key interest feature is the overwintering waterfowl specifically Bewick's swan and shoveler, although Bewick's Swan has not been recorded since 1975. The water body is fringed by wetland habitats including fen and reed bed.

Pilch Fields SSSI

- 1,534m from plan boundary.

A lowland neutral grassland and fen in very good habitat condition and supporting a very higher diversity of flora. Such high plant diversity places this site alongside the highest quality lowland grassland sites in England.

Tingewick Meadows SSSI

- 3,230m from plan boundary.

A lowland neutral grassland and spring-fed fen. Such grasslands are exceptionally rare in North Buckinghamshire. The variation in habitats and transitions between the grassland and fen and areas of scrub and the bordering woodland creates excellent supporting habitat for a range of birds, insects and other fauna.

Coombes Quarry LNR

- 134m from plan boundary.

Designated for its geological interest but with areas of biological interest. It is managed by the Thornborough and Coombs Woodland Trust

Buckingham Sand Pit LNR

- Within plan boundary.

This site is designated for its geological interest

Constraints:

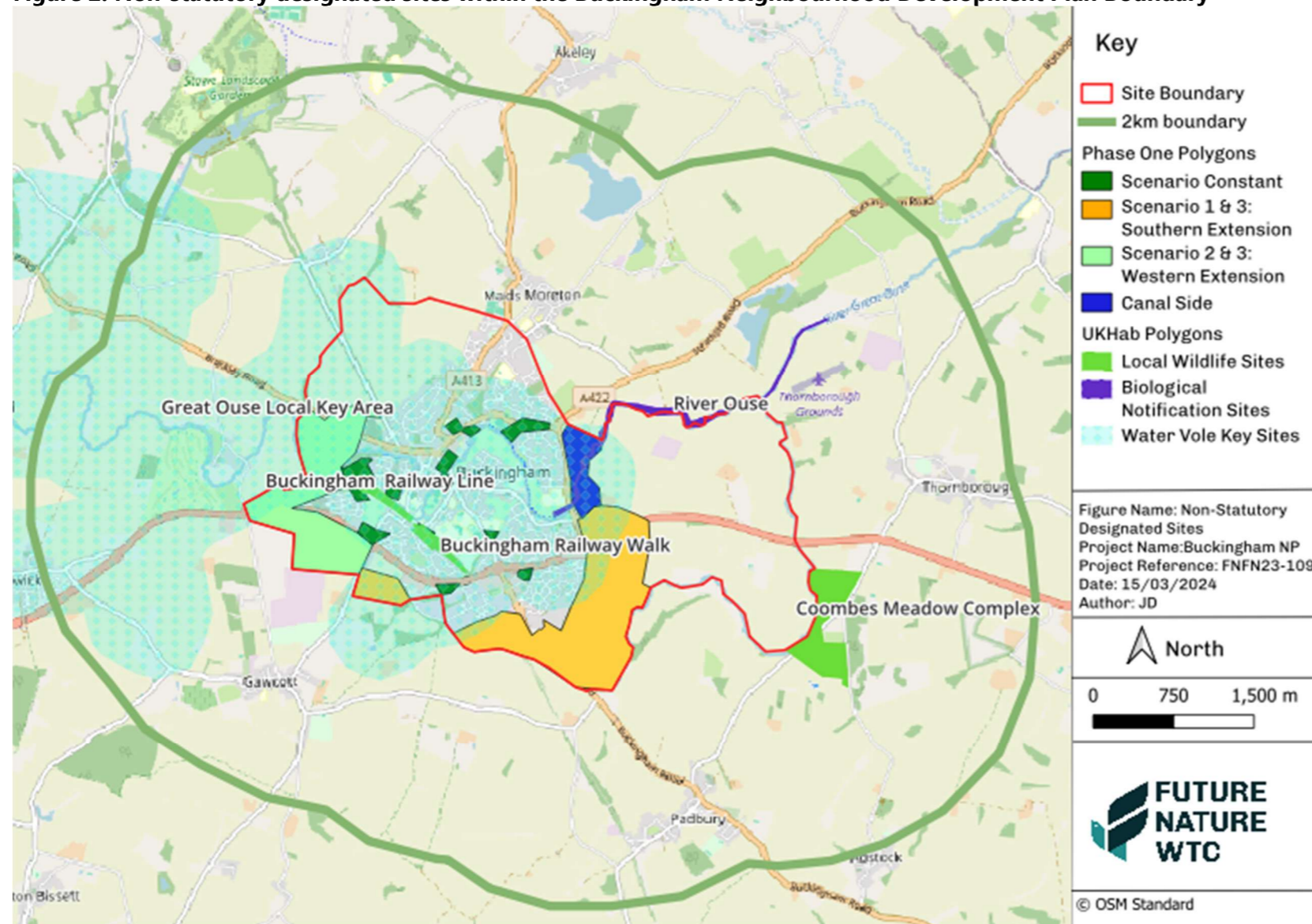
- Vale of Aylesbury Local Plan², Policy NE1: Biodiversity and Geodiversity states "Development proposals that would lead to an individual or cumulative adverse impact on an internationally or nationally important Protected Site or species, such as SSSIs, will be refused unless exceptional circumstances can be demonstrated..."
- Buckingham Sand Pit LNR is within the Development Plan boundary, The Neighbourhood Plan should have a policy to protect this site.
- The other statutory designated sites are outside of the plan boundary but have the potential to be effected by development within it. The Neighbourhood Plan should have policies that ensure these sites are considered in future developments and potential negative effects mitigated against.

Opportunities:

- Lowland neutral grassland is exceptionally rare in North Buckinghamshire with only two small sites of SSSI quality identified within the 5km search area. There is an opportunity to build resilience to these fragile and isolated habitats by creating new areas of habitat that can build the overall resource and improve connectivity through creating 'stepping stones.' Unimproved grassland is very difficult to create and it may not be feasible to attempt to create it within the extension areas. However, semi-improved, species-rich grasslands are a realistic habitat creation option that would increase the overall local resource of species-rich grassland. Figure 1 shows the areas which could be enhanced to improve connectivity between high quality grasslands. There is an opportunity for the Southern Extension to deliver this.
- Fen is also a rare habitat that is very difficult to create. However, the extension areas should be encouraged to create wetland habitats that may support similar species to those found in fens.

² Buckinghamshire Council (2021) Vale of Aylesbury Local Plan 2013-2033 Adopted Plan. Available from: [Vale of Aylesbury Local Plan \(VALP\) \(buckinghamshire.gov.uk.s3.amazonaws.com\)](https://www.buckinghamshire.gov.uk/s3.amazonaws.com)

Figure 2: Non-statutory designated sites within the Buckingham Neighbourhood Development Plan Boundary



2.2 NON-STATUTORY DESIGNATED SITES

Buckingham Railway Line Local Wildlife Site (LWS)

This is a complex linear site, which contains several different habitat types. The four main habitats are scrub/semi-natural woodland, wet woodland, rough grassland and standing water.

Buckingham Railway Walk (North) LWS

Buckingham Railway Walk (North) is similar in character to the southern section described above. It is a disused railway line, which has scrubbed over on its banks with areas of woodland and open glades.

Combes Meadow Complex LWS

A site of unimproved and semi-improved meadows and pastures that supports a variety of habitats from limestone grassland to flood meadow, pond and hedgerow. The rich diversity of plants across all these fields and the rarity of an intact, unimproved grassland farming system combine to make this a very unique site.

River Ouse Biological Notification Site (BNS)

The section of river from the western extent of the town to the north-east corner of the plan boundary (and beyond) is designated a BNS.

Water Vole Key Areas - Great Ouse Local Key Area

The Great Ouse Local Key Area forms a large area starting east of Brackley and extending across to Buckingham. Areas in the north, south and east of the plan boundary are outside of this area. It represents a key area for water vole.

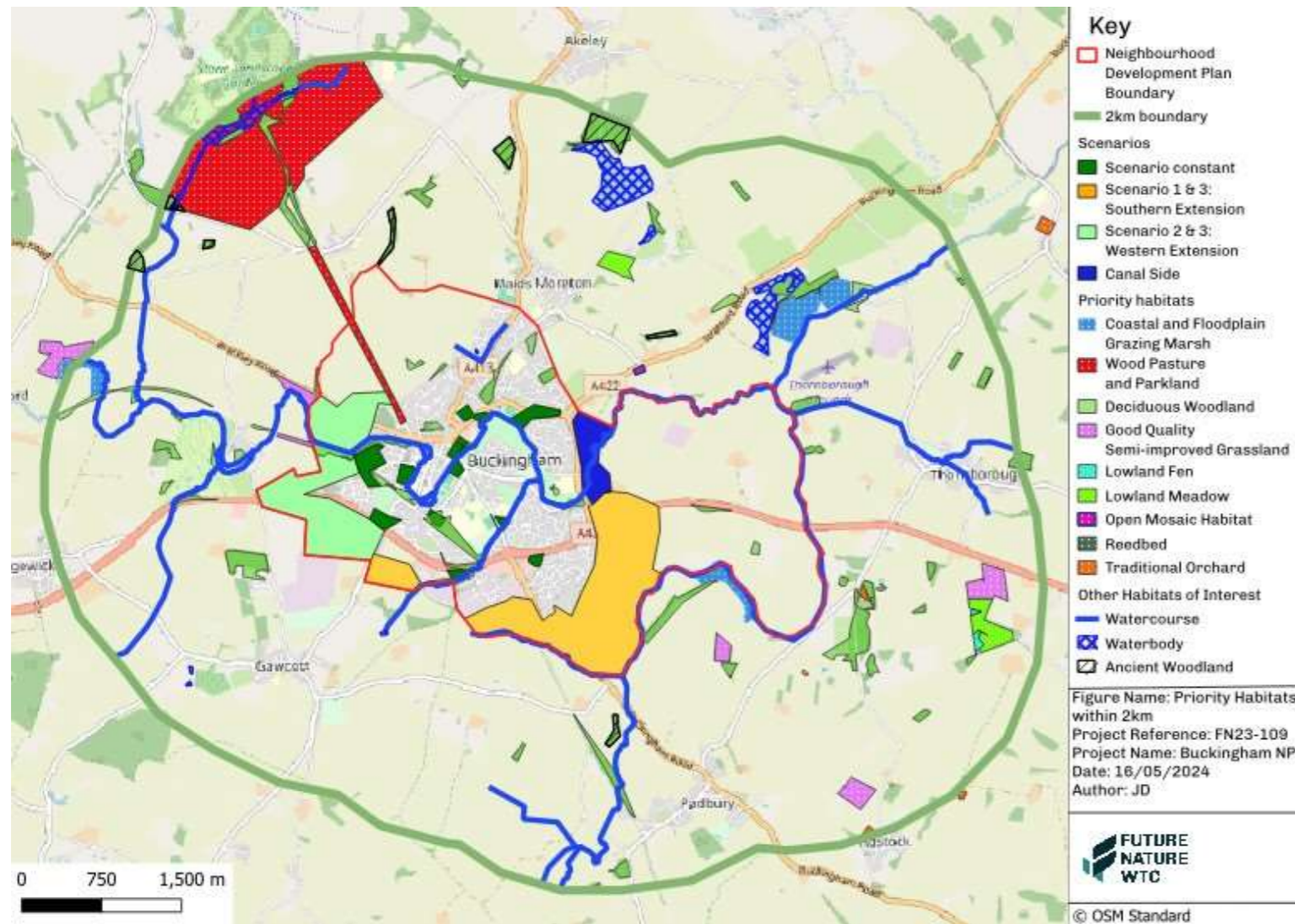
Constraints:

- The non-statutory designated sites provide a constraint to development. Policy NE1: Biodiversity and Geodiversity sets out that: *“Development which would result in damage to or loss of a site of biodiversity... value of regional or local importance (such as Local Wildlife Sites...) will not be permitted except in exceptional circumstances where the need for, and benefits of the development significantly and demonstrably outweigh the harm it would cause to the site, and the loss can be mitigated and compensation provided to achieve a net gain.”*
- The Neighbourhood Plan should have a policy to protect the LWS and BNS and to consider the key areas of suitable habitat within the Water Vole Key Area. This should include the provision for a suitably sized buffer (circa 50m) around LWS/BNS that adjoin extension areas within which habitats that complement the LWS/BNS would be provided.

Opportunities:

- The Combes Meadow Complex LWS comprises species-rich grassland between the two SSSI grassland previously identified and therefore contributes to the overall distribution of this habitat. There are further opportunities to create additional grassland to add to the overall resource and improve connectivity, particularly within the Southern extension.
- The route of the former Buckingham Railway continues through the plan boundary outside of the existing LWS designations. There is an opportunity to enhance this route within the southern and western extension areas to increase the overall length of valuable habitat through the plan boundary.
- There is an opportunity to enhance existing and create new habitats for water voles. The area has already been identified as a key area for the species and opportunities to further expand its range should be sought. There is an opportunity to do this within the Western extension and Canal Side extension.

Figure 3: Priority Habitat and other habitats of interest within 2km of the Buckingham Neighbourhood Development Plan Boundary



Constraints:

- The areas of priority habitat provide a constraint to development. Policy NE1: Biodiversity and Geodiversity sets out that “Development which would result in damage to or loss of... Priority Habitats... will not be permitted except in exceptional circumstances where the need for, and benefits of the development significantly and demonstrably outweigh the harm it would cause to the site, and the loss can be mitigated and compensation provided to achieve a net gain”.
- Policy NE1 also states: “Development proposals that would lead to an individual or cumulative adverse impact on... irreplaceable habitats such as ancient woodland... will be refused unless exceptional circumstances can be demonstrated...”
- NE2 River and stream corridors states: “Development proposals must not have an adverse impact on the functions and setting of any watercourse and its associated corridor. They should conserve and enhance the biodiversity... Development proposals adjacent to or containing a watercourse shall provide or retain a 10m ecological buffer (unless existing physical constraints prevent) from the top of the watercourse bank and the development, and include a long-term landscape and ecological management plan for this buffer.”
- It is recommended that the Buckingham Neighbourhood Plan reflects these policies to protect these features.

2.3 PRIORITY HABITATS

Deciduous Woodland

There are over 30 parcels of deciduous woodland within 2km of the plan boundary, eight of which are ancient woodland. Seventeen parcels sit within the plan boundary, none of which are ancient woodlands.

Coastal and Floodplain Grazing Marsh

There are three parcels of coastal and floodplain grazing marsh at 1.937 and 0.43km away and one hugging the southeast plan boundary.

Lowland Fen and Reedbed

Three small parcels of lowland fen are scattered within the 2km boundary, none of which lie within the plan boundary. One very small parcel of reedbed sits near to the northern extent of the 2km buffer.

Lowland Meadow and good quality semi-improved grassland

Two good sized parcels of lowland meadow are situated to the north and east of the plan boundary. There are four variable sized parcels of good quality improved grassland within the 2km buffer, none lie within the plan boundary.

Traditional Orchard and Wood pasture & Parkland

Three parcels of traditional orchard lie within the 2km buffer, none of which sit within the plan boundary. Wood pasture and parkland occurs in the north-west of the survey area, outside of the plan boundary.

Rivers and open water

The River Great Ouse flows through the survey area and plan boundary from west to east with tributaries joining from the north and south. A number of ponds and lakes occur within the survey area including within the plan boundary.

Opportunities:

- Deciduous woodland is the most abundant priority habitat in the search area. There are multiple opportunities available to create new areas of deciduous woodland that would either directly connect to these areas or provide stepping stones between thereby providing an overall larger habitat resource that is better connected making it more resilient to change. The Southern and Western extension areas provide the most opportunity for woodland creation.
- The majority of other priority habitats are currently under represented in the survey area and particularly within the plan boundary. There are opportunities to create new priority habitats or enhance existing habitats so that they contribute to the overall habitat resource available. This could include:
 - The creation of wet grassland and wetland habitats along the river corridor (Canal Side and Western extension)
 - The creation of good quality semi-improved grassland to increase the size of the overall network (Southern Extension)
 - The creation of traditional orchards using fruit trees of local provenance (southern and western extension)
 - The creation of new ponds (Canal Side, Southern and Western extension areas)

2.4 PROTECTED AND NOTABLE SPECIES RECORDS

Plants

A total of 25 protected or notable plant species have been recorded. This includes one protected species; bluebell. A total of 18 are Red Data listed (based on IUCN criteria) of which one is endangered, six are vulnerable to extinction and 11 are near threatened. A further four are on national red data books with one being nationally rare and three being nationally scarce. Others are rare at the County level. A number of records are from along or near to the disused rail line in the south west of Buckingham. Others were recorded within the town at a cemetery and Buckingham Sand Pit in the north of the town. Further records were recorded outside of the town to the east and west, within the plan boundary.

Invertebrates

A total of 43 protected or notable invertebrates have been recorded, most of which were moth species but with beetles, butterflies, dragonflies, snails and a wasp also recorded. Stag beetle and roman snail are partially protected by the WCA³. The remaining species are notable with the majority being priority species⁴ and some being on red data lists due to being rare locally. The majority of records are from within the town with the majority being on the western side. Other records were from the east of the town, within the plan boundary and were predominantly moth records.

Birds

A total of 79 protected or notable birds have been recorded. A total of 16 birds were listed on Annex 1 of the Birds' Directive and/or on Schedule 1 of the WCA and the remaining species were priority species and/or species of conservation concern⁵. The species recorded include birds of prey, wetland species and an assemblage of farmland birds. A number of records were associated with the river corridor with others scattered throughout the town.

Amphibians

A total four amphibians have been recorded. Great created newt (GCN) is a European Protected Species⁶ and listed under Schedule 5 of the WCA. One record was provided in the south of the town. A further four GCN records have been obtained from protected species licence returns (as shown on Figure 4) in the south and north of the town and in the north-east corner of the plan boundary. Common frog. Common toad and smooth newt have also been recorded which are all partially protected by the WCA and common toad is also a priority species.

Reptiles

A total of three reptiles have been recorded, all of which are partially protected by the WCA and are priority species. Adder has been recorded at Buckingham Sand Pit in the north of the town. Grass snake has been recorded twice in the survey area; once in the south and once in the north. Common lizard has been recorded in the same location in the south of the town.

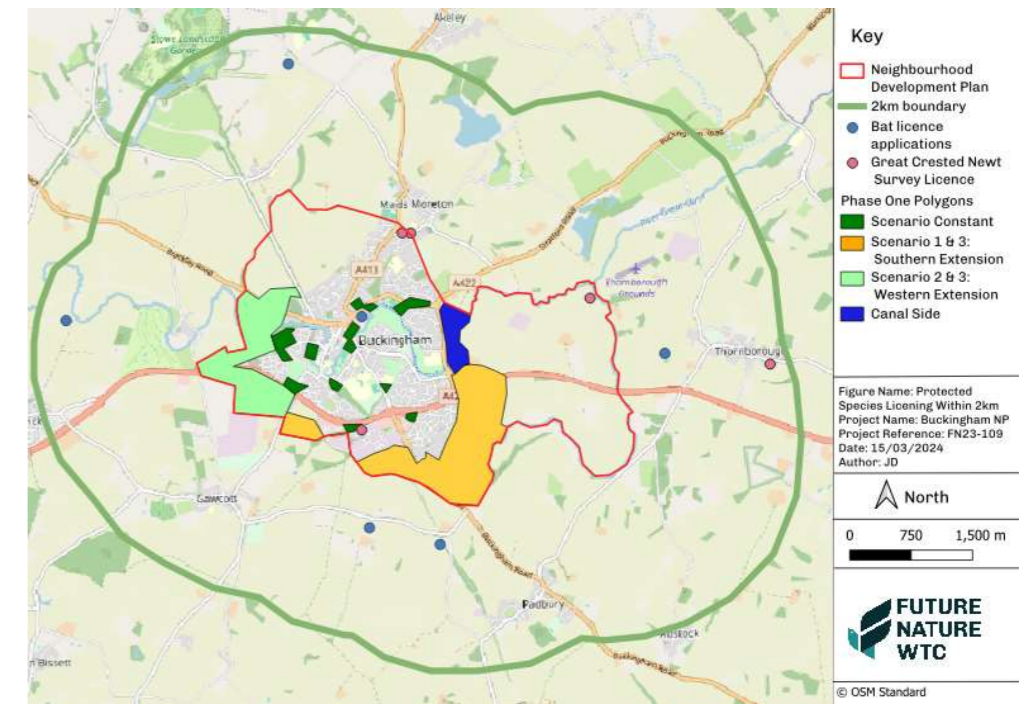
Fish

Two notable fish; spined loach and brown/sea trout, were recorded in the River Great Ouse. Both are priority species.

Invasive Species Records

A total of 14 invasive, non-native species listed on WCA Schedule 9 were recorded including nine plants and five fauna. A number were associated with freshwater habitats and were recorded along the river. Others were recorded in the town and countryside to the east.

Figure 4: Natural England Protected Species Mitigation Licence Returns



Terrestrial mammals - bats

A total of eight bats species have been recorded with other records provided which were not identified to species level. All UK bats are European Protected Species and listed under Schedule 5 of the WCA. Three of the species recorded; noctule, soprano pipistrelle and brown long-eared bat are also priority species. The records were either from within the town or along the River Great Ouse. Natural England licence return records also provided one record from within the town and a further five within 2km but outside of the plan boundary (as shown on Figure 4).

Terrestrial mammals - other

Five other protected or notable terrestrial mammals were recorded. Water vole and otter are protected under Schedule 5 of the WCA and are priority species. Otter is also a European protected species. The majority of records were from along the River Great Ouse but with one water vole record from a tributary to the south. Badger is protected under the Protection of Badgers Act 1992 and was recorded in multiple locations throughout the survey area. Brown hare and hedgehog are priority species. Hedgehog was recorded in multiple locations, predominantly within the town. Brown Hare was recorded in one location on the southern edge of the town.

³ Wildlife and Countryside Act 1981 (as amended)

Constraints:

- Protected species such as otter, water vole, badger, great crested newt, all UK bat species and some birds, invertebrates and plants provide a constraint due to the legal protection afforded to them and which needs to be considered as a planning matter. All planning applications that include green space should be supported by a suitable ecological report.
- Priority species (comprising those listed on Schedule 41 of the Natural England and Rural Communities Act (2006)) need to be considered as a material planning consideration by the local authority.
- The adder population recorded at Buckingham Sand Pits is relatively isolated from the extension sites and therefore there are limited opportunities to provide enhancements for this species.

Opportunities:

- There are opportunities to enhance extension sites for protected and notable species beyond the legislative or policy requirements to protect them, as set out below:
 - **Badger:** The Southern extension area provides a good opportunity to provide a value foraging resource for badgers within the semi-improved grasslands and orchards already recommended;
 - **Otter:** All of the extension areas offer an opportunity to provide a minimum 10m buffer along the rivers that border or pass through the site. This should include secluded areas away from footpaths and publicly accessible locations where otters can find shelter away from human disturbance;
 - **Water vole:** A 10m buffer along the rivers in all exclusion areas that includes secluded areas would also be beneficial to water vole. There is also an opportunity to enhance bankside vegetation specifically for water voles;
 - **Bats:** All extension areas provide suitable habitats for bats and therefore there are opportunities to enhance the sites for them. This should include the provision of one integrated bat box per dwelling and measures to ensure dark corridors are provided within the site;
 - **Other mammals;** hedgehog and brown hare have been recorded within the search area. All extension areas should provide suitable foraging areas for hedgehogs and all fencing used should include holes large enough for hedgehogs to pass through to ensure accessibility throughout the site. The recommendation for species-rich grassland in the Southern extension would also be beneficial to brown hare;
 - **Invertebrates:** There is an opportunity to increase the number of nesting sites for some solitary bees by providing integrated bee bricks into new buildings in all extension areas. There is also an opportunity to increase the foraging resource and availability of larval foodplants by ensuring all landscaping uses plants of known value to UK wildlife.
 - **Birds:** There is an opportunity to increase nesting sites for breeding birds across all extension sites by providing integrated nest boxes in all new buildings. This should include universal or swift nest boxes and house martin nest cups. Kingfisher has been recorded along the rivers that border the extension sites. A 10m buffer along the rivers in all exclusion areas that includes secluded areas would also be beneficial to kingfisher.
 - **Reptiles:** There is an opportunity to create new habitats for reptiles in all extension areas. Grass snake utilise wetland habitats and the provision of a 10m along the rivers in all exclusion areas that includes secluded areas would provide additional habitats for them. The semi-improved grasslands and orchards already recommended for the Southern extension area would be beneficial to common lizard.
 - **Amphibians:** There is an opportunity to create new habitats for amphibians in all extension areas. Water features, designed specifically for wildlife should be created in all extension areas. These should include wildlife ponds that hold water year-round plus ephemeral pools, scrapes and ditches and rain gardens.
 - **Invasive species:** There is an opportunity to eradicate invasive species from the extension sites, should they be present.

⁴ Species listed on Section 41 of the Natural Environment and Rural Communities Act 2006

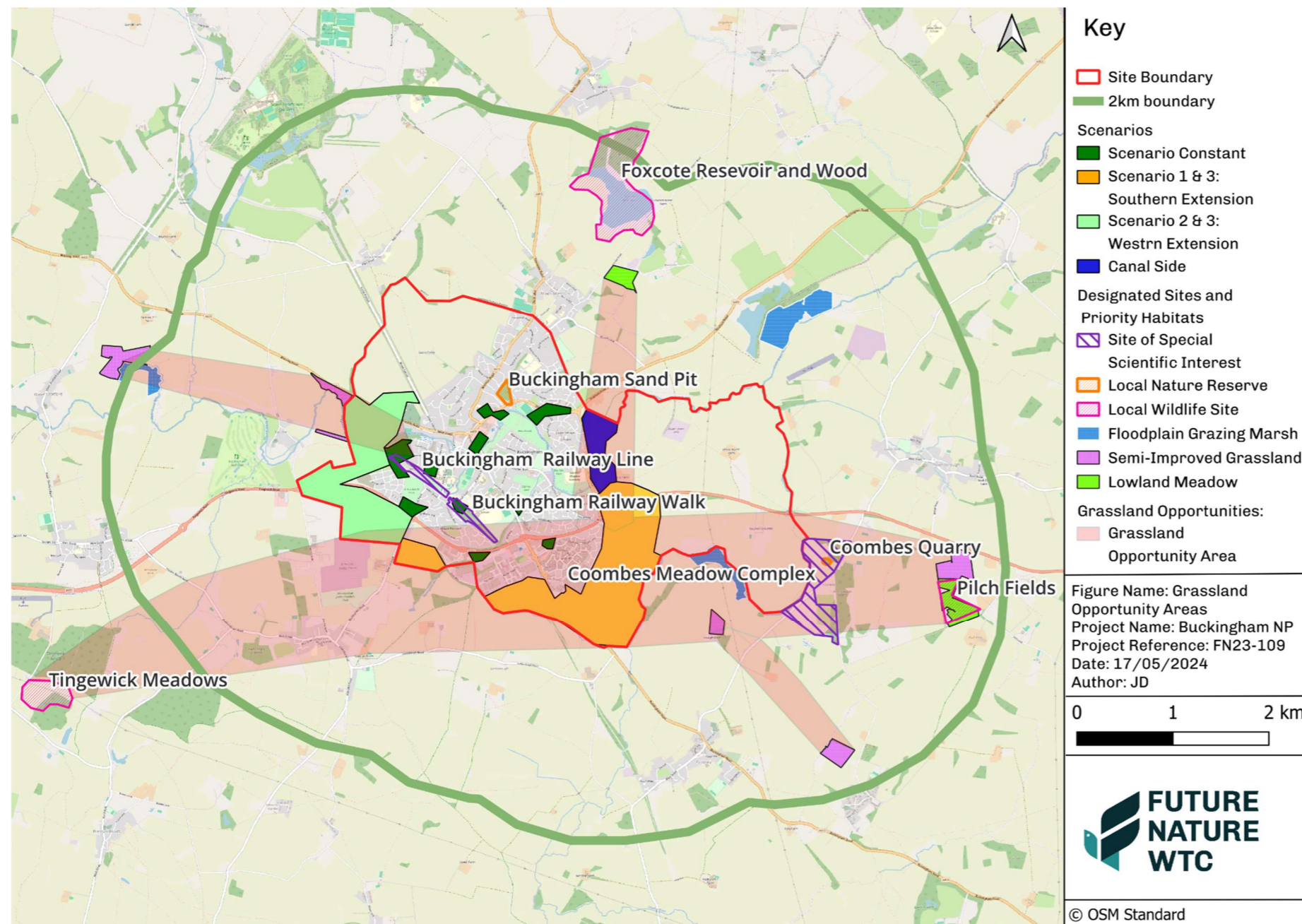
⁵ Stanbury, A. et al (2021) Birds of Conservation Concern 5; Red or amber listed

⁶ Listed under the Habitats and Species Regulations

3. POLICY RECOMMENDATIONS

Recommendations are provided in this section on how the opportunities identified earlier in this report should be considered and the additional policy that could be included for each extension area. Figure 5 to Figure 7 show the key opportunity areas within the plan boundary for three broad habitat types; grassland, woodland and wetland, and where the proposed extension sites are in relation to them. They indicate where the greatest areas of opportunity are for new habitat creation to ensure a resilient, well connected network of habitats is present in and around Buckingham.

Figure 5: Grassland Opportunity Areas



Grassland opportunity areas

The greatest opportunity for grassland creation is in the south of the plan boundary within the Southern Extension Area. A number of high quality grasslands occur to the south-east with areas designated as SSSI and LWS. A further SSSI grassland occurs to the south-west. Therefore, opportunities to create species-rich grassland between these sites would allow for an overall larger area of grassland that was loosely connected as a series of ‘stepping stones.’

Areas of priority habitat (or near Priority Habitat) lowland meadow and species-rich grassland also occur to the north and east. There is an opportunity to increase the resilience of these currently isolated habitats by creating new species-rich grasslands within the Western Extension and Canal Side.

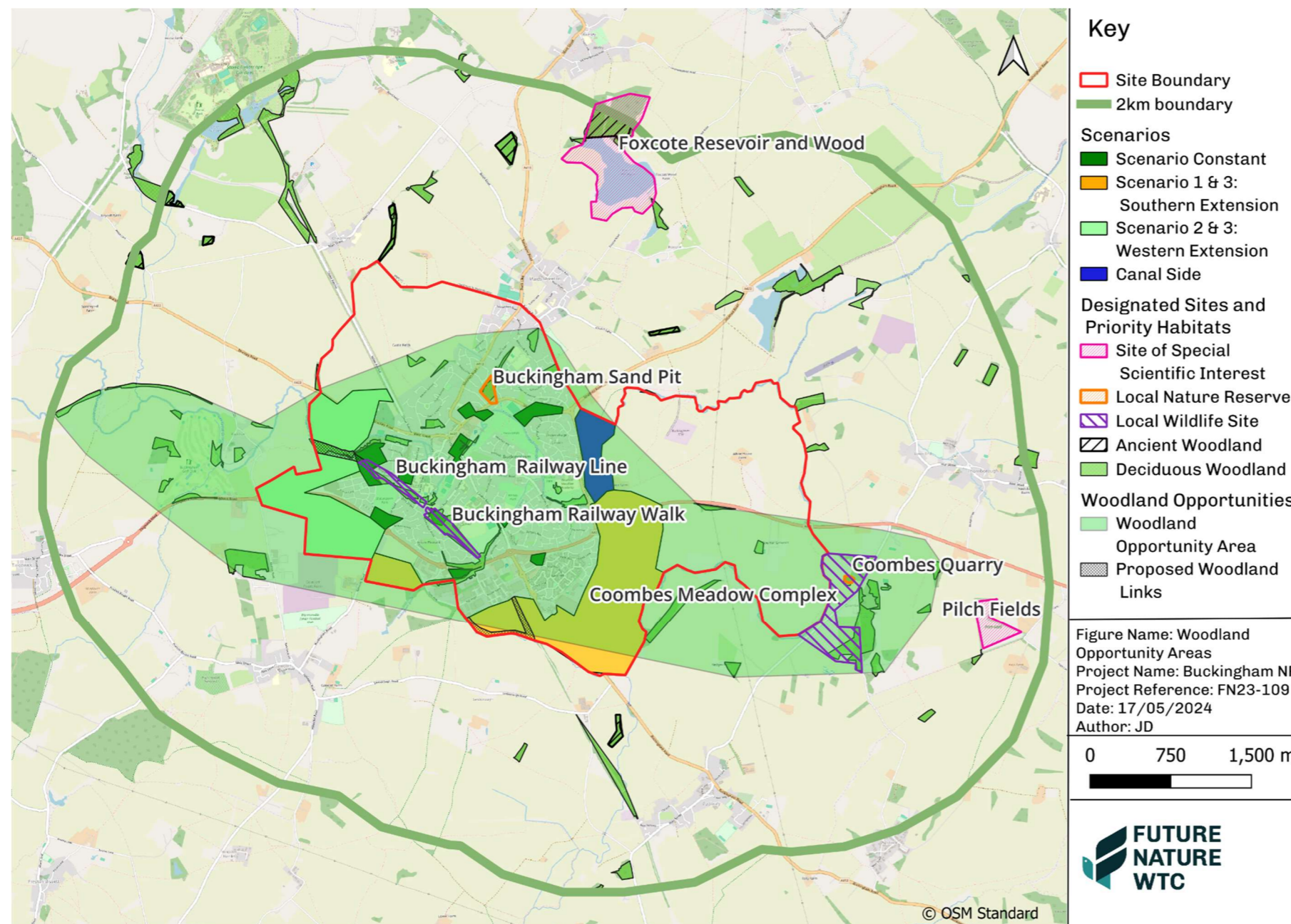
Grassland habitat suitability

There is an opportunity to create neutral grasslands within the plan boundary similar to those within designated sites and identified as priority habitat.

The Southern Extension, Western Extension and Canal Side have watercourses within or along their boundaries and therefore there is also an opportunity to create wet grasslands in these areas.

There is an opportunity to create grassland alongside other habitats, such as woodland and scrub, to create habitat mosaics.

Figure 6: Woodland Opportunity Areas



Woodland opportunity areas

Woodlands of raised ecological interest, due to being within designated sites or comprising priority habitat or ancient woodland, account for a relatively small area within the plan boundary and are well scattered within and around it.

There are opportunities to extend, enhance and create woodland as part of the plan. The disused railway corridor already comprises woodland in places and its route passes through the Southern Extension, Western Extension and some of the Scenario Constant sites. Where woodland is already present, there is an opportunity to retain and enhance it through implementing appropriate habitat management plans.

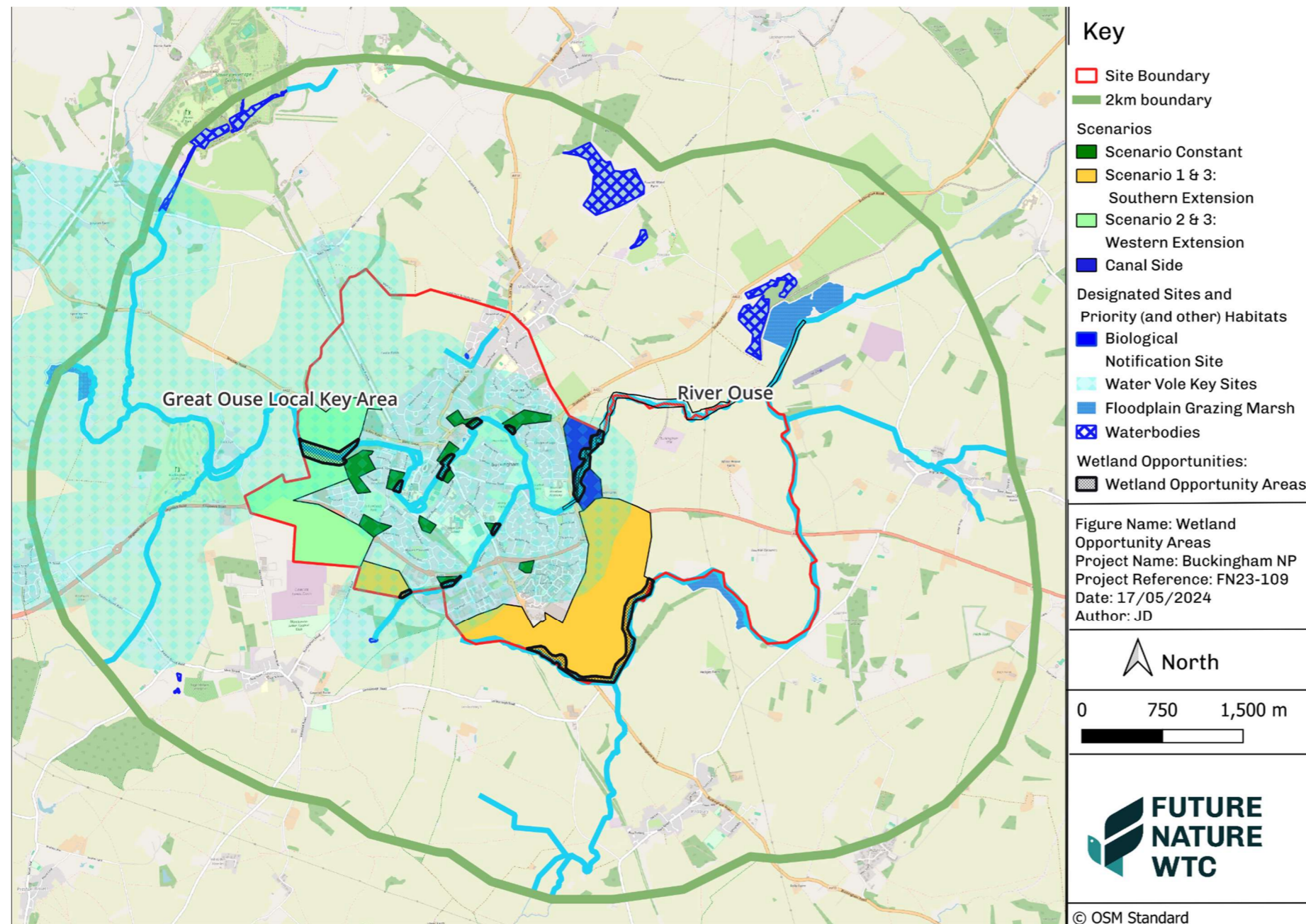
There is an opportunity to create new woodland along the route of the disused railway where it crosses the Southern Extension and along part of the boundary to improve habitat connectivity to other areas of woodland.

There is an opportunity to create woodland within all of the Scenario options which would increase the overall abundance of woodland within the plan boundary thereby building resilience and increasing connectivity.

Woodland habitat suitability

Deciduous woodlands comprising broadleaved species of local provenance should be used in new woodland creation.

Figure 7: Wetland Opportunity Areas



Wetland opportunity areas

The River Ouse, its tributaries and the canal form a network of watercourses within the plan boundary and a number of waterbodies are present within the wider area.

Watercourses are present within or bordering the Southern Extension, Western Extension and Canal Side, plus a number of the smaller Scenario Constant sites. Therefore, there is an opportunity to create wetland habitats within the floodplain of these watercourses such as wet grasslands and reedbeds. These habitats are currently poorly represented with only two areas of floodplain grazing marsh recorded within the wider area. Therefore, any creation of new habitats would significantly increase the overall resource and provide new opportunities for a range of species.

Individual ponds are a valuable habitat resource and there is an opportunity to build a network of ponds across the plan boundary by including them within all of the Scenarios.

The area in the west of the study area is designated as a key site for water voles. Therefore, there is an opportunity to enhance habitat for this species within all of the Scenario sites that contain watercourses.

Wetland habitat suitability

There are opportunities to create wet grassland and reedbeds along watercourses/within floodplains. Ponds should be targeted outside of these areas.

3.1 SOUTHERN EXTENSION AREA (SCENARIO 2 & 3)

The southern extension comprises a large area to the south and south-east of Buckingham bordered by the Padbury Brook, a tributary of the River Great Ouse, to the south. Three statutory and non-statutory designated sites comprising unimproved neutral grasslands occur to the south and east making the Southern extension area a strategic location to create new areas of species-rich grassland. Small areas of fen also occur within the wider area and therefore wetland habitats could also be created on the site to increase the overall resource in the wider area and would be most suited to the areas adjoining the existing watercourse. There is also an opportunity to create an orchard. This would provide suitable habitat for a range of fauna, including protected and notable species recorded within the wider area, such as badger, reptiles, amphibians, brown hare as well as a range of invertebrates and birds.

The route of the disused Buckingham Railway passes through the site and therefore there is an opportunity to extend the habitats present along the disused section of line to the north which is designated as a Local Wildlife Site. This would create a mosaic of habitats suitable for a range of species and increase the overall area of habitat available. This would include benefits to protected and notable species recorded within the wider area including badgers and bats as it would provide an opportunity to create a dark corridor through the site.

There is an opportunity to create a 10m buffer along the Padbury Brook within which habitats of raised interest could be created, such as a mosaic of wetland, species-rich grassland, scrub and occasional scattered trees. The strategic placement of trees and shrubs can help create secluded sections of river free from disturbance by people and their dogs which can be hugely beneficial to fauna using the river corridor, such as otter, grass snake, water vole and kingfisher. Creating woodland along the upper reaches of the brook would also provide screening and limit access.

A summary of recommended policy areas are listed below:

- Create a large area of green space [a precise area or % of the site should be provided here] should be created solely to provide habitat enhancements and predominantly comprising semi-improved grassland/other neutral grassland. Additional habitats should be incorporated into this area including; wetland, scrub and orchard. This area should be subject to a long-term habitat management and monitoring plan.
- The route of the disused Buckingham Railway should be used to create a strip of scrub/semi-natural woodland, wet woodland, rough grassland and standing water that connects to the LWS to the north. This strip should remain unlit to provide a dark corridor for nocturnal species. This area should be subject to a long-term habitat management and monitoring plan.
- A minimum 10m buffer should be created along the Padbury Brook comprising semi-improved grassland/other neutral grassland with scattered scrub and occasional individual trees. The buffer should be designed to include secluded sections free from people and their dogs. This area should be subject to a long-term habitat management and monitoring plan.

3.2 WESTERN EXTENSION AREA (SCENARIO 1 & 3)

The western extension comprises a large area to the west of Buckingham. The River Great Ouse passes through it and it falls within the Great Ouse Water Vole Local Key Area making it a strategic location for water vole enhancement measures. There is an opportunity to create a 10m buffer along the River Great Ouse within which habitats of raised interest could be created, such as a mosaic of species-rich grassland, scrub and occasional scattered trees and these could be used to help create secluded sections of river free from disturbance by people and their dogs. The focus of this would be to enhance the river corridor for water vole.

The route of the disused Buckingham Railway passes through the site and therefore there is an opportunity to extend the habitats present along the disused section of line to the east which is designated as a Local Wildlife Site. This would create a mosaic of habitats suitable for a range of species and increase the overall area of habitat available. This would include benefits to protected and notable species recorded within the wider area including badgers and bats as it would provide an opportunity to create a dark corridor through the site.

A summary of recommended policy areas are listed below:

- A minimum 10m buffer should be created along the River Great Ouse comprising semi-improved grassland/other neutral grassland with scattered scrub and occasional individual trees. The buffer should be designed to include secluded sections free from people and their dogs. An emphasis should be placed on enhancing the full length of river bank within the site boundary for water vole. This area should be subject to a long-term habitat management and monitoring plan.
- The route of the disused Buckingham Railway should be used to create a strip of scrub/semi-natural woodland, wet woodland, rough grassland and standing water that connects to the LWS to the east. This strip should remain unlit to provide a dark corridor for nocturnal species. This area should be subject to a long-term habitat management and monitoring plan.

3.3 CANAL SIDE AREA

The Canal Side extension comprises a smaller area to the east of Buckingham. The River Great Ouse passes through the west of the site along with the route of a disused canal. This section of the river is designated a BNS due to its raised ecological interest. The site therefore lends itself to the creation of wetland habitats with a focus on the species they may support. There is an opportunity to create a 10m buffer along the River Great Ouse within which habitats of raised interest could be created, such as a mosaic of species-rich grassland, scrub and occasional scattered trees and these could be used to help create secluded sections of river free from disturbance by people and their dogs. The focus of this would be to enhance the river corridor for the range of flora and fauna recorded along it.

A summary of recommended policy areas are listed below:

- A minimum 10m buffer should be created along the River Great Ouse comprising semi-improved grassland/other neutral grassland with scattered scrub and occasional individual trees. The buffer should be designed to include secluded sections free from people and their dogs. An emphasis should be placed on enhancing the full length of river bank within the site boundary. This area should be subject to a long-term habitat management and monitoring plan.

3.4 OUTSIDE OF EXTENSION AREAS

This report focusses on the role the neighbourhood plan can play in moulding the proposed extension sites and other developments into areas of high biodiversity interest. However, opportunities to provide biodiversity enhancements within the wider NP should also be considered. There are a range of green spaces present within the study area and it is likely that there would be potential to raise their ecological value, thereby increasing the overall habitat resource within the areas and increasing connectivity and permeability through the landscape for the range of floral and faunal species known to already be present.

It is recommended that a review of such sites is undertaken, including sites owned by Buckingham Town Council, to determine whether targeted enhancements could be made either directly or through working with partners.

3.5 GENERAL POLICY

The following areas should be covered by policy for all development within the NP boundary.

- Prevent development that would damage or destroy statutory and non-statutory designated sites, ancient woodland or priority habitat;
- Provide a minimum 15m protection buffer around LWS/BNS within which complementary habitat creation would be provided;
- Provide at least one integrated bat box or one integrated bird box per building in all developments;
- Ensure all fencing has holes at the base large enough to allow hedgehog movement;
- All soft landscaping should use species of known benefit to UK wildlife

All developments should introduce permanent or ephemeral waterbodies, such as, ponds, scrapes, ditches and rain gardens