

GREAT DENHAM GREEN INFRASTRUCTURE PLAN

DECEMBER 2022

Green Infrastructure Plan in support of Great Denham Neighbourhood Plan

Great Denham Neighbourhood Planning Steering Group

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1. Introduction

The provision of green space was an integral part of the design for the Great Denham development (Development Brief, 1994). The original layout included space for a Golf Course and a Country Park, and river walks along the Great Ouse.

The provision of green space in Great Denham has been a significant attraction for all residents, in particular young families, but also couples and older generations who benefit from footpaths, play areas, sports facilities and community events.

Residents have shared their needs and aspirations for the green infrastructure of Great Denham through recent surveys (see Section 10 – Methodology and Community Involvement), and this plan seeks to honour these.

The production of the Great Denham Parish Green Infrastructure (GI) Plan has been funded and facilitated by Great Denham Parish Council and the Great Denham Neighbourhood Plan Steering Group; both to be a valuable tool in its own right as a planning document and to inform policies and objectives in the Great Denham Neighbourhood Plan. Written by and on behalf of the residents of Great Denham, it is one of more than 40 parish and town GI plans to have been produced across Bedfordshire.

The need for GI planning has been identified at all levels, from central government to County and District levels. The Bedfordshire and Luton Strategic GI Plan was produced in 2007 by the Bedfordshire & Luton Green Infrastructure Consortium. Parish and Town GI Plans are a valuable tool for planners, committees, developers and communities themselves. They can help inform important decisions and help local people identify what is important to them, and what they would like to happen in the future. Parish and Town GI Plans have been used to support funding bids, helping people make important improvements to their local environment, and they also provide a snapshot of the local environment.

It should be acknowledged that not all of the aspirations identified will be delivered, because there are many other influencing factors, such as the views of landowners, existing planning permissions and allocations, potential future land use allocations and the cost of implementation. The value of this GI plan lies in the fact that it has been produced by local residents for their own community. It can help inform planning decisions and be used as a mechanism to identify where financial benefits from development should be directed. It cannot be used as a tool to prevent development but may influence considerations in the planning process.

2. Context

Great Denham is a relatively new parish, dating from 2007. The land on which Great Denham stands forms part of a loop of the river Great Ouse, and has been created through development, initially by Bovis Homes, and latterly by David Wilson Homes/The Barratt Group, along with several other smaller developers (Linden Homes, Lagan Homes).

The land on which Great Denham has grown up has a rich history of agriculture dating back centuries. Archaeological excavation carried out as part of the development of the built area has revealed a rich tapestry of crop markings, mounds and ditches throughout the Great Denham landscape. The Bedfordshire 1926 Valuation map shows the land was populated with farm holdings.



Crop markings across the Great Denham area dating from Neolithic times



1926 Bedfordshire Valuation Map – showing area between Biddenham village and Great Ouse as farmland, with Honey Hill farm in bottom sector.

The original development brief of 1994 laid out the overall spatial vision for the area: the main housing developments would form a central “cluster”, bounded to north and south by green spaces in the form of a Golf Course (under private ownership) and a Country Park (provided as part of the development and transferred to Bedford Borough Council). The western edge boundary is formed by the river, and to the east sits the adjoining area of Queens Park.

However, whilst bounded by valuable green spaces in the form of the golf course land and the Country Park, within the developed area, green space is at a premium. There are clear differences between the different phases of the development:

Phase 1 (Carnoustie Drive, St Mellion Drive, Great and Little Portway and Muirfield (and roads off). These areas have a housing density of between 15-25 dwellings per hectare (dph) and are typified with large verges, with planted trees and shrubbery, breaking up the visual aspect and screening many houses from the street.

Phases 2 and 3 (Greenkeepers Road and all roads off, King Alfred Way/Anglia Way and all roads off). These areas have a housing density of up to 50 dph, with very small gardens and courtyard parking. Verges are typically paved areas with very small planted areas.

Feedback from residents provides a clear signal that protection and creation of existing and new green space is a priority for the families who live in Great Denham as listed below:

- Protection of the Country Park as a green space, and development of its facilities for recreation,
- Protection from development for housing of the former golf course land, and continued open access to residents for recreation,
- To continue to provide a habitat for wildlife, including native and migrant birds, foxes, deer and badgers,
- The creation of a community orchard as part of the development of the land behind the Park and Ride,
- Protection of existing wildflower species and development of wildflower planting where appropriate throughout Great Denham,

- Development of the pedestrian and cycle access points and routes across Great Denham, linking the community with Bedford, Kempston and nearby villages,
- To protect planted trees and hedgerows, and to increase planting where possible, as part of a “green canopy” against the effects of climate change.

3. Aims and Objectives of this Plan

The aim of this document is to identify the key existing natural, historic, cultural and landscape assets, accessible greenspace and rights of way and to plan new features that will provide a connected network of green infrastructure for the benefit of present and future generations.

Objectives

To create a comprehensive document that will assist the local community to:

- ***Protect and where possible enhance the landscape, biodiversity and the historic environment***
- ***Improve access and links for people and wildlife***
- ***Provide a multi-functional green infrastructure network***
- ***Provide a source of information and guidance for planners, landowners and developers in formulating land use plans***
- ***Promote community involvement***
- ***Identify projects and produce an action plan to implement projects.***

4. Definition of Green Infrastructure

Green Infrastructure (GI) is the network of multi-functional green spaces required to meet a community's needs. It consists of both public and private land, with and without public access, in urban and rural locations.

“A strategically planned and managed network of green spaces, access routes, wildlife habitats, landscapes and historic features which meet the needs of existing and new communities by providing: an essential environmental foundation and support system; a healthy and diverse environment; attractive places to live and visit and a good quality of life, a sustainable future”

Green Infrastructure assets include:

- Accessible green space
- Country parks
- Green corridors
- Urban parks and gardens, habitats for wildlife including nature reserves, Sites of Special Scientific Interest and County Wildlife Sites
- Historic parks and gardens and historic landscapes
- Scheduled Ancient Monuments
- Waterways and water bodies, including flooded quarries
- Public rights of way and cycleways
- Allotments
- Children's play space

- Formal sports facilities
- Cemeteries

It is important to plan the GI network in the same way that we plan other networks and facilities, so that we can safeguard and enhance the environment and meet the needs of a wide range of people, both now and in the future. Green infrastructure also provides social and economic benefits, including:

- Places that can be used as a focus for community activity and events
- Opportunities to keep fit and healthy
- Helps support the local economy, including village shops, pubs and B&Bs
- Links between town and country helping people in rural areas to access facilities
- Helps reduce the use of cars

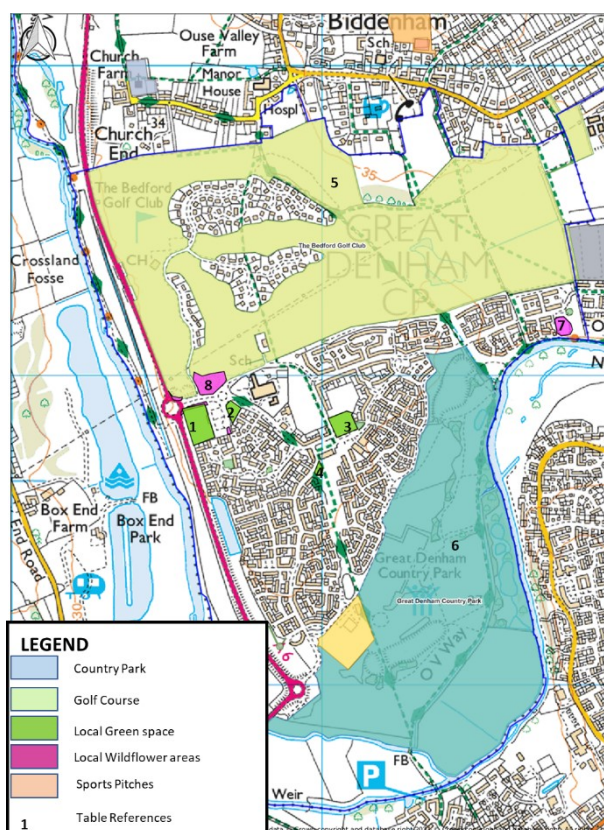
Green Infrastructure is composed of 5 themes; landscape, history, biodiversity, access and open space. These themes are presented separately to enable the different elements of GI to be considered both individually in detail and as part of the integrated GI network. For more information see Appendix A

5. Great Denham Green Infrastructure Plan areas

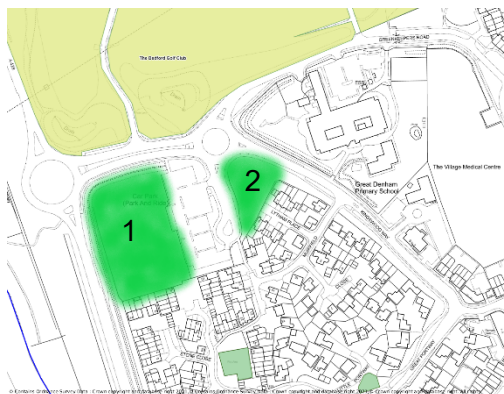
Using the feedback from resident surveys, Parish Council and Neighbourhood Plan newsletters and engagement at community events, a number of locations have been identified as green spaces and wildflower planting areas for Great Denham. They are listed below and shown on the map.

Location	Description
1	Land behind Park and Ride
2	Community Garden
3	Kickabout
4	Meaningful Meeting Place
5	Former golf course land
6	Country Park
7	Wildflower area – Greenkeepers Rd (non-native species)
8	Wildflower area – Kingswood Way (native species)

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5.1 Locations 1 and 2 – Land behind Park and Ride and Community Garden



Both areas of land are owned by Bedford Borough Council, with permission given to the Parish Council for Community use.

Both Locations have been designated as Local Green Spaces (see Appendix B)

Location 1 – Land behind Park and Ride

Location 2 – Village Green/Community Garden

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5.1.1 Location 1 – Land behind Park and Ride

In the area behind the bottle bank, which had been left untouched for the last few years, grasses are dense and high (1-1.5 m) and brambles, wild roses, nettles and shrubs (willow, hawthorn etc) have grown, providing shelter and food for wildlife. A crab apple tree and wild cherry trees are also present. Wildflowers are less abundant, but Wild carrot, Yarrow, White campion and even a few Bee orchids are present. A colony of 2-3m tall Hemlock plants (*Conium maculatum*) is established in one area towards the bypass end of the area as seen from the clothing recycling container. As it is poisonous, it needs to be either left alone, as it attracts pollinators like other Umbellifers, or in the case of removal, one must proceed with care (protective measures for those who need to come in contact with the plant). Other Hemlock plants are present in the area without causing a problem. In order to encourage more perennial wild flowers to thrive in parts of that area, the grass and some shrubs would need to be controlled. More wildflowers can be introduced there by bringing in hay from autumn cutting of nearby road verges with a higher biodiversity.

Plans being considered for this area include planting of a Community Orchard, cutting informal pathways for walking/recreation, and working with the school as part of their Forest Leader curriculum.

5.1.2 Location 2 – Community Garden

This area of land was originally designated as a Village Green for the Phase 1 development but was untouched and unused for many years. In 2019 the Parish Council, with permission of Bedford Borough Council, opened up the area by installing a tarmac pathway, benches and bins, in order to improve the walking route to the school for parents using the Park and Ride car park. Spring flower bulb planting has been carried out to enhance the space, with bee and butterfly friendly bulb species to attract wildlife.

Further plans are being developed for this area, including more planting, installation of a statue (or similar), bird feeders and bug hotel, and working with the school as part of their Forest Leader curriculum.

5.2 Location 3 – Kickabout area



Location 3 - Kickabout

This green space is located in the centre of Great Denham. It was initially provided by the developers (David Wilson Homes) and Bedford Borough Council for the benefit of residents, in lieu of the delayed youth facilities at the Pavilion (2011).

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Its location in the centre of the development and directly opposite the Community Hall (opened 2016) makes it ideal for community activity. It has been well used by individuals, exercise groups and both the Parish Council and Community Hall for events, starting in 2012 with the first Summer Festival, and now each year for both a Summer and Winter Festival, attracting residents and their families who enjoy the fairground rides, food and drink stalls and craft stalls provided.

This area of land has been submitted as a site for development in the Call for Sites for Local Plan 2030 and also Local Plan 2042. A planning application has been submitted by the developer, and the Community (led by the Parish Council) is lobbying Bedford Borough Council to retain some part of this green area for continued community use: a nomination of the area as an Asset of Community Value has been submitted.

The aspiration for this area is to retain a viable area of green space for community use.

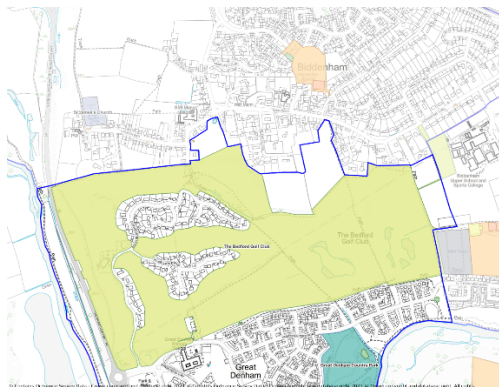
5.3 Location 4 – Meaningful Meeting Place



This area of green space was provided by the developer, David Wilson Homes, as part of the renegotiated S106 in 2009 following the removal of the Ecumenical Centre from the S106 obligations.

The area sits at the top of Footpath number 1. It is the location for the Great Denham Tommy statue, provided by the Parish Council and Great Denham Primary School. Benches are due to be installed to create an area for rest and reflection.

5.4 Location 5 - Former Golf Course land



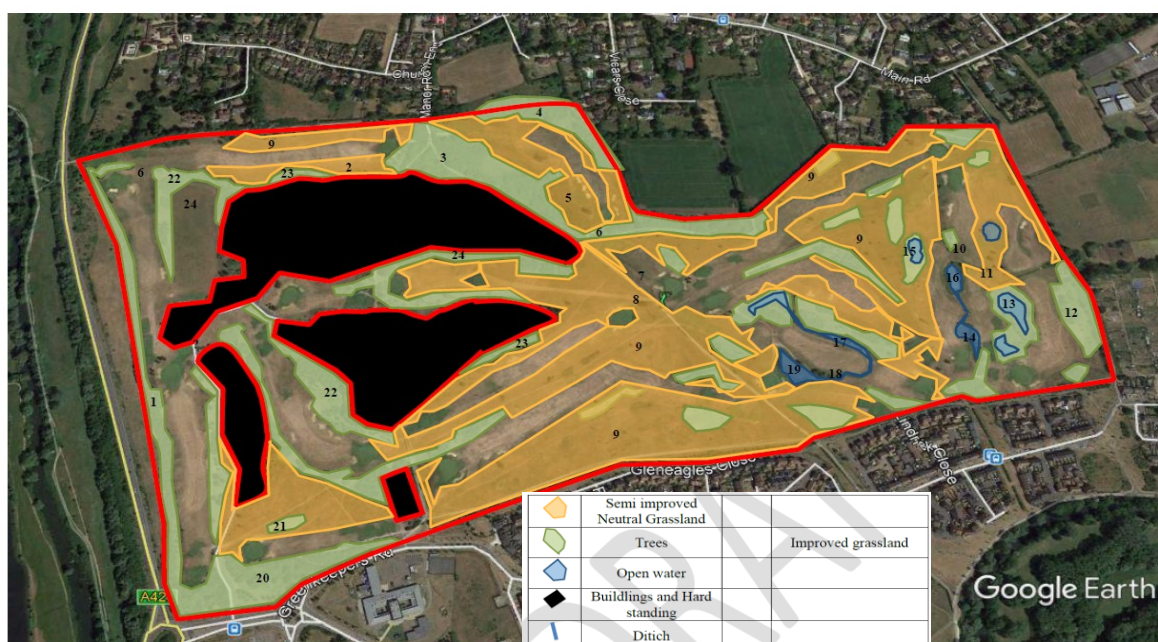
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Although this area of land is too large to be identified as a Local Green Space (at 72 hectares, this exceeds the maximum size @ 70 hectares), it is noted that this forms part of the Urban Gap between Great Denham and Biddenham (Policy AD43 - Bedford Borough Council Local Plan 2030). It is an important area for exercise, used by residents of Great Denham and Biddenham alike, and helps maintain our separate identities.

The land is privately owned by Old Ford End Trust (agents Bidwells), and was closed as a golf course in October 2020. The closure of the golf course has been a source of real concern to Great Denham residents: not only did the golf club provide recreation and sport facilities for many residents (as members or guests of the club), but the land is crossed with a number of public rights of way and permissive paths linking Great Denham to neighbouring villages of Biddenham and Queen's Park, and has provided recreational walking and cycling facilities.

The future use of the land for development remains a perceived threat for residents, particularly as the current landowner was the landowner for the original development of Great Denham. The current Local Plan policies (Policy 99 Sports and Recreational facilities, and AD43 – Urban Gap) offer some form of protection against future planning applications. Great Denham Parish Council, supported by a community action group Save Great Denham Golf Course, has successfully registered the land and buildings as Assets of Community Value (Localism Act 2011) and would look to raise funds to purchase land or buildings if offered for sale and retain for the community.

An ecological survey completed by BRCC before closure has documented the habitat of this area, and a summary of the birdlife and flora is available and shown below.



Key

- 1 Planted woodland belt
- 2 Undulating slopes with mixed and tufty grasses, Ribwort Plantain and occasional Oxeye Daisies and little else.
- 3 Woodland belt/ dens scrub featuring Hawthorn, Field Maple, Ivy, Elder, Blackthorn, Bramble, Guelder Rose, Ash, Scots Pine.
- 4 Rough grass and Blackthorn Scrub
- 5 Mixed rough and flowery grass including area of Wood Small Reed
- 6 Rough grass including Cock's Foot
- 7 Dry ditch line overgrown with Brambles and mixed scrub including Dogwood.
- 8 Flowery grassland
- 9 Flowery grassland with young mixed scrub including Ash, Oak, blackthorn, hawthorn and ant hills.
- 10 Dry pond with willow and New Zealand Pygmy Weed.
- 11 Pond with Reed Mace, New Zealand Pygmy Weed, Alder, Grey/Goat Willow, Soft Rush, Hard Rush, Common Reed, White Willow, Common Reed.
- 12 Flowering grass with willow herb dominated area, anthills and some oak sapling growth.
- 13 Common red dominated pond with New Zealand Pygmy Weed and Lesser Reedmace.
- 14 Pond with Lesser Reedmace, soft rush, Reedmace, New Zealand Pygmy Weed, and Common reed.
- 15 Willow filled dry pond
- 16 Pond with New Zealand Pygmy Weed, Common Reed, Reedmace and lesser Reedmace.
- 17 Combined pond/ ditch water feature with common Reed and Willows.
- 18 Common Reed bed.
- 19 Open pond with Reedmace, New Zealand Pygmy Weed, willows and Common Reed.
- 20 Mixed hedge/ belt birch, Sycamore, Scott's Pine, Bramble, Hawthorn, Alder, Maple, Rose.
- 21 Woodland block.
- 22 Broadleaved Woodland Block.
- 23 Mixed Scrub
- 24 Rough grass

The aspiration for this area is to ensure its continued protection as an Urban Gap via Local Plan planning policies, and to retain its use for sport and recreation, whether as a golf course or other sports/recreation facility and for no housing development to take place on this land.

5.5 Location 6 – Great Denham Country Park

Great Denham Country Park, to the south of the developed area, is a much-valued area of green space for residents.

The Country Park has a number of habitat features (wetlands, wooded areas, hedgerows, grasslands) and is a nesting site for swans, ducks (balancing ponds) and other birds (hedgerows, wooded areas, grasslands).



There is an active community Nature Group who have identified a number of different species within the country park:

Birds	Insects	Flowering plants
Kingfisher	Common Blue Damselfly	Bee Orchid
Skylark	Hairy Footed Flower Bee	Pyramidal Orchid
Mallard	Red Admiral	Alder
Meadow Pippit	Black Tailed Skimmer	Camomile
Grey Heron	Hairy Dragonfly	Rose Bay willow herb
Mute Swan	Wasp spider	Purple loosestrife
Pied Wagtail	Brown Hawker Dragonfly	Betony
Reed bunting	Grasshoppers	Tiny Vetch
	Ruddy Darter	Common Vetch
	Common Darter	White Campion
	Jersey Tiger Moth	Ragwort
	Elephant Hawk Moth	St Johns Wort
	Brimstone butterfly	Corn Marigold
	Gatekeeper butterfly	Common Mallow
	Small Skipper butterfly	Chicory
	Common blue butterfly	Burdock
	Marbled White butterfly	
	Large White butterfly	
	Comma butterfly	
	Puss moth caterpillar	
	Six spot Burnet moth	
	Brown Hawker	

5.6 Locations 7 and 8 – Wildflower Planting



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Great Denham hosts a number of wild flower species, including bee orchids, wild clary, field scabiose, meadow Cranesbill, pyramidal orchids and others. Apart from their benefits to pollinators they play a crucial part in biodiversity (which is in rapid decline in the UK) and climate control (e.g. flooding). In addition they are wonderful to look at and good for human mental health and wellbeing. Many of these species are in decline nationally, and efforts will

be made to maintain and grow the population in Great Denham, including a managed mowing schedule (in partnership with Bedford Borough Council).

Area 7 is part of Bedford Borough Council's Bee Project and has been planted with non local wildflower species, e.g., Californian poppies.

The area of wildflower planting identified in Area 8 also extends to the verge to South of Kingswood Way entrance, together with a small area on the boundary of the Park and Ride. These 2 areas are small and not marked on the map, but will be the focus on additional local wildflower seeding and managed cutting to encourage pollination and growth.

In addition to the sites indicated above a number of wildflower species have been identified in both the land behind the Park and Ride (location 1) and the Country Park (location 6).



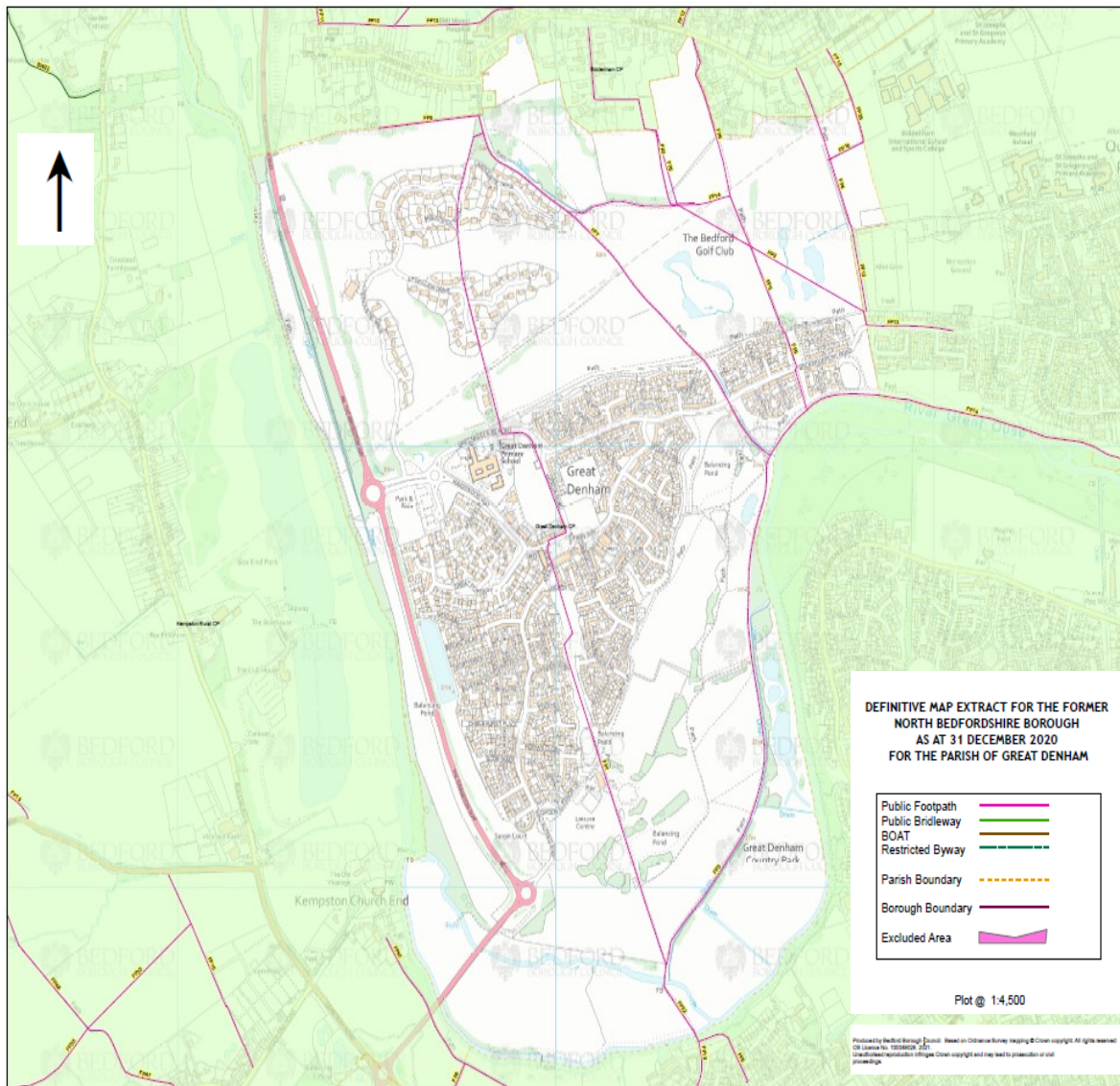
Survey conducted by a resident of Kingswood Way/Park and Ride area (Summer 2021)

Name	Latin name	Number
Bee orchid	Ophrys apifera	>15
Centaury	Centaureum erythrae	1
Agrimony	Agrimonia eupatoria	1
Yarrow	Achillea millefolium	multiple
Wild carrot	Daucus carota	multiple
perforated St John's Wort	Hypericum perforatum	1 colony
Cotton rose	Filago vulgaris	multiple
Oxe eye daisy	Leucanthemum vulgare	multiple
poppies	Papaver rhoas	
Hop trefoil	Trifolium campestre	multiple
Field bindweed	Convolvulus arvensis	multiple
other		
different grasses		

The aspiration is to enhance and protect the existing wildflower population through additional planting of local wildflower species, e.g., scabiose, and management of mowing/cutting schedule to enable seeding. This is in addition to any work done by Bedford Borough Council as part of their Bee project.

5.7 Footpaths and Cycleways (including pedestrian access to green space)

Great Denham is well-served by a number of Public Rights of Way (footpaths) that cross both the former golf course land and the Country Park, linking Great Denham to adjoining villages and communities.



In addition to the established Rights of Way, there are signposts for a number of Permissive Paths on the former golf course land, however a search for the original documents which provided the licence for these has proved unsuccessful.

Feedback from residents via survey has demonstrated the high value that is placed on these footpaths, and that they are a much-used amenity for leisure (both walking and cycling). The current network should be enhanced – including permissions for cyclists and also extending the current network with new pathways. The UK government has set a deadline of 1 January 2026 for all historic paths to be registered for inclusion on official maps (see Ramblers

Association: <https://www.ramblers.org.uk/get-involved/campaign-with-us/dont-lose-your-way-2026.aspx>)

The aspiration for the footpath and cycle path network is to protect and maintain the existing network of footpaths, enhancing where appropriate to permit cycling, and to identify and register any historic paths found in the Great Denham area, including renewal of permissive path licences on privately owned land.

5.8 Flora and Fauna

The National Biodiversity Network Trust has records of a large variety of species of animals and birds, insects and flowering plants in its database for the Great Denham area, as reported by members and observers.

Some of the species identified on its database:

Birds	Insects	Flowering plants
Kingfisher	Common Blue Damselfly	Bee Orchid
Skylark	Hairy Footed Flower Bee	Pyramidal Orchid
Mallard	Red Admiral	Alder
Meadow Pippit	Black Tailed Skimmer	
Grey Heron	Hairy Dragonfly	
Mute Swan	Brown Hawker	
Pied Wagtail		

Residents and the Great Denham Country Park Nature Group have also identified further species as documented in 6.4 Great Denham Country Park

6. Sports, Leisure and Play

The green areas of Great Denham are much valued by its residents for leisure and recreational activities.

6.1 Leisure activities

The Country Park and former golf course land, and the public rights of way network that crosses them, provide a valued network for walkers and cyclists.



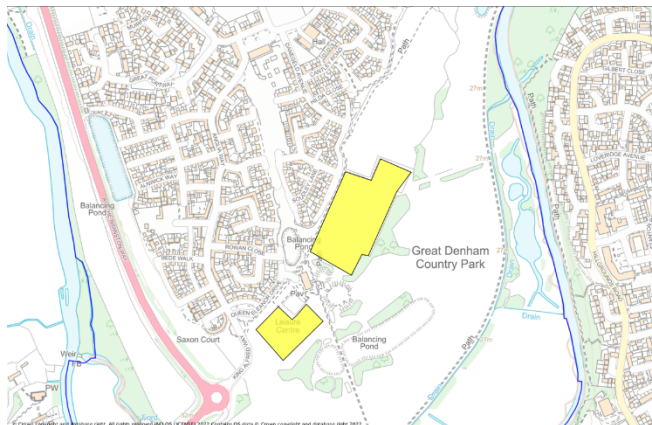
Additionally Great Denham Community Hall provides a venue for a number of fitness groups, including Yoga, Zumba, Pilates, and martial arts, as well as birthday parties, a regular social “Tea and Talk” group, a children’s’ cinema (Monthly) and summer and winter community events.

Great Denham Park Run takes place each Saturday in the Country Park and is a very popular activity, attracting runners from not only Great Denham but also surrounding areas. It was started by a local group in 2018 and is managed by a group of resident volunteers. (<https://www.parkrun.org.uk/greatdenham/>)



Bedford Borough Council also host funfair activities up to twice each year on land on the Country Park, and the Parish Council host litter picks on a regular basis.

6.2 Sports Facilities



Great Denham has 5 football pitches located at the Country Park (off Queen Eleanor Drive) – 2 x 11-side, 1 x 9-side, 1 x 7-side, 1 x 5-side (adult/junior pitches). Pitches are managed by Bedford Borough Council and available to hire via Playfinder.

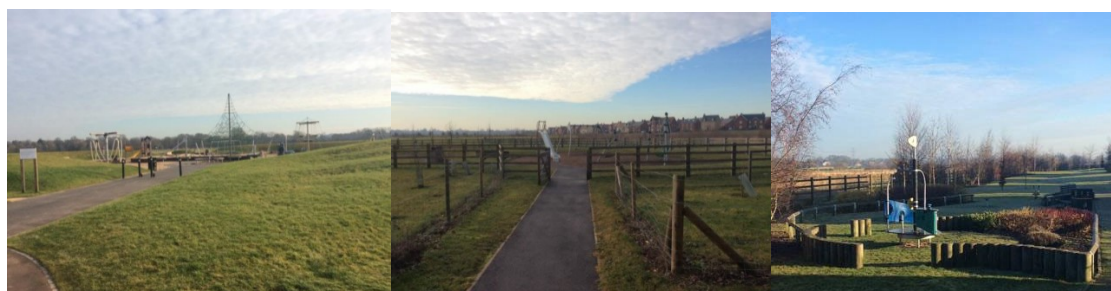
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6.3 Play areas for children



As part of the developers legal obligations, a variety of children's play areas have been provided across the development, with a range of equipment. All play areas are managed and inspected by Bedford Borough Council; maintenance of the newer play areas is delivered by the Borough using the Open Space management charge; the play areas on Great Portway are maintained by the Borough Council via Council Tax funding.

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7. River Great Ouse

The River Great Ouse makes up the western and southern boundaries of the parish. It provides a habitat for river fowl and leisure activities for residents. It also provides a natural barrier with neighbouring parishes of Kempston Rural and Kempston Town.

7.1 Flood Management

Management of the River Great Ouse is the responsibility of the Environment Agency and Bedford Borough Council as the Local Flood Authority. The severe flooding incident of Christmas 2020 resulted in Great Denham Country Park becoming completely covered in flood water, and the flood protection infrastructure (balancing ponds) being breached. Houses bordering the Country Park were most at threat, and luckily no properties were breached by flood water, although evacuation alerts were issued.

With the increasing impact of climate change high river levels should be expected in the coming years, with further flooding of low-lying ground a consequence.

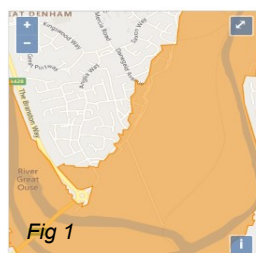


Fig 1

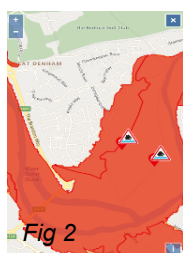


Fig 2

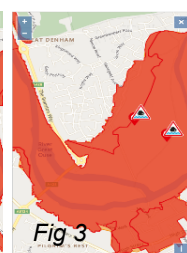


Fig 3

Fig 1 – Amber Flood alert 24th December 2020

Fig 2 – Red Flood alert 25th December 2020

Fig 3 – Red Flood alert 25th December 2020



Fig 4



Fig 5

Fig 4 – Play hub, Great Denham Country Park, 25th December 2020

Fig 5 – former golf course land, ground water flooding, January 2021

Precautionary work must be done to provide protection for houses, in particular along the Country Park, with a more structured local alert system and flood protection devices deployed.

7.2 Bedford and Milton Keynes Waterways Trust – development of Kempston Mill area



The Bedford and Milton Keynes Waterways Trust is a charity established in 1995 to “promote and assist in the provision and maintenance of a new waterway and associated facilities and structures connecting the Grand Union Canal at Milton Keynes to the River Great Ouse at Bedford, for the benefit of local inhabitants and visitors.”

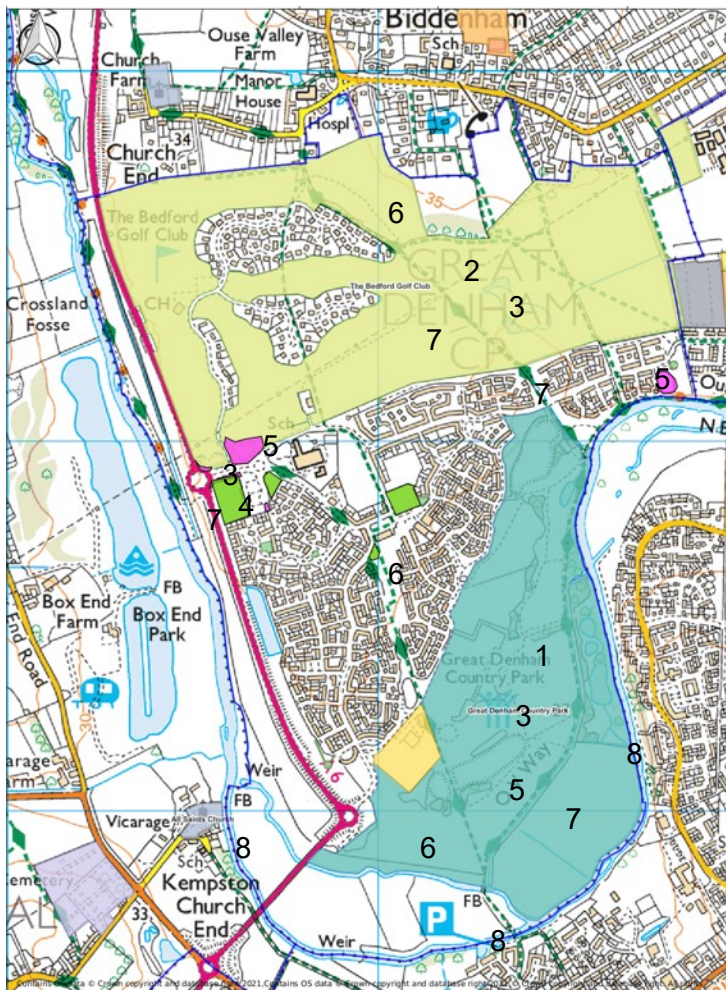
Whilst its long term focus is to create a Waterways Park which requires the building of a canal to link the Bedford and Milton Keynes areas, it is also focused on the development of the Kempston Mill area of the river (adjacent to Great Denham Country Park), including the clearing of the river to enable boat trips to reach Kempston Mill, and the building of a landing stage. The John Bunyan Boat is available for leisure trips from Priory Park Marina through Bedford and will ultimately reach Kempston Mill.

BMK Waterways Trust is also seeking additional funding to develop the area further, and has a number of aspirations as follows:

- Improve access to the footbridge near Kempston Mill and put in a hard surface path to the Mill bridge
- Tidy up areas around ponds to reduce leaf fall
- Reduce the number of willows around ponds to allow flora and fauna to thrive
- Open up views across the ponds
- Smaller footbridges along the riverside path to get across ditches
- Some boardwalks along the riverside to improve all year-round access

BMK is looking to partner with the respective Parish Councils to deliver on these ambitions.

8. Green Infrastructure Plan – aspirations



Aspirations for the Green Infrastructure are numbered on the map and detailed in the table below.

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Aspiration	Location	Details	Partners
<u>Aspiration 1</u> Protection of the Country Park (CP) as a green space, and development of its facilities for recreation	Great Denham Country Park Public Rights of Way network	<ul style="list-style-type: none"> • Maintenance and improvement of footpaths, and links to adjacent settlements • Improvement of bridge and river links from the CP • Maintenance and improvement of any play spaces • Improve parking capacity park users • Promote use of the CP by groups, events and local community activities, e.g. ParkRun • Provide information boards for CP users • Maintain open aspect in current form, including any future housing development 	Bedford Borough Council Kempston Town Council
<u>Aspiration 2</u> Protection from development for housing of the former golf course land, and continued open access to residents for recreation.	Former Golf Course land	<ul style="list-style-type: none"> • Permissive paths to be identified and re-licensed • Public rights of way to be maintained so access is not obstructed, through regular and scheduled cutting of vegetation • Protected Urban Gap to be maintained to avoid coalescence with neighbouring settlements 	Old Ford End Trust Bedford Borough Council

Aspiration	Location	Details	Partners
<u>Aspiration 3</u> To continue to provide a habitat for all wildlife, including native and migrant birds, invertebrates, foxes, deer and badgers	All green spaces	<ul style="list-style-type: none"> • Proactive management of green spaces to provide nesting sites for wildlife • Protection and management of hedgerows and tree copses, and to undertake replacement planting where required • To undertake a wildlife survey to inform the creation of a structured approach to CP and Protected Urban Gap land management • To encourage local community interest in flora and fauna of the area 	Bedford Borough Council BMK Waterways Trust Environment Agency
<u>Aspiration 4</u> The creation of a community orchard as part of the development of the land behind the Park and Ride	Land behind Park and Ride	<ul style="list-style-type: none"> • To create a design plan to bring the land into use for the community • To identify and work with appropriate organisations to create the orchard • To establish a community volunteer network for the ongoing maintenance and development of the area • To establish a bee colony/hives 	Woodland Trust Bedford Borough Council Bedford Bee Keeping Association Volunteers from local community
<u>Aspiration 5</u> Protection of existing local wildflower species and development of wildflower planting throughout Great Denham	Various sites through Great Denham	<ul style="list-style-type: none"> • To establish a regular schedule of planting and mowing so that native wildflowers can flourish • To discourage use of pesticides in the wildflower spaces by all contractors • To provide information boards on key wildflower site locations to inform residents • To extend wildflower planting in suitable locations 	Bedford Borough Council Volunteers from local community

Aspiration	Location	Details	Partners
<u>Aspiration 6</u> Development of the pedestrian and cycle access points and routes across Great Denham, linking the community with nearby villages	Public Rights of Way network	<ul style="list-style-type: none"> • Permissive paths to be identified and licensed • Identification and registration of future rights of way • To link Great Denham into the National Cycle network • Maintain and promote pedestrian access between areas of the development 	Bedford Borough Council Council Archives Ramblers Association Old Ford End Trust
<u>Aspiration 7</u> To protect planted trees and hedgerows, and to increase planting where possible, as part of a “green canopy” against the effects of climate change.	Great Denham Country Park Former Golf Course land Land behind Park and Ride	<ul style="list-style-type: none"> • Protection and management of hedgerows and tree copses, and to undertake replacement planting where required • Encourage and support the community to plant and look after trees around Great Denham • To promote planting of native species • To provide information boards where appropriate 	Bedford Borough Council Woodland Trust Forest of Marston Vale
<u>Aspiration 8</u> Protection of the waterways and development of amenities for the benefit of residents, including improving flood protection	Great Denham Country Park	<ul style="list-style-type: none"> • To develop proposals for additional landing areas, access routes and pathways in the river area • To create a flood management plan for the community • To promote the wider use of water management policies for sustainable/renewable energies, water quality and navigation • Protect the floodplain to ensure safety of nearby houses 	BMK Waterways Trust Environment Agency Bedford Borough Council

9. Links to other GI related plans

The Bedfordshire & Luton Strategic Green Infrastructure Plan

The Bedfordshire & Luton Strategic Green Infrastructure Plan (2007) identifies a broad, spatial vision for green infrastructure across the area and highlights 11 strategic GI corridors across the county. The parish of Wootton lies within the Lower Great Ouse River Valley Corridor.

The Bedford Green Infrastructure Plan

The Bedford Green Infrastructure Plan 2009 complements the Strategic Green Infrastructure Plan for Bedfordshire and Luton by identifying more detailed spatial priorities across Bedford Borough and providing detailed background information to support policies and proposals in the Bedford Borough Local Plan.

Bedford Borough Local Plan (2030)

The plan, which sets out “how much growth there should be in the borough in coming years and where it should take place”, was adopted by Full Council in January 2020. One of the emerging objectives for the plan is to develop a strong and multifunctional urban and rural green infrastructure network through protecting, enhancing, extending and linking landscapes, woodland, biodiversity sites, heritages sites, green spaces and paths. This objective is interpreted within both Policy 29S – Place Making, and Policy 36S-Green Infrastructure. In addition, Policy 46 of the emerging plan deals solely with Local Green Space and states that development proposals which result in the loss of part or all of a Local Green Space or would have a negative impact on the features that make it locally significant will not be permitted unless very special circumstances can be demonstrated.

Sustainable Communities Strategy for Bedford

The Sustainable Communities Strategy for Bedford Borough (2009 -2021), in its Environment and Climate Change theme states that, “We are supporting community led action to improve and care for the local environment including community woodland, allotment, orchard and heritage projects.”

There is also recognition of the importance of green infrastructure in the Strategy, which refers to the fact that, “The extent and quality of our green infrastructure contributes greatly to our quality of life, providing people with opportunities for sport, recreation or just quiet contemplation.”

Bedford Borough Core Strategy and Rural Issues Plan

Policy CP 22 (Green Infrastructure) of the Bedford Borough Core Strategy and Rural Issues Plan (adopted 2008) states that, “Existing green infrastructure of both local and strategic importance will be protected from development. Where appropriate, development will provide green infrastructure in accordance with adopted local standards.”

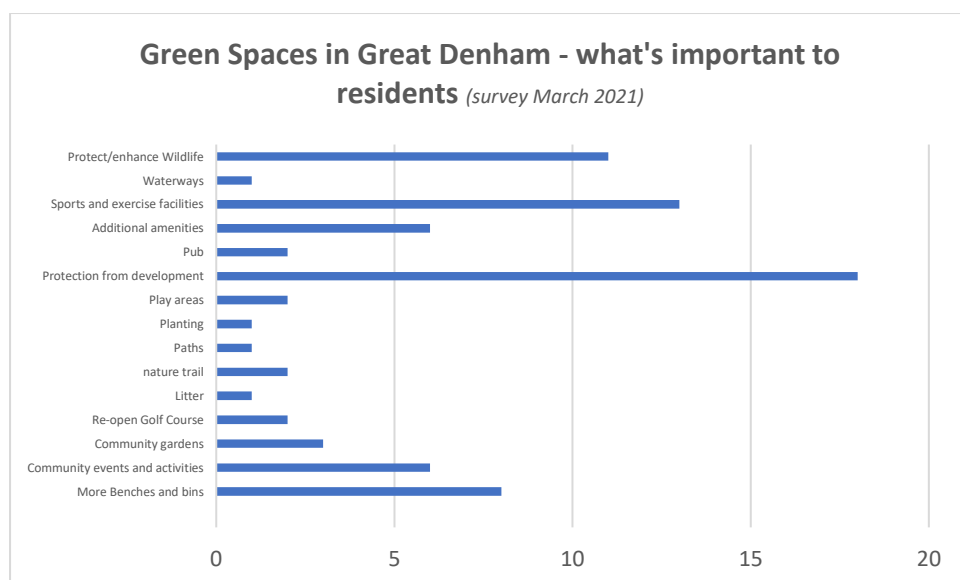
10. Methodology & Community Involvement

The Covid Pandemic and lockdowns has prevented the Neighbourhood Plan Steering Group from undertaking face to face engagement for much of 2020 and 2021. Instead, we have sought to involve residents through publication and distribution of electronic surveys, printed newsletters (with survey response mechanisms) and posts via social media/posters on Parish Council noticeboards.

In September 2021 the first face to face event in Great Denham took place at the Community Hall and the Steering Group used posters to communicate and engage with residents on both the proposed Design Code and also the Green Spaces that were being proposed for Great Denham. Members of the Steering Group were in attendance to speak to residents, provide information and collect feedback.

Regulation 14 Consultation – 15th August to 14th October 2022. The Green Infrastructure Plan was published on the Parish Council website and included in all Community Engagement activity for this Consultation; a copy of the GIS was also made available at Great Denham Community Hall for all to read.

- Neighbourhood Plan Survey September 2020 - # of responses
- Bedford Golf Club Survey September 2020 - # of responses
- Neighbourhood Plan Newsletter November 2020 – 2000 newsletters delivered
- Neighbourhood Plan Newsletter March 2021 – 2000 newsletters delivered
- Neighbourhood Plan Survey March 2021 - # of responses
- Great Denham Comeback Festival – engagement September 2021 – over 1000 residents attended this event and had the opportunity to engage with the poster material. # of responses collected.



Residents' suggestions from survey

Some further tree planting would be good, in suitable areas. This could in time provide woodland walks as well as being environmentally sound.

I would like to see more benches for those with mobility problems to support their walks

I would like to see more places that could be sat and enjoyed. I believe the smaller parks should be increased in size to be more meaningful.

Maintain country park and Wetland for people to enjoy the views and birds / Wildlife.

variety of uses for all ages. Playgrounds are really good provision. "playgrounds " for teens. areas for picnics or barbecues. Elderly "gym"equipment, skate park, bike park, forest school, wildlife observation and wildlife education.

Places to just go and have a picnic or a run about that's not at the far end of the estate or near the ponds. Somewhere safer for children to be

Protection of all rights of way and other well used pathways.

To be maintained for walking, cycling and running and sports use so that residents can enjoy the outdoors on their doorsteps.

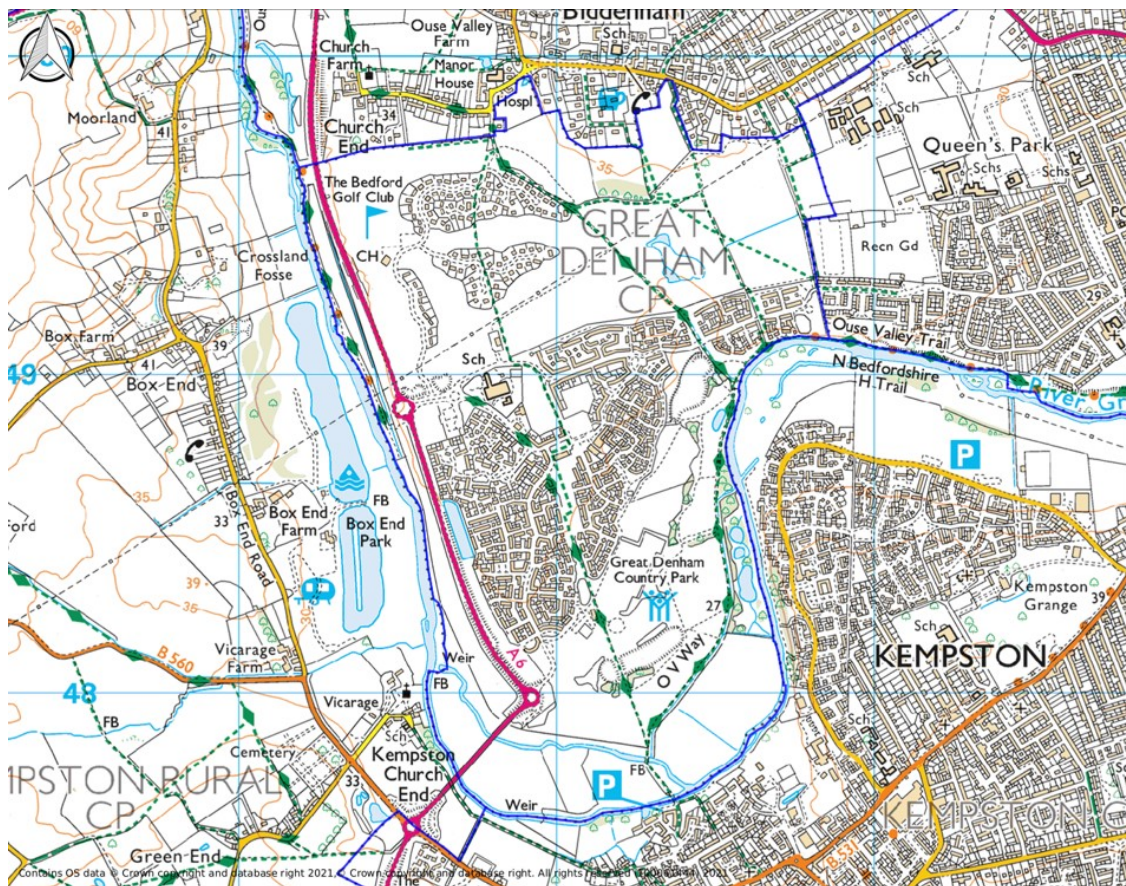
Planting of more trees around the estate, open patches of ground planted with native plants with minimal mowing to aid wildlife. Creation of additional parkland on the former golf course.

APPENDICES

11. Appendix A - GI Themed Maps and Map Information

A.1 Context Map (Figure 1)

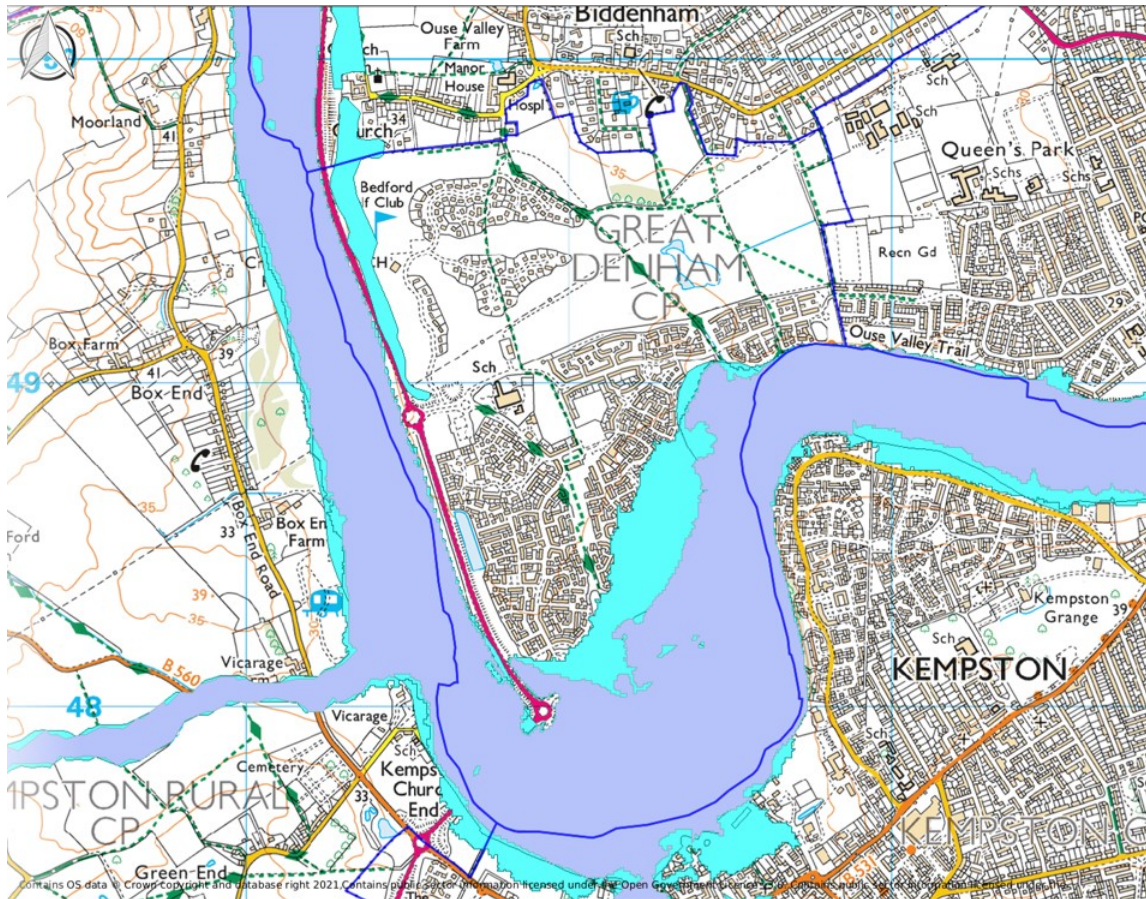
The Context map shows Great Denham in relation to the villages, road routes and countryside that surround the parish. The Great Denham Neighbourhood Area is shown as a blue line, contiguous with the Parish boundary.



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A.2 Landscape Map (Figure 2)

The Landscape Map shows the position of contours within Great Denham Parish. It also shows the areas at risk from a 1% chance flood from a river. Contours and flood zones can be useful when creating green infrastructure corridors.



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A.3 Biodiversity Map

If you would like further information or advice about the wildlife in the parish, please contact The Wildlife Trust (01234 364213 or bedfordshire@wildlifebcn.org). The Bedfordshire and Luton Biodiversity Recording and Monitoring Centre (BRMC) has a wealth of records about the species seen in your parish and is beginning to compile habitat data. If you would like to access this resource please contact them (01234 355435 or brmc@bedsbionet.org.uk).

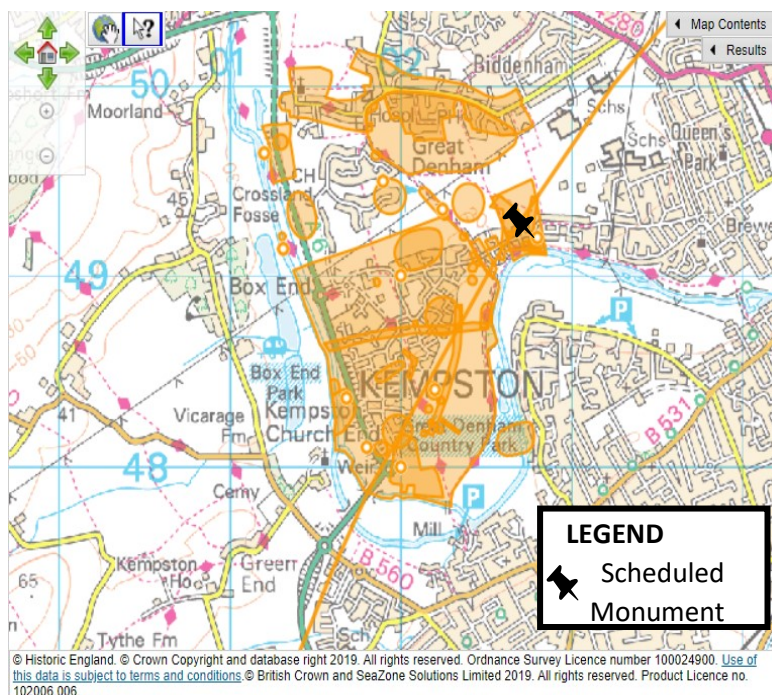
A.4 Historic Environment Map (Figure 3)



The Biddenham Loop has been the scene of human activity from the Palaeolithic through to the present-day but the majority of the archaeological evidence spans the Neolithic to the early 4th century AD. Apart from two handaxes, probably brought up from deep within the gravel by recent quarrying, no evidence for Palaeolithic activity was recovered. Given that the Biddenham area once had a reputation as a prolific source of material of this date, its absence is explained by the development's relatively limited impact on the underlying gravel terrace. Field artefact collection provided valuable information on the location of late Mesolithic/early Neolithic and late Neolithic/early Bronze Age occupation. During the earlier period, activity was concentrated along the edge of the river terrace. In contrast, the late Neolithic/early Bronze Age flint concentrations were far more widespread, extending into the

interior of the Loop. A small number of probable Neolithic monuments, including rectangular and oval enclosures, were identified. The ring ditches occurred in clusters, each in the vicinity of at least one Neolithic monument, suggesting a degree of continuity. One ring ditch actually truncated a probable Neolithic shaft. In addition to the monuments, some of which may have been associated with funerary practices, cremation burials were found in flat graves. In terms of location, the monuments (identified as cropmarks, geophysical anomalies and excavated features) and 'settlement' areas (identified by flint concentrations) were mutually exclusive. Where excavation was undertaken below flint concentrations, few sub-surface features were identified; it is presumed that the only evidence for 'settlement' survived in the ploughsoil. Elsewhere, where 'settlement' evidence was found, it comprised individual, or clustered, small pits. Although the nature of any 'settlement' prior to the late Bronze Age is uncertain, thereafter the Biddenham Loop was continuously occupied until the

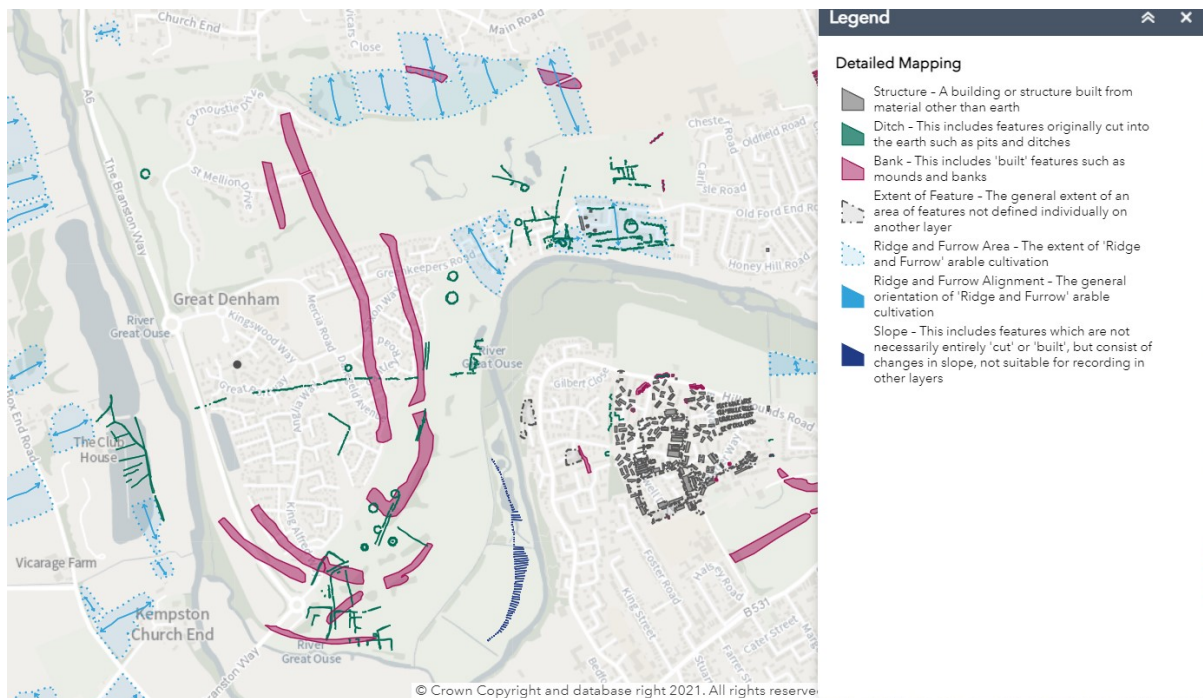
end of the Romano-British period. Six unenclosed, early-middle Iron Age farmsteads were identified, all sharing similar topographical locations adjacent to but above the floodplain. Two were close to the earlier settlement, possibly suggesting some degree of continuity. The key identifying characteristic of each farmstead was the presence of a concentration of large storage pits. However, one also contained evidence for roundhouses and enclosures; another was associated with an inhumation burial. Such pits have traditionally been interpreted as seed grain stores, but sufficient evidence was recovered to suggest that mixed farming continued to be practised. The four farmsteads continued to be occupied into the late 1st century AD, although they were augmented by extensive rectilinear systems of ditched enclosures. Most contained enclosures with settlement-type features but only one produced direct evidence for buildings in the form of roundhouses. All the farmsteads were subject to minor redesign; two of them displayed more fundamental changes with substantial boundary alterations. A system of fields, associated with the farmsteads, was present over most of the interior of the Biddenham Loop. Trackways linked the farmsteads and provided access to the floodplain and, probably, the substantial contemporary settlement at Kempston Church End. However, there is little evidence for high status goods coming out to the farmsteads in return. The farmsteads ceased to function by the early 4th century, although there is some non-intrusive survey evidence for Saxon activity on at least one of them. However, settlement within the Biddenham Loop effectively ceased as it became incorporated into Biddenham township's open fields.



The Great Denham area has been the subject of a number of archaeological investigations as a result of the development which has taken place. A variety of historic sites are shown on this map. Integrating these sites into green infrastructure plans can help to preserve parish history. The Historic Environment Record (HER) is maintained at Bedford Borough Council, Borough Hall, Cauldwell Street, Bedford, MK42 9AP. For advice or further information about historic areas in your parish please contact the Historic Environment Information Officer at Bedford Borough Council (01234 718560 or

vanessa.clarke@bedford.gov.uk or use the online Heritage Gateway <http://www.heritagegateway.org.uk>).

More detail is available showing sites of ditches, and banks.



A4.1 Scheduled Monument - Oval barrow 60m west of Ranworth Walk, 650m south west of Westfield School



Along with the long barrows, oval barrows represent the burial places of Britain's early farming communities and, as such, are amongst the oldest field monuments surviving visibly in the present landscape. Where investigated, oval barrows have produced two distinct types of burial rite: communal burials of groups of individuals, including adults and children, laid directly on the ground surface before the barrow was built

The monument includes the buried remains of a Neolithic oval barrow located within an arable field near the north bank of the River Great Ouse, some 60m to the east of Ranworth

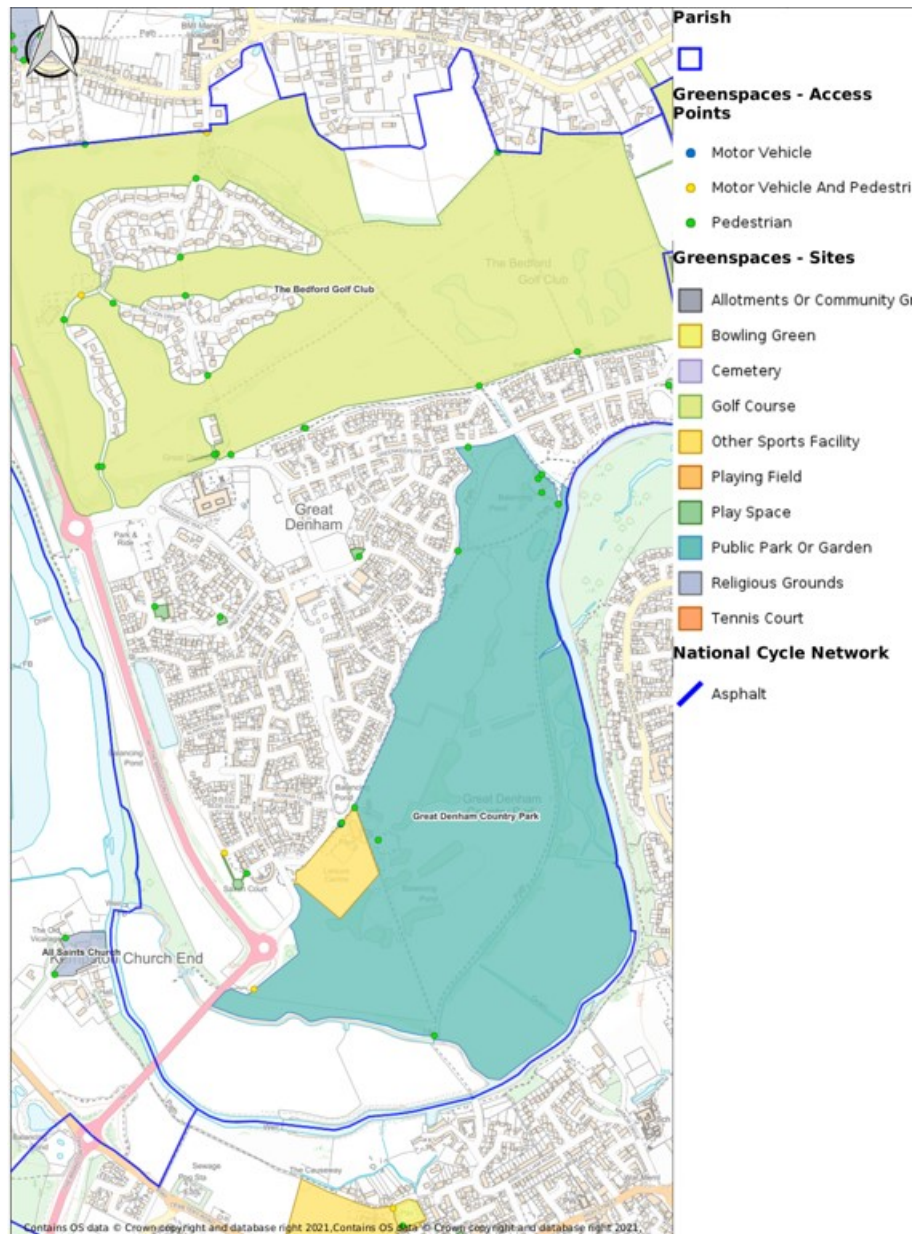
Walk: a footpath adjacent to a residential estate at the western end of Old Ford End Road. Although no earthworks can now be observed on the ground, the buried ditches surrounding the barrow are clearly visible as cropmarks on a sequence of aerial photographs, and were recorded by a geophysical survey in 1994. The monument is orientated NNW to SSE and is approximately 25m in length and 17m in width, measured from the outer edge of the principal quarry ditch which marks the former extent of the mound. A semicircular outer ditch surrounds the southern end of the barrow (extending c.4m from the inner ditch) and is connected to the inner circuit slightly to the south of centre of the longer sides. Traces of a third, semicircular ditch are visible within the curvature of the northern end. This latter feature is thought to represent part of the foundation trench of an earlier mortuary structure located within the area of the mound. The 1994 geophysical survey indicated that the ditches are interrupted by gaps or causeways. Two long ditch sections flank the eastern and western sides of the monument, with shorter segments completing the circuit at either end and forming the outer ditch to the south. The barrow lies on the north eastern edge of the Biddenham Loop, an area of c.210ha contained within a broad meander in the course of the river to the south of the village of Biddenham. This discrete landscape has been shown both by aerial photography and ground-based fieldwork to contain extensive evidence for human activity from the Palaeolithic and Mesolithic periods through to Roman and medieval times. Toward the centre of the loop the cropmarks of a group of five ring ditches (thought to be the remains of degraded Bronze Age round barrows) have been recorded; with further ring ditches, either singly or in pairs, located to the north east and north west. In 1975 a fieldwalking survey of the central and eastern part of the loop revealed scatters of Late Neolithic and Middle Bronze Age flint artefacts centred in two main areas to the north and north east of this barrow group. A more intensive fieldwalking survey undertaken in 1991 included the area of the oval barrow which contained a low density scatter of flints indicating residential occupation. The adjacent areas to the north and west provided evidence for seasonal occupation in the Neolithic and Early Bronze Age. Cropmarks of later periods include a pit alignment, considered to be of Iron Age date, which traverses the area to the south west of the oval barrow. An Iron Age or Roman trackway and further rectilinear boundary ditches or enclosures have been recorded in the vicinity of the oval barrow. A large rectangular enclosure, c.50m in width, lies immediately to the north west of the barrow, the southern corner of which coincides with the northern edge of the barrow ditch. A second linear ditch is aligned across this enclosure, extending to the north east and curving around the eastern side of the oval barrow. The positions of both features indicate that the barrow was a visible earthwork at the time of their construction. In order to provide protection for a sample of these later features and to preserve their archaeological relationship with the earlier monument, the scheduling includes a margin, 10m in width, on the northern, eastern and southern sides of the barrow. The remaining features within the Biddenham Loop are not included in the scheduling.

For further information on this scheduled monument:

<https://historicengland.org.uk/listing/the-list/list-entry/1013523>

A.5 Open Space, Access and Recreation Map (Figure 5)

This map shows the positions of open spaces (e.g. golf courses, recreation grounds or school playing fields) within the parish. Not all of them are accessible to the public. Rights of Way are key to providing access to open spaces within green infrastructure plans. When creating networks access barriers, such as busy roads, would need to be considered. The main (illustrated and labelled) greenspaces are summarised below the map.



12. Appendix B – Local Green Space Assessment and Designation

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. As part of promoting healthy and safe communities, the value of access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and wellbeing of communities. The Local Green Space designation will allow communities to identify and protect areas that are of value to the community through local and neighbourhood plans.

The designation should only be used:

- where the green space is in reasonably close proximity to the community it serves;
- where the green area is demonstrably special to a local community and holds a particular local significance, for example because of its beauty, historic significance, recreational value (including as a playing field), tranquillity or richness of its wildlife; and
- where the green area concerned is local in character and is not an extensive tract of land.

The following LGS assessment has been undertaken using a methodology for identifying spaces suitable for designation as Local Green Spaces (LGS) according to the criteria set out in the National Planning Policy Framework and subsequent Government guidance (Planning Practice Guidance: Local Green Space designation).

B.1 Stage 1 Assessment

The stage 1 assessment is designed to filter out which sites do not meet the basic LGS eligibility criteria. Sites which have current planning permission, or have been allocated for development, or have an existing designation giving the same level of protection as a LGS designation, do not meet the criteria and are not carried forward to the stage 2 assessment.

The following table provides information on the most important sites in the Parish.

Site	Current Planning Permission?	Allocated for Development?	Already Designated?	Pass to Stage 2?
Former Golf Course	N	N	N	Y
Kickabout	N	Y	N	N
Village Green/Community Garden	N	N	N	Y
Land behind Park and Ride	N	N	N	Y
Country Park	N	N	N	Y

Anglia Way Meeting place	N	N	N	Y
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B.2 Stage 2 Assessment

Site	Not Extensive	Close Proximity	Demonstrably Special/ locally significant	Recommend for Designation?
Former Golf Course	X	✓	✓	X
Village Green/Community Garden	✓	✓	✓	✓
Land behind Park and Ride	✓	✓	✓	✓
Country Park	X	✓	✓	X
Anglia Way Meeting place	✓	✓	✓	✓

Accordingly, all three sites that have passed the Stage 2 Assessment are designated as Local Green Space in the Great Denham Neighbourhood Plan.