



GRAVESHAM BOROUGH COUNCIL

LOCAL PLAN AND STRATEGY REVIEW

District priorities for nature and the wider environment from the local plan
and other strategies

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To note: The Environmental Improvement Plan 2023, Environmental goals, have been used to categorize the district's environmental targets in this review.



SECTION 1: THREATS AND PRESSURES ON THE NATURAL ENVIRONMENT

1.1 Development pressures (GBI Study, 2022)

Major developments

Gravesham is an area in which significant change is expected over the Local Plan period and beyond. A number of major developments are anticipated in and around Gravesham, including the proposed Lower Thames Crossing to the east of the urban area, London Resort Theme Park, which is mainly in Dartford, to the west of the urban area, and the potential release land currently designated as Green Belt to meet identified development needs. These changes along with a number of other trends and pressures present threats to the existing GBI network and opportunities for future GBI.

Green Belt release around settlements

Gravesham Borough Council are currently reviewing the Local Plan Core Strategy to address the Borough's development needs up to 2037. It is likely that the emerging Local Plan will continue to require the release of land designated as Green Belt land to meet its housing needs over the Plan period.

Gravesham Borough Council is expected to need land for at least 10,700 dwellings. Current evidence indicates that it is likely that this will require the release of land designated as Green Belt land to meet this level of housing need over the Local Plan period.

1.2 Flood Risk (Water and Flood Risk, 2020)

In Gravesham, the greatest threat of flooding arises from tidal events on the River Thames. Whilst the majority of areas susceptible to tidal flooding benefit from existing flood defences, these have a limited design life and will require on-going maintenance, upgrading and improvement over the Local Plan period and beyond.

Conversely, wetter winters and potential increases in extreme rainfall events bring with them the risk of fluvial (rivers and streams) and pluvial (surface water) flooding. Traditional piped drainage systems risk being overloaded in such conditions and the use of more natural sustainable drainage options are a better alternative. However, the potential for localised flash flooding remains during extreme rainfall events and this may have implications for where development should be located, and surface water run-off managed.



1.3 Water Stress

Gravesham lies with an area which is water stressed and where there are significant demands on water resources. Most of the borough's water comes from chalk aquifers. (GBI Study, 2022)

Increases in hotter and drier summers will place increased pressure on water resources for human consumption, including in agriculture. The South East is already a water stressed area, where there is a need to balance human needs against environmental considerations. Potential demands on water resources are therefore an important consideration in how we plan for the future. (Water and Flood Risk, 2020)

1.4 Water Quality

Water quality within the Medway catchment area has been rated by the Environment Agency as poor due mainly to land and agricultural management. A significant portion of the borough, to the east and south of the urban area, is within a 'nitrate vulnerable zone', where agricultural fertilisers are controlled. (GBI Study, 2022)

1.5 Threats to Green and Blue Infrastructure (GBI Study, 2022)

Climate change projections predict warmer wetter winters and hotter drier summers, along with an increased frequency and intensity of extreme weather, will increase the need for GBI to provide resilience to climate changes.

Biodiversity already in decline, will also be at risk from climate change and from increasing human population. Future GBI needs to be planned in the expectation that these changes will occur.

Many threats to Gravesham's GBI network affect the whole borough, but some areas may face a greater concentration of threats. For example, the Thames Estuary marshes are threatened by climate change, flood risk, land use management, and population growth (recreation pressure).

The threats and challenges associated with climate change and population growth are likely to affect urban GBI in a different way to GBI within rural areas. For example, within Gravesend and Northfleet, where population density is higher and access to natural greenspace is poorer, climate change and population growth are likely to increase the requirement for GBI quantity and to meet diverse functions, for example to provide urban shade and surface water attenuation, as well as recreation. Within rural areas, the same threats may instead require a focus on GBI quality, for example to increase the resilience of habitats and species to recreation pressure and climate change.



SECTION 2: TARGETS AND PRIORITIES FOR NATURE RECOVERY (GOAL 1)

Unless otherwise stated, the following information in section 2 came from part 1 (Local Plan core strategy partial review and site allocations) and part 2 (Draft Development Management Policies Document), of the Regulation 18 Stage 2 Consultation, Gravesham Local Plan, October 2020.

2.1 PROTECTING HABITATS

2.1.1 Internationally Designated Sites

Thames Estuary and Marshes Special Protection Area (SPA) and Ramsar site

An internationally important landscape, between Gravesend and Whitstable, for nature conservation and wintering wildfowl. Every year around 250,000 waders and waterfowl travel thousands of miles to spend winter on the North Kent coast, feeding and resting on the marshes in preparation for the long return journey to their breeding grounds in the spring. (Nature Conservation)

SAMMS Tariff (The North Kent Strategic Access Management and Monitoring Scheme)

In recent years, the number of birds using these sites has declined and studies show that this could be due to people using the Thames estuary and marshes for recreation. An increase in residential development is likely to lead to an increase in recreational use. In 2015, the Planning and Regeneration Committee agreed to adopt a tariff for all planning applications which result in a net increase in dwellings within a 6km radius of the sites.

Bird Wise, recipients of the tariff, is the brand name for SAMMS, a partnership of local authorities, developers and environmental organisations. For more information on the area, the works carried out and background research and strategy reports visit the Bird Wise website.

There are currently no Marine Conservation Zones or Marine Conservation Areas within Gravesham, although part of the Thames Estuary and Marshes Special Protection Area has a marine component. The wider biodiversity value of the marine environment should not otherwise be ignored.

Special Areas of Conservation

North Downs Woodland Special Area of Conservation (SAC)

2.1.2 Nationally Designated Sites

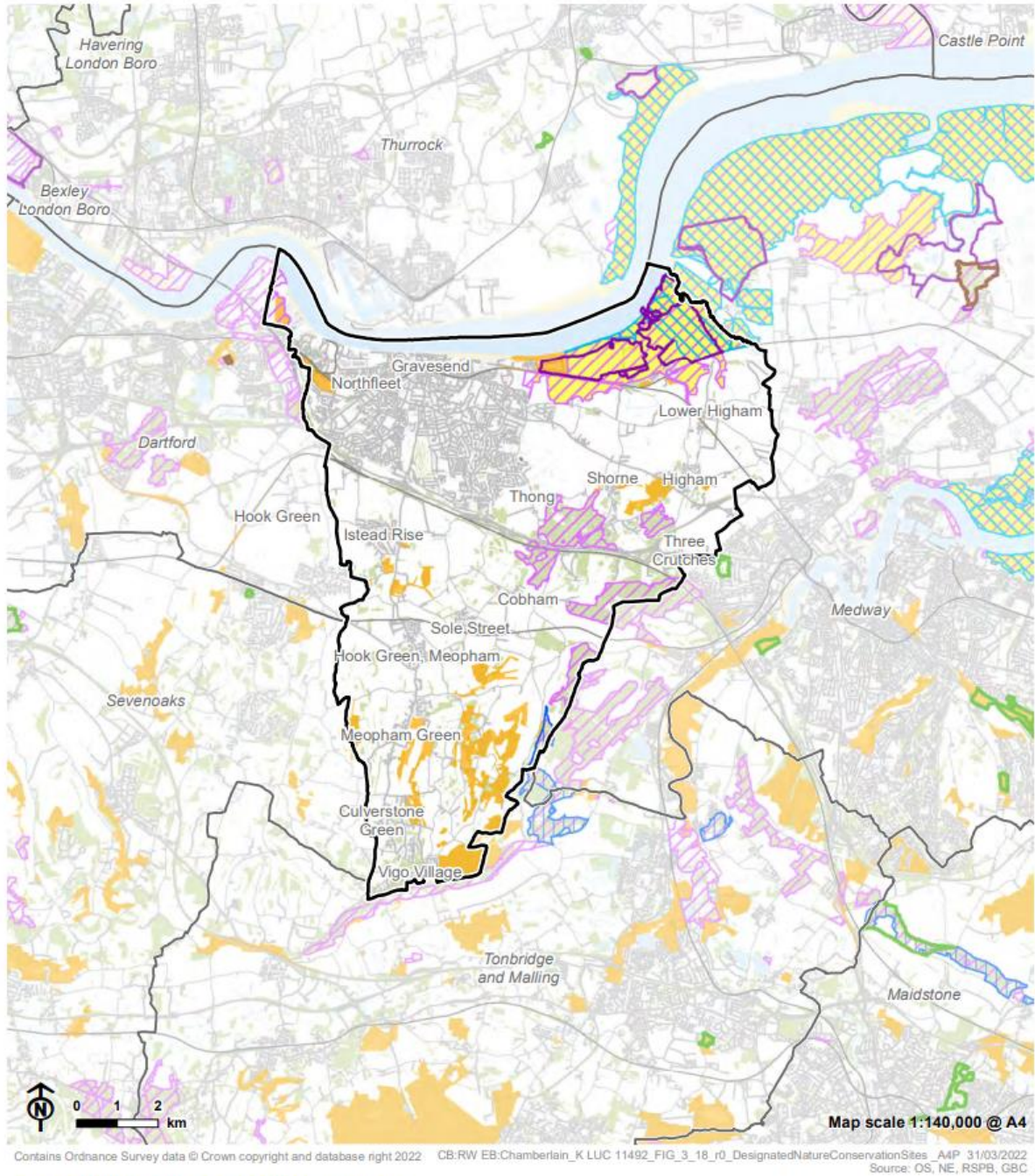


Fig 3.18: Designated nature conservation sites

- Gravesham
- Other local authority areas
- Special Areas of Conservation (SAC)
- Special Protection Area (SPA)
- Site of Special Scientific Interest (SSSI)
- Ramsar
- National Nature Reserve (NNR) (Not in Gravesham)
- Local Nature Reserve (LNR) (Not in Gravesham)
- RSPB reserve
- Local Wildlife Site (LWS)

(GBI Study, 2022)



Sites of Special Scientific Interest (SSSI Designations);

Shorne and Ashenbank Woods SSSI
Great Crabbles Wood SSSI
South Thames Estuary and Marshes SSSI
Cobham Woods SSSI
Halling to Trottiscliffe Escarpment SSSI

Kent Downs National Landscape (Formerly known as Area of Outstanding National Beauty)

The Kent Downs National Landscape is located in the eastern side of our Borough, extending from Shorne south to Vigo. It is designated because of its scarp slope and dry valleys which often retain a downland character and its woodlands are also highly valued. (Nature Conservation)

Policy GI 5: Landscape Character

Within the Kent Downs AoNB and its setting, great weight will be accorded the conservation and enhancement of the landscape and scenic beauty of the designated landscape. The conservation and enhancement of wildlife and cultural heritage of the AoNB will also be accorded weight.

Development proposals within the AoNB will only be permitted where:

- Their location, form, scale, materials and design would conserve or make a positive contribution to the enhancement or restoration of landscape character; and*
- They would conserve or enhance the special qualities, distinctive character and existing tranquillity of the AoNB.*

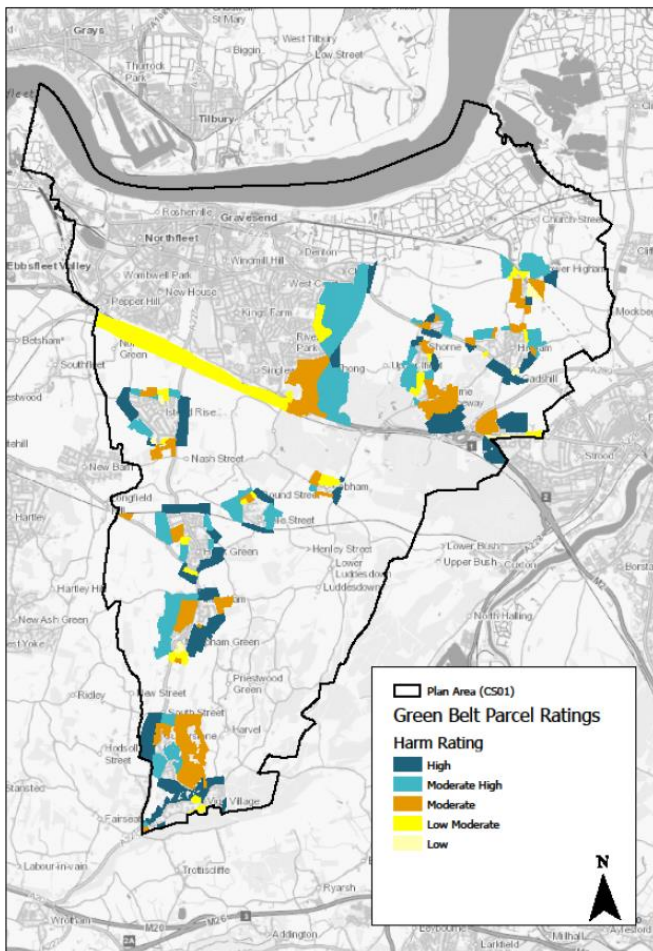
Proposals for major development within the AoNB will only be permitted in exceptional circumstances, and where it is demonstrated, they are in the public interest, in accordance with national policy.

In determining applications, the Council will have regard to the Gravesham Landscape Character Assessment (or subsequent updates) and the Kent Downs AoNB Management Plan and associated guidance as material considerations.

Metropolitan Green Belt

The Green Belt Study Stage 2 work identifies and assessed a total of 122 parcels and reflects the potential harm to Green Belt purposes, rated on the basis of a 5-point scale of high, moderate-high, moderate, low-moderate and low. Parcels were defined up to the point where it was considered that the release of land would cause high harm to Green Belt purposes. All land beyond the defined parcels was therefore assessed as high harm.

Figure 18: Summary of findings, Green Belt Study Stage 2



Proposed Policy text:

The Council is committed to preserving the openness of the Green Belt and will only support development where it is compatible with national policies for protecting the Green Belt and policies in this plan. Inappropriate development in the Green Belt will not be approved unless the applicant can demonstrate the existence of ‘very special circumstances’ that clearly outweigh harm to the Green Belt and any other harm. When considering planning applications, the Council will give substantial weight to any harm which may be caused to the Green Belt.

2.1.3 Locally designated sites

There are 18 Local Wildlife Sites in Gravesham (Local Wildlife Sites):

Botany Marshes, Ebbsfleet Marshes, Canal and Grazing Marsh, Higham, Shorne Pasture, Court Wood Shorne, Telegraph Hill Higham, Pasture South of Istead Rise, Grassland and scrub Istead Rise, Nurstead and Cozenden Woods, Elbows Wood Meopham, Happy Valley Meopham, Strawberry Hill Pasture and woodland Meopham, Henley Wood and Pasture, Luxton Wood Great Buckland, Pasture and



Woods of South Luddleston, Pasture Great Buckland, White Horse Wood and Holly Hill .

2.1.4 Nature Improvement Area (NIA)

In recognition of their national and international nature conservation importance, the Government provided funding for the establishment of a Nature Improvement Area (NIA) on the North Kent Marshes (Greater Thames Marshes NIA). A water level management plan is also in operation on the marshes to the east of Gravesend to maintain their nature conservation interest as habitat suitable for migratory birds. Much of this area is managed by the Royal Society for the Protection of Birds (RSPB) along with other landholdings in Medway.

The Council also participates in the North Kent Strategic Access Management and Monitoring Strategy (SAMMS) project, to educate visitors and control disturbance to birds within the designated Ramsar site and Special Protection Area (SPA).

Because the incremental delivery of new residential accommodation in Gravesham could have a potential cumulative impact on the marshes through increased visitor numbers, a tariff is charged against each new dwelling within a 6 kilometre radius as a contribution towards the SAMMS project. This is a management initiative aimed at controlling an on-going problem rather than the requirement to achieve net environmental gain in relation to the restoration or enhancement of habitats. The development management policy that follows therefore requires that all new dwellings created within this zone mitigate their impact either through this or another agreed mechanism.

2.1.5 Priority Habitats (GBI Study, 2022)

Gravesham has significant areas protected by law for wildlife: the marshes along the Thames Estuary, woodland areas around Shorne, and the along the south eastern edge of the borough.

These sites contain concentrations of priority habitats such as broadleaved woodland, wood pasture, floodplain grazing marsh and intertidal mudflats. Priority habitats also exist outside of protected areas, although in many cases are fragmented

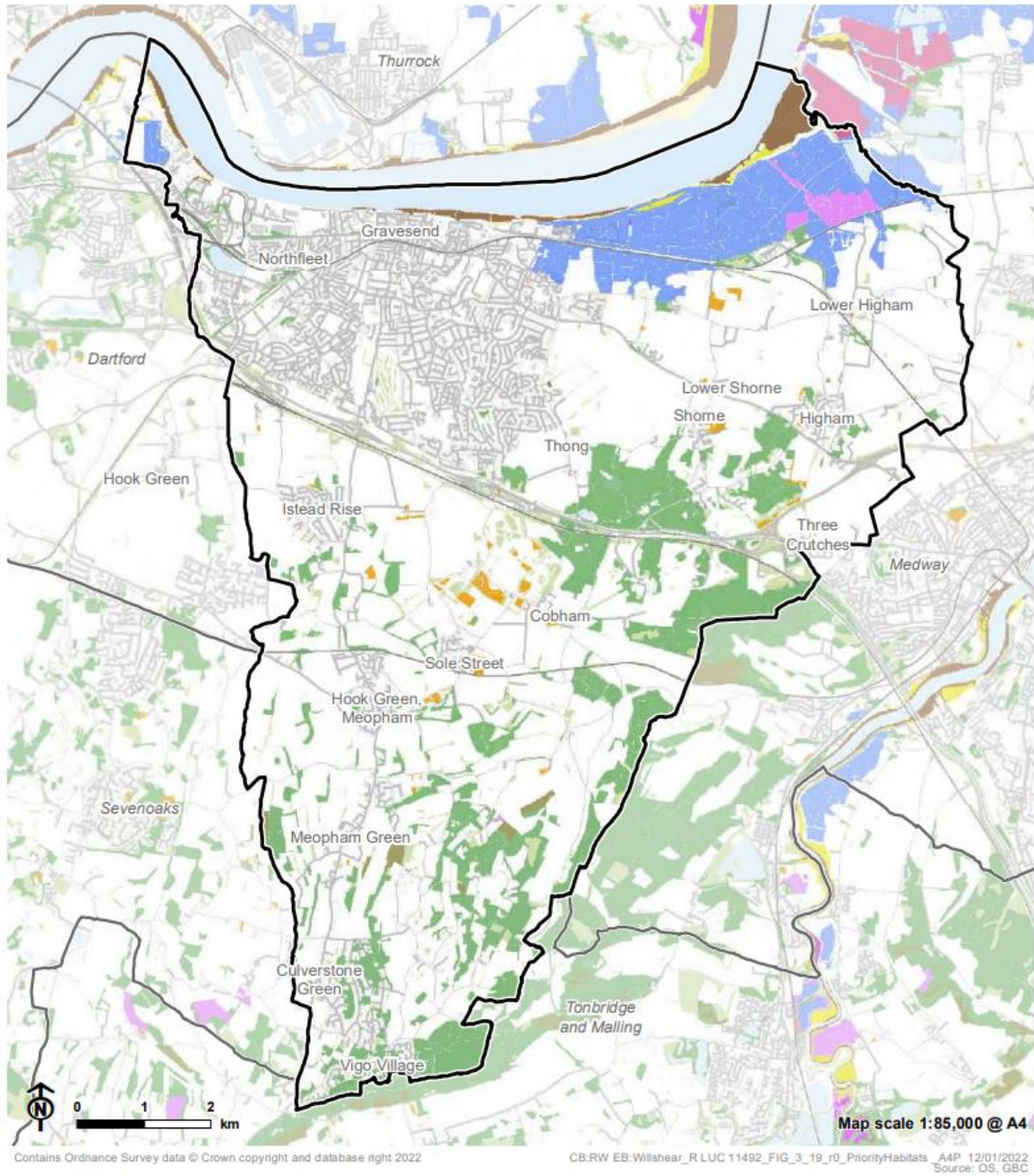


Fig 3.19: Priority habitats (borough)



2.1.6 Trees and Woodland (Nature Conservation)

Ancient woodland is an area that has been wooded continuously since at least 1600AD. It is a habitat of major importance to nature conservation but is also

important for its contribution to landscapes and recreation. Many of the woodlands in our rural area are ancient woodland. National and local planning policies seek to ensure that this irreplaceable resource is only lost in exceptional cases.

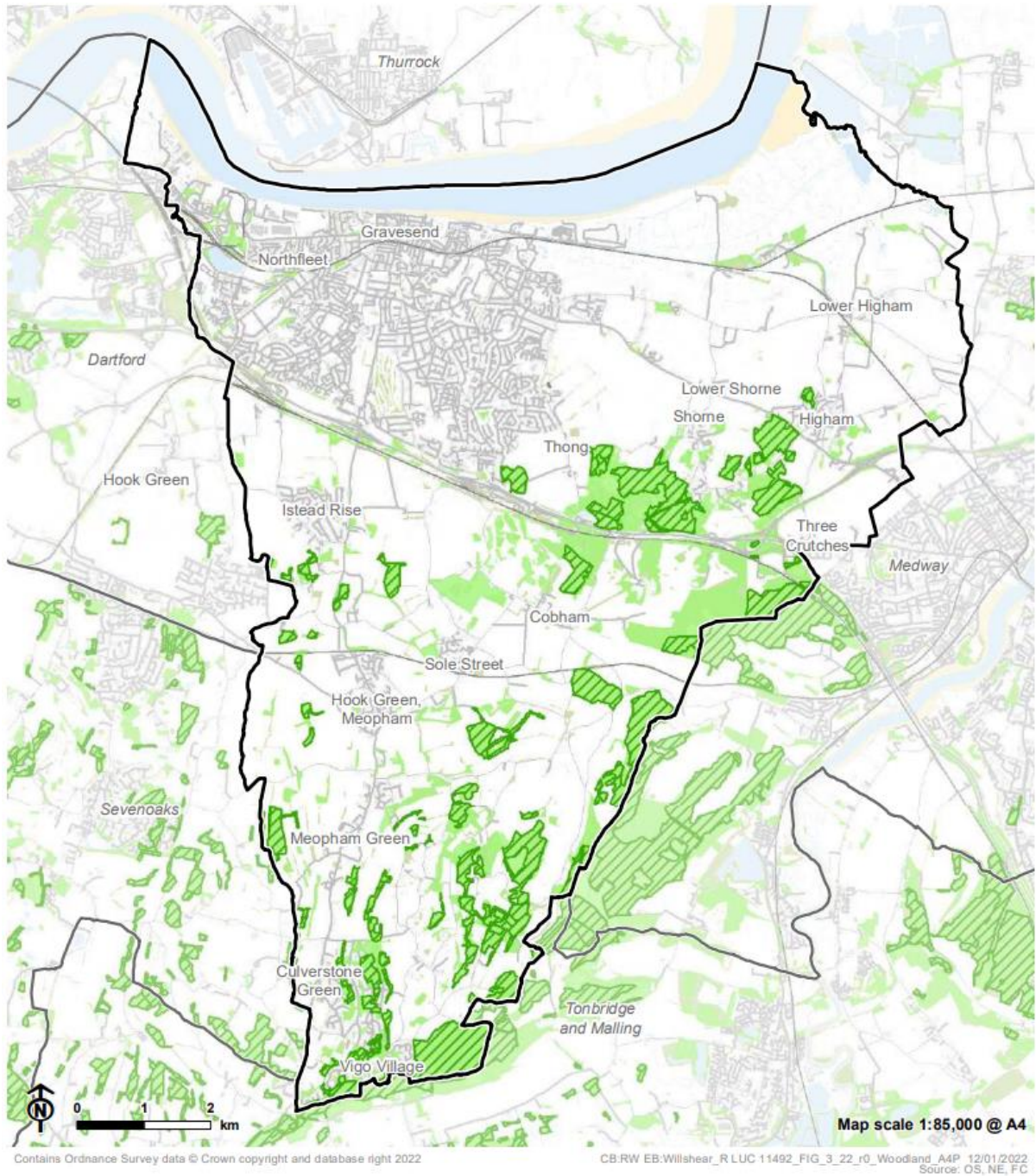






Fig 3.22: Woodland

-  Gravesham
-  Other local authority areas
-  Ancient woodland
-  Other woodland >0.5 ha and >20m wide

(GBI Study, 2022)



2.1.7 Green Spaces (GBI Study, 2022)

Gravesham has a range of types of open space. Larger wildlife sites and country parks tend to be located in the borough's rural areas. Within the urban area and rural villages, smaller open spaces such as allotments, play spaces, sports facilities and parks provide an important role for local people who do not have direct access to the wider countryside. Urban sites are particularly important as spaces for recreation and health, but in some cases these could be improved (see Weaknesses).

The borough has many large high-quality greenspaces that are a significant recreation, heritage and biodiversity asset to the borough. There is a cluster of large and linked sites in the central area of the borough (Jeskyns Community Woodland, Shorne Woods Country Park, Cobham and Ashenbank Woods, Ranscombe Farm Reserve) – which provide a remarkable GBI resource close to Gravesend and rural settlements in the central area.

There are more limited countryside sites to the south of the Borough although these include Camer Park which is close to Meopham/Sole Street and Trosley Country Park in Vigo, providing a prime countryside resource on the North Downs escarpment (which is an Area of Outstanding Natural Beauty) to the south. Shorne and Higham Marshes also provide a valuable GBI resource (although they are sensitive to recreation pressure; see weaknesses).

2.1.8 Green Infrastructure Network

Policy CS12: Green Infrastructure (Local Plan, 2014)

multifunctional linked network of green spaces, footpaths, cycle routes and wildlife stepping stones and corridors will be created, protected, enhanced and maintained. The network will improve access within the urban area, from the urban area to the rural area and along the River Thames. The key parts of the network are identified on Figure 19: Strategic Green Infrastructure Network.

Sites designated for their biodiversity value will be protected, with the highest level of protection given to internationally designated Special Protection Areas, Special Areas of Conservation and Ramsar sites, followed by nationally designated Sites of Special Scientific Interest, followed by Local Wildlife Sites and then by other areas of more local importance for biodiversity.

There will be no net loss of biodiversity in the Borough, and opportunities to enhance, restore, re-create and maintain habitats will be sought, in particular within the Biodiversity Opportunity Areas shown on the Strategic Green Infrastructure Network map and within new development.

Where a negative impact on protected or priority habitats/species cannot be avoided on development sites and where the importance of the development is considered to outweigh the biodiversity impact, compensatory provision will



be required either elsewhere on the site or off-site, including measures for ongoing maintenance.

The overall landscape character and valued landscapes will be conserved, restored and enhanced. The greatest weight will be given to the conservation and enhancement of the landscape and natural beauty of the Kent Downs Area of Outstanding Natural Beauty and its setting. Proposals will take account of the Kent Downs Area of Outstanding Natural Beauty Management Plan, the Gravesham Landscape Character Assessment, and the Cluster Studies where relevant.

The Green and Blue Infrastructure Study, 2022:

Those features providing the most benefit on a borough-wide scale (ie those of highest quality, highest value, and in most need of protection), are mainly within the following areas:

The Thames corridor: in the north of the borough provides a location for cycling and walking connections within Gravesend and Northfleet. Its habitats also attract protected bird species; because of this, the marshes along the Thames are sensitive to visitor pressure. This area is the most vulnerable part of the borough to climate change. Although the challenges of adapting to climate changes and opportunities to reduce emissions occur throughout the borough.

The cluster of large semi-natural sites within the central area of the borough: for example the country parks (including Shorne Woods, Cobham Park, Jeskyns Community Woodlands, and Ranscome Farm). These provide a significant resource for recreation, contributing a strong sense of place, at a landscape scale. These sites contain much of the borough's priority habitat and ancient woodland, as well as important heritage features.

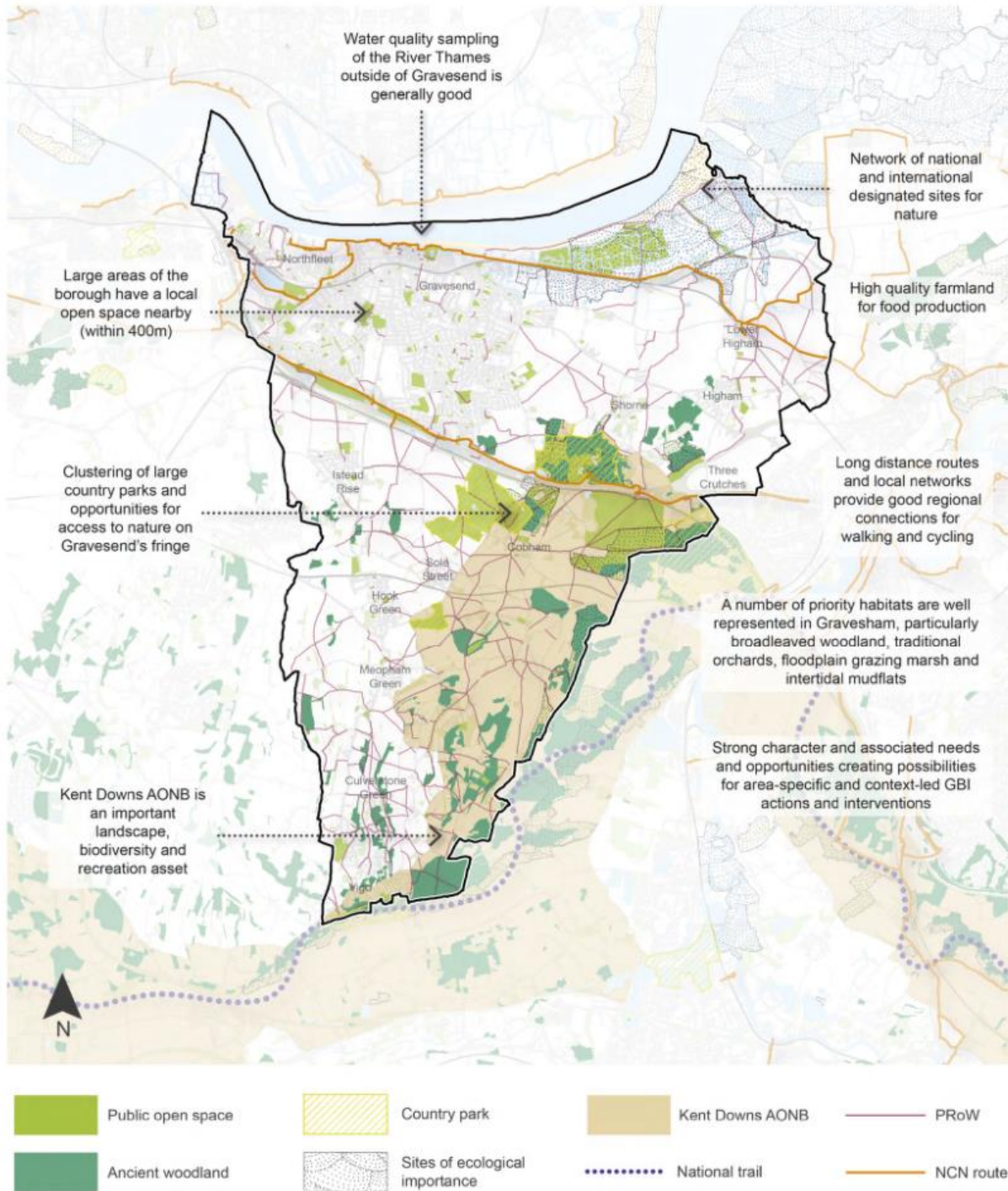
The Kent Downs Area of Outstanding Natural Beauty: in the southeast of the borough is a protected landscape of national importance and is given a high degree of protection through national and local planning policy.

Many of the features that provide the strong foundation for Gravesham's GBI network are already protected (for example important wildlife sites along the Thames Estuary, the Area of Outstanding Natural Beauty and Registered Parks & Gardens). However, the features that turn these individual assets into a network are also important to protect; these include:

Priority habitats (important habitats that should be protected) such as broadleaved woodland which, even when fragmented, can act as 'stepping stones' for wildlife;

Green and blue corridors such as the Thames and Medway Canal, and the hedgerows/trees surrounding agricultural land and along roads and paths;

The transport infrastructure that enables people to access GBI, including the National Cycle Network and long distance footpaths such as the Wealdway, as well as local walking and cycling connections



2.1.9 Blue Infrastructure Network

The Green and Blue Infrastructure Study, 2022:

The River Thames and associated wetland habitats are the borough's most significant blue infrastructure asset, as a key site for biodiversity and recreation, but also the area of the borough most vulnerable to climate change. The water quality of the River Thames is generally good.



Other important waterbodies within the borough include the Thames and Medway Canal, and ponds e.g. within Shorne Woods. These provide habitats for a diverse range of species and are features of interest for visitors.

Water quality within the Medway catchment area has been rated by the Environment Agency as poor due mainly to land and agricultural management. A significant portion of the borough, to the east and south of the urban area, is within a 'nitrate vulnerable zone', where agricultural fertilisers are controlled.

Policy FW 1: Managing Water Quality

Proposals that enhance water quality in accordance with the objectives of the Water Framework Directive and Thames River Basin District RBMP objectives will be supported. Where development (alone or in combination) has the potential to have an adverse impact on water quality and the achievement of the above objectives, an assessment prepared by a suitably qualified person will be required detailing the nature and scale of such impacts and how such impacts will be addressed. Schemes that would be likely to result in an unacceptable reduction in water quality (having regard to any proposals to mitigate such impacts) will not be permitted

Policy FW3: Managing Flood Risk

Applications for planning permission will be determined in accordance with national planning policy and guidance on flood risk. When considering proposals where flood risk is an issue, the Council will seek to secure an overall reduction in flood risk, wherever possible. Development will only be permitted where it will not be at an unacceptable risk of flooding on the application site itself, and there would be no unacceptable increase of flood risk elsewhere.

Where a development site is identified as being at risk of flooding, a site-specific Flood Risk Assessment (FRA) appropriate to the scale and nature of the development and the level of risk involved will be required in line with advice set out within national Planning Practice Guidance, having regard to the vulnerability of potential users or occupiers of the site.

The FRA should assess potential risk over the lifetime of the development and take into account the effect of climate change factors based on the most recent United Kingdom Climate Projections (UKCP) available at the time of the application.

The need for Flood Risk Management Plans to manage residual risk will be determined on a case by case basis and secured by the imposition of planning conditions or other legally binding mechanisms, as appropriate.

Where proposals rely on existing flood defence infrastructure or require upgrades to existing or the installation of new infrastructure to facilitate



development, sufficient detail and evidence shall be provided as part of the application for the Council to determine the adequacy of the intended measures. Evidence of the condition and longevity of existing defences; how any upgrade of existing or installation of new defences will be secured; and the mechanism by which such defences will be maintained over the lifetime of the development and by whom will also be required, as appropriate.

The Council will prioritise the maintenance, improvement or replacement of flood defence infrastructure over other land uses where relevant, inclusive of any strategic upgrade to the tidal flood defences under the Thames Estuary 2100 Plan. Development that would harm the effectiveness of existing flood defences or prejudice their maintenance and management due to proximity or other factors will not be permitted.

Marine (Water and Flood Risk, 2020)

The draft South East Inshore Marine Plan (Jan 2020) also includes a range of objectives and policies that are of relevance. Key objectives in relation to the water environment are below:

Objectives:

6: The use of the marine environment is benefiting society as a whole, contributing to resilient and cohesive communities that can adapt to coastal erosion and flood risk, as well as contributing to physical and mental wellbeing.

8: The marine environment plays an important role in mitigating climate change.

11 Biodiversity is protected, conserved and, where appropriate, recovered, and loss has been halted.

12: Healthy marine and coastal habitats occur across their natural range and are able to support strong, biodiverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.

13: Our oceans support viable populations of representative, rare, vulnerable, and valued species.

2.1.10 Protection from the negative impacts of development and infrastructure

The Green and Blue Infrastructure Study, 2022 recommendations to embed into local plan policies:

- Require/encourage urban greening and the greening of new development.
- Set out standards and targets for the provision of GBI within new development e.g. open space standards and targets for biodiversity (BNG).
- Set out principles for the development of sites on land removed from Green Belt designation, e.g. improvements to public rights of way, accessible woodland creation.



- Provide flexibility to respond to uncertainty around future development e.g. LTC.
- Identify how developer contributions will be targeted to support GBI initiatives e.g. minimising recreation pressure at designated sites (BirdWise); improved Tilbury ferry service

Proposed Policy GI 4: Trees, Hedgerows and Woodland

Development should be designed to retain trees, hedgerows and woodland that contribute positively to the amenity of the site and surrounding area and which are important in terms of landscape, townscape, biodiversity or heritage. Consideration should be given to the incorporation of trees and hedgerows within new development in the interests of sustainability, to integrate with and improve the quality of the local environment and to assist in place making. The use of locally sourced natural species in planting schemes will be expected unless otherwise justified as an exception.

Proposals which threaten the future retention of trees, hedgerows and woodland or other landscape features of importance to a site's character, the amenity of the surrounding area or to wildlife will not be permitted unless the need for, and benefits of, the development in that location clearly outweigh the loss and adequate mitigation and compensation measures can be secured.

In evaluating proposals, the greatest weight will be accorded the retention and protection from harm of areas of ancient woodland and aged and veteran trees, the loss of which will only be allowed in exceptional circumstances where the public benefit would clearly outweigh the loss or deterioration of habitat and a suitable compensation strategy exists.

Development proposals that have the potential to result in the loss of or harm to trees, hedgerows or woodland should be supported by a tree survey, arboricultural report and ecological report prepared by a suitably qualified professional setting out:

- *The location, species, size, health and characteristics of any affected trees, hedgerows or woodland including root spread on or adjoining the site likely to be affected by the development;*
- *The extent of proposed works and development relative to the features identified together with a plan and schedule of any trees, hedgerow or areas of woodland including root spread that would need to be removed or otherwise modified to accommodate the development;*
- *A plan and schedule of those trees, hedgerows or areas of woodland to be retained;*
- *The measures to be taken during the course of construction to avoid damage to those trees, hedgerows or areas of woodland to be retained;*



- *The ecological value of the assets to be lost and measures to be taken to avoid any unacceptable adverse impact on any nature conservation interest as a result of works to trees, hedgerows or areas of woodland; and*
- *Outline proposals for how any loss or damage to trees, hedgerows or areas of woodland will be mitigated to secure environmental net gain.*

Where the loss of trees, hedgerows or woodland have a potential landscape impact, the proposal should also be supported by a landscape report prepared by a suitably qualified person detailing those impacts and proposed means of mitigation

Where planning permission is granted for proposals that result in the loss of or damage to trees, hedgerows or areas of woodland, conditions will be imposed requiring the submission of a final landscaping scheme for the prior written approval of the Council and details of how that landscaping will be maintained in the long-term, including provision for the replacement of planting that dies or becomes diseased before it becomes established.

Policy GI 6: Biodiversity

Applications resulting in significant harm to biodiversity which cannot be avoided, mitigated or compensated for will not be permitted unless material considerations indicate otherwise. In addition to the requirements set out above:

- *Development that will have an adverse effect on the integrity of international/ European designated sites either alone or in combination with other plans or projects will not be permitted unless otherwise allowed for under national legislation and policy.*
- *Development that will have an adverse effect on nationally designated sites either alone or in combination will not be permitted unless the benefits of the development (including overriding public interest) clearly outweigh harm and there is no acceptable alternative solution that would avoid such impacts.*
- *Development resulting in the loss or deterioration of irreplaceable habitats will not be permitted unless there are wholly exceptional reasons where the public benefit would clearly outweigh such loss or deterioration and a suitable, acceptable and deliverable compensation strategy exists.*
- *Development should avoid harm to locally identified biodiversity assets (including Local Wildlife Sites, Local Nature Reserves and Roadside Nature Reserves) as well as priority and locally important habitats and species, in accordance with national policy.*



Policy FW 4: Managing Waste Water Drainage

A presumption will be applied that all new developments requiring discharge of waste water should do so to a public sewer to be treated at a public treatment works operated by a water company, unless it is not feasible to do so on grounds of cost or practicality. Where alternative means of dealing with waste water are proposed, this will only be permitted where:

- Supporting evidence has been provided, and it has been demonstrated that connection to a public sewer is not feasible on the above grounds; and*
- The application is accompanied by proportionate evidence on potential adverse impacts on the water environment, prepared by a suitably qualified person; and*
- There are no unacceptable adverse impacts on the water environment, amenity or the highway network; and*
- It has been demonstrated that a mechanism will be put in place to secure the maintenance of the waste water infrastructure for the lifetime of the development.*

Major development proposals will be required to demonstrate at the application stage that there will be adequate waste water capacity to serve the development, or where development is being carried out in phases, the whole of the phase for which approval is being sought subject to said phasing being acceptable.

Where upgrades to waste water infrastructure are required to support the development, these should be detailed in a supporting statement accompanying a planning application along with any programme of phasing and the mechanism by which the infrastructure will be delivered in a timely manner and maintained for the lifetime of the development.

Planning permission will not be granted for applications that are unable to demonstrate adequacy of waste water capacity or how unacceptable waste water infrastructure constraints will be overcome and infrastructure subsequently maintained.

Public waste water treatment plants provided by the water companies will be treated as essential infrastructure supporting the proper planning of the borough. Proposals for development in the vicinity of such plants that include uses sensitive to their lawful operation will be expected to provide evidence that this will not result in levels of nuisance complaint that could constrain their operation or their ability to support planned development. Proposals that have the potential to constrain the operation of the said plant or their ability to support planned development will not be permitted.

Policy FW5: Managing Surface Water Drainage

The Council will require the use of sustainable drainage within developments, where this is appropriate. In the case of major developments, there will be a presumption that Sustainable Drainage Systems will be used to manage surface



water run-off and alternatives will not be approved unless it is demonstrated, through the submission of evidence, that it is not feasible or inappropriate to do so.

Applications for major development should be supported by a Surface Water Strategy, detailing how the site will be drained in accordance with sustainable drainage principles or, where an alternative is proposed, the justification for the deviation from the policy requirement and details of the alternative scheme.

8.6.10. In all cases, the Council will require that surface water run-off from all new development has, as a minimum, no greater adverse impact than the existing use. In areas where there is Page 94 evidence of existing surface water flooding issues, or these may result over time as a result of climate change, the Council will seek a lower rate of surface water run-off to reduce flood risk overall.

The Surface Water Strategy should be prepared in accordance with the requirements of the Kent County Council document - Drainage and Planning Policy Statement (June 2017 or as subsequently updated) and contain sufficient information for the Council (in consultation with the Lead Local Flood Authority) to assess the adequacy and appropriateness of the drainage scheme proposed.

Details of the arrangements to be put in place to ensure on-going maintenance of the drainage system for the lifetime of the development and the mechanism by which these will be secured should also be provided.

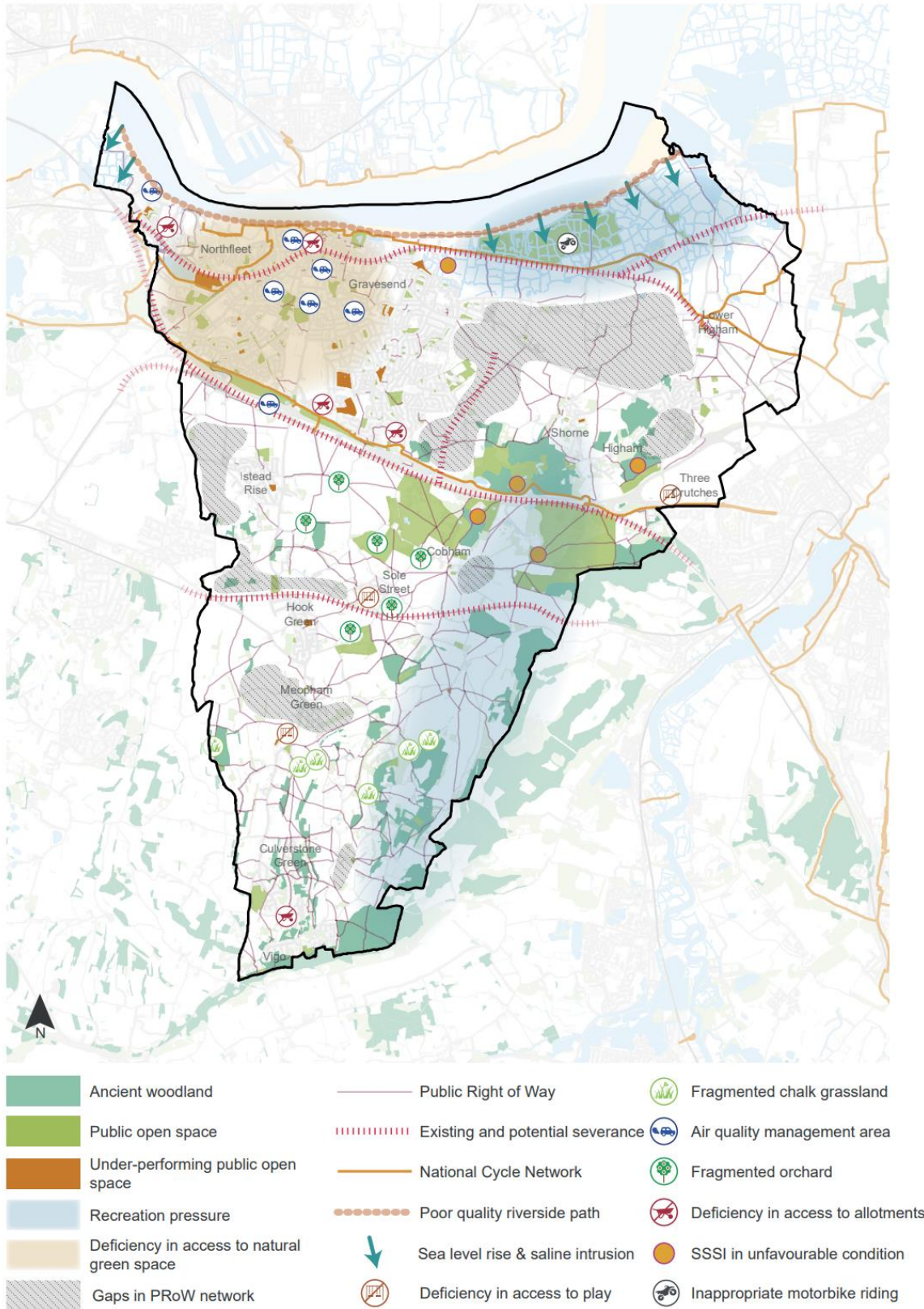
The Council will apply conditions to any grant of planning permission requiring the submission of a completion certificate prepared by a suitably qualified person to ensure that the Sustainable Drainage System has been fully implemented in accordance with the approved plans, as appropriate.

In designing Sustainable Drainage Systems, applicants will also be expected to show that they have considered opportunities to incorporate features to improve water quality, mitigate pollution, and enhance green infrastructure (including biodiversity) where it is appropriate to do so.

2.2 RESTORING AND ENHANCING HABITATS

2.2.1 Green and Blue Infrastructure Network

Figure 4.2: Gaps in Gravesham's green and blue Infrastructure network



(GBI Study, 2022)



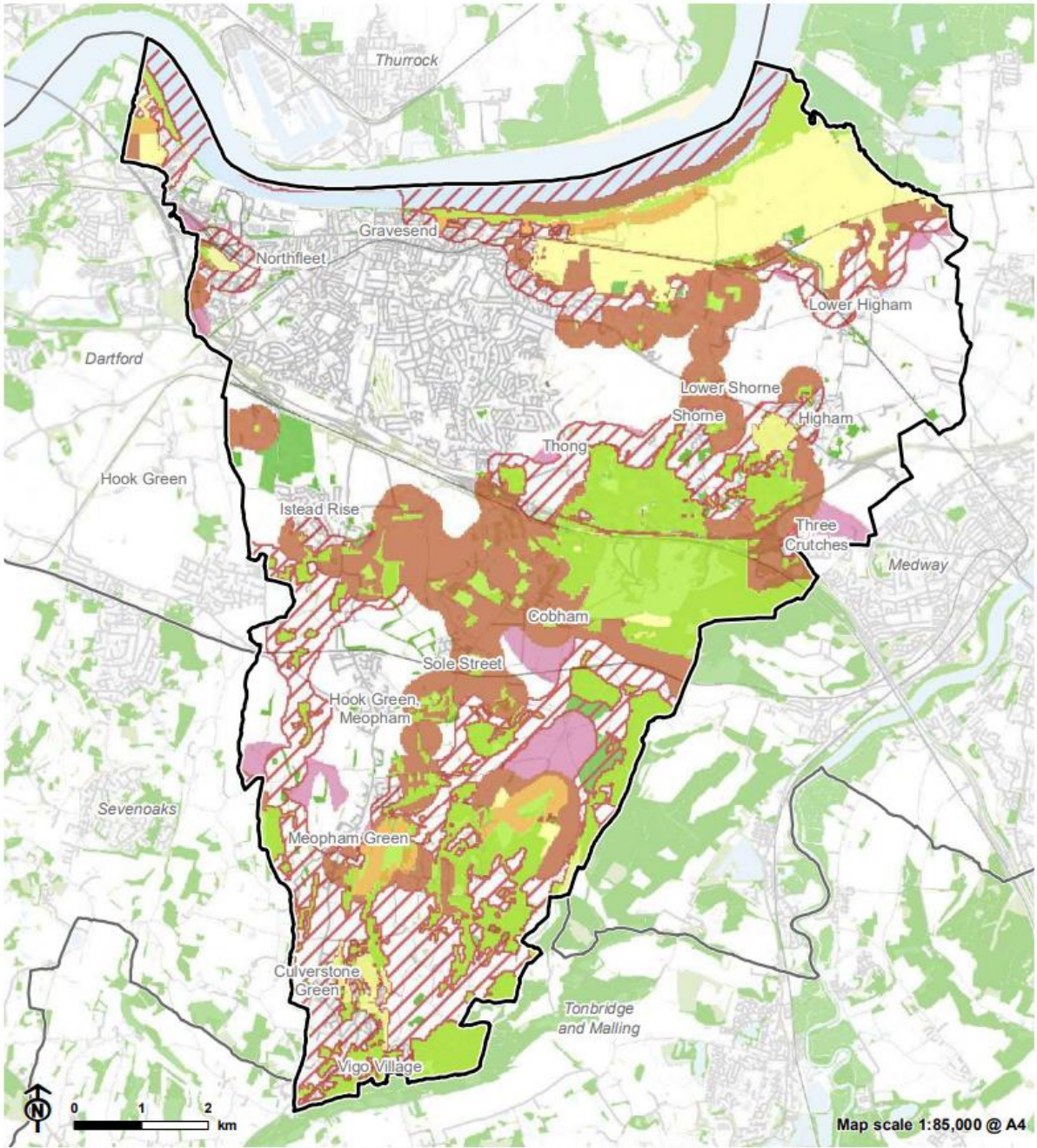
Policy GI 6: Biodiversity

Proposals, the primary purpose of which are to conserve or enhance biodiversity and the creation of a coherent network of ecological sites, stepping stones and pathways will be supported. Opportunities should be taken to connect and improve ecological networks and linkages both within Gravesham and to similar networks in adjoining areas.

2.2.2 Priority Habitats (GBI Study, 2022)

Outside of the protected wildlife sites (e.g. the marshes) and the Kent Downs Area of Outstanding Natural Beauty, priority habitats are fragmented, particularly woodland, including ancient woodland, traditional orchards and calcareous grassland.

Some parts of the wildlife sites and priority habitats are also in poor condition, for example due to poor management.



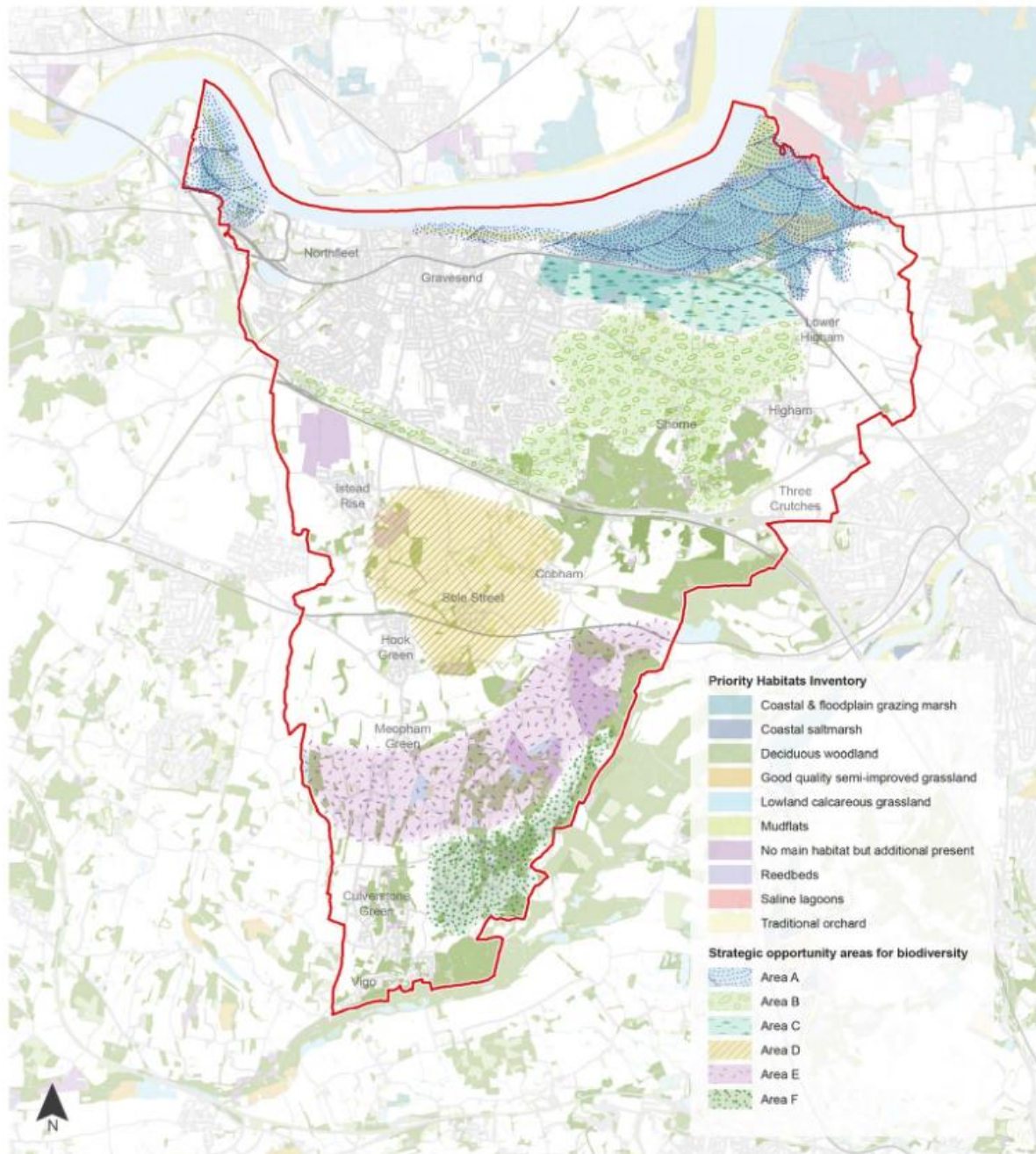
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 Source: OS, EA, NE

Fig 3.28: Habitat networks

-  Gravesham
-  Other local authority areas
-  Priority Habitat Inventory (PHI)
-  Combined Ancient woodland & PHI
-  Restorable Habitat
-  Fragmentation Action Zone
-  Network Enhancement Zone 1
-  Network Enhancement Zone 2
-  Network Expansion Zone

2.2.3 Areas of Strategic Opportunity for Biodiversity (GBI Study, 2022)

Figure 4.3: Areas of strategic opportunity for biodiversity



<p>Area A</p> <p>Priority habitats Mudflats, coastal grazing marsh, coastal saltmarsh, semi-improved grassland</p> <p>Associated species Wading birds & waterfowl, water vole, invertebrates, great crested newts</p>	<p>Area B</p> <p>Priority habitats Deciduous woodland, traditional orchard, grassland mosaic</p> <p>Associated species Invertebrates, hawfinch, marsh tit, woodpeckers</p>	<p>Area C</p> <p>Priority habitats Semi-improved grassland, grazing marsh pasture, arable field margins</p> <p>Associated species Farmland birds, wading birds and waterfowl, great crested newt, invertebrates</p>	<p>Area D</p> <p>Priority habitats Chalk grassland, semi-improved grassland, traditional orchards</p> <p>Associated species Butterflies, other invertebrates</p>	<p>Area E</p> <p>Priority habitats Chalk grassland, semi-improved neutral grassland, deciduous woodland</p> <p>Associated species Butterflies, other invertebrates</p>	<p>Area F</p> <p>Priority habitats Deciduous woodland</p> <p>Associated species Saproxyltic invertebrates, fungi, birds, bats</p>
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Opportunities for Enhancement:

A: Safe, structured access to the Thames Coast Designations Restoration and creation of new intertidal mudflat, saltmarsh and grazing marsh. Coastal defence projects and managed realignment should contribute to maintenance, enhancement, or extension of coastal habitats, with no net loss of habitats of existing importance. Increased access to select routes through the Thames Coast (avoiding habitats and species sensitive to disturbance) will help to alleviate behaviour, which is detrimental to the habitats and flood defences, and /or is considered anti-social. Routeing and design (including of hides) should avoid areas of high sensitivity for qualifying bird populations, and take into account seasonal flooding (e.g., flexible route options).

B: Accessible Nature Toward the Heart of the Borough Provision of wildlife-rich green spaces to serve the existing and future local communities as well as visitors to the borough. Aims include (i) reduction of pressure on the South Thames coast designations, (ii) increased appreciation (access and education) of assets 'in land', in line with The Thames, Medway and Swale Estuaries Strategic Access Management and Monitoring Strategy 165. This includes creation and extension of GBI away from the coastal SPAs, with mitigation sites within Gravesham identified as Shorne Woods Country Park and Jeskyns Community Woodland. Integration should include any corresponding habitats in the locality delivered as part of the LTC.

C: Wetland-Wet Grassland Mosaic Priority habitats Where hydrology and soils permit, creation and restoration of habitats, particularly wetland and grassland types should be targeted to compliment to the qualifying features of the SSSI as part of a holistic approach to establish and maintain the favourable condition of the SSSI. Note that this area is within flood zone 3.

D: Orchards & Grassland for Pollinators Priority habitats Creation of structurally diverse, pro-pollinator landscape with habitats to sustain lifecycles of these species throughout the year. Delivery of priority habitat creation, and enhancement should be focused where soil types permit, to be supported through wider implementation of nature friendly farming and appropriate grazing/cutting regime intensity, all of which can contribute to a species-rich and structurally diverse grassland mosaic. E: Chalk grassland and lowland meadows, central belt. Create and enhance grassland to reconnect and extend existing habitat.

F: Re-Connecting Canopy Cover Priority habitats Connection, protection and buffering of the highest value woodland habitats. 'Protection' includes provision of alternative woodland habitats for recreational access where pressure is high e.g. North Downs SAC. Natural colonisation (wildling) can contribute to the structural and species diversity within the canopy mosaic be these rural or part of managed urban parks. Expansion of canopy connectivity from woodland foci to be optimised through new development, e.g. transport and residential. Cross-complimentary to 'Accessible Nature through the Heart of the Borough', as well as to urban GBI. Integration with key initiatives such as Highways Agency 'Net-Zero Roadmap' and KCC's aspiration to 'planting a tree per person'.

Strategic Habitat Opportunity Mapping (GBI Study, 2022):

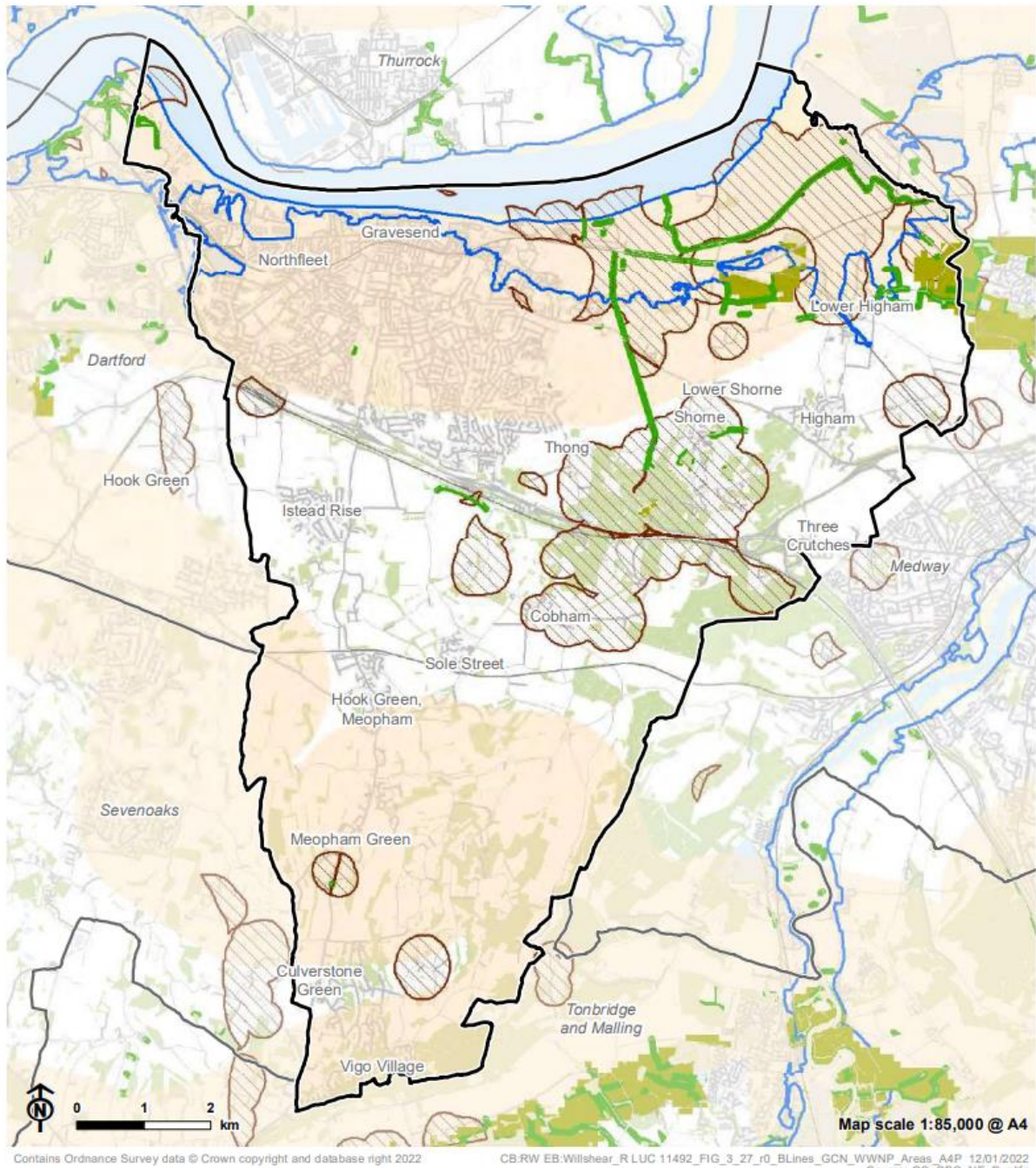


Fig 3.27: Strategic habitat opportunity mapping (Buglife B Lines, great crested newt opportunity areas, and Working With Natural Processes (WWNP) flood management opportunity areas)

- | | |
|---|---|
|  Gravesham |  Working With Natural Processes (WWNP) riparian woodland potential |
|  Other local authority areas |  WWNP wider catchment woodland potential |
|  Flood alert areas | |
|  Great crested newt opportunity areas & risk zones | |
|  B-line | |

2.2.4 Biodiversity Opportunity Areas (BOAs)

A Local Nature Partnership has been designated for Kent, which overlaps with that created for the Thames Gateway. The biodiversity opportunity areas identified where there is the greatest potential for habitats to be restored or enhanced. These do not cover all of the rural area in Gravesham, but these opportunity areas include the:

- Medway Gap & North Kent Downs;
- Thameside Green Corridors; and
- North Kent Marshes

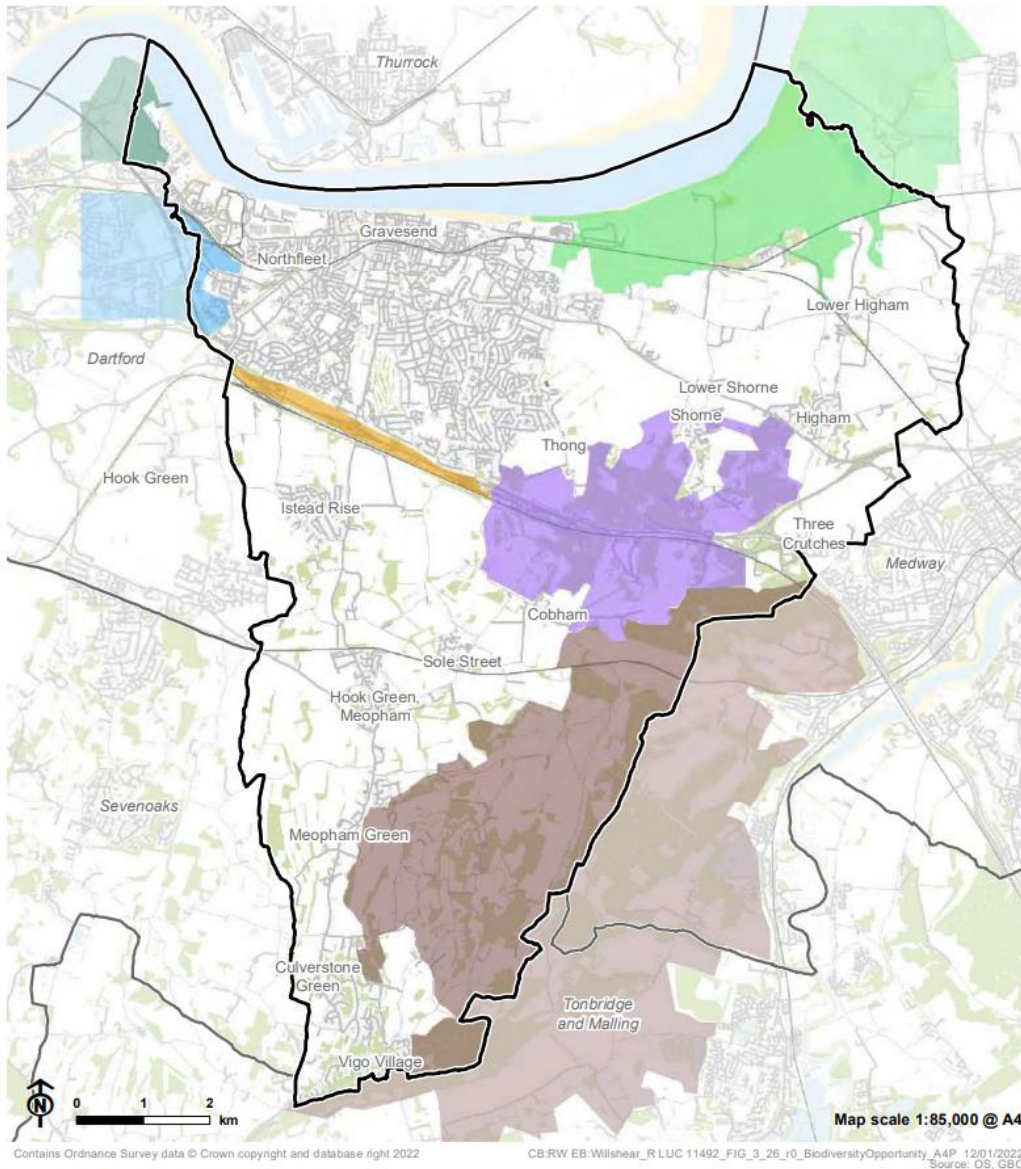


Fig 3.26: Biodiversity opportunity areas



(GBI Study, 2022)

Urban Biodiversity Opportunity Areas (GBI Study, 2022):

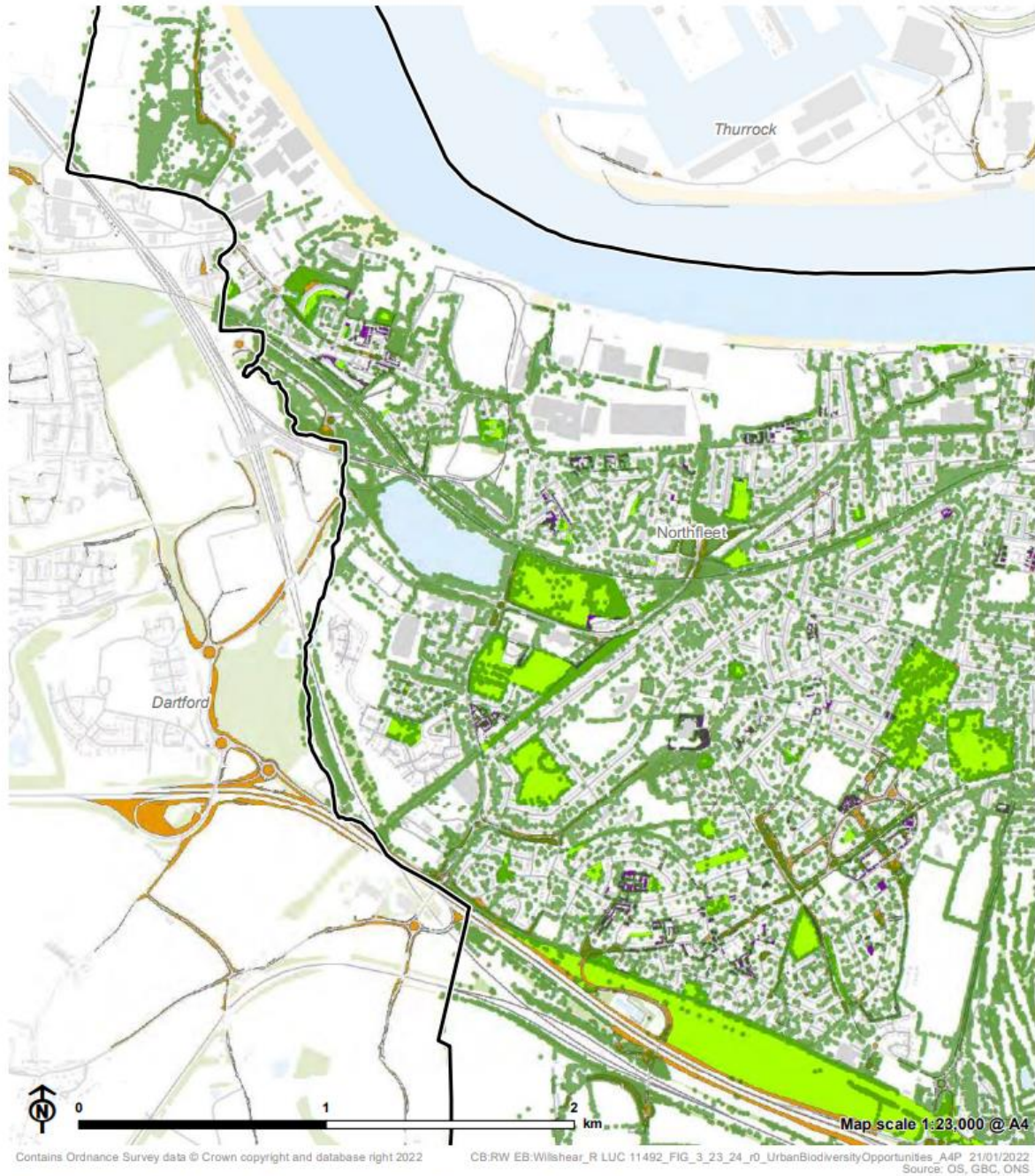


Fig 3.23: Urban Biodiversity Opportunities within Gravesend & Northfleet

-  Gravesham
-  Other local authority
-  National Tree Map
-  All Open Spaces
-  Gravesham owned land outside of Open Spaces
-  Grass Verge

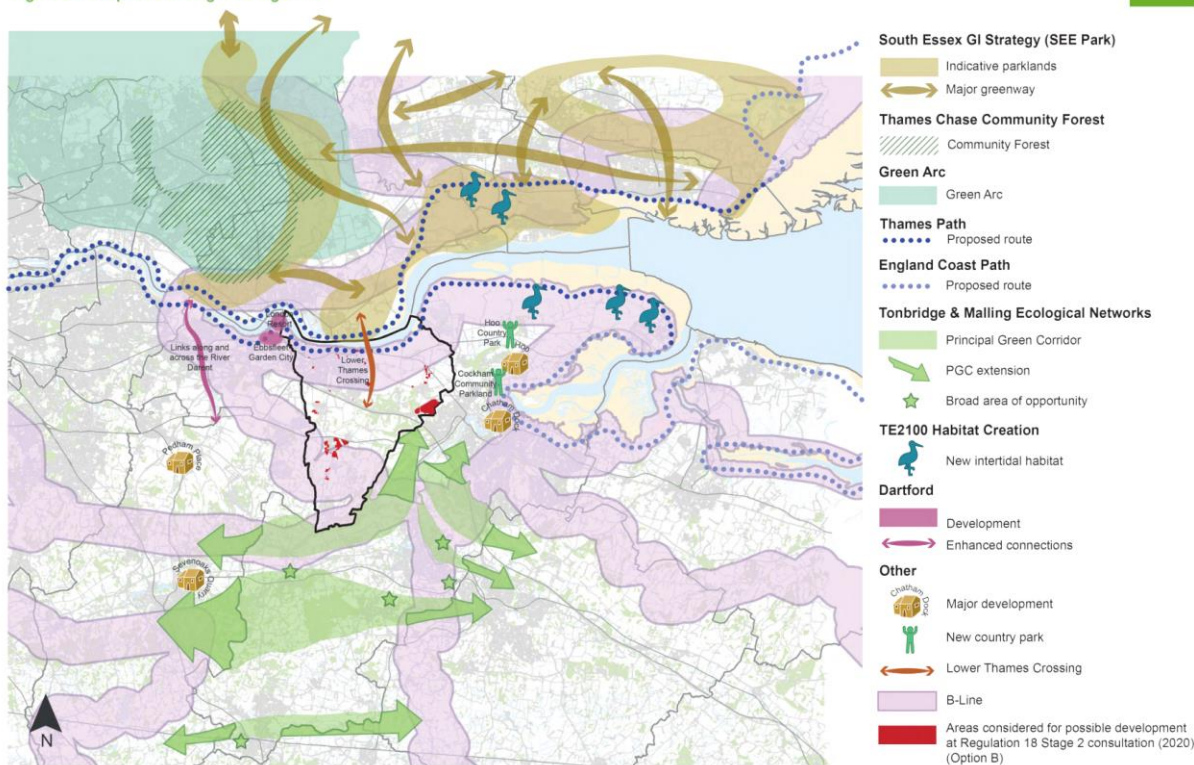


Fig 3.24: Urban Biodiversity Opportunities within Gravesend & Northfleet

-  Gravesham
-  National Tree Map
-  All Open Spaces
-  Gravesham owned land outside of Open Spaces
-  Grass Verge

Proposals in neighbouring areas (GBI Strategy, 2022):

Figure 6.3: Proposals in neighbouring areas



2.2.4 Agricultural Land (GBI Study, 2022)

Ancient woodland is a valued feature of the landscape, particularly within the central eastern areas of the borough; but much of it is fragmented and in some places poorly managed.

2.2.5 Woodland and Grassland (GBI Study, 2022)

Ancient woodland is a valued feature of the landscape, particularly within the central eastern areas of the borough; but much of it is fragmented and in some places poorly managed.

GBI Needs:

Woodland and grassland:

- Protect, reconnect and buffer fragmented habitats including traditional orchards, chalk grassland, and ancient woodland.
- Improve management of woodland, particularly ancient woodland.
- Use incidental spaces and road verges etc to create habitat links / stepping stones.



- Extend woodland planting to buffer noise and light from roads/rail and improve tranquillity and dark skies, e.g. within the Kent Downs Area of Outstanding Natural Beauty

2.2.6 Thames Estuary and Marshes (GBI Study, 2022)

GBI Needs:

Thames Estuary and marshes :

- Manage recreation pressure and antisocial behaviour on Shorne and Higham Marshes; create alternative greenspaces for recreation.
- Plan for and manage sea level rise, saline intrusion and coastal squeeze; prioritise natural rather than hard edges; protect salt marshes

2.2.7 Within development and infrastructure

Trees, Hedgerows & Woodland

New development often provides opportunities for planting new trees, woodland and hedgerows as part of a scheme. Not only can this improve a scheme visually and assist in securing wider environmental benefits, but it can also add value. In the interests of biodiversity, locally sourced natural species will be preferred in any proposed planting scheme. Conversely, poorly designed, and executed schemes can damage existing trees, and other features on-site and potential adverse impacts need to be managed. The following policy sets out how the Council will approach proposals in this respect

Policy GI 6: Biodiversity

Development proposals should seek to achieve measurable net gains for biodiversity in accordance with national policy and guidance and be supported by a proportionate evidence base prepared by a suitably qualified person demonstrating how this will be achieved. How the mitigation hierarchy (i.e. avoid, mitigate, compensate) has been applied in designing the scheme should also be demonstrated, with justification being provided for all unavoidable impacts on biodiversity.

Proposals for biodiversity net gain, mitigation or compensation will be required to be acceptable in terms of design, location and impact. Applicants will also be required to demonstrate that the delivery and long-term management of such measures can be secured.

All new dwellings created within a 6 kilometre radius of the outer boundary of the Thames Estuary and Marshes Ramsar/Special Protection Area site will be required to mitigate their potential cumulative impact on the designated area either through the application of the North Kent Strategic Access Management



and Monitoring Strategy (SAMMS) system or an appropriate alternative legally binding mechanism unless otherwise justified as an exception.

Policy GI 5: Landscape Character

Development proposals will be expected to contribute to and enhance landscapes in a manner commensurate with their status and achieve a high-quality design that is responsive to context and reinforces landscape character.

Applications for proposals that are likely to have an adverse landscape impact should be accompanied by a proportionate evidence base in the form of a statement or formal Landscape Visual Impact Assessment (as appropriate) prepared by a suitably qualified person setting out the nature and scale of any such impacts (including cumulative impacts) and how these will be mitigated.

In assessing potential impacts, particular regard will be had to:

- Landform, topography, and any existing natural landscape features that may be affected by the proposals;*
- The pattern and composition of trees and woodland;*
- The type and composition of any wildlife habitats;*
- The pattern of fields and the composition of boundaries;*
- The impact of the proposals on the pattern and distribution of settlements, roads and footpaths;*
- The traffic impact of proposals on the character of rural lanes;*
- The presence and pattern of historic landscape features; and*
- The presence or absence of existing man-made or other vernacular features that contribute towards local distinctiveness and sense of place, including their setting, scale, layout, design and detailing.*

Policy FW3: Managing Flood Risk

Development proposals should be designed to withstanding flood loadings likely to be placed upon them and incorporate suitable flood protection and mitigation measures appropriate to Page 90 the nature and scale or risk identified within the FRA to ensure that the safety of users and occupiers is assured over the lifetime of the development. Proposals in areas potentially at risk of flooding should also be designed to be flood resilient. The Council will require evidence of how this has been taken into consideration at the application stage, with details of how such features are intended to be secured on the implementation of the scheme.



Policy CS19: Development and Design Principles

New development will be visually attractive, fit for purpose and locally distinctive. It will conserve and enhance the character of the local built, historic and natural environment, integrate well with the surrounding local area and meet anticrime standards. The design and construction of new development will incorporate sustainable construction standards and techniques, be adaptable to reflect changing lifestyles, and be resilient to the effects of climate change. This will be achieved through the criteria set out below:

Using the collaborative approach advocated in Building for Life 12 and in line with the guidance set out in Kent Design, the design, layout and form of new development will be derived from a robust analysis of local context and character and will make a positive contribution to the street scene, the quality of the public realm and the character of the area. Account will be taken of the scale, height, building lines, layout, materials and other architectural features of adjoining buildings. Account will also be taken of the wider site context, including strategic views, site topography, the significance of heritage assets and features of townscape and landscape value which contribute to local character and sense of place;

- New development will encourage sustainable living and choice through a mix of compatible uses which are well connected to places that people want to use, including the public transport network, local services and community facilities; encourage sustainable travel; enhance Green Grid links and encourage healthier lifestyles;*
- New development will be located, designed and constructed to:*
 - safeguard the amenity, including privacy, daylight and sunlight, of its occupants and those of neighbouring properties and land;*
 - avoid adverse environmental impacts from pollution, including noise, air, odour and light pollution, and land contamination; and*
 - not pose an unacceptable risk or harm to the water environment, including the quality and/or quantity of ground waters, surface waters, wetlands and coastal water systems;*
- The design and layout of new residential development, including conversions, will accord with the adopted Residential Layout Guidelines;*
- New development will be designed in an inclusive way to be accessible to all members of the community;*
- New development will provide appropriate levels of private and public amenity space;*
- New development will include details of appropriate hard and soft landscaping, public art, street furniture, lighting and signage and will ensure that public realm and open spaces are well planned, appropriately detailed and maintained so they endure;*



- *Car parking will be well related to the development it serves;*
- *New development will protect and, where opportunities arise, enhance biodiversity and the Borough's Green Infrastructure network. Support will be given to environmental enhancements where opportunities arise;*
- *New development will be fit for purpose and adaptable to allow changes to be made to meet the needs of users;*
- *The design and layout of new development will take advantage of opportunities to build in resilience to the effects of climate change. This will include protection against flood risk, where relevant, delivering carbon reduction, provision for low carbon and renewable energy, and minimising energy consumption and water use;*
- *New development will incorporate appropriate facilities for the storage and recycling of waste; and*
- *The layout of new development will create a safe and secure environment and provide surveillance to minimise opportunities for crime and vandalism*



2.3 HABITAT CREATION

2.3.1 Action plans (GBI Study, 2022)

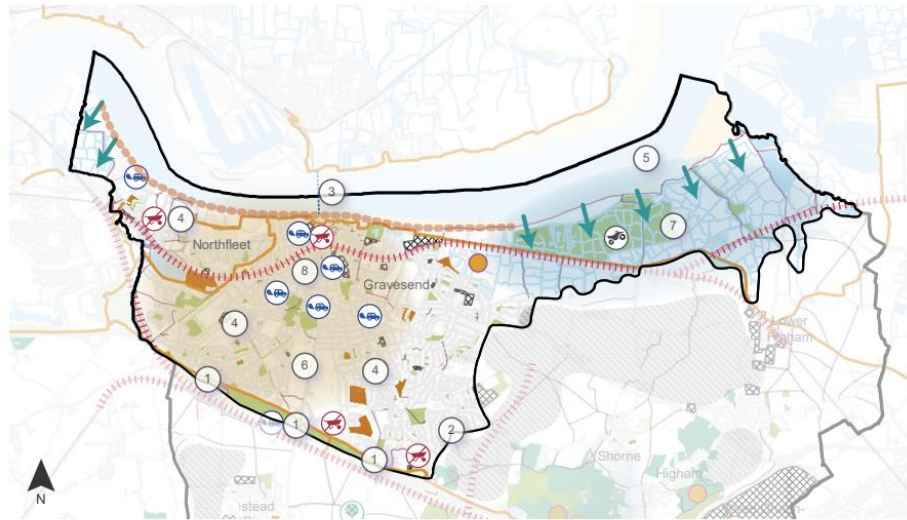
Northern Area Action Plan

Needs, vulnerabilities and existing initiatives

Figure 7.2: Needs and vulnerabilities in the Northern Area - Thames Estuary Parklands

Specific needs, gaps and vulnerabilities

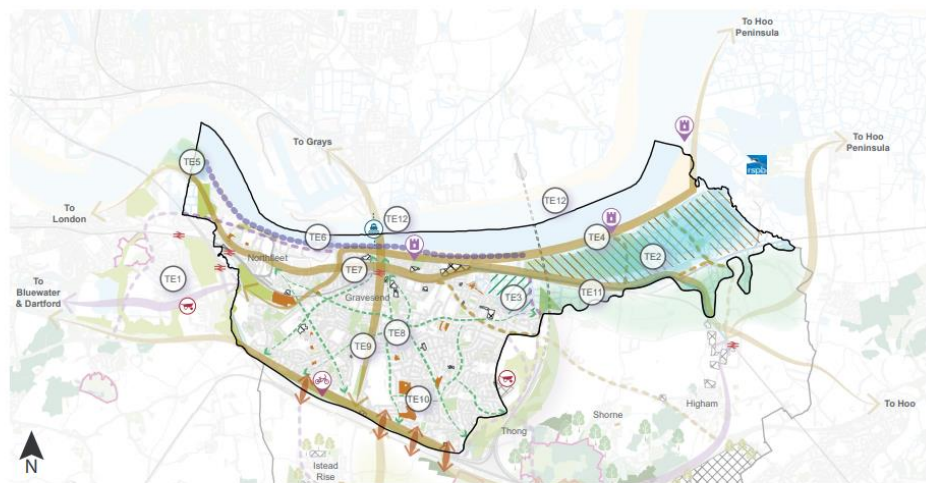
- 1 - A2 corridor (few pedestrian crossings; busy road is unappealing; poor cycling infrastructure in places; noise and light; severance e.g. of Darnley Trail). Access and presentation of existing tunnels and bridges could be improved.
- 2 - Limited bus services in rural areas and between Gravesend and some countryside sites such as Jeskyns Community Woodland; difficult to access some site without a car.
- 3 - Limited ferry service to Tilbury.
- 4 - Patterns of poor access to open space correlate to patterns of deprivation.
- 5 - Water quality is poor and a significant portion of the borough is within a nitrate vulnerable zone. Water use is currently above the national average.
- 6 - Gaps in cycling infrastructure within Gravesend, particularly a lack of provision at key junctions, with traffic speeds and volume making it unsafe in multiple locations (e.g. A227).
- 7 - Sea level rise and saline intrusion will place pressure on freshwater habitats and agricultural land.
- 8 - Numerous air quality management areas are present within Gravesham's urban areas.



Key interventions

Figure 7.3: Key GBI interventions within the Northern Area - Thames Estuary Parklands

- TE1 – Ebbsfleet Garden City
- TE2 – Shorne and Higham Marshes
- TE3 – Enhancement of Great Clane Lane Marshes
- TE4 – Saxon Shore Way
- TE5 – Swanscombe Peninsula
- TE6 – River Thames frontage
- TE7 – Celebrate 'Thames Estuary' culture and heritage
- TE8 – Urban greening
- TE9 – Sustainable travel
- TE10 – Open space and recreation
- TE11 – Thames and Medway Canal
- TE12 – River connections





This area includes places next to the Thames Estuary; urban Gravesend and Northfleet, and the marshes.

Key needs, gaps and vulnerabilities in this area include the following:

- Higham and Shorne Marshes are sensitive to recreation pressure and disturbance; access needs to be managed carefully.
- Habitats along the estuary, such as saltmarsh, are at risk of erosion. These habitats can store and manage tidal flood water. Natural flood management, rather than hard infrastructure (e.g. sea walls) could protect these habitats and reduce flood risk.
- There is limited natural accessible greenspace along the River Thames, within the urban areas. Developments within these areas could provide an opportunity to create new habitats and improve access. The needs of local people should be balanced with biodiversity, to provide natural greenspace and other forms of open space (e.g. allotments), near to where people live.
- There are significant issues with air quality, particularly in Gravesend and along the A2 corridor. This can be improved through measures to reduce trips by car and by urban greening.
- There is limited connectivity for walkers and cyclists between the urban areas of Northfleet and Gravesend to the surrounding rural areas; which could be improved.
- The riverside in Gravesend and Northfleet could be improved to improve the townscape and celebrate the area's heritage. The quality of the coast path could also be improved, to help achieve the England Coast Path, and linked to an improved Thames and Medway canal.
- Habitats need to be reconnected, for example to provide routes for pollinators (e.g. bees).
- Population growth and major development at Ebbsfleet will increase the demand for GBI in Gravesend and Northfleet. Some of this will be met by new GBI provided as part of the Ebbsfleet Garden City proposals. Further need could be met improving the quality of existing open spaces.
- The London Resort would result in the loss of valued habitats and increased traffic and visitor numbers.



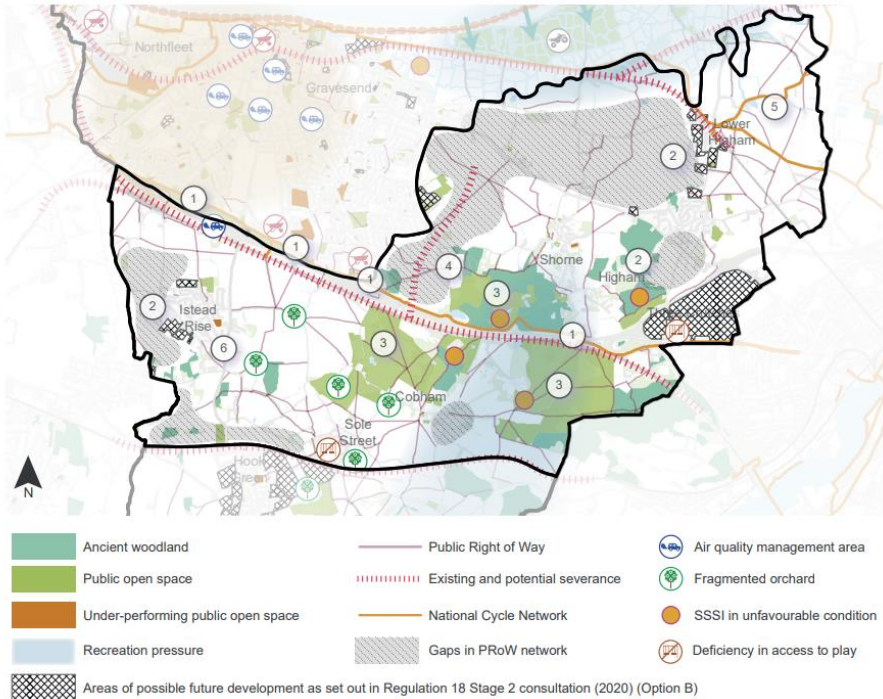
Central Area Action Plan

Needs, vulnerabilities and existing initiatives

Figure 8.2: Needs and vulnerabilities in the Central Area - Enhancing Connections

Specific needs, gaps and vulnerabilities

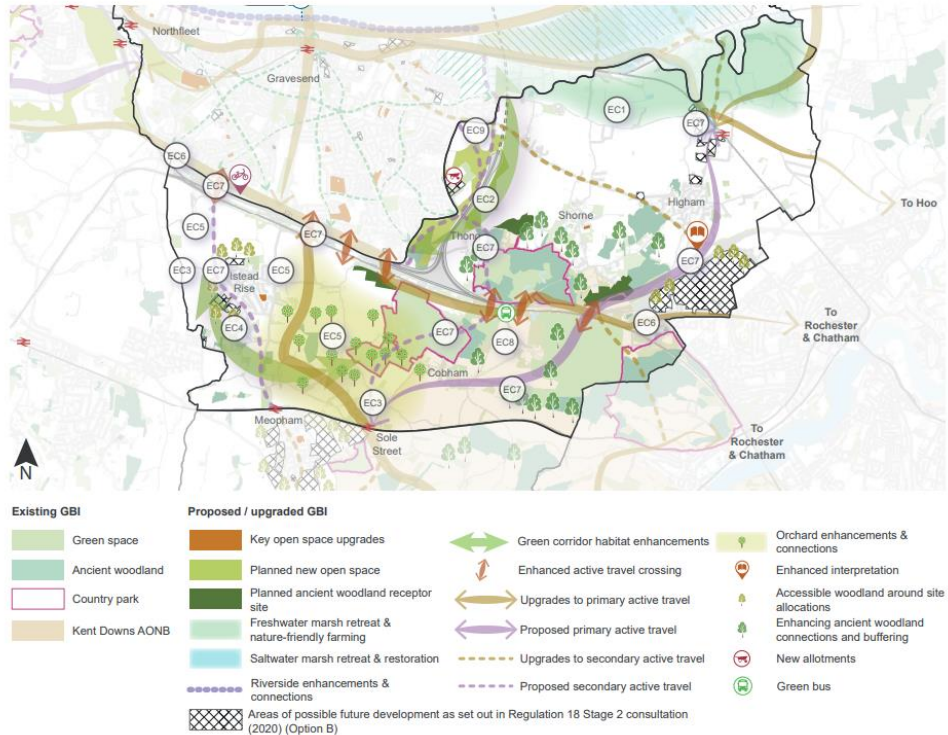
- 1 - A2 corridor (few pedestrian crossings; busy road is unappealing; poor cycling infrastructure in places; noise and light; poor air quality; severance e.g. of Darnley Trail). There are a number of bridge and tunnel crossings although access and presentation could be improved at these points.
- 2 - Istead Rise, Lower Higham and Higham lack local rights of way in some directions, particularly westwards.
- 3 - Limited bus services in rural areas and between Gravesend and some countryside sites, such as Jeskyns Community Woodland, which are difficult to access without a car.
- 4 - Ancient woodland is fragmented (and threatened by the proposed LTC; see Chapter 4).
- 5 - Water quality within the Medway catchment is poor and a significant portion of the borough is within a nitrate vulnerable zone. Water use is currently above the national average and supply is often scarce.
- 6 - Wrotham Road (A227) provides a main north-south link between Gravesend town centre and Borough Green in Tonbridge and Malling, although requires improvement for cyclists.



Key interventions

Figure 8.3: Key GBI interventions within the Central Area - Enhancing Connections

- EC1 – Higham farmlands
- EC2 – Shorne and Thong green corridor
- EC3 – Istead Rise and Sole Street woodland creation
- EC4 – Istead Rise open space enhancement
- EC5 – North Kent community orchards
- EC6 – Northfleet to Rochester green corridor
- EC7 – Connecting the rights of way network
- EC8 – Accessing the parklands
- EC9 – Allotment provisions





The Central Area includes agricultural land and settlements surrounding Gravesend, and the cluster of large greenspaces around Shorne, Cobham, and Ashenbank Woods and Jeskyns Community Woodland. The south-eastern portion of this area is within the Kent Downs Area of Outstanding Natural Beauty.

Key needs, gaps and vulnerabilities in this area include the following:

- This area contains a number of significant countryside sites, but most are difficult to access without a car. For example, there is a limited network of footpaths, and limited buses, linking these sites to Gravesend. It is possible to reach Sole Street and Meopham from Gravesend via the Wealdway Trail and bus links; a network of footpaths then connect these settlements to the surrounding countryside sites.
- Large parts of the central area are high quality agricultural land, but the whole area is sensitive to nitrates (from fertilisers), which can affect water quality. Some farmland in the northern parts of this area is at risk of flooding and salt water intrusion due to sea level rise.
- Ancient woodland, chalk grassland and traditional orchards are a distinctive part of Kent's landscape character, but are fragmented. The A2 road and HS1 rail divide areas of these habitats, but habitats are also fragmented in other areas, e.g. orchards around Istead Rise. Ancient woodland (e.g. around Shorne and Cobham) is vulnerable to fragmentation, but also poor management.
- Some settlements lack access to a full range of open space types, e.g. formal sports and play facilities around Sole Street.
- All major roads and rail are a source of noise and light pollution, and the A2 is an Air Quality Management Area.
- This area will be significantly affected by the proposed Lower Thames Crossing. The proposals would create a barrier to movement for people and wildlife, and further divide the historic landscape. Air pollution and noise would also worsen.
- Large developments are proposed on the edge of the Borough and in neighbouring areas, e.g. Three Crutches, Hoo and Chatham Docks. These will make it even more important to improve connections between Gravesend and settlements in Medway and the green spaces between them. The developments could also help to deliver GBI improvements.
- Where land currently designated as Green Belt may need to be developed, improvements to environmental quality or accessibility of the remaining areas of Green Belt land would be required. This could include planting to reconnect fragmented habitats (e.g. orchards around Istead Rise) or new accessible woodlands.



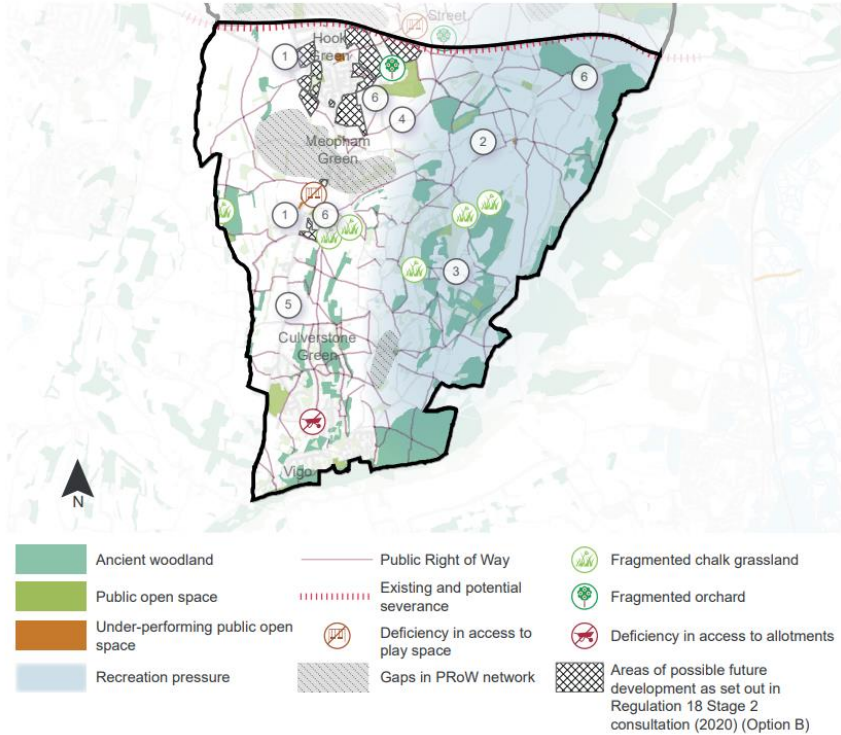
Southern Area Action Plan

Needs, vulnerabilities and existing initiatives

Figure 9.2: Needs and vulnerabilities in the Southern Area - New Downs

Specific needs, gaps and vulnerabilities

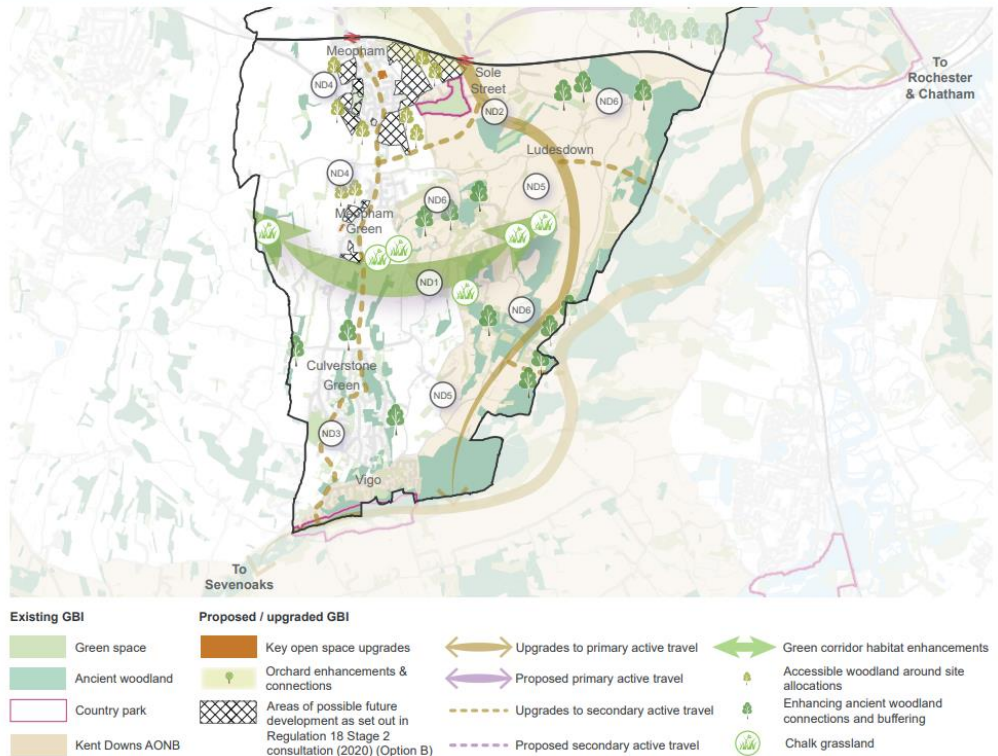
- 1 - Hook Green and Meopham Green lack local rights of way in some directions, particularly westwards.
- 2 - Limited bus services in rural areas and between Gravesend and countryside sites which are difficult to access without a car.
- 3 - Ancient woodland is fragmented and generally not under positive management.
- 4 - Water quality within the Medway catchment is poor and a significant portion of the borough is within a nitrate vulnerable zone. Water use is currently above the national average and supply is often scarce.
- 5 - Poor cycling infrastructure, particularly within Gravesham's rural areas. Many people are put off cycling by unsafe conditions and high speed traffic. Wrotham Road (A227) provides a main north-south link between Gravesend town centre and Borough Green in Tonbridge and Malling, although requires improvement for cyclists.
- 6 - The Kent Downs AONB provides access to tranquil landscapes for both residents and visitors of Gravesham. However, development, traffic, intensification of farming and increased demand for outdoor recreation threatens the Downs' tranquillity.



Key interventions

Figure 9.3: Key GBI interventions within the Southern Area - New Downs

- ND1 – Connected and resilient chalk grassland
- ND2 – Wealdway multi-use corridor
- ND3 – Vigo to Meopham / Sole Street multi-use route
- ND4 – Accessible woodland buffers
- ND5 – Fieldscapes – regenerating agricultural landscapes
- ND6 – Connected and managed ancient woodlands





The Southern Area is the rural part of the borough south of the Meopham and Sole Street railway stations. The eastern portion of this area is within the Kent Downs Area of Outstanding Natural Beauty.

Key needs, gaps and vulnerabilities in this area include the following (shown on Figure 4.6):

- There is a good network of rights of way in this area, although some areas have limited provision that could be improved. For example, there are limited footpaths towards the northwest, few opportunities for off road cycling, and poor cycling infrastructure on Wrotham Road (which is the main link between Gravesend and Borough Green). There are relatively small areas of playing fields and local greenspace in the south of the borough. Some villages have poor access to play and allotment sites, e.g. Culverstone Green and Vigo.
- Chalk grassland (e.g. west of Meopham to Luddesdown) is fragmented and should be restored.
- Much of this area is high quality farmland, and this provides a rural backdrop to the area that contributes to a sense of place and tranquillity. Farms could be managed better for biodiversity, for example within agrienvironment schemes. Large parts of this area are vulnerable to nitrates (from fertilisers).
- Blocks of woodland, ancient woodland and Local Wildlife Sites need to be actively managed to improve biodiversity and limit recreation pressure. These are an important feature of the landscape character.

2.3.1 Within development and infrastructure

Green and Blue Infrastructure Study, 2022:

GBI Needs:

Urban greening and access to open space:

- Plan for drought and surface water flooding in urban planting; reduce water use for irrigation.

GBI Needs:

Ways of Working:

- Use 'Biodiversity Net Gain' principle and the requirement to enhance/compensate Green Belt (where development must occur within it) to improve GBI network via individual sites

2.4 SPECIES SPECIFIC

There are several species present in our area which are protected by law. These include bats, great crested newts and badgers. (Nature Conservation)



SECTION 3: WIDER ENVIRONMENTAL BENEFITS

3.1 GOAL 2: AIR QUALITY

The following three AQMAs remain for now however we are drafting a new action plan to focus on these three areas as well as the whole borough:

- A2 Trunk Road AQMA for Nitrogen dioxide NO₂
- A226 One-way system in Gravesend for Nitrogen dioxide NO₂
- A227/B261 Wrotham Road/Old Road West Junction for Nitrogen dioxide NO₂.

Significant improvements in the air quality of some areas, show they no longer exceed the relevant objective and therefore the following AQMAs have been revoked:

- Northfleet Industrial Area AQMA for Particulate Matter (PM₁₀)
- B262/B261 Pelham Arms Junction for Nitrogen dioxide NO₂
- The Echo Junction Area incorporating the junction of Parrock Road, (B261) Old Road East, Whitehill Road, Sun Lane and Cross Lane East and
- The Parrock Street Area incorporating the stretch of Parrock Street from the point at which Parrock Street crosses the railway southwards to the junction of Christ Church Road and also Lord Street from its junction with Parrock Street to its junction with Windmill Street

(Air Quality)

Green and Blue Infrastructure Study, 2022:

GBI Needs:

- Target tree planting and urban greening in areas of poor air quality.

Proposed Policy AM 1: Air Quality (Reg 18, Local Plan, 2020)

Development proposals which may individually or cumulatively increase levels of air pollution in the Borough and/or are located in areas of poor air quality will be required to submit an air quality assessment. Such an assessment will be required to consider, as appropriate:

- *impacts upon areas with existing poor air quality;*
- *impacts upon the amenity and health and wellbeing of existing and future occupiers;*
- *adverse impacts upon the implementation of local and/or national air quality strategies and action plans; impacts on designated nature conservation sites, biodiversity and wildlife, along with appropriate avoidance and mitigation measures where impacts are likely to occur; and*



•breaches of EU and/or national legislation including that applicable to biodiversity and wildlife.

All major developments likely to result in unacceptable air quality impacts will require an emissions mitigation assessment. These assessments should be carried out by a suitably qualified air quality consultant in accordance with the latest guidance. Where development has the potential to worsen air quality either alone or in combination with other proposals, it will only be permitted if appropriate mitigation measures can be implemented to ensure that there is no unacceptable deterioration in air quality, having regard to the sensitivity of affected receptors and it will not prevent air quality objectives being met in a timely manner.

Where unacceptable adverse impacts are identified and where such impacts cannot be adequately mitigated development proposals will not be permitted.

3.2 GOAL 3: CLEAN AND PLENTIFUL WATER

Policy FW 2:- Managing water supply and efficiency in new development (Reg 18, Local Plan, 2020)

Major development proposals will be required to demonstrate at the application stage that there will be an adequate water supply to serve the development, or where development is being carried out in phases, the whole of the phase for which approval is being sought subject to said phasing being acceptable.

Where upgrades in water supply infrastructure are required to support the development, these should be detailed in a supporting statement accompanying the planning application along with any programme of phasing and the mechanism by which the infrastructure will be delivered in a timely manner.

Planning permission will not be granted for applications that are unable to demonstrate adequacy of supply or how unacceptable water supply constraints will be overcome

All new residential development must be designed and fitted to achieve as a minimum the optional requirement set through Building Regulations for water efficiency requiring an estimated water use of no more than 110 litres per person per day unless justified as an exception.

Proposals for all non-residential developments of 1,000 square metres floorspace and above must be designed and fitted to meet the BREEAM “excellent” standards for water efficiency and include the provision for the collection and reuse of rainwater unless justified as an exception.

3.3 GOAL 4: MANAGING EXPOSURE TO CHEMICALS AND PESTICIDES

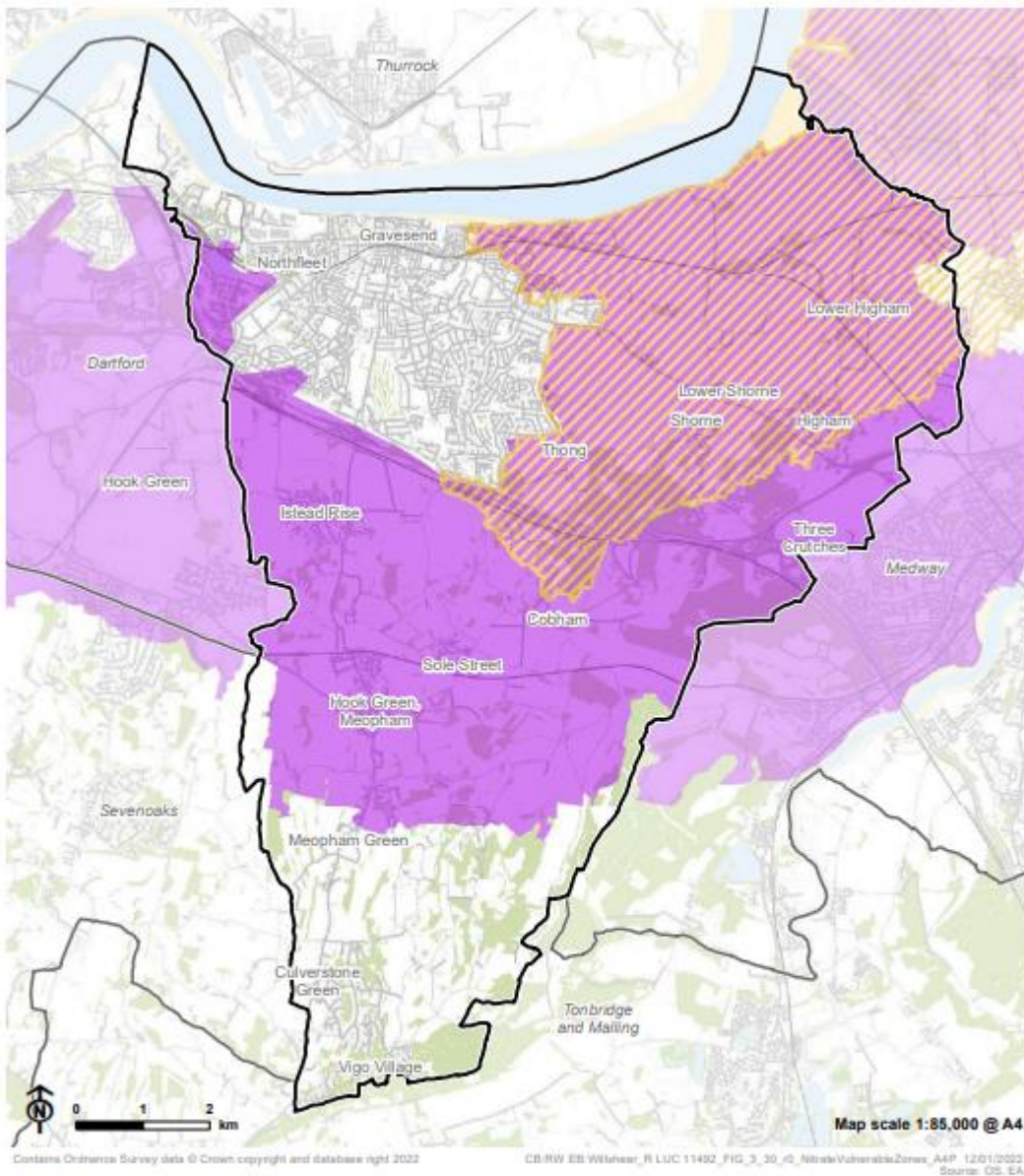


Fig 3.30: Nitrate vulnerable zones

-  Gravesham
-  Other local authority areas
- Nitrate vulnerable zones**
-  Groundwater
-  Surface Water

(GBI Study, 2022)

3.4 GOAL 5: MAXIMISE OUR RESOURCES, MINIMISE OUR WASTE

3.5 GOAL 6: USING RESOURCES FROM NATURE SUSTAINABLY



3.6 GOAL 7: MITIGATING AND ADAPTING TO CLIMATE CHANGE

Climate Change Strategy Priorities (Climate Change Strategy, 2022):

1) Emission reduction pathways to 2050

Set area and organisational five-year carbon budgets and emission reduction pathways to 2050, with significant reduction by 2030.

2) Public sector decision making

Develop a consistent approach across Kent and Medway, to assess, manage and mitigate environmental impacts (both positive and negative), resulting from public sector policies, strategies, service delivery, commissioning and procurement.

3) Planning and development

Ensure climate change, energy, air quality and environmental considerations are integrated into Local Plans, policies and developments, by developing a clean growth strategic planning policy and guidance framework for Kent and Medway, to drive down emissions and mainstream climate resilience.

4) Climate Emergency Investment Fund

Establish a trusted Kent and Medway 'Climate Emergency' carbon sequestration, offset and renewable energy investment scheme and fund.

5) Building retrofit programme

Set up a Kent and Medway net-zero buildings retrofit plan and programme for public sector, domestic and businesses.

6) Transport, travel and digital connectivity

Set up a smart connectivity and mobility modal shift programme – linking sustainable transport, transport innovations, active travel, virtual working, broadband, digital services, artificial intelligence and behaviour change.

7) Renewable energy generation

Set up an opportunities and investment programme for renewable electricity and heat energy generation.

8) Green infrastructure

Set up an opportunities and investment programme for renewable electricity and heat energy generation. Develop a multi-functional, natural capital opportunity and investment programme – focusing on environmental projects that store carbon, increase climate change resilience, improve air quality and increase biodiversity.

9) Supporting low carbon business

Develop a support programme for Kent and Medway's Low Carbon Environmental Goods and Services sector.

10) Communications



Develop a comprehensive communications, engagement and behaviour change programme targeted at residents, employees, businesses and visitors.

Detailed Action Plans for the three Key Focuses of the Strategy (Climate Change Action Plan)

The Three Key Focuses:

1. The organisation

Focusing on how the council can change its own operations, and those of its employees, wherever possible to reduce the level of carbon emissions its produces. The council has put in place a high-level road map to clearly set out the key activities that will be undertaken in relation to its own operations on its path to net zero by 2030.

2. The housing provider

Exploring opportunities to bring the council's current housing stock up to a better level of energy efficiency standard where it is possible to do so; ensuring new council housing is built to a high level of sustainability and ensuring local planning policy reflects the need for the borough to consider energy efficiency in all developments moving forward

3. The Community Leader

It is clear that the council cannot directly affect all of the changes that are needed across the borough. However, in its role as a community leader, it can work with residents, community groups and partners to educate and support them in making changes, which will have a positive impact on the level of carbon emissions in the borough

In 2019, Gravesham Borough Council passed a motion to declare a climate emergency. We pledged to taking action and prepare for the borough to become net zero by 2030. (Net Zero)

Policy CS18: Climate Change (Local Plan, 2014)

Flood Risk

With the exception of the previously developed sites along the Thames Riverside (see Policies CS03, CS04 and CS05) and those other regeneration sites which have already been evaluated in accordance with the sequential and exception tests at the application stage, development will be directed sequentially to those areas at least risk of flooding.

Proposals in areas at risk of flooding must be accompanied by a Flood Risk Assessment (in accordance with national policy and Environment Agency standing guidance as appropriate) and a Flood Risk Management Plan (if required) to demonstrate that they are adequately defended and safe over



their lifetime. Planning permission will be refused for schemes which do not pass the sequential and exception tests.

The Council will prioritise the maintenance, improvement or replacement of flood defence infrastructure over other land uses where relevant. In addition to meeting their own flood defence and management needs, the Council will expect new development to take advantage of opportunities to reduce the causes and impacts of flooding from all sources where it is technically and financially feasible.

Water Quality

As part of its approach to climate change and environmental improvement, the Council will have regard to the delivery of the Water Framework Directive and associated Thames River Basin Management Plan objectives to support water bodies being progressively improved to “good” status over the plan period.

Sustainable Drainage and Surface Water Run-Off

The Council will seek to minimise the impact of drainage from new development on waste water systems. In particular, the Council will:

- Require that surface water run-off from all new development has, as a minimum, no greater adverse impact than the existing use; and*
- Require the use of Sustainable Drainage Systems on all developments where technically and financially feasible. Gravesham Local Plan Core Strategy Adopted September 2014*

Water Demand Management

The Council will seek to manage the supply of water in the Borough and reduce the impact of new development on the supply of potable water as much as possible. In particular, the Council will: Require all new homes to be built to at least level 3/4 of the Code for Sustainable Homes in terms of water use (105 litres per person per day consumption). Where it can be demonstrated that a development is unable to meet these standards, or the additional standards set out below, permission will only be granted if provision is made for compensatory water savings elsewhere in the Borough;

- Seek 5% of homes on Key Sites to act as exemplars by meeting level 5/6 of the Code for Sustainable Homes in terms of water use (80 litres per person per day consumption);*
- Require all non-residential developments of 1,000 sq m and above to meet the BREEAM “excellent” standards of water efficiency and include provision for the collection of rainwater; and*
- Support proposals to retrofit existing residential properties in ways which reduce water consumption.*



Carbon Reduction

The Council will seek to reduce the overall carbon footprint of the Borough. In particular, the Council will:

- In the context of national policy on the transition to zero carbon development via amendments to Part L of the Building Regulations, require proposals for development of the Key Sites throughout the Borough and other major development elsewhere in the Gravesend Town Centre Opportunity Area to consider the potential and include proposals for low carbon and renewable energy generation, including combined heat and power. Where choosing not to do so, applicants must submit evidence which demonstrates that compliance is not technically or financially feasible or that improved fabric energy efficiency or an allowable solution results in improved carbon saving benefits;*
- Support stand-alone decentralised, renewable or low carbon energy development where it is compatible with national policies for protecting the Green Belt and where it accords with policies in this plan, in particular those relating to Development and Design Principles, Transport, Green Infrastructure, and Heritage and the Historic Environment; and*
- Support other proposals which lead to a reduction in carbon footprint including the retrofitting of existing homes and businesses, including local initiatives based on carbon off-setting via allowable solution*

Water and Flood Risk, 2020:

Long-term sea-level rise will increase the risk and potential severity of tidal flood events. Whilst this may be reduced through improvements to the defences under the Thames Estuary 2100 initiative, such risk should be avoided where possible through the application of the 'sequential' and 'exception' tests and residual risk managed elsewhere.

Ensuring that the Local Plan prioritises the maintenance, improvement and replacement of tidal flood defences above other forms of development is essential to protect property and lives now and into the future.

Because climate change involves long-term physical processes, the risk of tidal flooding and how this is addressed will remain a key policy driver well beyond the local plan period. This includes understanding how improved flood defence infrastructure will be delivered and where.



3.7 GOAL 8: REDUCE RISK OF HARM FROM ENVIRONMENTAL HAZARDS

Proposed Policy AM 2: Contaminated Land (Reg 18, Local Plan, 2020)

Proposals for development on land known to be or likely to be contaminated or affected by other contaminated land will only be permitted where such proposals are accompanied by a contaminated land assessment and, if necessary, a remediation strategy, which shows how the land will be remediated to an acceptable standard suitable for the proposed use and prior to its occupation.

Contaminated land assessments and remediation strategies should be produced ensuring best practice and industry standards are followed, such as the Model Procedures for the Management of Land Contamination – Contaminated Land Report 11 or any subsequent best practice guidance.

3.8 GOAL 9: ENHANCE BIOSECURITY

3.9 GOAL 10: ENHANCE BEAUTY, HERITAGE AND ENGAGEMENT WITH THE NATURAL ENVIRONMENT

3.9.1 Heritage

The central and northern areas of the borough are home to a significant number of heritage features including the former Darnley Estate (Cobham Park, Shorne Woods and Ashenbank Woods), which includes a Registered Park and Garden, ancient woodland and wood pasture, and scheduled monuments. Other important heritage features include Gravesend Cemetery, and historic forts, buildings and structures along the Thames. (GBI Study, 2022)

Green and Blue Infrastructure Study, 2022:

GBI Needs:

Celebrate heritage e.g. historic Thames, heritage features as focal points in GBI.

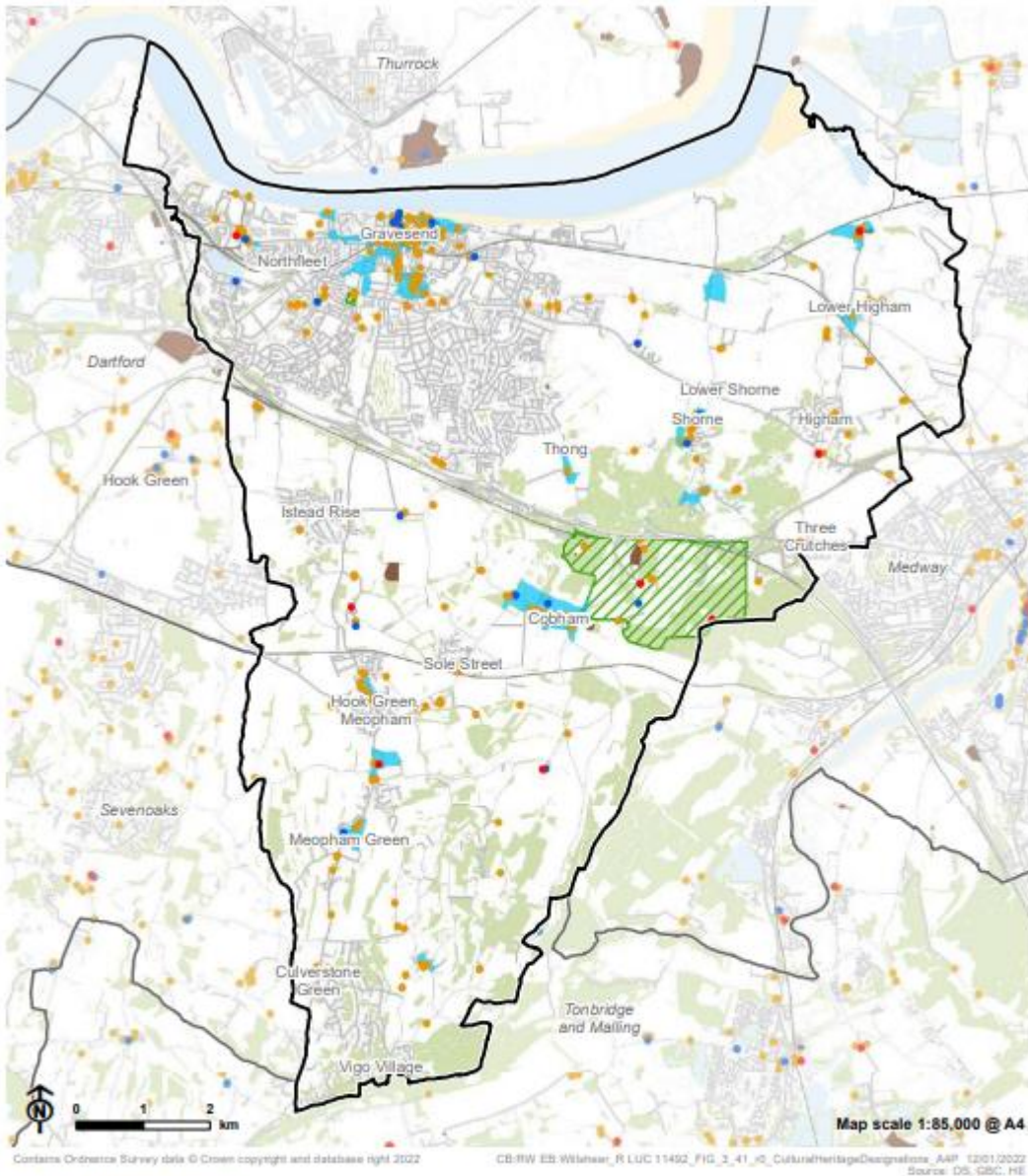


Fig 3.41: Heritage assets



(GBI Study, 2022)

Policy CS20: Heritage and the Historic Environment (Local Plan, 2014)

The Council will accord a high priority towards the preservation, protection and enhancement of its heritage and historic environment as a non-renewable resource, central to the regeneration of the area and the reinforcement of sense of place. Particular attention in this regard will be focused on those heritage assets most at risk through neglect, decay or other threats. Securing



viable, sustainable and appropriate futures for such assets at risk will need to be reconciled with the sensitivity to change that many present.

Proposals and initiatives will be supported which preserve and, where appropriate, enhance the significance of the Borough's heritage assets, their setting where it contributes to the significance of the asset and their interpretation and enjoyment, especially where these contribute to the distinct identity of the Borough. These include:

- Gravesend Town Centre, its development as a heritage riverside town, and its setting;*
- The Borough's urban and rural conservation areas; and*
- Surviving built features and archaeology relating to the Borough's maritime, military, industrial and transport history.*

When considering the impact of a proposed development on a designated heritage asset, the weight that will be given to the asset's conservation value will be commensurate with the importance and significance of the asset. For non-designated assets, decisions will have regard to the scale of any harm or loss and the significance of the heritage asset.

3.9.2 Health and wellbeing (GBI Study, 2022)

Although most residents within the borough have greenspaces near where they live, open spaces within Gravesend and Northfleet tend to be smaller and of poorer quality than in the rural areas; and it is harder to access natural greenspaces. These urban areas have some of the borough's poorest health, highest levels of deprivation and poorest air quality.

GBI Needs:

Ways of Working:

- Use countryside sites for social prescribing

3.9.3 Access to nature

On the whole, the borough has a good network of local and long-distance footpaths and cycle routes (albeit with some gaps; see Weaknesses), particularly to/from Gravesend and Northfleet. The urban area is also generally well served by buses and is linked to Tilbury, in Essex, via a ferry. These provide opportunities for people to access GBI without using cars.

Visitors to the Borough can make use of road and rail links into the borough, which serve Gravesend, Meopham, Sole Street and Higham, and therefore some of the countryside sites close to those settlements. (GBI Study, 2022)



Connectivity in the central and south of the borough varies. There are limited car-free options for the local community to access the main countryside sites south of Gravesend. Gaps within the GBI network include poor pedestrian and cycle connectivity across the A2 road corridor between Gravesend and countryside sites such as Jeskyns Community Woodland and Camer Park.

There are also limited bus and rail connections to these sites. The cycling infrastructure is poorly linked or unsafe, for example in Gravesend. There are also gaps in the rural rights of way network particularly to the west of Wrotham Road, at Istead Rise and Meopham.

Green and Blue Infrastructure Study, 2022:



GBI Needs

Connections and links

- Improved bus services to main countryside sites.
- Better pedestrian and cycling crossings over the A2 road and HS1 railway, and the green corridor along it.
- Safer and more complete cycling network e.g. safety of junctions in Gravesend, links from Gravesend southwards towards Vigo, links from the National Cycle Network to Hook Green & Meopham Green.
- Join up gaps in walking and cycling network (e.g. busy junctions in Gravesend; A2 crossings).
- Improve quality of riverside path in Gravesend and Northfleet (England Coast Path) and links along/beyond Thames and Medway Canal.



Fig 3.1: Walking and cycling

-  Gravesham
-  Other local authority areas
-  National Cycle Network (NCN)
-  Public Right of Way (within Gravesham only)
-  Saxon Shore Way
-  Wealdway
-  Pilgrims Way
-  North Downs Way (National Trail)
-  Cyclopark
-  Tilbury - Gravesend Ferry

(GBI Study, 2022)

3.9.4 Open spaces and recreation

Public access to GBI is often positive, for example in terms of recreation opportunities, but not always. For example, the large area of marshes in the north of the borough is sensitive to visitor pressure due to its importance for birds.

Allotment provision, similarly, is generally good within Gravesend and Northfleet but poorer in rural settlements such as Meopham Green, Culverstone Green and Harvel. These patterns of poor availability of open space broadly follow patterns of deprivation: more deprived areas have less greenspace, in general.

All of Gravesend and Northfleet; and other settlements – as such Istead Rise, Meopham Green, Thong and Culverstone Green; are lacking in local natural greenspace, although people in the rural settlements are able to make use of the surrounding open countryside. (GBI Study, 2022)

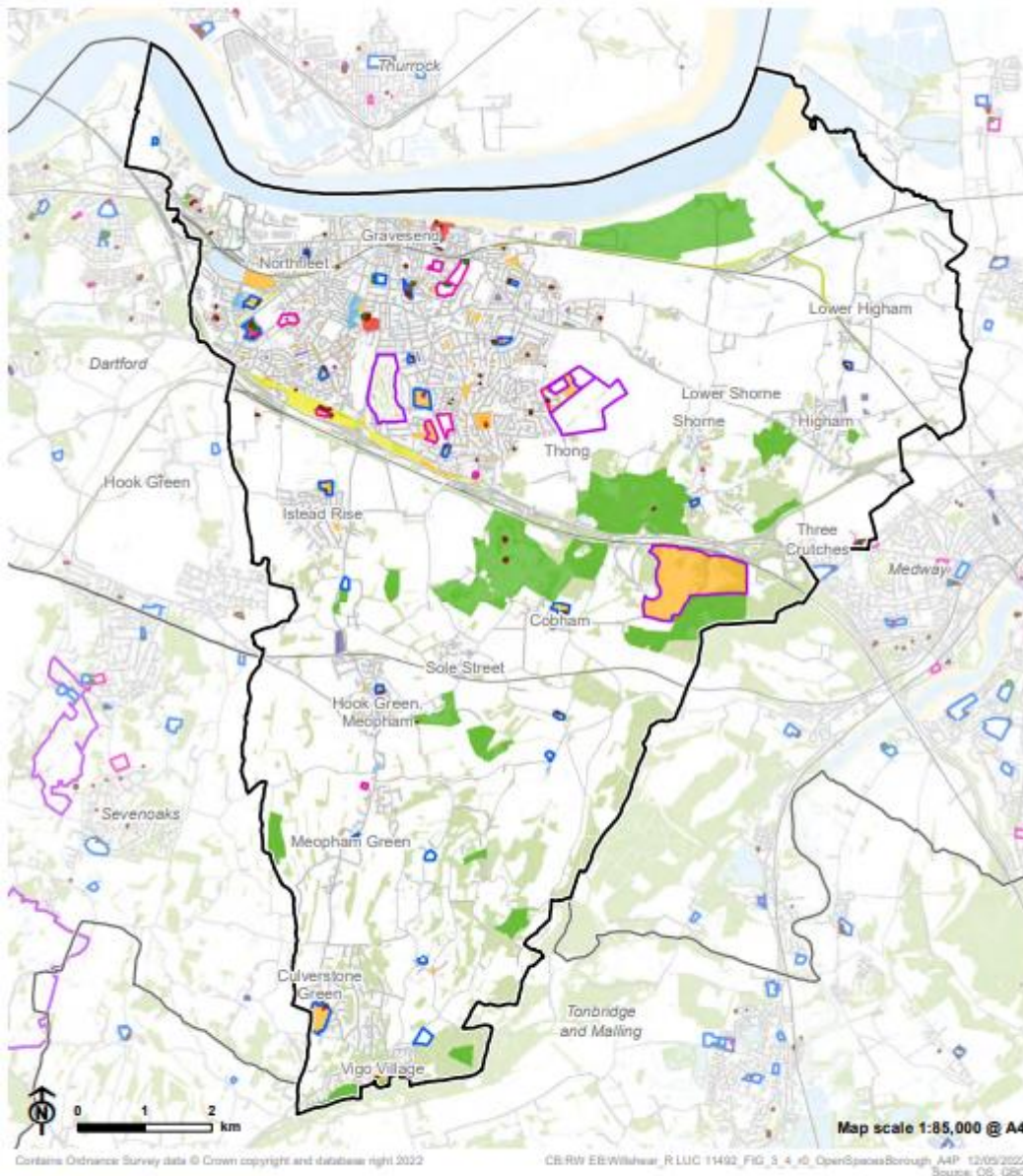


Fig 3.4: Open spaces (borough)



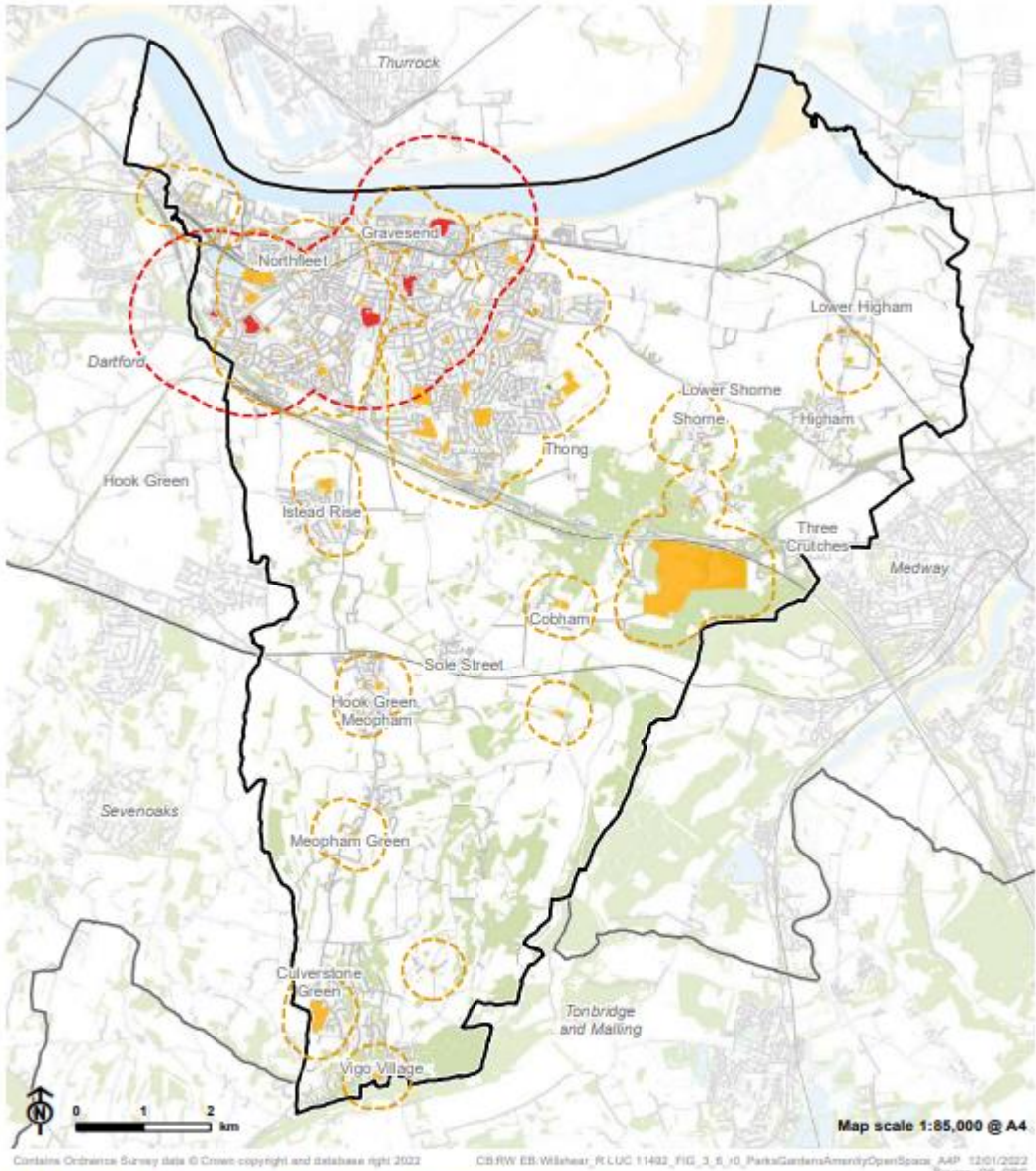


Fig 3.6: Access to parks, gardens and amenity open space (borough)

- Gravesham
- Other local authority areas
- Amenity greenspace
- Parks and gardens
- 400m Amenity greenspace buffer
- 1200m Parks and gardens buffer

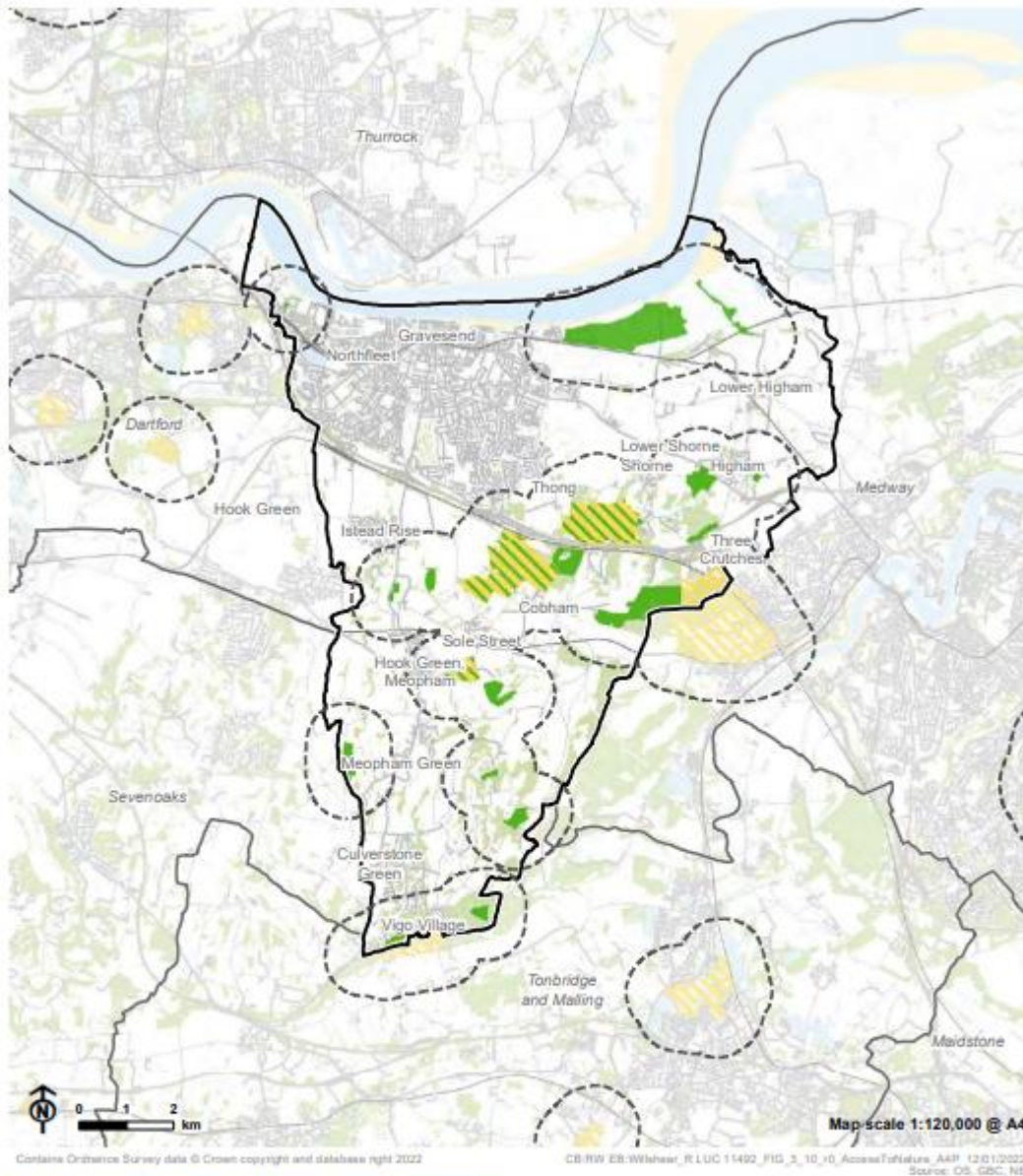


Fig 3.10: Access to natural and semi-natural greenspace



Green and Blue Infrastructure Study, 2022:

GBI Needs:

Urban greening and access to open space:

- Improve the quality of amenity greenspace and play spaces in Gravesend and Northfleet.



- Provide semi natural greenspace, parks and gardens where provision is poor e.g. parts of Gravesend and Northfleet, Istead Rise, Meopham Green, Thong and Culverstone Green.
- Improve allotment provision in parts of the urban area such as Riverview Park and the rural area e.g. in Meopham Green, Culverstone Green and Harvel

Proposed Policy GI 1: Open Space, Playing Pitches and Sports Facilities Retention
(Reg 18, Local Plan, 2020)

Change of use or redevelopment of existing open spaces, indoor sports facilities or playing pitches and disused/lapsed school or college playing fields will only be permitted if the applicant demonstrates that:

- *the loss will be mitigated by equivalent replacement provision (in terms of quality, quantity and accessibility); or*
- *the development is for alternative sports/recreational use for which there is a greater need; or*
- *the current use will be retained and enhanced through the provision of limited enabling development.*

In addition to the above, the redevelopment of private or public open space will not be permitted where there would be a significant individual or cumulative loss of open space or where there would be a negative impact on amenity, character and appearance, ecological connectivity or biodiversity of an area.

Support will be given to proposals that improve, increase or provide greater access to open spaces, indoor sports facilities and playing pitches in the Borough.

Where new schools are built, or existing schools are redeveloped or improved, and it results in the loss of areas of associated open space, the public benefits of new or improved school provision will be weighed against such loss. The Council will also have regard to any qualitative improvements in open space provision that is delivered as part of any such proposal and will seek to maximise community access to the sports facilities provided compatible with the educational use of such sites.

Proposed Policy GI 2: Open Space, Playing Pitches and Sports Facilities Provision
(Reg 18, Local Plan, 2020)

New development will be required to provide adequate open space, sports and recreation facilities commensurate with the level of development proposed in order to meet the need of users, having regard to their



characteristics and to promote accessible and socially inclusive places. Where such facilities are proposed, they should:

- Be publicly accessible;*
- Appropriately designed to be safe, usable and integrated into the development site;*
- Include a sustainable long-term management plan; and*
- Enhance biodiversity and integrate into the existing green infrastructure.*

Where precluded by site constraints or if there are overriding public benefits that would result from the proposed development, the Council will consider off-site provision or a financial contribution in place of on-site provision to be invested in locations accessible to the development to be permitted. In such circumstances, the application should be accompanied by an open space study and strategy to demonstrate how the needs generated by the development will be met and that a high standard of amenity for future occupants and users will ensue.

Where new educational facilities are provided on sites which do not involve the loss of open space but include new open space, playing pitches and sports facilities, the Council will seek to maximise community access in line with the approach set out in Policy GI 1.



SECTION 4: DISTRICT PROJECTS TO NOTE

4.1 Old Chalk New Downs Project (Nature Conservation)

The Old Chalk New Downs Project (The Project) is a new £1.4m Heritage Lottery Funded partnership project hosted by Kent County Council which aims to improve, restore and reconnect threatened fragments of precious chalk downland habitats over a period of 4 years. For the benefit of the rare species who depend on them, people who love them and for future generations. The Project area will cover almost 10,000 hectares along the Downs from Kemsing Down across to Detling Hill, and includes that part of the Area of Outstanding Natural Beauty (AONB) to the south and east of Cobham.

4.2 Council Projects (Environment and Greenspaces)

Urban Roots – Support our planet by purchasing a tree that will be planted in our urban landscape

Grow Your Community – Join a community allotment scheme

Friends of Gravesham – Offer a little time to join others in improving our open spaces for all to enjoy

Urban Orchards – Establishing fruit orchards in estates to promote more birdlife

Off The Grid – Using solar to power the Gordons Lake aeration system to breathe new life into the water

Wildflowers – Working to promote pollinators by allowing areas to become naturally beautiful (we don't really have verges)

Memorial Trees – Remembering a loved one with the gift of a tree that will be planted in memory of them (generic, planted anywhere or in a specific location)

Greener Gravesham – Creation of green corridors that encourage wildlife and nature, and signpost to wonderful rural areas that are on our doorstep.

4.3 Hedgehog Highway (Environment and Greenspaces)

We've been working with the North West Kent Countryside Project to improve the Gravesham environment for hedgehogs. You can help by creating a hedgehog highway. As hedgehogs roam up to 2km a night, access through your garden could be vital to their survival. Garden fences can stop hedgehogs being able to find the resources they need to survive. Get involved with the hedgehog street project.

4.4 Kent Active Travel (KCWIP) (Active Travel Consultation Report)

Gravesham AT2 West Walking, Wheeling and Cycling Route -A proposed walking, wheeling and cycling route connecting the Northfleet to Gravesend at consultation stage with KCC



SECTION 5: SPECIFIC PRIORITIES WITHIN NEIGHBOURHOOD PLANS

5.1 Available Plans:

There are currently no adopted Neighbourhood Plans and no Neighbourhood Plans are currently under preparation in Gravesham. (Local Development Scheme)



SECTION 6: DOCUMENTS REVIEWED AND REFERENCED

Document reference	Link
Reg 18, Local Plan, 2020	Regulation 18 Stage 2 LPCS Partial Review and Site Allocations Main Document Final v 2.pdf Regulation 18 Stage DM Policies.pdf
Local Plan, 2014.	Gravesham Local Plan Core Strategy - September 2014.pdf
GBI Study,2022	220513 Gravesham GBI Study Report (1).pdf
Nature Conservation	Nature conservation Nature conservation and landscape – Gravesham Borough Council
Environment and Greenspaces	Environment and greenspaces – Gravesham Borough Council
Air Quality	Action planning to improve air quality Air quality – Gravesham Borough Council
Active Travel Consultation Report (KCWIP)	Gravesend Active Travel Scheme.pdf
Water and Flood Risk 2020	Gravesham Water and Flood Risk Background Paper.pdf
Local Wildlife Sites	Local Wildlife Sites Kent Wildlife Trust
SSSI designations	Magic Map Application (defra.gov.uk)
Climate Change Strategy, 2022	Climate change strategy (gravesham.gov.uk)
Climate Change Action Plan	Climate Change Strategy – Gravesham Borough Council
Net Zero	Our journey to Net Zero – Gravesham Borough Council
Local Development Scheme	https://democracy.gravesham.gov.uk/documents/s73452/Appendix%201%20Gravesham Local Development Scheme.pdf