

DARTFORD'S OPEN SPACES

OPEN SPACES TECHNICAL PAPER



**PART OF DARTFORD'S
LOCAL DEVELOPMENT FRAMEWORK**

July 2010

DARTFORD
BOROUGH COUNCIL

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EXECUTIVE SUMMARY

Main Findings

- A higher population density than the national average and a projected 42% increase in the private household population by 2026 will put pressure on existing open spaces. Most of the increase in private household population will be concentrated in the ward of Greenhithe followed by Joyce Green, Stone, Swanscombe, Castle and Town;
- There will also be an increased demand near to Ebbsfleet International Station, employment hubs and visitor attractions due to the growth in jobs and visitors. This growth will be concentrated in the wards of Swanscombe, Littlebrook, Greenhithe, Stone, Castle, Joyce Green, Town and Princes;
- There is a total of 1,704 hectares of open space, including a variety of types of open space. In general open space is dispersed well across the Borough;
- A number of wards do not meet the hectares per 1000 population standards. In particular, the amount of publicly accessible open space in the wards of Castle, Littlebrook, Newtown, Longfield/New Barn/Southfleet and West Hill do not meet the standards for both children's playing space/outdoor sports provision and natural greenspaces;
- Parts of the borough, especially in the south and west, fall outside catchment areas and have poor access to more than one type of open space;
- In order to cater for the demands arising from population growth it will be necessary for development sites to bring forward the estimated amount and type of new open space described in **Appendix 7**. This is necessary in order to meet recreational demands as well as catering for the needs of biodiversity, mitigating the flood risk impacts arising from further built development and helping to create a more cohesive Green Grid network across the Borough.

Policy Implications

- Maintaining the existing supply of open space, and protecting the variety of open spaces will be important. Improving the quality of open spaces, making them more publicly accessible and removing barriers will increase the use of open spaces;
- The development of sites provides the opportunity to reduce the current open space deficits by creating a significant amount of new open space provision. It is estimated that by 2026 a combined total of 327 hectares of newly provided and newly accessible open space will be provided on development sites. This will help to enhance the Green Grid and help to meet the needs of new communities as well as existing ones;
- New provision should be integrated into new developments, should be located close to homes, should be easily accessed by walking and cycling and where possible should provide a multi-functional role;
- It will be more difficult to address deficiencies in areas where no new significant development is planned. In these areas, small cumulative developments should contribute to the enhancement of existing open spaces;
- To ensure communities with deficiencies have access to open space, it will be important to maintain a usable supply of existing open spaces, especially within rural villages. Also to compensate for the lack of formal open space, the Green Grid should seek to provide access to the countryside; and
- More detailed guidance on open spaces will be forthcoming in a Development Management DPD.

INTRODUCTION AND CONTEXT

1.1 Purpose and Content

- 1.1.1 This Technical Paper has been prepared to inform, and support the preparation of, Dartford's Local Development Framework (LDF). In particular, it will contribute towards the development of open space policies in the Core Strategy and determine whether there is a need for more detailed policies and guidance in a subsequent Development Management DPD and/or a Supplementary Planning Document (SPD).
- 1.1.2 This Technical Paper:
- considers the planning policy context relating to open spaces – see below;
 - identifies specific local level characteristics that impact on open space use – see section 2;
 - provides an overview of the main findings from evidence collected to date – see section 3;
 - evaluates the current and future supply of open spaces and identifies where deficiencies exist – see section 4;
 - identifies policy implications at the end of each section; and
 - considers the need for further guidance – see section 5.

1.2 Local Policy Context

- 1.2.1 The starting point for this local level assessment of open spaces is to determine the planning policy context. For Dartford, there is a wealth of planning policy guidance that provides valuable advice regarding the provision and management of open spaces. The main policy documents from local to national level are summarised below.
- 1.2.2 At the local level, open spaces are embedded within the Council's **Corporate Plan (2009-2012)**. Two of the six themes relate to open spaces and the Council is aiming to encourage greater participation in sports and leisure activities and reduce overall health inequality by using Princes Park and Acacia Hall to encourage people to become involved in sport. It also seeks 30% greenspace on major development sites and 20% on medium sites. The Corporate Plan seeks to reduce anti-social behaviour by improving provision for teenagers and young people in parks and open spaces. The Council will monitor residents' satisfaction levels with open spaces and will agree new developments only where adequate facilities exist or are proposed.
- 1.2.3 The **Adopted Borough of Dartford Local Plan (1995)** recognises the importance of open spaces, with relevant policies on:
- safeguarding existing, and providing new, open spaces - including crematoria, allotment land, playing pitches and golf courses; and
 - the recreational potential of the countryside, River Thames, Public Rights of Way and Darent Valley Footpath.
- 1.2.4 The **Dartford Local Plan Review: Amended Second Deposit Draft (2004)** carries forward policies from the Adopted Local Plan (see paragraph 1.2.3) and introduces new policies on:
- the Green Grid, a network of inter-linking high quality open spaces for recreation;
 - local level standards for the provision of open spaces in new developments;
 - design standards relating to amenity, landscape and the public realm;
 - the provision of community woodlands and outdoor sports in the countryside; and

- monitoring, with targets on Green Grid, open spaces and access to the River Thames.

- 1.2.5 The Council works with a range of partners at the local level. The **Dartford and Gravesham Sustainable Community Strategy (2008-2011)**, prepared by the Local Strategic Partnership, aims to encourage people to lead healthy lifestyles by increasing opportunities for sport, leisure and cultural activities and ensuring the provision of greenspace, sporting and cultural facilities as part of new developments. It also seeks to create strong, integrated communities by promoting volunteering activity around sport, leisure and community activities.
- 1.2.6 The Kent Thameside Delivery Board commissioned the **Strategic Flood Risk Assessment for Kent Thameside (2005)** which recognises that open spaces can be used for flood storage as well as local amenity, recreation and wildlife. It highlights that open spaces in new developments should be located to allow for flood water storage so as to protect the residential areas. The Delivery Board's **Waterfronts and Waterways in Kent Thameside: Issues and Opportunities Study (2006)** identifies opportunities to encourage public access to, and enjoyment of, the river for recreational use. It also identifies the potential conflicts between existing uses including commercial, conservation interests and broader public use.
- 1.2.7 A number of open space studies have been carried out. For instance, **Green Grid projects and studies** have been carried out using a collaborative partnership approach between the Council, Gravesham Borough Council, Groundwork Kent Thames-side, Kent Thameside Delivery Board and other organisations. Groundwork Kent Thames-side helped the Council prepare the **Dartford Heath Management and Restoration Plan (2005)** which aims to make Dartford Heath accessible to all for informal recreation. The Council is also committed to **Managing the Marshes: Vision and Strategy (2006)**, published by Bexley Council. It highlights the potential for the Erith/Crayford and Dartford Marshes to develop as multi-functional open spaces whilst conserving and enhancing habitats and landscapes. Managing the Marshes stresses that community access should be improved, including connections to other parts of the Green Grid.
- 1.2.8 Kent Thameside's **Walking and Cycling Strategy (2007)** identifies a number of improvements to the Public Rights of Way and cycle networks which will enhance connectivity from existing and new developments to open spaces and promote leisure walking and cycling across Kent Thameside.

1.3 Sub-Regional Policy Context

- 1.3.1 Kent County Council's **Kent Design Guide (2005)** looks at the design of the public realm, stressing that convenient access to open space should be provided in all new development.
- 1.3.2 Kent contains 28 Habitat Action Plans, first acknowledged in the **Kent Biodiversity Action Plan (1997)** showing the main types of habitats in Dartford to be marshland, water bodies, grasslands, lowland heath and woodland.
- 1.3.3 The Thames Gateway Kent and Medway **Greening the Gateway Initiative** will provide strategic direction and draw together various streams of open space work being carried out across North Kent. The initiative recognises that there is a need to improve access to high quality open space and seeks to deliver environmental opportunities through the creation of the Thames Gateway Parklands.

1.4 Thames Gateway Policy Context

- 1.4.1 The Government has identified the Thames Gateway as a growth area. **RPG9a Thames Gateway Planning Framework (1995)** seeks to create a new environmental standard, with the riverfront opened to public access and open space safeguarded, alongside new provision, to meet recreational needs. This framework first raised the Green Grid concept.
- 1.4.2 **RPG9b/3b Strategic Planning Guidance for the River Thames (1997)** states that the river is an open space resource and a recreational facility. It aims to strike a balance between open spaces, recreation and other conflicting uses.
- 1.4.3 Taking forward the Sustainable Communities agenda, **Creating Sustainable Communities: Greening the Gateway (2003)** acknowledges the positive contribution multi-functional green spaces should make to the quality of life. The **Implementation Plan (2005)** sets out a delivery framework where the Local Development Frameworks will plan and deliver greenspace alongside growth in the Thames Gateway.
- 1.4.4 The **Thames Gateway Strategic Framework Interim Report: Key Choices (2006)** identifies the Thames Estuary Park - a national flagship that will create a working landscape and a setting for development alongside improved biodiversity and recreation. The park will also respond creatively to climate change by promoting sustainable living, flood mitigation and the integrated management of water, energy and waste.
- 1.4.5 The **Thames Gateway Interim Plan: Policy Framework (2006)** advocates the Thames Gateway Parklands as a way to transform the environment and establish a new image, by creating multi-functional open spaces, extending the concept of the Green Grid, attracting investment and being planned alongside/in advance of built development.
- 1.4.6 The **Thames Gateway: The Delivery Plan (2007)** identifies the Parklands Initiative, a programme with £35 million to invest in improving the natural and urban environment, including a new Estuary Path along Thames Waterfront. A Parklands Spatial Framework will set the overarching vision for the region, a Trust will be established to manage and maintain the delivery of the Parklands Programme and the Parklands Mark (a new standard) will be awarded to projects that exemplify high quality public places and green spaces. In time the Parklands will bring about a change in the image and perception and will improve the quality of life in the Gateway.
- 1.4.7 The **Thames Gateway Parklands Vision (2008)** focuses on the eight themes of water parklands, community parklands, urban parklands, parklands historic environment, a connected parklands landscape, agriculture as parklands, parklands and the eco-region and one vision, a thousand projects and identifying a Parklands Spatial Framework.
- 1.4.8 The role of open spaces along the River Thames, including minimising flood risk, has been considered in the Thames Estuary Partnership's **Thames Strategy East: Public Consultation Draft (2005)** and the Environment Agency's **Thames Estuary 2100** project.

1.5 Regional Policy Context

- 1.5.1 Part of Sport England's Vision from **Mission Possible: The South East Plan for Sport (2004-2008)** is to put sport at the heart of the planning process. It stresses that developer contributions should contribute fairly to sport and active recreation facilities.
- 1.5.2 The Forestry Commission's **Seeing the Wood for the Trees: A Forestry and Woodlands Framework for the South East Region (2004)** emphasises that woodlands play a vital role in providing a high quality environment. It advocates that accessible woodlands should be provided close to where people live, to support sustainable communities.
- 1.5.3 The Forestry Commission, Natural England and other bodies have jointly prepared **An Analysis of Accessible Natural Greenspace Provision in the South East (2007)**. Findings show that only 5% of Kent's land was found to be accessible greenspace and only 3% of Kent's households meet all of the Accessible Natural Greenspace Standards (ANGSt) requirements.
- 1.5.4 The Mayor of London's **Best Practice Guidance: Health Issues in Planning (2007)** recognises the significant health benefits associated with access to, and use of, open spaces.
- 1.5.5 The **South East Green Infrastructure Framework (2009)** seeks to establish green infrastructure as an integral and essential component of sustainable communities and provides guidance on how to deliver green infrastructure through the planning system and local partnerships.

1.6 National Policy Context

- 1.6.1 The most relevant piece of national guidance is **PPG17: Planning for Open Space, Sport and Recreation (2002)** and its companion guide **Assessing Needs and Opportunities (2002)** which states that Local Authorities should undertake robust assessments of the existing, and future, needs of communities as well as quantitative and the qualitative audits. It suggests that deficits or surpluses should be identified and that standards for provision should be set locally. Open space policies should deliver Government objectives such as supporting an urban renaissance, supporting rural renewal, promoting social inclusion and community cohesion, health and well being and promoting more sustainable development.
- 1.6.2 The Consultation Paper **PPS: Planning for a Natural and Healthy Environment (2010)** proposes Policy NE1 which seeks up-to-date assessments of the existing and future needs of communities for open space, green infrastructure, sports, recreational and play facilities and audits of existing provision, taking into account quality, quantity, accessibility, typology and location. Policy NE4 seeks a strategic approach for the creation, protection and management of green infrastructure networks. Policy NE5 seeks local standards which provide sufficient high quality, multi-functional open space to meet the differing needs of the local communities, with priorities given to protection, investment and reallocation of open spaces and enhancing existing facilities or creating new ones especially where deficiencies exist. The Consultation Paper also proposes development management policies that guides the maintenance of an adequate supply of open space and guides development of playing fields and a range of types of sports and recreation facilities.
- 1.6.3 DEFRA's **Guidance for Local Authorities on Implementing the Biodiversity Duty (2007)** advocates improved management of green infrastructure for biodiversity. It suggests

- 1.6.4 Sport England's **Game Plan: A Strategy for Delivering Government's Sport and Physical Activity Objectives (2002)** sets a target of 70% of the population being reasonably active by 2020. The **Framework for Sport in England: Making England an Active and Sporting Nation: A Vision for 2020 (2004)** seeks recognition for sport as a way to help deliver sustainable communities, with funding secured from new housing developments for investment in sport.
- 1.6.5 Sport England's **Active Design (2006)**, seeks to ensure that physical recreation becomes a fundamental consideration in new developments, through the design and layout of new developments, open spaces and sports facilities.

1.7 Policy Implications

- 1.7.1 Open space policies and guidance should reflect the strong planning framework that already exists for Dartford's open spaces and will need to consider the following:

- supporting an **urban renaissance** and a **rural renewal**;
- promoting **sustainable communities** including social inclusion, community cohesion, health and well being and quality of life;
- creating **multi-functional open spaces, green infrastructure**;
- implementing a **Green Grid** network;
- promoting a sustainable pattern of development, with **open spaces located close to people's homes**;
- setting **local standards** for open space provision and planning **new open spaces** in strategic development sites alongside/in advance of built development;
- promoting sustainable modes of travel using **walking and cycling networks**;
- uplifting the quality of the **environment** and the **image** of the area; and
- enhancing accessibility to the paths and open spaces along the **Rivers Thames and Darent** and the **countryside**.

2. BOROUGH CHARACTERISTICS

2.1 The Character of Dartford

- 2.1.1 The Borough of Dartford is the smallest in Kent, covering an area of 7,277 hectares. It occupies an important strategic location within South East England, at the pivotal point between Greater London and Kent, and at the heart of the Thames Gateway regeneration area. The River Thames forms the northern boundary.
- 2.1.2 There are sharp contrasts across the Borough, with the town of Dartford and other urban settlements of Stone, Greenhithe and Swanscombe in the northern part. To the south of the A2 there are 12 villages surrounded by Green Belt land.
- 2.1.3 The landscape character in the northern part of the Borough is typical of the Thames Estuary, with marshland at Dartford Marshes and Swanscombe Peninsula and heathland at Dartford Heath. The southern Green Belt area is semi-rural in character, comprising open, gently undulating countryside, agricultural land and woodlands.
- 2.1.4 Since 1995 Kent Thameside has been identified for large scale regeneration and growth, with a number of strategic developments already built/started and more planned for the future, including the International Station at Ebbsfleet. In providing large scale growth, the Borough faces a number of challenges, including the need to provide adequate open spaces to serve the existing and new population.

2.2 The Borough in 2006

- 2.2.1 Understanding current characteristics helps to determine the local level of need for open spaces. To gain an insight of the Borough, key facts taken from the **Census (2001)** are analysed below. The Borough's resident population in 2001 comprised:
- 85,911 people, forming 35,240 households;
 - 43,790 females and 42,121 males;
 - 18,247 children, 55,250 adults and 12,414 elderly; and
 - 60,512 residents living in 12 urban wards¹ and 25,399 in 5 rural wards².
- 2.2.2 Table 1 highlights a number of characteristics impacting on the demand for open space, to show whether the situation in Dartford varies from the national average.

Table 1 2001 Census Statistics		
Characteristic	Dartford Average	National Average
Males	49%	49%
Females	51%	51%
Children	21%	20%
Elderly	14%	16%
Ethnic Groups	5%	9%
Households without a Garden	18%	19%
Households without a Car	20%	27%
Economically Inactive	34%	39%
Health not Good	8%	9%
Permanently Sick/Disabled	4%	6%
Residents Living in Urban Wards	70%	NA
Density (hectares per person)	12	4

¹ Urban Wards: Brent, Castle, Greenhithe, Heath, Joyce Green, Littlebrook, Newtown, Princes, Stone, Swanscombe, Town, West Hill.

² Rural wards: Bean/Darenth, Joydens Wood, Longfield/New Barn and Southfleet, Sutton-at-Hone/Hawley and Wilmington.

- 2.2.3 The Census data in Table 1 shows that Dartford's population profile closely reflects the national situation. However, Dartford contains 1% higher proportion of children than the national average and the percentage of children in the population is projected to increase to 2026³. Being an urban Borough, the population density is higher than the national average and these issues should be addressed in the provision of new open spaces.
- 2.2.4 Some parts of the Borough experience deprivation. The ODPM's **Indices of Deprivation (2004)** give Dartford an average score of 17.18, ranking 170th nationally. Dartford, Gravesham and Swanley Primary Care Trust's **Deprivation Profile (2005)** identifies that three of the LSOAs⁴ are within the 20% most deprived areas in the UK and ranks Dartford sixth out of the 12 districts in Kent in 2004. Dartford rates poorly in relation to health with 21 LSOAs being amongst the 20% most deprived areas in Kent/Medway Health Authority area for living environment. Kent County Council's **District Profiles: Recorded Crime Statistics (2006-2007)** shows that Dartford, with 142 reported crimes per 1000 population, has the second highest crime rates in Kent.
- 2.2.5 In addition to the residential population, there are two other significant groups that may want to utilise the Borough's open spaces. These are people who work in the Borough and those who visit it. Data from the **Census (2001) Special Workplace Statistics**, Kent County Council's **Town Centre Health Indicators (2006)**, the **Economic Impact of Tourism in Kent (2003)**, **Bluewater website (2007)** and the Council's **Economy and Employment Technical Paper Interim Working Document (2008)** show that:
- at 2007, there were 51,600 jobs in the Borough;
 - at 2001, there were 46,680 jobs in the Borough, of which 19,030 Dartford residents were employees in these jobs, and the remainder of the jobs were filled by 27,660 commuters who travel into Dartford to work;
 - the jobs are not evenly distributed and are concentrated at Bluewater, Crossways, Dartford Town Centre and a number of industrial estates which are spread throughout the urban area;
 - there are 25,990 visitors who come to Dartford town centre to shop each year;
 - there are 645,250 day trips made annually to the Borough of Dartford; and
 - there are 27 million visitors to Bluewater each year.

2.3 The Borough in 2026

- 2.3.1 Dartford will become one of the largest growth areas within the Thames Gateway up to 2026 and beyond. Taking a look at the future anticipated growth and its distribution across the Borough will help to determine the likely demand for open spaces in the future.
- 2.3.2 **Population Change in Dartford Borough 2006 – 2026 (July 2010)** calculates the likely additional residential population in 2026. It shows that the area of greatest growth will be in the north east of the Borough. In particular:
- between 2006 and 2026 there will be a 42% increase in private household population, resulting in a total approximate population of 126,030 at 2026;
 - the spread of approximately 17,300 new homes will not be even across the Borough, but will be concentrated in certain areas;

³ Dartford Strategic Housing Market Assessment, Dartford Borough Council, 2010

⁴ Wards are divided into a number of LSOAs - Lower Super Output Areas.

- Greenhithe and Swanscombe will account for almost a quarter of the total private household population of the Borough in 2026;
- Greenhithe ward will experience the greatest growth, with more than a twofold increase in private household population – see Table 2 below;
- the wards of Joyce Green, Stone, Swanscombe, Castle and Town will also experience high levels of growth, with an increase between 70% and 140% – see Table 2 below;
- the wards of Princes, West Hill, Littlebrook and Newtown will experience significant levels of population growth of between 10% and 25%;
- the wards that will experience small levels of growth of between 0.5% and 5% include Bean/Darenth, Brent, Longfield and Wilmington;
- Heath will experience a static population;
- small declines in population of up to -1.5% will occur in Sutton-at-Hone and Joydens Wood;
- approximately 2,000 new residents will move into homes on small sites (below 100 homes) where it may not be feasible to accommodate new on-site open spaces. However, cumulatively this increased population will generate additional demand for open spaces, especially in the wards of West Hill (515), Swanscombe (379), Greenhithe (194), Brent (187), Town (182), Joyce Green (153) and Princes (106).

Ward Name	Additional Private Household Population 2006- 2026	2026 Total Private Household Population Estimate	% Increase in Private Household Population Per Ward
Greenhithe	12,040	17,070	234%
Joyce Green	5,480	9,430	135%
Stone	5,660	11,740	90%
Swanscombe	6,150	12,820	89%
Castle	1,310	2,850	82%
Town	2,900	6,670	74%

2.3.3 Growth will also occur in the Borough’s employment areas and the Council’s **Economy and Employment Technical Paper (2010)** estimates the creation of approximately up to 26,500 additional jobs⁵ by 2026. It also identifies an increase of 19,700 in the labour supply between 2006 and 2026.

2.3.4 Like housing, the growth in jobs will not be equal across the Borough, and the majority of the new jobs will be clustered into employment hubs. 14,000 jobs will be located at new locations such as around Ebbsfleet International Station, Swanscombe Peninsula, Eastern Quarry, Northfleet North West Sub Station and the Northern Gateway. Existing employment sites will also continue to grow and be developed in the future, contributing an additional 8,100 jobs - see Table 3 below.

⁵ This figure includes A2, B1, B8, sui generis and service employment and non B uses.

Table 3 Wards that will Experience Significant Jobs⁶ Growth between 2006 and 2026		
Ward Name	Employment Sites	Estimated Jobs
Swanscombe	Ebbsfleet, Swanscombe Peninsula	11,500
Littlebrook	The Bridge, Littlebrook	5,300
Stone	Crossways	2,600
Greenhithe	Eastern Quarry, North West Sub Station	1,400
Joyce Green and Town	Northern Gateway	1,100
Princes	Questor	500

2.3.5 Ebbsfleet will become more than just an employment site. It will also attract large numbers of visitors – catering specifically for domestic travellers, international travellers, business, hotel and conference customers and leisure customers.

2.4 Policy Implications

2.4.1 Current residents, workers and visitors, together with anticipated growth in residential population and jobs, will put additional pressure on existing open spaces and further demand for open spaces will be generated. Open space policies and guidance should address the needs arising from this growth and will need to consider the following:

Residents

- creating spaces where all individuals including **females, ethnic groups, children and elderly people** can feel safe;
- providing play areas, playing pitches and outdoor sporting facilities for the use of **children and adults** as well as informal spaces, multi use games areas and teen shelters for youths;
- increasing access to, and within, open spaces so that everyone, including **disabled and elderly people** can use them;
- locating open spaces close to where people live so that everyone, including **residents without a private garden, residents with poor health and residents without a car** can access them easily;
- providing free open spaces that are open during the day, evening and at weekends so that everyone can visit, regardless of whether they are **economically active or inactive**;
- enhancing existing open spaces, creating functional new open spaces and a green backdrop for **people living in high density areas** to relax, exercise and play in;
- providing **new** open spaces on-site in large developments in the **wards of greatest population growth**, focussing particularly on Greenhithe, Swanscombe, Stone, Joyce Green, Town and Castle;
- seeking contributions for **off-site enhancements** to existing open spaces to meet the demand generated by small cumulative sites, especially in the wards of West Hill, Swanscombe, Greenhithe, Brent, Town, Joyce Green and Princes;
- maintaining and protecting **existing open spaces** in areas with little or no population growth, including in **rural villages**; and
- ensuring appropriate access to the countryside for **people living in both urban and rural areas**.

⁶ This figure includes only A2, B1, B8 and some sui generis uses but not service employment and non B uses.

Workers and visitors

- protecting existing open spaces, playing pitches and a range of outdoor sports facilities close to employment hubs for **employees** to use;
- providing new open spaces in **new employment hubs** and in **evolving employment estates**, focussing particularly in Swanscombe, Littlebrook, Greenhithe, Stone, Joyce Green and Princes;
- providing open spaces close to **day visitor** and **tourist** attractions;
- maintaining and enhancing the town centre's public realm including Central Park, to cater for **town centre users**;
- maintaining and enhancing open spaces around Bluewater, to cater for **visitors at Bluewater**; and
- ensuring the development at Ebbsfleet Valley includes open spaces, to cater for **employees, business, leisure, domestic and international travellers**.

3. EVIDENCE

3.1 Evidence Base Studies

3.1.1 There are a number of local studies that have been carried out, or commissioned by, the Council.

3.1.2 Firstly, an **Open Space Spatial Audit** was carried out by Groundwork during 2005-2006. It provides an indication of the amount and type of open space in the Borough. The audit looked at the:

- spatial distribution of sites - site boundaries were marked on a base map and input into GIS. Sites were categorised according to the PPG17 open space typology categories and both primary and secondary functions⁷ were recorded; and
- quality of sites – a quality assessment was undertaken for publicly accessible sites. Additional information was recorded on an Excel spreadsheet such as the quality and type of facilities, the quality of landscape/horticultural maintenance and accessibility.

3.1.3 Table 4 shows the results of Dartford's open space supply, comprising the **Open Space Spatial Audit Report (2006)** and updates made to it in 2010. In total, there are a variety of types of open space across the Borough, located on 335 sites, amounting to 1,704 hectares⁸. Only primary functions have been recorded here to avoid duplication. The main findings are that:

- natural and semi-natural greenspaces (category 2 sites) form the largest amount of open space in the Borough, with 1,128 hectares;
- this is followed by outdoor sports facilities (category 4 sites) with 264 hectares, amenity greenspace (category 5 sites) with 141 hectares and parks and gardens (category 1 sites) with 118 hectares; and
- although provision for children and teenagers (category 6 sites), cemeteries and churchyards (category 8 sites) and allotments (category 7 sites) only form a small proportion of the total open space, they have a considerable number of sites distributed across the Borough, with 35, 24 and 20 sites respectively.

Categories of Open Space	Number of Sites	Area of Sites (Hectares)
1a Formal Garden	4	4
1b Country Park	3	86
1c Urban Park	5	28
2a Nature Conservation Sites	35	799
2b Semi-Natural Greenspace	13	121
2c Wasteland/Disturbed Ground	18	208
3 Green Corridor	0	0
4 Outdoor Sports Facility	48	264
5a Housing Greenspace	90	19
5b Informal Recreation Space	26	56
5c Other Incidental Space	10	66
6 Equipped Play Provision	35	6
7 Allotments	20	23
8a Cemetery/Crematorium	7	14
8b Churchyard	17	7
9 Civic Spaces	4	1

⁷ Some open space sites are multi-functional, for instance a local park that includes playing pitches would have been categorised as primary function 1c and secondary function 4. .

⁸ Total figure differs slightly from those shown in Table 4 due to rounding.

3.1.4 Groundwork carried out a consultation exercise and prepared an **Open Space Consultation Report (2005)**. It focussed on usage of open spaces, what visitors use them for, how visitors travel to them, the barriers to using them and the quality of open spaces. Both face to face and postal questionnaires were completed by a cross section of the community – residents, workers and visitors, white British and ethnic groups, able bodied and disabled, children, adults and elderly. A total of 488 people responded to the questionnaire. From the responses:

- 90% of the respondents visit open spaces in Dartford;
- the most popular open space is Central Park (307), followed by Bluewater (287), Beacon Wood Country Park (195), Dartford Heath (180), Hesketh Park (125), Swanscombe Heritage Park (103), Joydens Wood (99), Dartford Marshes (95), Darenth Woods (92), Brooklands Lakes (80), Oakfield Park (77), and Darenth Country Park (39);
- open spaces cater for a number of uses, the most popular are walking (314) followed by peace and quiet (208), enjoying wildlife (178), children's play areas (158) and dog walking (131);
- 45% of respondents rate the quality of open space as good, 26% said they are adequate, 9% said they are excellent and 8% said they are poor;
- access to open spaces is by a variety of means of transport, the most common being by car (289), then by walking (216), bus (57) and cycling (49);
- barriers to visiting open spaces include anti-social behaviour (with the highest score of 763) followed by dog fouling, poor maintenance/graffiti, poor access to and around sites, poor lighting, lack of park wardens and lack of play equipment and lack of information (with the lowest score of 361); and
- 42% of the respondents made suggestions on how to encourage greater use and improve open spaces including good maintenance, a sense of security, public toilets, wildlife areas, car parking, picnic/seating area, disabled access, CCTV/lighting, spaces for games, café/refreshment stand, play equipment for 0-12 years olds, signs/leaflet, park wardens, events and formal gardens.

3.1.5 Groundwork and Sport England assisted the Council in preparing a **Playing Pitch Study (2006)** to identify the current supply of, and demand for playing pitches. An audit assessed the amount and quality of playing pitches and ancillary facilities and consultation took place with local clubs, schools and colleges, pitch providers, governing bodies and league secretaries through questionnaires and telephone interviews. Population projections and Team Generation Rates were used to determine the demand for additional pitches by 2011.

3.1.6 The main findings show that:

- there are currently 67 football pitches, 11 cricket pitches, 5 rugby pitches and 2 hockey pitches for community use;
- if protected, there will still be a sufficient supply of existing cricket pitches, adult football pitches and rugby pitches in 2011 to cater for future demand;
- by 2011 there will be a deficit of junior pitches, mini soccer pitches and grass and astroturf hockey pitches and new pitches will be required to cater for future demand;
- a lack of appropriate local facilities is one of the main barriers to playing sports; and
- there is a need to focus on improving the quality of existing provision, providing additional pitches to cater for future demand, increasing participation in sports, and securing further community use agreements.

3.1.7 The Council carried out a **Residents Satisfaction Survey (2005)** to establish how successful modern residential developments are, and whether there are common issues arising from these areas. The main findings show that:

- residents have experienced problems relating to poor landscape maintenance, lack of public spaces and play spaces, broken play equipment as well as anti-social behaviour, graffiti and dog fouling;
- important community facilities include communal green spaces, pleasant local walks, local play areas and outdoor sports facilities;
- design and quality standards are important in ensuring safe, attractive, usable and overlooked public open spaces and shared amenity spaces; and
- there is a need to secure effective maintenance and management arrangements through section 106 agreements.

3.2 Consultation Responses on the Core Strategy

3.2.1 Consultation has been carried out on the **Issues and Options Leaflet (2005)** and the **Core Strategy Preferred Policy Approaches Documents (2006)** and the **Core Strategy Preferred Options (2008)**. One of the main concerns identified during consultation is the need for new open space, sports facilities and biodiversity to be adequately integrated into new developments. The responses show that more emphasis should also be given to:

- the multi-functional role of green infrastructure and the Green Grid;
- protecting and enhancing biodiversity and the natural environment, both designated and undesignated sites;
- protecting existing open spaces and where provision is lost, providing matching provision elsewhere;
- the importance of trees and Ancient Woodlands;
- improved accessibility to open spaces by walking and cycling;
- protecting the Green Belt and ensuring recreational opportunities in rural areas and the urban fringe;
- managed access along the river with continuous riverside paths;
- the provision of shared amenity areas, especially in high density developments;
- the amount of required open space influencing development densities on a site;
- provision of open spaces in advance of built development; and
- the need for securing funding for continued management of green infrastructure.

3.3 Recommendations from the Sustainability Appraisal

3.3.1 The Council has commissioned Enfusion to carry out an independent **Sustainability Appraisal and Strategic Environmental Assessment** of the strategic options and policies being prepared for the Local Development Framework. Enfusion strongly supports the preferred approaches on the Green Grid and riverfront access. Enfusion's recommendations also emphasise the need:

- for stringent development control policies to control impacts on amenity and the environment, including the aquatic environment;
- to address climate change and adaptation via multi-functional green infrastructure, the Green Grid, blue networks, sustainable drainage, flood risk and managed habitat retreat;
- for community safety via crime prevention by design, appropriate planting and natural surveillance;
- for easy access to shared facilities to encourage the integration of new and existing communities; and

- for funding mechanisms for ongoing management.

3.4 Links with Relevant Council Work

- 3.4.1 A number of open space related projects are currently being carried out by the Council. The **Dartford Green Heart project** seeks enhancements for Central Park, some of which have already been implemented such as a skate park, a water play area, a bandstand, a new access into the park from the east, bridges across the River Darent to link Central Park with the newly acquired Acacia Hall grounds, pedestrian tunnels under Princes Road to provide a pedestrian and cycle path between Central Park and Brooklands Lakes and the countryside beyond. The **Darent Valley Path Linkages Report** assesses the current route of the Path, identifies opportunities for improvements and suggests implementation measures. Works are currently ongoing, with improvements being made to the footpath, for example, along the Northern Gateway and a pedestrian crossing over the River Darent at the northern part of Dartford Marshes. The **Play Strategy** assesses the current provision and demand for play facilities across the Borough and identifies ways in which play provision can be improved. In particular it recommended the need for new water play facilities and this has now been implemented in Central Park.
- 3.4.2 A wealth of information has also recently been collected on the public's perception of open spaces. The **Youth Leisure Survey** collected the opinions from young people in Dartford's Secondary Schools. The **BVPI Customer Satisfaction Survey** asked respondents to rate services, including open spaces and sports facilities in the Borough. The **Central Park Exhibition** asked for the public to comment on a number of proposed improvements to Central Park and the **Darent Valley Path Users Survey** (which was carried out by Groundwork Kent Thames-side) provided a useful snapshot of the current usage of the Darent Valley Path from the River Thames to South Darenth.
- 3.4.3 The main findings are that:
- 60% of the youth survey respondents play sports such as football, rugby, netball, skateboarding, horse-riding, tennis and cricket;
 - 62% of the BVPI respondents are very or fairly satisfied with the sports and leisure facilities in the Borough and 78% very or fairly satisfied with open spaces;
 - 21% of the BVPI respondents felt that parks and open spaces are the most important thing in making a good place to live; and
 - usage varies along the length of the Darent Valley Path and there may be increased patronage if improvements were made to the Path, especially at Dartford Marshes, Bob Dunn Way, Riverside Industrial Estate, Town Centre and Brooklands Lakes; and
 - there is room for improvement in the quality of open spaces and the facilities in them. In particular, respondents from the Central Park exhibition raised various ideas such as more leisure and ancillary facilities, park warden, water play facilities, enhanced landscape features, improved accessibility and transport, improved security and a greater mix of users. A number of these ideas have already been implemented.

3.5 Policy Implications

- 3.5.1 Open space policies and guidance should reflect the evidence collected to date as well as the aspirations of the public, and will need to consider the following:

- **protecting** the **variety of types** of open space, the **number of sites** and the **amount of open space** that already exists in **both urban and rural areas**;
- increasing public accessibility and removing the **barriers** that discourage people from using open spaces and improving the **quality** of, and facilities in, open spaces;
- supporting **enhancement projects** brought about by other Council strategies, e.g. Central Park and Darent Valley Path improvements;
- **protecting and enhancing** the **variety of sports pitches** and providing **new** junior football, mini soccer and grass and astroturf hockey pitches, to cater for demand in the future;
- emphasising the **multi-functional role** of green spaces;
- ensuring **better linkages** with multi-purpose routes, conveniently connecting new development sites to **Green Grid** spaces;
- ensuring open spaces can be accessed by a **variety** of modes of **transport**, especially walking and cycling but also car parking for strategic open spaces that serve a wider catchment; and
- securing effective **maintenance and management arrangements** through section 106 agreements.

4. ASSESSMENT

4.1 Assessment Techniques

4.1.1 This chapter assesses the extent to which open space in the Borough meets current demands and the extent to which future demand for open space can be met. A number of assessment techniques have been carried out to address this issue. As a starting point, Groundwork's **Phase 1 Spatial Audit Report (2005)**, which has been updated to 2010, summarises the results and identifies that various types of open space exist in the Borough. Table 4 has identified a total of 1,704 hectares and lists the number of sites and the area of sites for each category of open space. This shows that:

- 66% of the open space supply falls into the natural and semi-natural category, followed by outdoor sports facilities (15%) amenity greenspace (8%) and parks and gardens (7%); and
- the most common type of site is housing greenspace as it forms 27% of all sites;
- with 1,346 hectares of fully or partly⁹ publicly accessible open space compared to 358 hectares of non publicly accessible sites, 79% of play, recreation, outdoor sports and natural greenspace in the Borough is accessible to the public.

4.1.2 Overall there is a good spatial distribution across the borough although the spatial distribution alone is not sufficient to determine whether the supply is sufficient or deficient.

4.2 Hectares Per 1000 Population

4.2.1 A useful tool is to identify the amount of current open spaces available to the Borough's residents by calculating the number of hectares of open space per 1000 population. A number of national standards are in existence and can be used as a comparator. Each of these measure different categories of open space against differing standards:

- the Six Acre Standard from the National Playing Fields Association (NPFA) assesses both formal equipped children's play spaces, informal play areas and outdoor sports provision; and
- the Access to Natural Greenspace Standard (ANGST) from Natural England assesses all types of natural greenspaces.

Table 5 Standards for Open Space per 1000 Population			
Standard	Type of Open Space	Hectares Per 1000 Population Standard	Categories of Open Space Listed as a Primary Function to be Assessed Against the Standards
NPFA	Children's Playing Space, Informal Recreation Space and Outdoor Sport Provision	2.4 ha ¹⁰	1a Formal Garden 1c Urban Park 4 Outdoor Sports Facility 5a Housing Greenspace 5b Informal Recreation Space (some sites) 5c Other Incidental Space (some sites) 6 Provision for Children/ Teenagers
ANGST	Natural	2.0 ha	1b Country Park

⁹ This includes sites which can be traversed by a Public Right of Way

¹⁰ This standard is comprised of 0.8 hectares for children's playing space and 1.6 hectares for outdoor sports provision.

	Greenspace		2a Nature Conservation Sites 2b Other Semi-Natural Greenspace 2c Neglected and Damaged Land 5b Informal Recreation Space (some sites) 5c Other Incidental Space (some sites)
Combined	Children's Playing Space, Informal Recreation Space, Outdoor Sport Provision, Natural Greenspace	4.4 ha	All types of open space except categories 7, 8 and 9

- 4.2.2 Table 5 highlights the standards and the categories of open space that have been included in the assessment. To avoid double counting, only the site's primary function has been used.
- 4.2.3 For each ward, the total hectares of publicly accessible, parks, play spaces, informal recreation spaces and outdoor sports provision were divided by the 2006 population¹¹ then multiplied by 1000 to calculate the hectares of play, informal recreation and outdoor sports per 1000 population. The same calculation was repeated for natural greenspace¹².
- 4.2.4 The hectares per 1000 private household population were compared against the relevant NPFA or ANGSt standard. Table 6 shows that the Borough as a whole currently meets the NPFA standard of 2.4 hectares per 1000 population as the total supply of publicly accessible, primary function parks, play spaces, informal recreation spaces and outdoor sports provides for 2.5 hectares per 1,000 population. Table 6 shows that when the non publicly accessible sites are taken into account, the supply rises to 4.1 hectares and the NPFA standard is exceeded. However, these non-accessible sites do not provide for recreation needs.
- 4.2.5 Table 6 shows that the Borough exceeds the ANGST standard of 2 hectares per 1000 population as the supply of fully publicly accessible, natural provides for 4.9 hectares per 1,000 population. This figure is higher than normally expected for an urban borough. Dartford is fortunate to have a number of large natural sites on the edge of the urban area, which abuts Green Belt, (Darenth County Park, Beacon Wood Country Park, Swanscombe Skull Heritage Park, Dartford Heath, Joydens Wood, Bluewater's surroundings and common land). Table 6 shows that when other sites are taken into account such as natural greenspaces, woodlands, marshlands and lakes that are partially publicly accessible via Public Rights of Way (PRoW) and development sites containing natural greenspaces that will be developed in the future (Stone Lodge, Swanscombe Peninsula and The Bridge), the supply increases 12.9 hectares per 1000 population. When the non publicly accessible sites are taken into account, the supply rises further to 14.6 hectares per 1,000 population. Currently only one third of the Borough's natural greenspace is fully accessible, which limits the use of much of this space for recreational and other open space uses.

¹² The remaining types of open space (categories 7 Churchyards, 8 Allotments and 9 Public Realm Space) have not been included in these calculations as they generally perform a primary role that is different to play, recreation, sports or natural greenspace. These sites represent an additional supply of open space

Table 6: Meeting the Standards						
Type of Open Space	Publicly Accessible Sites			Publicly Accessible and Non Publicly Accessible Sites		
	Hectares	Hectares per 1000 population	Above the Standard	Total Hectares	Hectares per 1000 population	Above the Standard
Play, Recreation and Outdoor Sports	219	2.5	Yes, above the 2.4 hectare NPFA standard	365	4.1	Yes, above the 2.4 hectare NPFA standard
Natural Greenspace	438	4.9	Yes, above the 2.0 hectare ANGSt standard	1,295	14.6	Yes, above the 2.0 hectare ANGSt standard

4.2.6 Although as a whole the Borough's supply exceeds the ANGST and NPFA standards, some parts of the Borough experience a shortage at the local level. The map in **Appendix 2** depicts the wards in the Borough where the standards are not currently being met:

- 12 wards do not meet the NPFA standard of 2.4 hectares for publicly accessible children's playing space and outdoor sports provision – Bean/Darenth, Castle, Greenhithe, Heath, Joyce Green, Littlebrook, Longfield/New Barn/Southfleet, Newtown, Princes, Swanscombe, Town and West Hill.
- 6 wards do not meet the ANGSt standard of 2.0 hectares for publicly accessible natural greenspace – Brent, Castle, Littlebrook, Longfield/New Barn/Southfleet, Newtown and West Hill;
- only 4 wards, Joydens Wood, Stone, Sutton-at-Hone/Hawley and Wilmington, currently comply with both standards;

4.2.7 The maps in **Appendix 3** assess the situation in 2006 and the likely situation in 2026. The first map shows that in 2006 there was a large variation in the total amount of publicly accessible open space per 1000 population across the wards and that:

- in the northern urban part of the Borough there is generally a low supply of open space, especially in the wards of Castle, Brent, Littlebrook, Newtown and West Hill. This is to be expected due to the built up nature of the urban wards;
- there are some exceptions in the urban part of the Borough, namely Heath, Joyce Green, Joydens Wood, Stone and Swanscombe. These wards have a higher supply of open space due to their proximity to Dartford Marshes, Dartford Heath and Bluewater. Stone Lodge and Swanscombe Peninsula also currently contain large amounts of open space which will reduce in the future as these development sites are built upon;
- wards in the urban part of the borough that contain adequate amounts of open space include Town, Princes and Greenhithe;
- the wards of Longfield, New Barn and Southfleet in the rural part of the borough appear to have a low supply of open space because the general countryside has not been included in the assessment even though it provides a natural and recreational resource, and hence the figures assessed are artificially low; and
- some parts of the rural southern part of the Borough have very large amounts of open space per 1000 population - Bean and Darenth and Sutton-at-Hone. This is due to the presence of two Country Parks and publicly accessible lakes and woodlands.

4.3 Change in Open Space Supply

- 4.3.1 The Borough's population is predicted to grow by 37,400 new residents between 2006 and 2026¹³ and increased demand will be placed upon existing open spaces. In particular some of the existing open space within development sites will need to be retained in order to maintain and enhance areas of biodiversity and provide areas for flood mitigation. In addition to this, new open space will be required in development sites to cater for the recreational needs arising from new residents.
- 4.3.2 **Appendix 7** estimates that by 2026, the net supply of new open space on development sites will result in an increase of 96 hectares which, when combined with the existing open space within proposed development sites that will be improved and made publically accessible, will result in an additional 327 hectares of open space.
- 4.3.3 **Appendix 7** tests the potential for new open space provision on development sites. On the basis of experience from past developments and current planning applications, potential provision on future identified development sites has been estimated. This method provides a realistic assessment of what can be achieved in Dartford's circumstances. Taking into account both open space provision in the planning pipeline as well as the estimated provision on future development sites, 327 hectares of open space can be achieved. **Appendix 7** also tests whether the amount of open space proposed on future development sites would be sufficient to meet the requirements for different types of open space, including children's play space, natural greenspace, etc. This has been calculated based on the site's size and characteristics. The assessment shows that the proposed amounts of open space are of an appropriate extent to provide the individual components of open space that are necessary to support a community.
- 4.3.4 **Appendix 8** provides a visual representation of where new strategic, publicly accessible open space can be provided in the future and shows 28 sites that have the potential to include new open space provision within their developments, in line with the estimated open space identified in **Appendix 7**.
- 4.3.5 Even with existing open spaces adequately protected from development and the proposed 327 hectares of new and enhanced open space secured in development sites, there will be an overall decline of 1.5 hectares of publicly accessible open space¹⁴ per 1000 population from 7.4 in 2006 to 5.9 in 2026. By comparing the two maps in **Appendix 3** and looking at Table 7 below, it is evident that the majority of the wards will experience a change in the supply of publicly accessible open spaces per 1000 population between 2006 and 2026 including:
- there will be a decline in publicly accessible open space in the wards of Joyce Green, Stone, Swanscombe and Town;
 - Greenhithe will experience an increase in publicly accessible open space;
 - the wards of Bean and Darent, Heath and Wilmington will experience a static supply; and
 - the wards of Brent, Castle, Joydens Wood, Littlebrook, Longfield/New Barn/Southfleet, Newtown, Princes, Sutton-at-Hone and Hawley and West Hill will experience only minor changes.

¹³ DBC (August 2010) Population Change in Dartford Borough 2006-2026.

¹⁴ This includes fully publicly accessible formal parks, equipped play spaces, informal recreation areas, outdoor sports and both fully publicly accessible and PRoW accessible natural greenspaces.

Table 7 Wards that will Experience a Decline in Open Space Supply		
Ward	Hectares Per 1000 Private Household Population in 2006	Hectares Per 1000 Private Household Population in 2026
Joyce Green	74.3	32.0
Stone	18.5	7.9
Swanscombe	18.9	11.6
Town	5.8	3.9

4.3.6 Despite a reduced amount of open space per 1000 population in 2026, the Borough as a whole will still exceed the NPFA and ANGST standards. The reduced amount of open space per 1000 population in 2026 will be compensated by the benefits derived from the new and enhanced open space and public accessibility to sites that were previously inaccessible. The newly provided open space will:

- help to mitigate against the existing deficiencies in wards that do not meet ANGST or NPFA standards, by increasing the overall supply of open space and improving linkages to this wider network through the Green Grid;
- accommodate sufficient open space to meet the demand arising from the site's new population; this will help to limit the pressure on existing open spaces. The **Appropriate Assessment (AA)**¹⁵ recommended that recreational pressures on protected habitats arising from new development can be reduced by ensuring significant levels of recreational greenspace within development sites. The amount of open space estimated in **Appendix 7** will be required to achieve this;
- improve the quality of existing open space and/or make improvements to public accessibility;
- utilise undevelopable parts of sites (such as lakes, rivers, quarry sides, former landfills and cordon sanitaires, valleys and gorges and existing buffer zones and areas with local nature conservation value) to accommodate open space, thereby making efficient use of land;
- turn existing open space that is not accessible to the public and is neglected or damaged land (e.g. working quarries, landfills and derelict land) into new open space that may be smaller in size but is more publicly accessible and of higher quality than before;
- create a variety of types of open spaces including parks, formal play spaces, informal recreation, outdoor sports, natural greenspaces, landscape buffer zones, areas with local nature conservation value as well as hard surfaced public realm spaces;
- contribute to a multi-functional green infrastructure network by providing for sport/recreation close to where people live, helping to ensure people live healthily and their quality of life is enhanced, providing places for people to meet contributing to community integration, enabling a sustainable transport network via walking and cycle routes, providing biodiversity and landscape enhancements;
- help to reduce the effects of climate change by providing enhanced corridors that enable species to move and reduce the severance effect created by barriers such as roads, railways and rivers. New open space can also be designed to accommodate water in flooding situations, and vegetation can clean the air from pollutants, act as a carbon sink and provide shade;
- help to strengthen the Public Rights of Way (PROW), cycle route and Green Grid networks. **Appendix 9** shows that the existing PROW and cycle routes are segmented in parts of the borough and new Green Grid links should aim to improve connectivity between the existing routes. The Green Spaces Key Diagram in the

¹⁵ Dartford Borough Council and Gravesham Borough Council Habitat Regulations Assessment: Appropriate Assessment Report, Enfusion, 2010

Core Strategy shows both the existing and proposed strategic greenspaces and links across the borough. Of particular importance are the new corridors that will enable better connectivity through the borough including east-west and north-south links through Swanscombe Peninsula, Eastern Quarry, Ebbsfleet Valley, Northern Gateway and The Bridge as well as north-south links through Stone Lodge, St James Lane Pit and St Clements Valley. The development of waterfront sites along the River Thames and the Northern Gateway provides the opportunity to enhance the key riverside routes, ie, Darent Valley Path and the Thames Estuary Path. Better linkages will help to reduce the physical barriers to open space caused by roads, rivers and railways, thereby reducing their severance effect;

- provide the opportunity to create a recreational resource on residents' doorsteps, where they do not have to travel far to access open space. This will discourage people from travelling by car, thereby reducing congestion, CO2 emissions and other pollutants. Encouraging recreational use of the Borough's open space also helps to reduce visits to other sites outside of the borough, thereby helping to protect the integrity of the European sites (SACs, SPAs, Ramsar Sites) located in neighbouring boroughs – this is one of the specific recommendations from Enfusion in their **Appropriate Assessment (AA)**.

4.4 Catchment Areas

4.4.1 Another assessment tool looks at catchment areas surrounding open space sites and the areas of deficiency that lie outside of these catchment areas. Different types of open spaces have different catchment distances depending on their nature and function. For instance, residents will be willing to travel a significant distance to visit a large metropolitan park. On the other hand, residents expect to be able to travel only short distances to visit children's equipped play spaces. The National Playing Fields Association (NPFA), London Planning Advisory Committee (LPAC) and Natural England have established a number of distance thresholds to measure differing categories of open space. Table 8 below highlights the differing size and distance thresholds to be used as standards to assess equipped play spaces, urban parks and natural greenspaces. It also identifies the categories of open space that have been included in the assessment¹⁶. It should be noted that there are no parks in the Borough large enough to have Metropolitan Park status.

Table 8 Standards to Assess Catchment Areas				
Standard	Type of Open Space	Size of Open Space	Distance Standard	Categories of Open Space to be Assessed Against Standard
LPAC Standard	Pocket Park	Less than 0.4 ha	400m	1a Formal Garden 1b Country Park 1c Urban Park
	Small Local Park	0.4 – 2 ha	400 m	
	Local Park	2 - 20 ha	400m	
	District Park	20 – 60 ha	1.2 km	
	Metropolitan Park	60 ha or more	3.2 km	
NPFA Standard	Locally Equipped Area for Play	Play spaces for 4-8 year olds	240 m	6 Provision for Children and Teenagers

¹⁶ Limitations of catchment rings: i) some are not circular because the distance measured from the edge of the site will reflect any irregular shaped sites, ii) some sites may be located close to one another and the rings can merge together and iii) barriers such as roads, topography and land ownership have not been taken into account and do not provide 100% accuracy in terms of accessibility.

	Neighbourhood Equipped Area for Play	Play spaces for 8 + year olds	600 m	
ANGSt Standard	Accessible Natural Greenspace	0 - 20 ha	300 m	1b Country Park 2a Nature Conservation Sites 2b Other Semi-Natural Greenspace 2c Neglected and Damaged Land 3 Green Corridor
		20 -100 ha	2 km	
		100 - 500 ha	5 km	
		500 ha or more	10 km	

4.4.2 **Appendix 4** shows the catchment areas surrounding the Borough's formal **parks and gardens**. It shows that:

- A number of wards fall within the 1.2 km light green catchment rings for the district parks of Central Park, Darenth Country Park and Beacon Wood Country Park. However, evidence from the **Open Space Consultation Report (2005)** suggests that people come from further afield to visit these types of open spaces. This may reflect the fact that there are no Metropolitan Parks in Dartford, so these parks are having to serve a higher function than their size would normally suggest. In the case of Central Park, the wider catchment may result from shoppers to the town centre combining this with a visit to the park;
- most of the residential areas located in Stone, Swanscombe and Greenhithe fall within the 400m dark green catchment rings of small local parks;
- Princes, Town, Newtown and Brent are particularly well supplied as they have access to both types of park – district and local as they fall within both the 400m and the 1.2km catchments;
- parts of the residential communities at Temple Hill, Stone and West Hill fall outside the catchment areas of existing parks;
- parts of the wards of Joyden's Wood and Heath fall within the yellow catchment rings of parks that lie outside the Borough boundary;
- an assessment of planning consents (see Table 10 in **Appendix 7**), shows that a number of district and local parks are committed to be built in the future – at Eastern Quarry, Ebbsfleet, The Bridge, Everards, West Hill, Phoenix Park, Waterstone Park, Ingress Park, Axton Chase and Crayland's Lane. These are shown as orange rimmed rings;
- based on current planning applications¹⁷ and sites allocated in the SHLAA as being developable and deliverable, (see Table 11 in **Appendix 7**), it is estimated that future potential large development sites such as Swanscombe Peninsula, Thames Europort, Northern Gateway, Northfleet West Sub Station, St James Lane Pit, Stone Lodge, Stone House Hospital and St Clement's Valley are also likely to include a range of parks. These are shown as dashed orange rimmed rings;
- taking the existing, committed and potential future parks together, the assessment shows that virtually all of the urban part of the Borough will fall within park catchments once these proposals are delivered;
- the residential areas coloured red show where open space is deficient because they do not fall within park catchment areas. These areas are mainly located in the west and the rural south of the Borough in the wards of West Hill, Heath, Joydens Wood, Sutton-at-Hone/Hawley, and Longfield/New Barn/Southfleet. However, these communities have access to other kinds of open space such as Dartford Heath, Joydens Wood, Country Parks and the countryside in general.

¹⁷ As some planning applications are yet to be approved, the actual amount of open space provided in developments may differ from the estimates shown here.

4.4.3 **Appendix 5** shows the catchment areas surrounding the Borough's **equipped play spaces**. It identifies that:

- there are many equipped play spaces spread throughout the urban area. The majority of the residential areas located in the urban wards fall within the 240m light green and 600m green catchment rings;
- the majority of the urban wards have access to both Neighbourhood Equipped Areas of Play (NEAPs) and Local Equipped Areas of Play;
- there is a commitment to provide new equipped play spaces in 11 development sites and it is estimated that there could be another 9 development sites likely to provide equipped play spaces by 2026. These are shown as orange and orange dashed rimmed rings;
- taken together, the assessment of existing, committed and potential future equipped play spaces shows that virtually all of the urban part of the Borough will fall within a catchment area once the proposals are implemented; and
- the residential areas coloured red including villages in the wards of Longfield/New Barn/Southfleet, Sutton-at-Hone/Hawley, and the wards of Heath, West Hill and Joydens Wood show where there is a deficiency of access to equipped open space catchments. This is compensated for by the availability of other types of open space such as Dartford Heath, Joydens Wood, Country Parks and the countryside, although it does not replace the need for equipped play areas close to home.

4.4.4 **Appendix 6** shows the catchment areas surrounding the Borough's **natural greenspaces**. It identifies that:

- due to the large catchment distances up to 5km associated with natural greenspaces and the large quantity of these types of open space, much of the Borough's residents have access to more than one natural greenspace and some residents have easy access to many natural greenspace sites;
- Dartford Marshes and Dartford Heath provide a significant natural greenspace resource and attract not only Borough residents but also residents from outside of the Borough;
- although not shown on the map, natural greenspaces from across the boundary such as Gravesham AONB and Crayford Marshes are sufficiently large to provide an additional greenspace resource for the Borough's residents;
- there are existing natural greenspaces between 2 and 100 hectares spread throughout both the urban north and the rural south of the Borough;
- enhancements to existing, or the provision of new natural greenspaces (both large and small), are already committed at The Bridge, Eastern Quarry, Craylands Gorge and Ebbsfleet, Waterstone Park, Ingress Park, Axton Chase, Fantaseas and Crayland's Lane. These are shown as orange rimmed rings;
- enhancements to existing, or the provision of new natural greenspaces (both large and small), is also likely at Swanscombe Peninsula and Black Duck Marsh, Northfleet West Sub Station, Northern Gateway and Dartford Fresh Marshes, Stone Lodge, St James Lane Pit, Stone House Hospital and St Clement's Valley. These are shown as dashed orange rimmed rings;
- taken together, the assessment of existing, committed and likely natural greenspaces shows that virtually all of the Borough, including the rural south, will fall within their catchments once the proposals are implemented; and
- the only residential areas experiencing a deficiency in this type of open space (coloured red) are in the ward of Longfield/New Barn/Southfleet. However, communities in this area are surrounded by countryside which they can use as an alternative supply.

4.4.5 Allotments, outdoor sports and public realm spaces have not been shown on the catchment maps but provide an additional supply in the future. It is estimated that at

least 14 development sites have the correct site size, characteristics and location to make the provision of allotments and playing pitches suitable on these sites.

4.5 Areas of Multiple Deficiency

- 4.5.1 Whilst the assessment shows that overall the Borough has high levels of open space, Table 9 shows that many wards do not meet either NPFA and ANGSt standards for specific types of open space or fall outside catchment areas and therefore experience a multiple deficiency of open space. Where possible, the supply of open space in new developments or the enhancement of existing sites should aim to improve the situation for these wards in the future.

Table 9 Wards of Multiple Deficiency for Publicly Accessible Open Space			
Wards	Does Not Meet Hectares Per 1000 Population Standard	Outside Catchment Areas	Future Opportunities to Improve the Amount of Open Space and Suggestions for Securing Better Links to Nearby Open Spaces
Bean/Darent	In 2006, 1.9 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In both 2006 and 2026, the catchment areas for equipped play spaces do not cover the whole of this ward.	No large development sites are planned for this area. Instead, it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to Darent Country Park, Beacon Wood Country Park and Darent Woods would encourage greater use of these countryside resources. Linkages westwards towards the Darent Valley Path and eastwards towards greenspaces in the rural part of Gravesend would open up the area further.
Brent	In 2006, 0.05 ha per 1000 population for natural greenspace does not meet the 2.0 hectare standard.		No large development sites are planned for this area. Instead, it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as Central Park, Brookland's Lakes, Darent Country Park and the Darent Valley Path would be beneficial.

Castle	In 2006, 1.1 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision. In 2006, 0.04 ha per 1000 population for natural greenspace. These do not meet the 2.4 and 2.0 hectare standards.	In 2006, the catchment areas for parks and gardens do not cover the whole of this ward, although it is anticipated that the whole ward will be covered by 2026.	There is only one development site allocated for this area at St Clement's Valley and this will provide significant new open space opportunities by enhancing existing open space and opening them up further for public access. In this ward it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as Waterstone Park, Bluewater and Eastern Quarry would be beneficial.
Greenhithe	In 2006, 0.8 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In 2006, the catchment areas for equipped play spaces do not cover the whole of this ward, although it is anticipated that the whole ward will be covered by 2026.	This ward will experience significant growth as Eastern Quarry is developed out. Linkages between the site and Bluewater, Knockhall, Greenhithe and Swanscombe will be important, as will enhancing access through Crayland's Gorge towards Swanscombe Heritage Park. In this ward it will also be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement.
Joyce Green	In 2006, 1.2 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In 2006, the catchment areas for equipped play spaces and parks and gardens do not cover the whole of this ward, although it is anticipated that the developed part of the ward will be covered by 2026.	The Bridge development site will provide new open space opportunities by enhancing existing open space and opening them up further for public access. In this ward it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as Dartford Marshes and Dartford Fresh Marshes would be beneficial.

Littlebrook	In 2006, 1.0 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision. In 2006, 0.4 ha per 1000 population for natural greenspaces. These do not meet the 2.4 and 2.0 hectare standards.	In 2006, the catchment areas for equipped play spaces and parks and gardens do not cover the whole of this ward, although it is anticipated that the developed part of the ward will be covered by 2026.	The Bridge development site will provide new open space opportunities by enhancing existing open space and opening them up further for public access. In this ward it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as Dartford Marshes and Dartford Fresh Marshes would be beneficial
Heath	In 2006, 0.2 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In both 2006 and 2026, the catchment areas for parks and gardens and equipped play spaces do not cover the whole of this ward.	No large development sites are planned for this area. Instead, it will be particularly important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to the countryside and Dartford Heath will also be important.
Joydens Wood		In both 2006 and 2026, the catchment areas for parks and equipped play spaces do not cover the whole of this ward.	No large development sites are planned for this area. Instead, it will be particularly important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to the countryside and Joydens Wood will also be important.
Longfield, New Barn and Southfleet	In 2006, 0.8 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision. In 2006, 0.1 ha per 1000 population for natural greenspaces. These do not meet the 2.4 and 2.0 hectare standards.	In both 2006 and 2026, the catchment areas for parks, equipped play spaces and natural greenspaces do not cover the whole of this ward.	The Axton Chase development site will provide new open space. Nevertheless, it will be important to ensure that existing open space sites are retained and are functional. Improved access to the countryside in general will also be important.

Newtown	In 2006, 0.04 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision. In 2006, 0 ha per 1000 population for natural greenspace. These do not meet the 2.0 and 2.4 hectare standards..	In 2006, the catchment areas for equipped play spaces and parks and gardens do not cover the whole of this ward, although it is anticipated that the developed part of the ward will be covered by 2026.	The developments at Overy Street and Fantaseas provide opportunities to create new open space and improvements to existing open space at Central Park will increase the range of opportunities. It will be important to ensure that existing open space sites are retained and are functional. Improved access to sites in close vicinity such as Stone Lodge, Acacia Hall and the Darent Valley Path would be beneficial.
Princes	In 2006, 2.2 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.		No large development sites are planned for this area. Instead, it will be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement, including Central Park. Improved access to sites in close vicinity such as Acacia Hall and Dartford Heath would be beneficial.
Stone		In 2006, the catchment areas for equipped play spaces and parks and gardens do not cover the whole of this ward, although it is anticipated that the developed part of the ward will be covered by 2026.	Stone Lodge, Stone House Hospital and St James Lane Pit provide opportunities to provide new, more accessible open space. This will also create a new route from the heart of the urban area, southwards through St James Lane, past Darent Valley Hospital towards Darenth Country Park. It will also be important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement.
Sutton-at-Hone/Hawley		In both 2006 and 2026, the catchment areas for parks and gardens and equipped play spaces do not cover the whole of this ward.	No large development sites are planned for this area. Instead, it will be particularly important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as links to the Country Parks and woodlands would be beneficial as would improved access along the Darent Valley Path.

Swanscombe	In 2006, 1.4 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In 2006, the catchment areas for equipped play spaces and parks and gardens do not cover the whole of this ward, although it is anticipated that the developed part of the ward will be covered by 2026.	Swanscombe Peninsula provides the opportunity to create new, more functional open space as well as retaining the natural greenspaces such as Black Duck Marshes and improving access to it. New routes across the Peninsula will also be created. New publicly accessible links through Craylands Gorge would allow access from the Thames Riverfront and Swanscombe Peninsula to Eastern Quarry and the wider Green Grid network.
Town	In 2006, 0.3 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision does not meet the 2.4 hectare standard.	In 2006 and 2026, the catchment areas for equipped play spaces and parks and gardens will not cover the whole of this ward.	The Northern Gateway will provide opportunities to create new open space. Nevertheless, it will be important to ensure that existing open space sites are retained and are functional. Improved access to sites in close vicinity such as Central Park, Dartford Marshes, Dartford Fresh Marshes and the Darent Valley Path would be beneficial.
West Hill	In 2006, 1.5 ha per 1000 population for children's playing space, informal recreation space and outdoor sports provision. In 2006, 0.1 ha per 1000 population for natural greenspace. These do not meet the 2.4 and 2.0 hectare standards.	In both 2006 and 2026, the catchment areas for parks and equipped play spaces do not cover the whole of this ward.	The development at West Hill Park has already provided new open space since the audit was completed in 2005. Nevertheless, it will be important to ensure that existing open space sites are retained and are functional. Improved access to sites in close vicinity such as Dartford Heath and Central Park would be beneficial.
Wilmington		In both 2006 and 2026, the catchment areas for parks and equipped play spaces do not cover the whole of this ward.	No large development sites are planned for this area. Instead, it will be particularly important to ensure existing open spaces are retained and are functional and that small cumulative developments contribute to their enhancement. Improved access to sites in close vicinity such as links to Dartford Heath would be beneficial

4.6 Policy Implications

4.6.1 Open space policies and guidance should seek to improve the supply of open space in order to meet future demand and will need to consider the following:

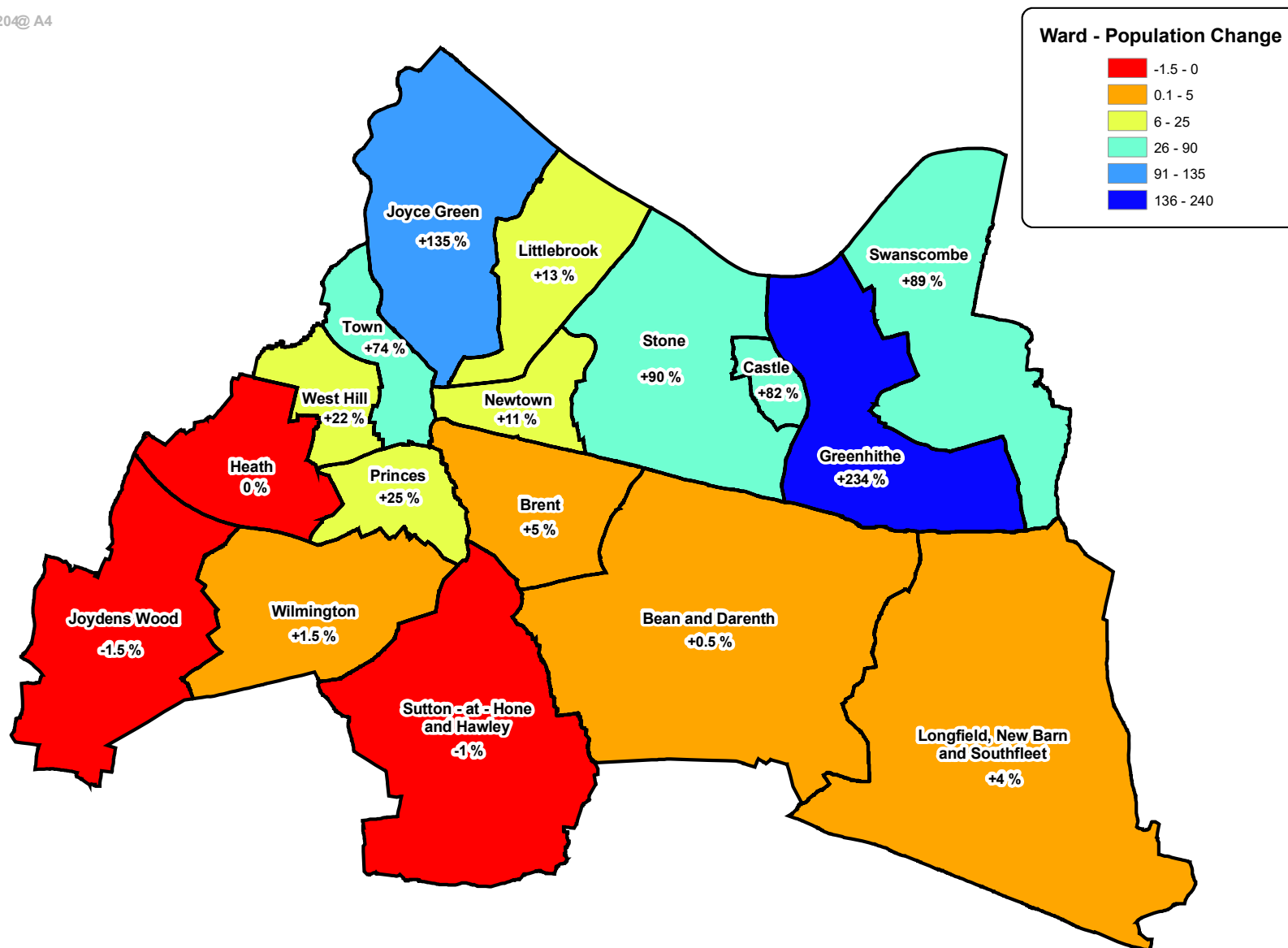
- encouraging the provision of: **new publicly accessible children's play spaces** and **outdoor sports facilities** in the wards that do not meet the NPFA standard of 2.4 hectares per 1000 private household population – Bean and Darenth, Brent, Castle, Greenhithe, Heath, Joyce Green, Littlebrook, Longfield/New Barn/Southfleet, Princes, Newtown, Swanscombe, Town and West Hill;
- encouraging the provision of **new publicly accessible natural greenspaces** in wards that do not meet the ANGSt standard of 2.0 hectares per 1000 private household population – Brent, Castle, Littlebrook, Longfield/New Barn/Southfleet, Newtown and West Hill;
- encouraging the provision of a **variety of types of new** open space in wards that will experience a significant decline by 2026 and in wards that will not meet the combined standard of 4.4 hectares – Brent, Castle, Littlebrook, Longfield/New Barn/Southfleet, Newtown, Princes, Town and West Hill;
- encouraging the provision of **new equipped play spaces** in wards outside of NPFA's catchment areas – Heath, Joydens Wood, Longfield/New Barn/Southfleet, Sutton-at-Hone/Hawley and West Hill;
- encouraging the provision of new **natural greenspaces** in wards outside of ANGST catchment areas - Longfield/New Barn/Southfleet;
- encouraging **improvements** to the open space supply in wards that currently have **multiple deficiencies** – Brent, Castle, Greenhithe, Heath, Joyce Green, Joydens Wood, Littlebrook, Longfield/New Barn/Southfleet, Newtown, Town and West Hill;
- **protecting functional open spaces** especially in villages and other areas where there is currently a low supply of open space;
- **providing for a range of types of functional open space** to cater for differing needs of the community, from play equipment for toddlers right up to youth spaces and teen shelters for older children, from natural greenspaces that people can use to learn about wildlife to greenspaces that are secluded and not accessible to people in order to allow sensitive species to flourish;
- maximising the opportunities to create new open spaces and enhancement of and public access to existing inaccessible open spaces to form a total of approximately 330 hectares of publicly accessible open space within development sites;
- ensuring that at least **20-30%** of the total area of development sites over 2 hectares is allocated for publicly accessible, functional open space – see **Appendix 7** for detailed calculations;
- maximising the opportunities for small cumulative developments to contribute to the **enhancement of existing** open spaces;
- recognising that with improved access to the **countryside** and provision of public access to sites with no current public access, an additional resource to compensate for those areas with a low supply can be provided; and
- creation of **better connections** and corridors between development sites and open spaces in the **Green Grid** network and between urban and rural areas will extend the range of open space opportunities available to residents and compensate for deficiencies in some areas.

CONCLUSION

- 5.1.1 Overall, the assessment presented in this paper suggests that the Borough has a relatively good supply of a variety of types of open space. Although many wards do not meet the strict standards, in general open space is dispersed across the Borough so that residents of all wards have access to at least one type of open space. Where there is poor access to more than one type of open space, this can be compensated by the proximity to the countryside.
- 5.1.2 It will be important to protect and improve the existing open spaces as well as provide new ones. In order to cater for the demands arising from population growth it will be necessary that development sites bring forward the estimated amount and type of new open space described in **Appendix 7**. This is necessary in order to meet recreational demands as well as being able to cater for the needs of biodiversity, mitigating the flood risk impacts arising from further built development and helping to create a more cohesive Green Grid network across the Borough.
- 5.1.3 This paper has informed and supports the policies in the Core Strategy, namely:
- a green borough with a network of landscaped paths, cycle routes and open spaces, with links to the countryside and the River Thames;
 - managing the Green Belt as a recreational resource, with the provision of green recreational networks linked with the urban area and projected enhancements to a number of existing countryside sites;
 - a high quality, varied and well-managed Green Grid network, with new development expected to make a contribution to Green Grid network;
 - sites of 20 hectares or over to provide at least 30% of the site as open space, sites between 20 and 2 hectares to provide at least 20% of the site as open space and sites less than 2 hectares to be considered on a site by site basis;
 - open space that caters for a variety of needs and is multi-functional;
 - a number of strategic projects for implementation;
 - implementation secured through Council resources, grant funding and through new development sites;
 - protection for existing open spaces in both urban areas and in villages and areas of nature conservation value,
 - high quality communal open space.
- 5.1.4 The grey boxes throughout this paper identify a variety of policy implications that need to be taken into account in the planning and development of open spaces. To supplement the Core Strategy's approach, more detailed policies and guidance will be prepared through the Development Management DPD and future supplementary guidance.



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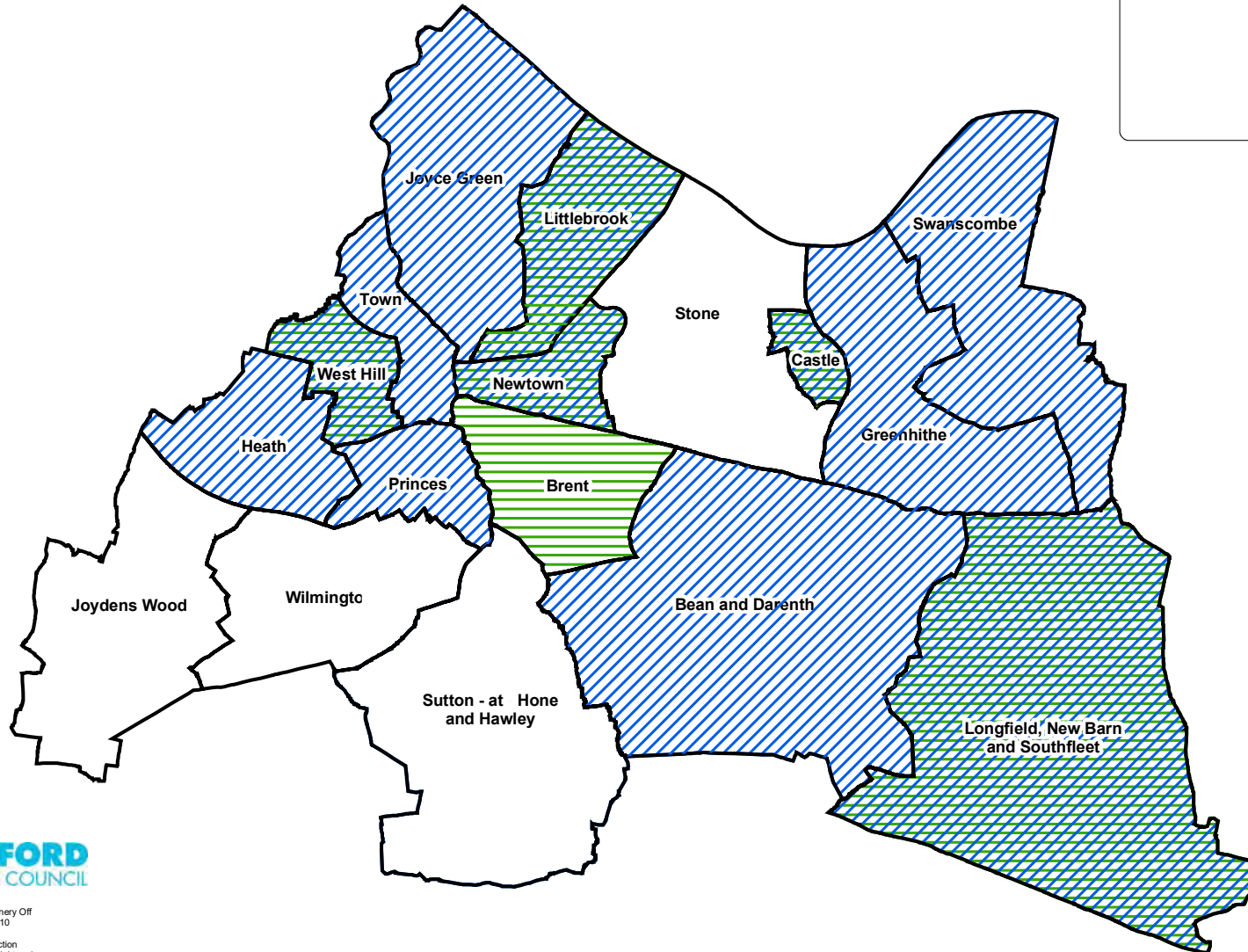


Appendix 2

Wards with Publicly Accessible Formal Play Spaces, Informal Recreation, Outdoor Sports and Natural Greenspaces Below ANGSt and NPFA Standards in 2006



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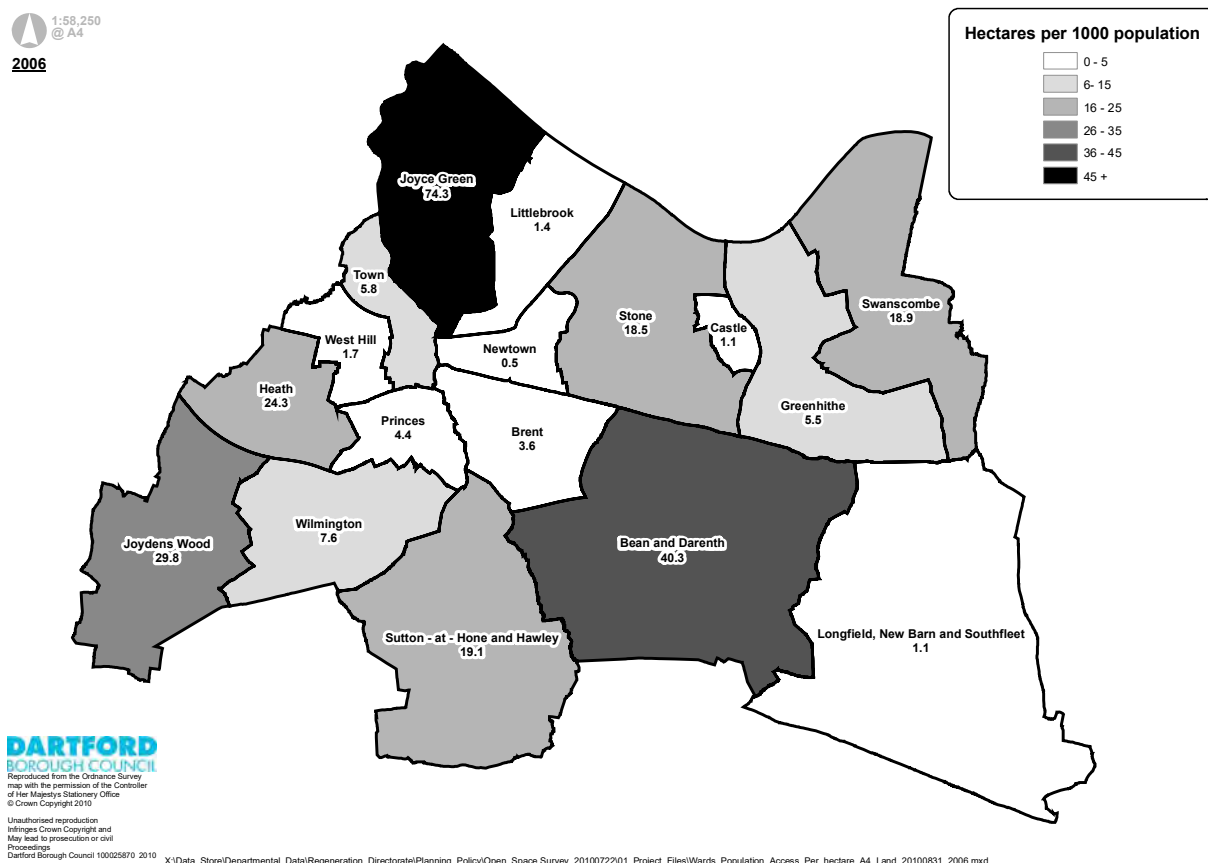
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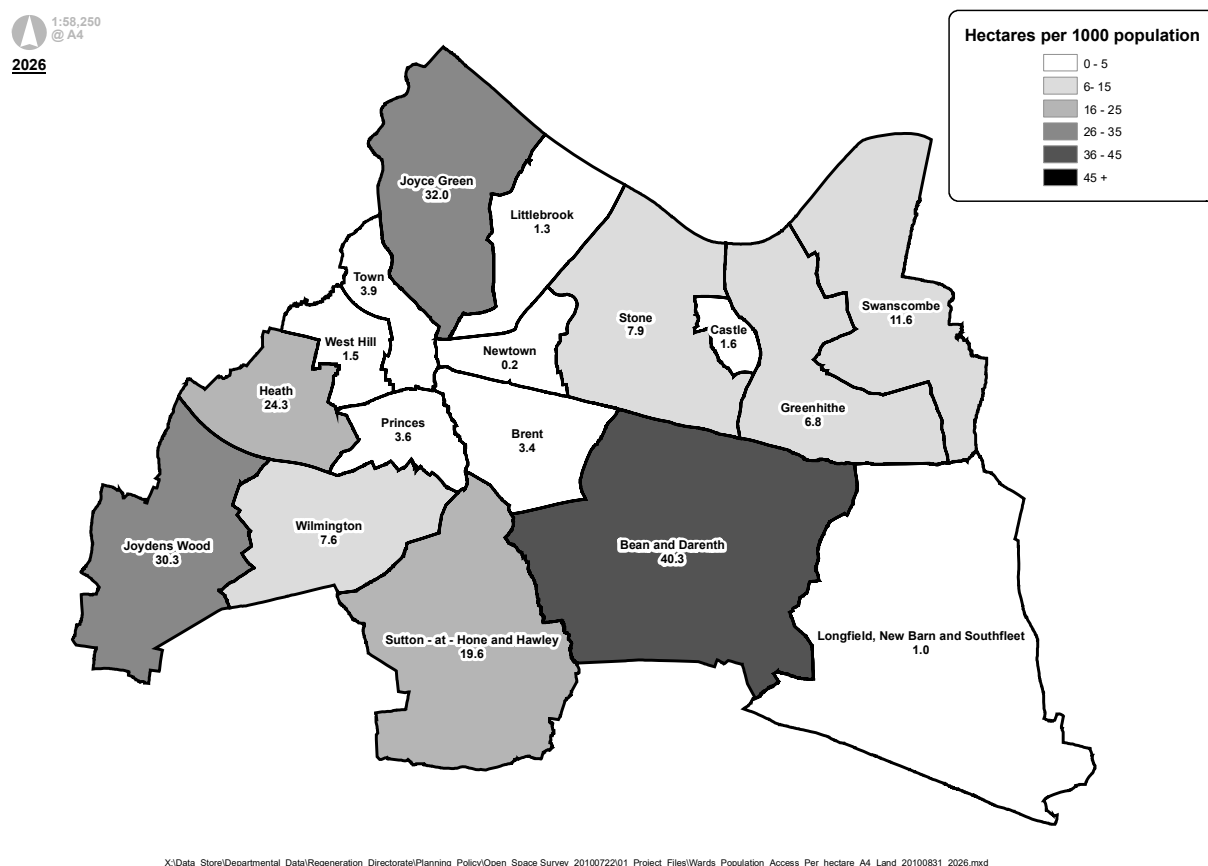
Appendix 3

Hectares of All Types of Publicly Accessible Open Space Per 1000 Population in 2006 and 2026

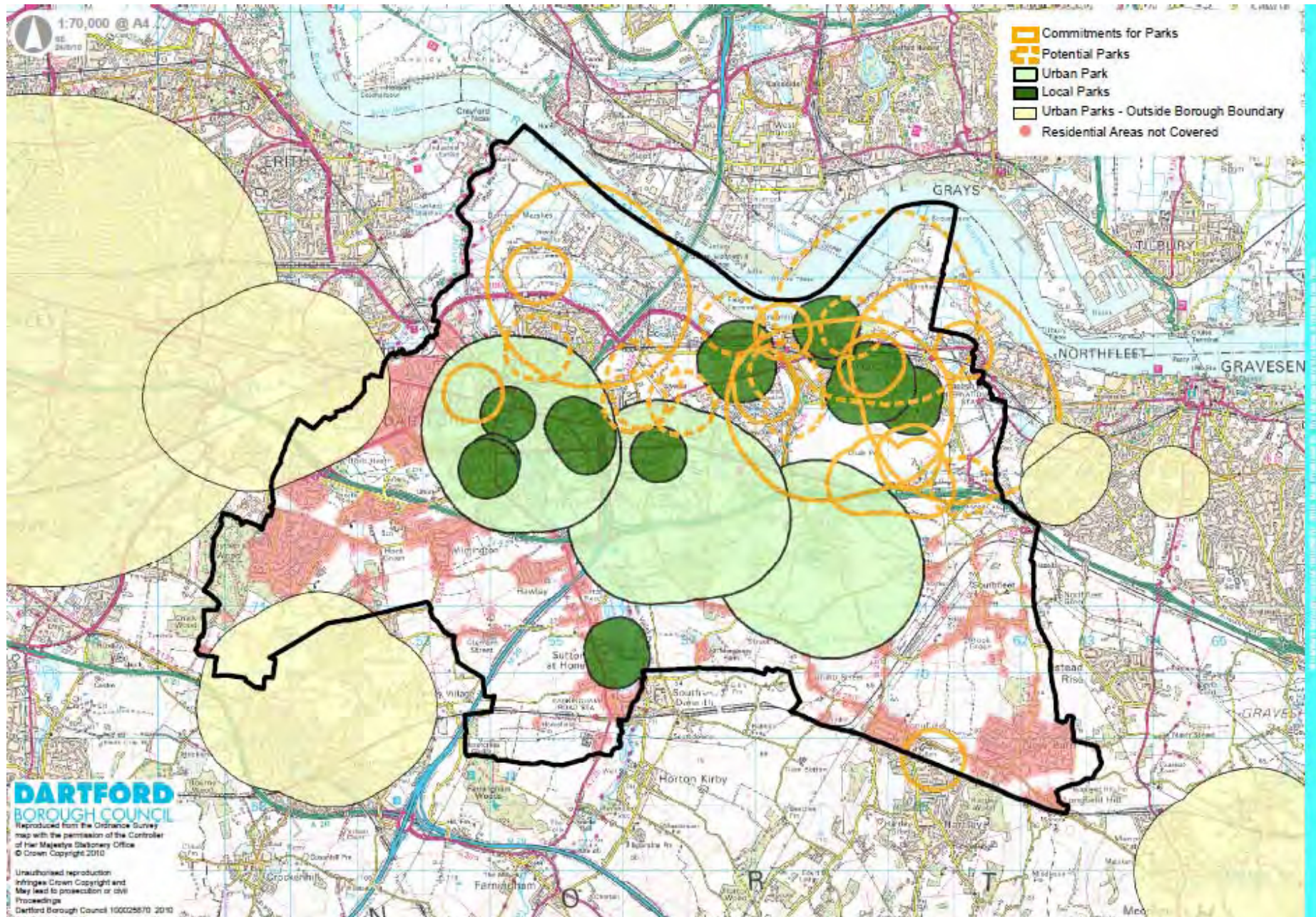
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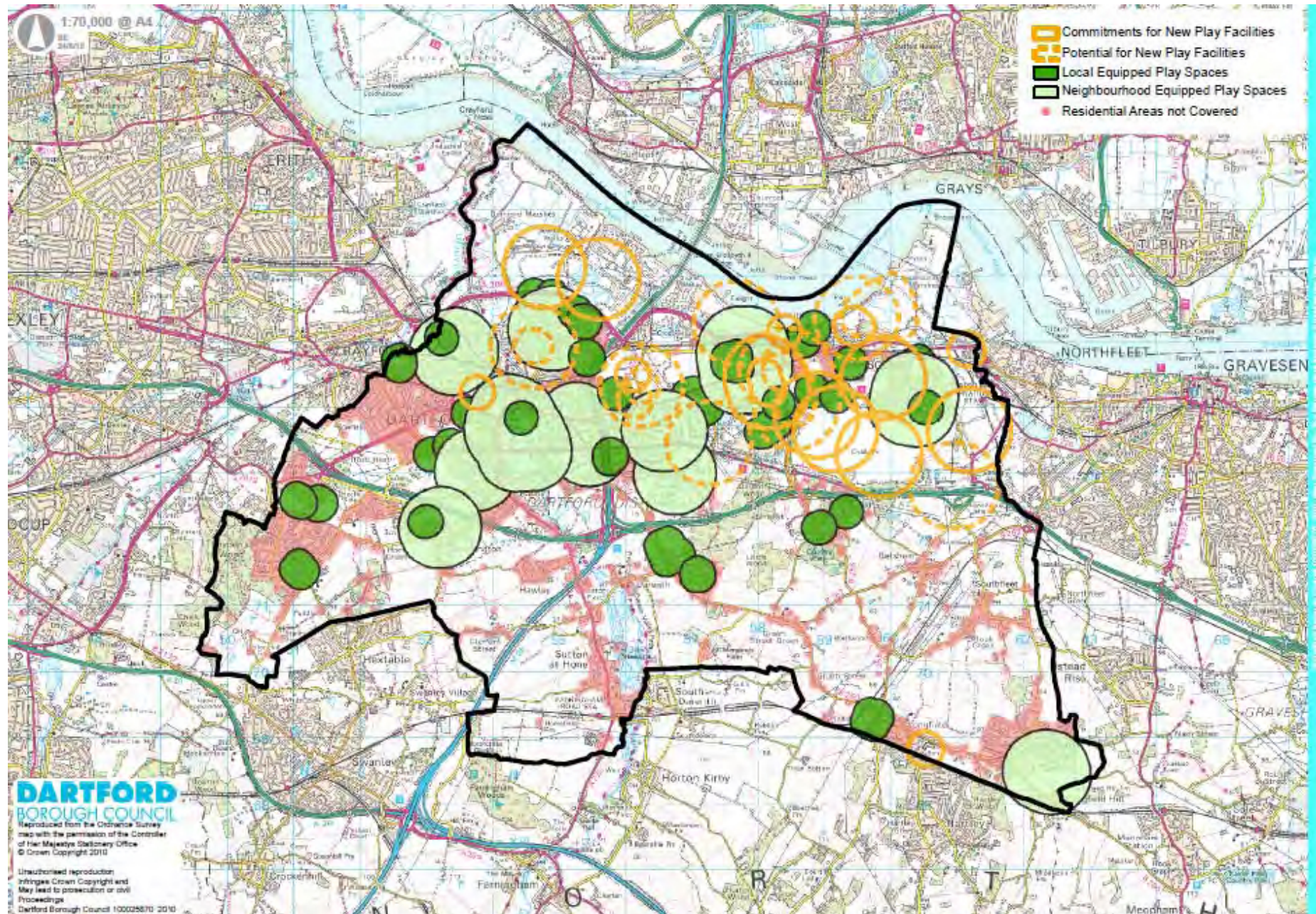
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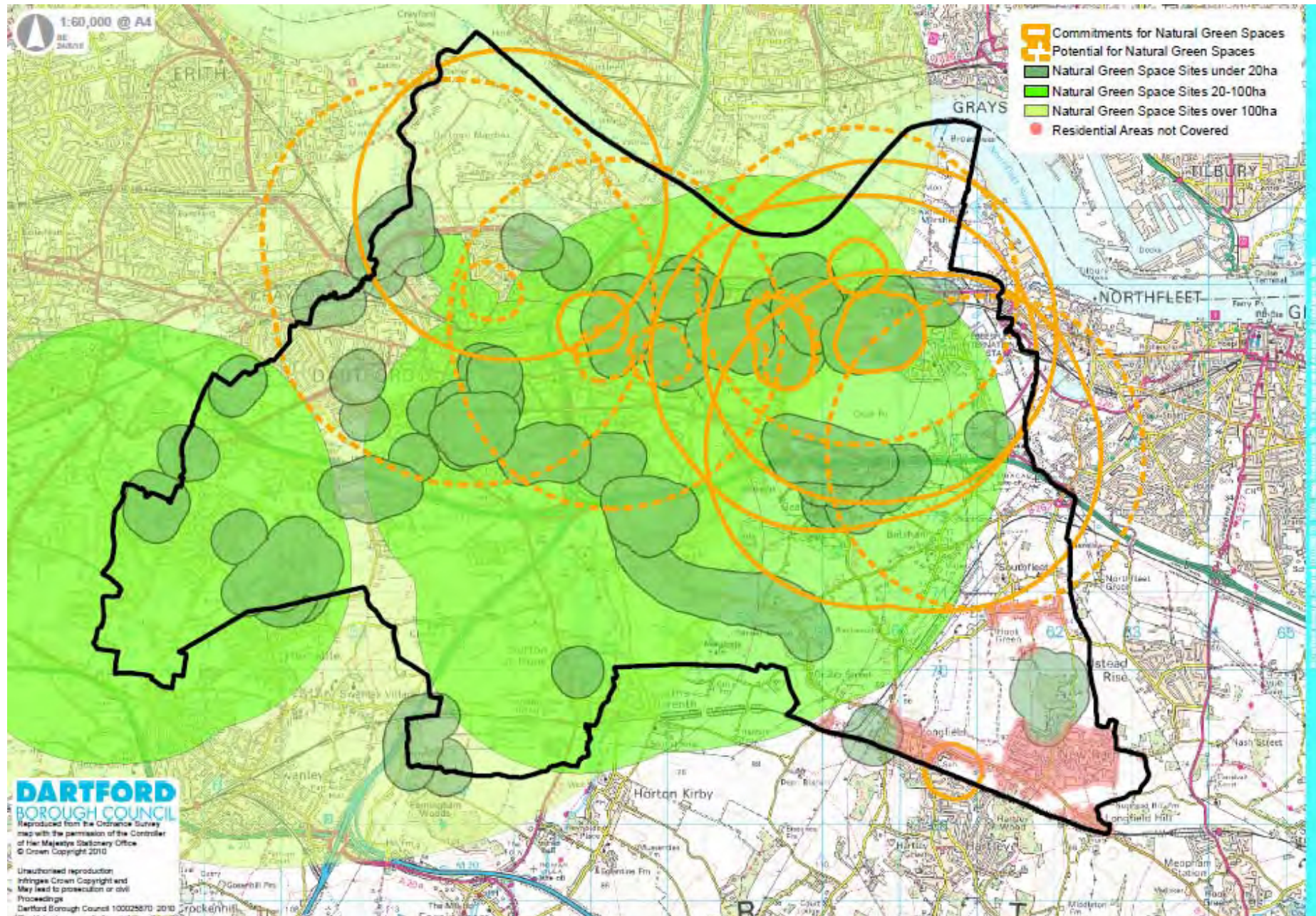
Appendix 4 Parks And Gardens Catchment Areas



Appendix 5 Equipped Play Spaces Catchment Areas



Appendix 6 Natural Greenspaces Catchment Areas



Appendix 7

Calculation of Open Space Requirements

- A7.1 Section 4.3 assesses the change in open space supply during 2006 - 2026 and forecasts a supply of approximately 96 net hectares of new open space during this timescale, taking into account the loss of open space identified in the open space audit on development sites. With the addition of new publicly accessible open space which is not currently accessible, this would result in an overall increase of supply of 327 hectares publically accessible open space on development sites by 2026.
- A7.2 To estimate the supply of open space in 2026, full and outline planning permissions (as listed in Table 10) were assessed to determine the amount of committed new open space that will be forthcoming in the future. The proportion of new open space identified in these planning consents range from no on-site open space provision on small central town centre sites to above 30% where site constraints restrict development on much of the site.

Table 10 Committed New Open Space by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Committed Open Space (Hectares)	Open Space to be Created
Ebbsfleet Valley (Eastern Quarry, Northfleet West Sub Station, Ebbsfleet)	5,250 to be built between 2011 and 2026 plus further development post 2026	= 38%	430	Taking the three sites together, part of the site is developed and the majority is currently open space but it is not publicly accessible. Much of the site is neglected and damaged land. Development provides the opportunity to create 161 hectares of publicly accessible open space by 2026	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Park, Urban Park, Outdoor Sports Facilities, Large Natural Greenspace, Lakes and Waterfront, Green Corridors, Allotments and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces.

Table 10 Committed New Open Space by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Committed Open Space (Hectares)	Open Space to be Created
The Bridge	1,265, of which 235 has already been built and 1,030 to be built between 2010 and 2023	= 30%	108	The site was previously developed and it's open space was not publicly accessible. This site is currently being developed which will redistribute the 32 hectares of open space across the site and make it publicly accessible by 2023.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Urban Park, Outdoor Sports Facilities, Large Natural Greenspace, Lakes and Waterfront. Potential to create Green Corridors and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create E-W Green Grid links. • meet the demand arising from the new development's population via on-site open spaces.
Water-stone Park	210, of which 172 has already been built and 38 to be built between 2010 and 2011	= 26%	16	The site was previously developed and it's open space was not publicly accessible. This site is currently being developed which will create 4.3 hectares of publicly accessible open space by 2011	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Equipped Play Space, Small Park, Urban Park, Small Natural Greenspace. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces.

Table 10 Committed New Open Space by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Committed Open Space (Hectares)	Open Space to be Created
Axton Chase	149 to be built between 2012 and 2014	= 21%	6.32	Part of the site is currently developed and it's school playing fields are not publicly accessible but are used by students. Development will result in the loss of playing fields but provides the opportunity to create 1.3 hectares of publicly accessible open space by 2014.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space and Small Natural Greenspace. • contribute to a multi-functional green infrastructure network. • meet the demand arising from the new development's population via new on-site open spaces.
West Hill Park	230, all of which has already been built	= 19%	4.25	The site was previously developed and had no publicly accessible open space. The site's redevelopment has been completed, creating 0.8 hectares of publicly accessible open space by 2009	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space.

Table 10 Committed New Open Space by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Committed Open Space (Hectares)	Open Space to be Created
Fantaseas	175 to be built between 2012 and 2015	= 59%	4.15	All of the site is currently open space but it is not publicly accessible. It is neglected and damaged land. Development provides the opportunity to create 2.5 hectares of publicly accessible open space by 2015.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Equipped Play Space, Small Natural Greenspace, landscaped Buffer Zone and Public Realm Square. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces. • provide proportionally more open space than other sites of similar size due to site constraints - the requirement for a landscaped buffer along two boundaries protecting against landfill gas.
Phoenix Park	320, all of which has already been built	= 18%	3.4	The site was previously developed and had no publicly accessible open space. The site's redevelopment has been completed, creating 0.6 hectares of publicly accessible open space by 2008	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space.
Everards	211 to be built between 2010 and 2012	= 23%	1.47	The site was previously developed and there was no publicly accessible open space. The site is currently being developed. which will create 4.3 hectares of publicly accessible open space by 2012	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park and Equipped Play Space and Waterfront Walk. • contribute to a multi-functional green infrastructure network. • create E-W Green Grid links.

Table 10 Committed New Open Space by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Committed Open Space (Hectares)	Open Space to be Created
Ingress Park	1400, of which 1,065 has already been built and 335 to be built between 2012 and 2015	= 31%	27	The site was previously developed and its open space was not publicly accessible. This site is currently being developed which will create 8 hectares of publicly accessible open space	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Local Park, Small Natural Greenspace, Waterfront Walk, Green Corridors and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create E-W Green Grid links. • meet the demand arising from the new development's population via new on-site open spaces.
Craylands Lane	110 to be built between 2012 and 2014	= 22%	2	All of the site is currently open space but it is not publicly accessible and it is neglected and damaged land. Development provides the opportunity to create 0.4 hectares of publicly accessible open space by 2014.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Natural Greenspace, Green Corridors. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create E-W Green Grid links.

A7.3 Using data from planning applications that have been approved including site size, housing numbers and amount of open space hectares, the proportion of open space per site was identified. By assessing the amount and type of open space coming forward in applications, a number of patterns are evident:

- the proportion of open space is dependant upon the overall size of the development site. On large sites (Over 20 hectares), committed open space ranged from 38% to 29% whereas on medium sized sites (between 2 and 20 hectares), the proportion of the development site used for open space was found to be between 18% and 21%;
- large sites are required to provide a number of different types of open spaces to meet the needs of future residents, including pocket parks, equipped play spaces, urban parks, outdoor sports facilities, natural greenspace, water bodies and green corridors. Conversely, on medium sized sites (between 2 and 20 hectares) there is not the potential nor the requirement to provide this range of open spaces. Consequently provision was found to be restricted to pocket parks and equipped play spaces and small amounts of natural greenspace;
- some sites, such as former quarries, have become naturalised open spaces but public access to them is limited. By developing these sites, the current inaccessible landscape can be turned into a more accessible and functional greenspace

resource for use by both new and existing residents. Careful planning and management can protect and enhance the biodiversity resource of the site and link it into wider biodiversity corridors.

A7.4 Other potential development sites assessed as developable and deliverable in the **Strategic Housing Land Availability Assessment 2010** (SHLAA) were also considered for the likely contribution that they can make to the provision of new open spaces in the future, in line with the amount of new open space provision coming through in current planning applications and using the following assumptions as a guide:

- for sites below 2 hectares, it has been assumed that on-site open space provision will be up to 20% but this will depend on site circumstances, location and proximity to other open spaces;
- for sites between 2 and 20 hectares, new on-site open space provision has been calculated at 20%;
- for sites over 20 hectares, new on-site open space provision has been calculated at 30%;
- for sites that have specific site constraints and/or opportunities for biodiversity, flood storage or new green corridors, 30% is considered to be the absolute minimum requirement.

Table 11 Potential On-Site Open Space Provision by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Estimated Open Space (Hectares)	Type of Open Space Likely to be Created
Swans-combe Peninsula	Indicative 800 homes to be built between 2019 and 2026	@ min. of 30%	138	The site is comprised of a limited amount of currently developed land, open space with limited PROW access, nature conservation areas and neglected/damaged land. Development provides the opportunity to create at least 41.4 hectares of publicly accessible open space by 2026 including the retention of Black Duck Marsh, 20% open space on the potential residential part of the site and additional open space across the remainder of the site dependant upon mix of uses.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Urban Park, Large Natural Greenspace, Lakes and Waterfront Walks, Green Corridors, Allotments and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces • provide proportionally more open space than other sites of similar size due to site constraints and the requirement to retain and enhance Black Duck Marsh.
St James Lane Pit	Indicative 795 homes to be built between 2013 and 2019	@ min. of 20% plus qualitative enhancements to adjacent Stone Recreation Ground	20.65	All of the site is currently open space but it is not publicly accessible and it is neglected and damaged land. Development provides the opportunity to create 4.2 hectares of publicly accessible open space by 2019	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Park, Local Park, Small Natural Greenspace, Lakes and Waterfront, Green Corridors, and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces.

Table 11 Potential On-Site Open Space Provision by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Estimated Open Space (Hectares)	Type of Open Space Likely to be Created
Northern Gateway (GSK East, RBT, Mill Pond, Arjo Wiggins, Unicoi, GSK North and Dartford Fresh Marshes)	Indicative 2,040 homes to be built between 2013 and 2023	@ 56% for whole site area, of which 24% will be on the developed parts of the site and the remainder, through the retention of Dartford Fresh Marshes. 6% - 42% on individual sites	64.65	There is open space at Dartford Fresh Marshes but it has limited public rights of way access. There is no publicly accessible open space on the remainder of the site. Development provides the opportunity to create 36.5 hectares of publicly accessible open space by 2023 including the retention of the Dartford Fresh Marshes.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Park, Outdoor Sports Facilities, Large Natural Greenspace, Lakes and Riverfront Walk, Green Corridors and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces • provide proportionally more open space than other sites of similar size due to site constraints - the requirement to retain and enhance Dartford Fresh Marshes.
Stone House Hospital	Indicative 305 homes to be built between 2011 and 2014	@ min. of 20%	6	Part of the site is developed and part is currently open space but it is not publicly accessible. Development provides the opportunity to redistribute the 1.2 hectares of open space across the site and make it publicly accessible by 2014	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Equipped Play Space, Small Park, Small Natural Greenspace and Public Realm Space. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces. • provide proportionally more open space than other sites of similar size due to site constraints - the requirement to retain and enhance the green and historic landscaped setting.

Table 11 Potential On-Site Open Space Provision by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Estimated Open Space (Hectares)	Type of Open Space Likely to be Created
St Clements Valley	Indicative 350 homes to be built between 2022 and 2026	@ 56%	18	All of the site is currently open, including agricultural land and allotments. It is technically Green Belt land but it is not publicly accessible. Development provides the opportunity to create 10.1 hectares of publicly accessible open space by 2018.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Local Park, Outdoor Sports Facility, Small Natural Greenspace, Lakes and Waterfront, Green Corridor Allotments and Public Realm Space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces. • retains a significant proportion of the site as open space due to its status as former Green Belt and the opportunity to retain the open character of the area
Overy Street	Indicative 125 homes to be built between 2018 and 2020	@ 20%	1.19	This site is developed and currently has no publicly accessible open space. Development provides the opportunity to create 0.2 hectares of publicly accessible open space by 2020	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including equipped play space, Waterfront Walk and Public Realm Space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S.

Table 11 Potential On-Site Open Space Provision by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Estimated Open Space (Hectares)	Type of Open Space Likely to be Created
Stone Lodge	Indicative 530 homes to be built between 2018 and 2024	@ 37% of total site area, with 20% open space on developable part of the site.	32	Part of the site is currently developed and part is open space with some previous use on parts of it. It has limited public rights of way access and part of the site is neglected and damaged land. Development provides the opportunity to create 12 hectares of public accessible open space by 2024, with the remaining land used for built sports and residential development	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Urban Park, Outdoor Sports Facilities, Natural Greenspace, Green Corridors, Allotments and Public Realm Space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W. • meet the demand arising from the new development's population via new on-site open spaces. • retain a significant proportion of the site as open space to enable improvements to the site and full public accessibility so as to create a recreational resource for the Borough
Thames Europort	Indicative 350 homes to be built between 2023 and 2026	@ 20%	18.8	This site is currently developed and there is no publicly accessible open space. Development will provide the opportunity to create 3.8 hectares of publicly accessible open space by 2026, with the remaining land used for employment and residential development	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Waterfront Walk and Public Realm Space. • contribute to a multi-functional green infrastructure network. • create Green Grid links both N-S and E-W including River Thames path.

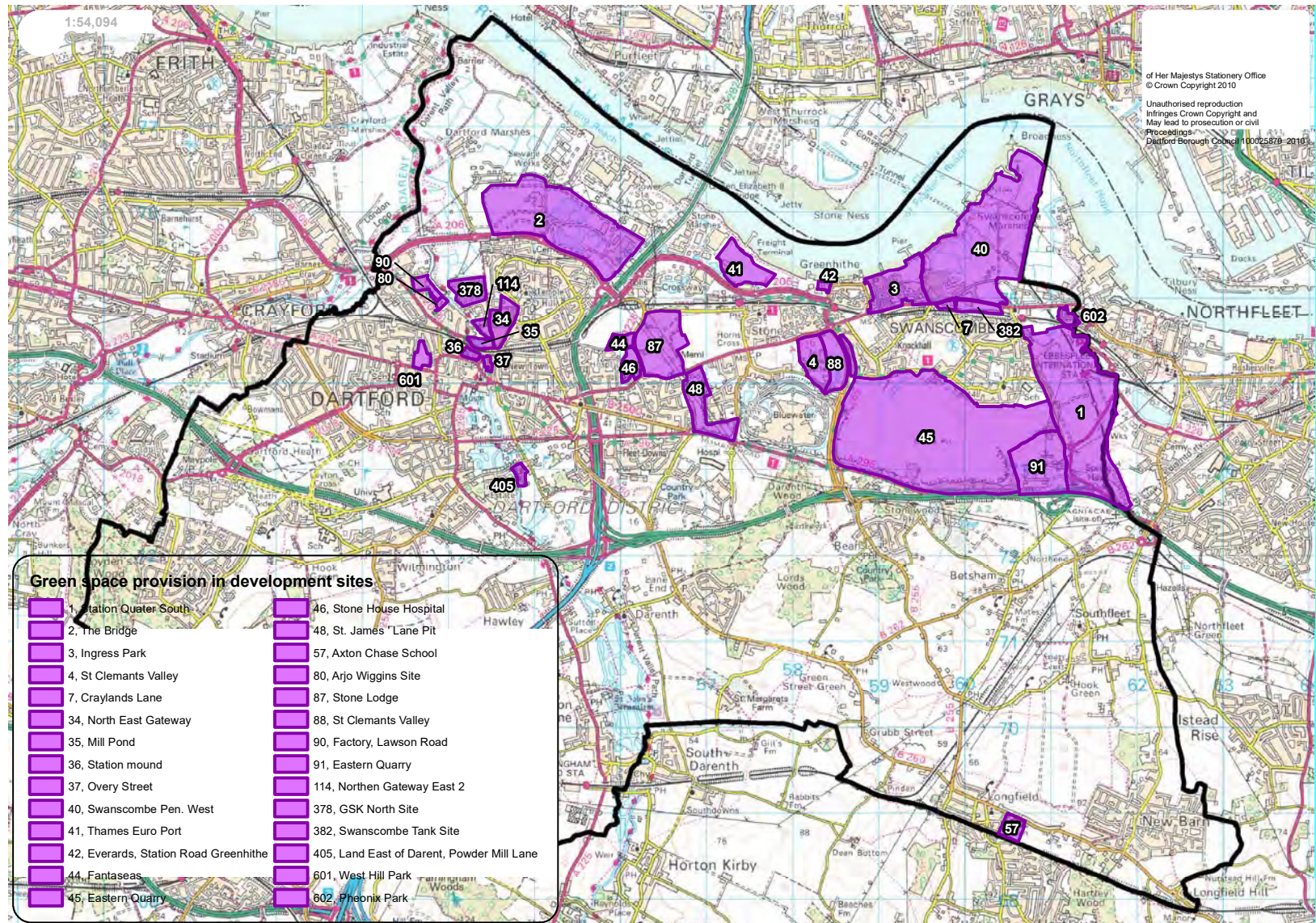
Table 11 Potential On-Site Open Space Provision by 2026					
Site Name	Additional Residential Units at 2026	% of Site as Open Space	Site Size (Hectares)	Estimated Open Space (Hectares)	Type of Open Space Likely to be Created
Station Approach	Indicative 155 homes to be built between 2012 and 2014	@ 20%	1.3	This site is currently developed and there is no publicly accessible open space. Development will provide the opportunity to create 0.3 hectares of publicly accessible open space by 2014	With potential to: <ul style="list-style-type: none"> • create Public Realm Space. • contribute to a multi-functional green infrastructure network.
The Tank	Indicative 200 homes to be built between 2017 and 2019	@ 20%	5.3	All of the site is currently open space but it is not publicly accessible and it is neglected and damaged land. Development provides the opportunity to create 1.1 hectares of publicly accessible open space by 2019.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Natural Greenspace, Green Corridors. • utilise undevelopable parts of the site for open space. • contribute to a multi-functional green infrastructure network. • create E-W Green Grid links.
Questor Riverside	Indicative 110 homes to be built between 2015 and 2017	@ 20%	2.8	Part of the site is currently developed and part is open space but it is not publicly accessible. Development provides the opportunity to create 0.6 hectares of publicly accessible open space by 2017.	With potential to: <ul style="list-style-type: none"> • create a range of types of open spaces including Pocket Park, Equipped Play Space, Small Natural Greenspace, Green Corridors. • contribute to a multi-functional green infrastructure network. • create N-S Green Grid links.

A7.5 The sites listed in Table 12 are sites that are considered unlikely to contribute to a new supply of open space in the future. This is because they:

- are located within the town centre and are in close proximity to Central Park;
- seek to create hard surfaced public realm spaces or amenity spaces rather than greenspaces;
- are small sites (below 2 hectares) where there is insufficient space to provide open space on-site.

Table 12 Unlikely On-Site Open Space Provision by 2026			
Site Name	Additional Residential Units at 2026	Estimated Open Space (Hectares)	Reasons Why No Open Space will be Provided
Lowfield Street	Indicative 400 homes to be built between 2014 and 2022	0	This site is located within the town centre and adjacent to Central Park. Enhancements to Central Park and better linkages between the park and Lowfield Street will be required instead.
Co-op	176 to be built between 2013 and 2015	0	This site is located within the town centre and in close proximity to Central Park. Hard surfaced public realm may be included in this site instead.
Cumulative Small Sites and Windfalls (less than 100 dwellings)	Indicative 924 homes to be built between 2010 and 2018	0	Various small sites will not contain open space beyond amenity grassland and/or equipped children's playspace.

Appendix 8 New Open Space Provision In Development Sites



Appendix 9 Public Rights of Way and Cycle Routes

