

4. DELIVERY OF DEVELOPMENT OBJECTIVES

4.1 This section looks at information about planning policies and development in Hillingdon from 1st April 2004 until 31st March 2005 by:

- a) providing a context of the boroughs current demographic, location and socio-economic circumstances;
- b) analysing the use of Unitary Development Plan (UDP) policies in appeal cases; and
- c) assessing the delivery of policy objectives based on the findings of the monitoring indicators in section 3.

Hillingdon Profile

4.2 Hillingdon is a vibrant outer-London borough with a character all of its own. It is home to around 248,000 people and represents a very diverse population. London Borough of Hillingdon is the second largest borough in London covering forty-two square miles and it is part of the West London sub region. The West London sub-region comprises the six boroughs of Brent, Ealing, Hammersmith & Fulham, Harrow, Hillingdon, and Hounslow and has a population of around 1.5 million.

Figure 5: Location of London Borough of Hillingdon

Hillingdon's Location within West London, Greater London, and Surrounding Area



- 4.2 Hillingdon is also a transport hub transacted by three motorways and the Great Western Railway; the borough is also home to Heathrow Airport, which is the world's busiest international airport (in terms of international passenger volumes) currently handling some 67 million passengers each year. The continued growth of Heathrow Airport has proved to be one of the key economic drivers for London and the UK economy and with the opening of Terminal 5 due in 2008 this role is expected to continue (BAA Heathrow, June 2005). It is expected that West London will derive particular benefit from the enormous business potential around Heathrow Airport, as outlined in the Southern Hillingdon Action Plan. Strategically Hillingdon is the 'Gateway to the London/the West'.
- 4.3 The 2001 census results show that for the London Borough of Hillingdon the total population was 243,006. This was an increase of 5% from 231,602 in 1991. The population was spread between 96,643 households; this is an increase of 8,600 from 1991. Of the total population about 48% are male and 52% female. Hillingdon has a relatively young population where around 41% of Hillingdon's population is under 30 years of age, with around 19% under 15.
- 4.4 The ODPM's Indices of Multiple Deprivation combine information relating to income, employment, education, health, skills and training, barriers to housing and services and crime into an overall measure of deprivation. The data is ranked such that a lower score indicates greater deprivation. In other words the most deprived local authority is indicated by a rank of 1.
- 4.5 According to the 2004 English Indices of Multiple Deprivation, Hillingdon has an overall rank of 166 out of 354 local authorities. It has a rank of 72 on the income measure.
- 4.6 Population density in Hillingdon reflects its geographical location as an outer London borough. The national average is 380 people per km², London as a whole has a density of 4679 people per km², with Hillingdon having a density of 2131 people per km².
- 4.7 Hillingdon is set to grow over the next ten years. It is estimated that the population will reach around 252,000 by 2016. Approximately 21% of Hillingdon's population are from ethnic minority communities with a projected rise of 15-20% over the next ten years.

Table 9: London Borough of Hillingdon Population and Household Projections 2001-2031

	2001	2004	2011	2016	2021	2026	2031
Population	245,600	247,000	249,100	251,600	252,700	254,400	256,600
Household	96,700	98,200	100,700	103,000	104,100	105,000	105,900

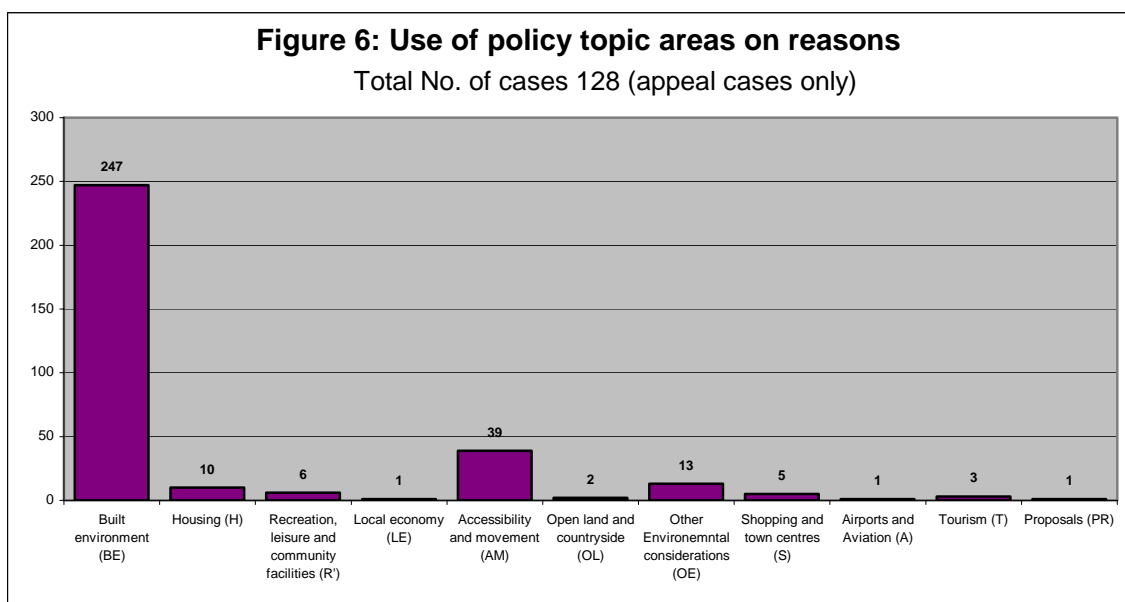
Source: GLA 2005 Round Interim Demographic Projections Scenario 8.06, October 2005

4.8 According to GLA 2005 Round Interim Demographic Projections Scenario 8.06, the population of Hillingdon during 2001-2016 will increase by 2.4% to 251,600 and the number of household will reach 103,000 by 2016, representing an increase of 6.5%.

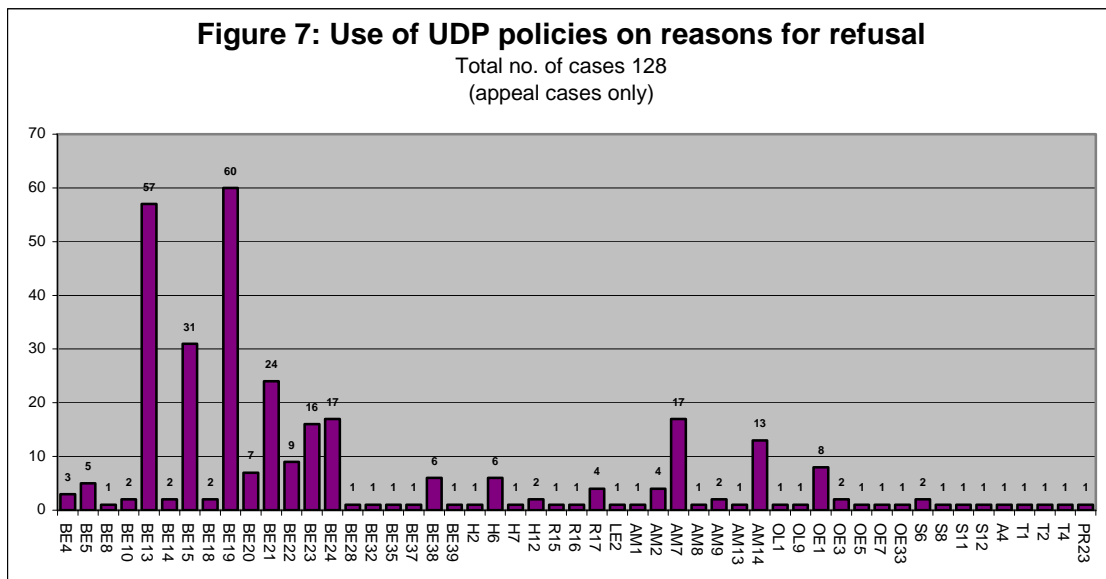
Policy Assessment Based on Planning Appeals

4.9 There were 128 planning appeal cases in the period 2004/05. This number of appeals cases allows for an adequate assessment of policy use on refusal cases.

4.10 A survey of appeal decisions showed that the Built Environment policies (referred 247 times) were the most frequently used in reasons for refusal. These policies were followed by the Accessibility and Movement policies (referred 39 times). This indicates that there tends not to be a disagreement on development principles and the large majority of cases are refused on design grounds.



- 4.11 The policies most used in refusal cases which ended on appeal were BE13 (57 times) and B19 (60 times) dealing respectively with design of new development and residential amenity.
- 4.12 The majority of development in the borough comes forward in the form of small windfall developments. Infill schemes are likely to have an impact on amenity and their acceptability would be determined by how well can they be accommodated in the existing urban fabric.
- 4.13 In addition to design and amenity issues the other most frequent reason for refusal was 'car parking provision' with policy AM7 referred 17 times and policy AM14 referred 13 times.
- 4.14 Hillingdon is a suburban borough characterised by high car ownership levels and low public transport accessibility. Conflicts between intensification of new development and car parking provision are bound to arise.



- 4.15 Generally, the Built Environment policies and the Accessibility and Movement policies appear to be relatively successful in dismissing appeals. However, in the case of policies BE13 (layout and appearance of new development) and BE19 (amenity and character of the area) the success/failure rate are closer to 50/50.

Observations and conclusions

- 4.16 Planning decisions during 2004/05 were based on existing design guidance adopted in 1993 and 1999. The LDFs new design guidance

Hillingdon Design and Accessibility Statement (HDAS) is expected to be adopted on 20th December 2005. It is proposed that in addition to appeal decisions a survey is carried out in the next annual monitoring report which assesses policies against standard conditions and reasons for refusal.

- 4.17 The LDF Preferred Options monitoring indicators will help achieving effective monitoring of planning policies including those on design. These indicators were out for public consultation in October/November 2005 as part of the LDF Core Strategy Preferred Options. The LDF indicators are proposed to guide the 2005/06 Annual Monitoring Report.

Policy Assessment Based on Spatial Objectives

- 4.18 Section three presented the progress on the AMR indicators. This progress is assessed in this section in the context of the UDP policies and how these policies contributed towards the 'Spatial' objectives.

Objective 1: To maintain an adequate supply of suitable land in the right locations in Hillingdon to meet expected development needs including housing, education, healthcare and other supporting community facilities.

Business Development

- 4.19 Policies LE2, LE4 and LE5 seek to maintain an appropriate supply of land for employment uses in the borough. Through Policy LE2 specific sites have been identified for industrial and business purposes. This information is stored on the Industrial and Business Areas database. Reappraisal of such sites is a matter for regular assessment studies. In future it is intended to develop a dataset to measure the amount of office type employment floorspace in the borough in order to meet the requirements of the above objective. Similarly an annual study of retail floorspace is undertaken by the borough to assess the vitality and viability of the town centres and other retail locations. Changes in the supply and demand can be regularly measured in order to assess the performance of the existing UDP policies and the forthcoming relevant LDF policies.
- 4.20 The proximity to Heathrow Airport and arterial road network is considered a major reason for businesses to locate in the borough. With the continued growth of Heathrow, the safeguarding of industrial and business area land for Crossrail and continued economic growth, there are already significant demands for employment land. However there remains a mismatch between supply and demand of employment

land in some locations where sites are unsuitable for modern business needs. These provide opportunities for release to other uses such as housing and town centre regeneration.

Housing

- 4.21 Hillingdon’s housing trajectory shows that completions for the period 1st January 1997 to 31 March 2005 are 142 units above the strategic requirement of 3520 (440 x 8) new dwellings for the same period. The housing trajectory illustrates that if all housing identified in the London Housing Capacity Study and emerging site allocations in the LDF were to come forward for development, Hillingdon would exceed the strategic housing requirements for the remaining period (2005/06-20016/17) by 1297 units.
- 4.22 UDP Policy H1 safeguards the following sites for residential development:

Table 10: Sites safeguarded by UDP Policy H1 for residential Development

UDP Policy H1		Progress	
BASF, Colham Mill Road, Yiewsley	PR5	55 new affordable housing units completed	October 1998
RAF West Drayton	PR8	Not yet developed. The site has been rolled forward as part of the LDF Site Allocations DPD in combination with the former NATS	Expected to be completed in phase 2 (2007-12)
The Chestnuts, Barra Hall, Hayes	PR11	24 new units completed	March 2005
Coppermill Lock, Harefield	PR16	79 units (59 private and 20 affordable) completed	October 1997
St. Vincents Hospital, Whiltshire Lane, Northwood	PR26	44 units (30 private and 14 affordable) completed	August and December 2000

Source: London Borough of Hillingdon UDP

- 4.23 The provision of housing in Hillingdon has relied to a large extent on windfall sites coming forward for residential development. Although it is expected that a considerable amount of housing will in the future come forward from non allocated small sites (1524 units from small sites), the Council has identified the majority of housing provision to come forward from sites identified in the London Housing Capacity and the LDF Issues and Options and Preferred Options stages (4485 new units) either entirely for housing or for mixed use development with an element of housing.

- 4.24 Policies H2 and H3 of the UDP intend to safeguard existing housing and note that building new dwellings will not be effective in meeting housing requirements if the loss of current stock is not replaced. During 2004/05 one self-contained unit was lost to a dental surgery. Although this is contrary to policies H2 and H3, the provision of a compatible use in a residential area which provides for local need was considered a sufficient material consideration which will bring an overall benefit to local quality of life.
- 4.25 The LDF Preferred Options grants equal safeguarding to existing residential development but also provides stronger guidance on the need to provide for services and facilities as part of residential development (Health and Education DPD and Core Strategy)

Local Services

- 4.26 The demand for office space in Hillingdon, as elsewhere in West London was depressed in 2004, as reflected in the relatively high vacancy levels in Stockley Park, Hayes and Uxbridge. Since the beginning of 2005 there appears to be a renewed interest in the local market with a number of businesses moving into new offices. However, according to the London Annual Office Review 2004 and more recent surveys, there appears to be an adequate supply of both built and pipeline office development in West London to meet the demand for office floorspace over the next five years.

Objective 2: To promote the Hillingdon economy through a planning framework for sustainable and competitive economic growth which supports local and non-local businesses of all sizes.

Business Development

- 4.27 Whilst policies LE2, LE4 and LE5 seek to promote employment development, 2004/2005 saw limited commercial completions. Part of this can be attributed to existing vacancy levels of commercial floorspace in some locations in the borough. However, since the beginning of 2005 there has been renewed interest in the sector from developers with a number of schemes currently under construction especially in the south of the borough. Part of this can be attributed to the prospect of Terminal 5 commencing operations in March 2008.

Local Services

- 4.28 Policies S1 and LE2 provide the basic policy context to achieve objective 2 and to build competitive economic growth by supporting

both local and non-local businesses. In terms of the supply side of commercial units, the 2004 Industrial and Business Land, the Retail and Town Centre Frontages surveys and Town Centre Health checks, showed that there is generally a wide range of units to meet the needs of different types and sizes of business though there is a perceived need for more small affordable modern business incubation type units and some larger modern retail units.

Objective 3: To secure high quality well designed development to create new opportunities for people living and working across Hillingdon.

Housing

- 4.29 Housing density is dealt with under UDP policy H6. This policy predates Planning Policy Guidance Note 3 (Housing) advice on housing densities. The Council currently applies the London Plan Density Matrix when assessing the density of new residential proposals. The purpose of density guidelines is not only ensuring the efficient use of previously developed land but also ensuring that new development is sympathetic to the character and appearance of the surrounding area. During 2004/05, 72% of the new residential development took place at a density above 50 units per hectare. The remaining 28% of the new development took place at a lower density thus reflecting the suburban character of the Borough. However, only 2% of the new development took place below the minimum density requirements. There are large properties situated in large grounds that following subdivision their density remains low.
- 4.30 Emerging LDF policy follows the principles of the London Plan density matrix and adapts it to reflect Hillingdon's character.
- 4.31 In future annual monitoring reports it is intended to include an indicator analysing the number/percentage of planning approvals consistent with the London Plan and the proposed Core Strategy DPD density matrix.

Objective 4: To raise the level of access for all by seeking accessible buildings, by reducing the need to travel and by siting new development wherever possible to locations not dependent on access by car.

Transport

- 4.32 Policies contained within the UDP Accessibility and Movement chapter aim to encourage ways to manage land-use developments so that they minimize the demands on the transport system and reduce

dependence on the private car. In particular, Policy AM1 of the UDP, together with the London Plan 2004 PTAL levels have helped to guide new development towards areas with good access to public transport. Planning applications for major trip generating development are assessed under the criteria of AM1 and the London Plan PTAL levels. PTAL levels are obtained from Transport for London and are used to assess density, parking and access to public transport on appropriate planning applications. The criteria of AM1 and the PTAL method, detailed within the London Plan, have been combined into a core policy in the 'Preferred Options' of the LDF, 2005.

- 4.33 Parking standards contained within the UDP and a subsequent revision of the standards in 2001, have prescribed maximum parking standards. Policy AM14 of the UDP requires all development to accord with the maximum car parking standards. By restricting the levels of parking this policy helps to encourage the use of public transport in the borough. Maximum parking standards in the borough were supported at the Issues and Options stage of the LDF process and have been continued through into the 'Preferred Options' of the LDF, 2005. Implementation of the car parking policies can be measured by analysing the amount of completed non-residential development within Use Class Orders A, B, and D complying with car-parking standards. This information is not readily available and the analysis will be incorporated into future annual monitoring reports.
- 4.34 There are important links between the Council's land-use planning and transport policies within the UDP. Section 106 Agreements are used, where appropriate, in connection with this inter-relationship in order to address any material impacts of development beyond site boundaries. The Council is committed to the application of Section 106 Agreements based around securing improved accessibility to sites by all modes of transport, with the emphasis on achieving access to public transport, walking and cycling. The implementation of Section 106 Agreements in the UDP has been supplemented through the adoption of an SPG on Planning Obligations, 2003. The Council's commitment to Section 106 Agreements has been re-emphasised within transport policies in the 'Preferred Options' of the LDF, 2005.
- 4.35 The planning and building control process plays an important part in improving the accessibility of buildings and spaces and providing a built environment that can be used by everyone, regardless of disability, age or gender. The London Borough of Hillingdon is committed to achieving the highest standards of access and inclusion. Hillingdon considers the implications of the Disability Discrimination Act 1995 in relation to new development and is committed to the delivery of Lifetime Homes in the borough. Existing policies R16 and AM13 make

reference to accessibility in all areas of development. Accessibility will also be covered within the Hillingdon Design and Accessibility Statement (HDAS) SPD and the Core Strategy DPD of the emerging LDF.

Objective 5. The promotion of safe, healthy, and inclusive communities while respecting the diverse needs of the whole borough.

Housing

- 4.36 A combination of Housing UDP policies contribute to this objective. These are: Policy H4 and H5 providing advice on housing mix, Policy H10 on non-self contained accommodation and Policy H11 on provision of affordable housing from private developed sites.
- 4.37 83% of the units completed in 2004/2005 across the borough comprised one and two bedroom units. This fulfils part of Policy H4 requirements for one and two bedrooms. However, the 83% of 1 and 2 bed completions against the 17% of 3 and 4+ beds show an imbalance too large to fulfil Policy H4 requirement for 'a mix of housing units of different sizes' or to comply with Policy H5 requirement for large family dwellings. Housing Need Survey Update (2005) notes that in comparison larger units are less likely to come forward and therefore the housing need of those requiring larger accommodation becomes more difficult to meet.
- 4.38 The LDF Core Strategy - Preferred Options Policy DC42 addresses the above imbalance by recommending minimum housing size mix requirements as part of new residential development.
- 4.39 UDP Policy H10 contains basic development criteria for the provision of non-self contained accommodation such as hostels and sheltered accommodation. Its supporting text notes in particular, the need for housing for elderly people in Hillingdon. During the 2004/05 period a 13 bed hostel was completed.
- 4.40 UDP Policy H11 requires the provision of 25% affordable housing units from private development sites of at least 25 units or comprising at least 1 hectare. However, since the adoption of the UDP considerable changes to planning policy guidance have taken place. Mainly, PPG3 (1999) and the London Plan (2004). In 2001, the Council prepared an Affordable Housing Best Practice Note which requires the provision of 35% affordable habitable rooms per hectare for sites comprising of at least 1 hectare or able to accommodate at least 25 units.

- 4.41 Only two out of 48 housing completion sites in 2004/05 involved a developments over 25 units threshold. One provided 35% affordable habitable rooms and the other was developed for 100% affordable housing. The remainder of the sites fell below both the size and units threshold.
- 4.42 Two completions involved the provision of 24 units, falling just below the affordable housing threshold. The proposals provided a level of density within the London Plan Density Matrix range and therefore no inefficient use of land could be successfully argued.
- 4.43 Under the new planning system the London Plan forms part of the London boroughs' development plans. The London Plan seeks the provision of 50% affordable housing from all sources. During the 2004/05 period there were 295 private units completed of which 92 were affordable. Adding the provision of housing from other no new build completions (117 units), 71% of housing provision in the borough was affordable for that period. This is without counting non-self-contained accommodation (13 beds) and vacant properties brought back into use (301). It is unclear how to better monitor the provision of affordable housing of such different types against new private house building figures and further work may be needed to identify suitable comparative methods of monitoring.
- 4.44 A mix of housing sizes and tenures contribute to mixed communities and help to provide towards the diverse housing needs in the borough. Best Practice Note on Affordable Housing 2001 Hillingdon Planning Obligations SPD and the London Plan require the provision of a 70/30 split of affordable housing tenures to provide for the need of social housing for rent and intermediate accommodation. Looking a net new housing provision, the split between private and affordable for the 2004/05 was 69/31 very similar to the split of affordable housing tenures (68/32). The delivery of housing for the monitoring period successfully contributes to mixed communities objectives.
- 4.45 The growing diversity of Hillingdon's community provides many opportunities. The 2004 town centre retail frontage survey has revealed that there is a wide range of shops and services in the borough meeting the growing needs of Hillingdon's diverse population. With the growing changing population it is anticipated that through improved productivity of existing floorspace and additional new development the needs of the community will be met providing an inclusive environment

Health and Education

- 4.46 The Health and Education Area Action Plan (HEAAP) DPD of the forthcoming LDF seeks to proactively plan for the health and education services and facilities by identifying areas where demand is high and/or under pressure, from which expected future needs can be determined. This need can then be accounted for in policy to facilitate and manage appropriate provision.
- 4.47 There is continual demand for services provided by the borough's hospitals and the need to improve and modernise existing services and facilities. An outline planning application has been approved for the phased redevelopment of Hillingdon Hospital in line with existing planning policy guidance. The site will continue its role as a major hospital site within the borough.
- 4.48 Area Action Plan policies also support the Borough's education strategies to ensure the sustainable maintenance and growth of educational facilities to meet current and expected demand. In September 2003 the Council approved Brunel University's Uxbridge Campus 10 Year Master Plan which sets out the parameters by which the site will develop.
- 4.49 During 2004/2005, the amount of monetary contributions to be allocated for education facilities totalled £1,162,000. During the same period an agreement was signed for the allocation of £25,000 for health facilities.

Objective 6: To enhance the environment in Hillingdon by addressing local causes and impacts of air and other pollution.

Local Services

- 4.50 The borough's open space and nature conservation policies aim to protect existing parks and open spaces from inappropriate development. They also aim to ensure an equitable distribution of spaces and facilities according to the location and characteristics of communities. Hillingdon's open spaces provide quality natural environments for the public to escape the urban environment and appreciate nature. It is the intrinsic qualities of natural spaces that assist in flood control and improve air quality.

Minerals & Waste

- 4.51 The four mineral and waste indicators are insufficient to measure environmental enhancement objectives of the LDF. However, a falling

rate of mineral extraction and / or waste facilities will most probably see a corresponding decrease in vehicle movements, dust and odours associated with these activities.

- 4.52 Over time this is also a likely scenario for landfill sites when they reach capacity and are restored according to council objectives. However, the council must continue to work with the Environment Agency to monitor the water and soil quality impacts of closed landfill sites.
- 4.53 The opposite is expected for Waste facilities (including composting, landfill, recycling and transfer stations). These will continue to grow in number as Hillingdon works toward the GLAs goal of 85% of London's waste managed within London by 2020. Hillingdon is currently working with other authorities in West London to produce a waste development plan. This plan will implement the Mayor's vision with a spatial strategy to provide sites for recycling, recovery and ultimate disposal. There is also an assumption against the development of new incineration facilities, gradually reducing sources of air pollution.
- 4.54 Policies in the UDP protect existing strategic waste sites to ensure that future waste management makes efficient use of fuel for transportation for reducing waste going into landfill.

Air Quality

- 4.55 Air quality can be considered to be one of the key environmental threats within the borough. In 2001 an Air Quality Management Area (AQMA) was designated, which was subsequently expanded and now runs from the Chiltern-Marylebone railway line in the north down to the southern borough boundary. The AQMA was designated based on predicted exceedences of national targets for the pollutants Nitrogen dioxide. Since June 2004, in compliance with regulations, an Air Quality Action Plan has been in place setting out measures that will be pursued in order to improve air quality in the Borough has been formulated. This also contains measures to monitor levels of Nitrogen dioxide. Concentrations of other pollutants are also continued to be monitored, fine particulate matter (PM₁₀) in particular and Benzene. The council does not monitor other pollutants, as they are not considered to pose a threat to national targets.
- 4.56 The 2005 progress report of the Air Quality Action Plan states that there is no evidence of progress towards achieving the standard discernable in the 2004 data when taken with other data showing results and trends over several years, going back to the mid 1990's.

- 4.57 The UDP contains a policy specific to air quality (OE6), which allows for refusal of applications based on air pollution factors and the Air Quality Supplementary Planning Guidance supports this policy. However, traffic has continued to grow in the borough, with private car use greater than the average for the whole of London. UDP policies support growth in the housing and economic sectors, which have resulted in increased vehicle traffic and are linked to the failure to reduce air pollution levels.
- 4.58 The Core strategy of the emerging LDF will support greater provisions for public transport, cycling and walking. These will be required to help achieve air quality targets as Hillingdon faces a number of threats from development. New residential development and the provision of jobs as required by the London Plan and the proposed third runway at Heathrow Airport are particular threats to air quality.

Objective 7: To enhance local biodiversity, address issues arising from climate change, increase flood protection and take advantage of natural resources in a responsible manner.

Minerals

- 4.59 Minerals (sand and gravel) are primary inputs to the building and construction industry and are therefore a key driver in the capital's economic growth and development. Hillingdon's UDP and LDF promote the sustainable management of this key sector of the economy through strategic minerals policies that:
- Identify and safeguard aggregate resources suitable for extraction;
 - Control the level of extraction of the finite sand and gravel resource;
 - Mitigate the effects of extraction, protecting surrounding natural environments and communities; and
 - Ensure prompt restoration of minerals sites to realise council regeneration and biodiversity objectives.
- 4.60 Details of the remaining reserves at mineral workings in Hillingdon have been collected by the London Aggregates Working Party (LAWP) but they are confidential, even when aggregated to Borough level. This also applies to the production of primary/land won aggregates and secondary/recycled aggregates.
- 4.61 This is a UK wide issue that makes the forecasting of current and future mineral extraction problematic for Minerals Planning Authorities. However, the UDP and proposed LDF policies provide a degree of

certainty for minerals operators and the business community to plan for future investment and risk in the mineral extraction sector.

- 4.62 Minerals extraction and processing and the disposal of municipal and construction waste have various negative effects on air and water quality and the overall amenity of the surrounding environment. These two land uses produce dust, noise, odours, vehicle emissions, disturb geology, archaeological features and ground water. These effects must be balanced against their contribution to the local and regional economy and the form and function of the urban environment.

Biodiversity

- 4.63 Overall, the amount of land protected through local, regional and national policy for biodiversity enhancement in Hillingdon continues to increase. The recent survey of Sites of Importance for Nature Conservation (SINC), undertaken by the GLA, suggested the inclusion of 16 new sites for designation through the LDF. Three have been lost to development.
- 4.64 The UDP and LDF contain policies to protect and enhance nature conservation sites in the borough. Sites are designated for protection through listing as sites of:
- Metropolitan;
 - Borough Grade I;
 - Borough Grade II; or
 - Local importance in the UDP and LDF.
- 4.65 Policies protect the habitats and species by managing development on, or adjacent to, SINCs to protect the overall integrity of habitats. Some development is permitted, but only for the purposes of enhancing the habitat or the public's enjoyment of it. The policies also aim to educate the public on the importance of biodiversity and to ensure that the health of habitats and species continue to be monitored across the borough identifying new sites suitable for designation. Hillingdon also aims to enhance biodiversity borough wide through negotiating conditions with developers to improve habitats.
- 4.66 The indicators of local biodiversity will be an effective tool to monitor species and habitat enhancement over the life of the LDF. However, it will be important to establish the baseline species and habitat information in a spatial database to facilitate its advanced query and display. At present the format of information from previous studies makes it difficult to compare the growth in area of SINC sites and the change in individual species and habitats. Hillingdon will need to work

closely with Wild London and the GLA to develop and update the GIGL database and LB Hillingdon spatial data holdings.

- 4.67 Also of monitoring interest for Objective 7 is the amount undeveloped open space and metropolitan open land. The build up of impervious surfaces is a challenge to flood management and also the groundwater resource.

Flood Protection and Water Quality

- 4.68 Hillingdon contains a number of water bodies including the Colne, Frays, Yeading Brook and Wraysbury Rivers and The Grand Union Canal. The Environment Agency launched the use of new Flood Zone maps in July 2004, in accordance with Planning Policy Guidance 25: Development and Flood Risk. This uses the following zoning:
- Flood Zone 1 - lowest probability of flooding from rivers, where the chance of flooding in any one year is less than 0.1% (a 1000 to 1 chance).
 - Flood Zone 2 - chance of flooding in any one year between 0.1% and 1% fluvial (between a 1000 to 1 and a 100 to 1 chance).
 - Flood Zone 3 - highest probability of flooding. The chance of flooding in any one year is greater than or equal to 1% (100 to 1 chance).
- 4.69 Sections of the borough have been identified as having significant risk of flooding in Zones 2 and 3, these areas have been identified and are used as material considerations in the development application process.
- 4.70 Water quality in the borough is also measured by the Environment Agency. Currently this is assessed as 92% of measured waterways having good to fair biological water quality and 93% having good to fair chemical water quality. Water quality has been increasing in the borough and is just short of the national targets both set at 94%.
- 4.71 In the year 2004-2005 there was no instance where permission for development was granted contrary to the advice of the Agency on either flood defence grounds or water quality. Where advice was given on these grounds applications were either refused or modified to the requirements stipulated in the consultation with the Environment Agency.
- 4.72 Policies OE7 to OE10 contained within the UDP pertain to surface water drainage and flood prevention issues. Issues of flooding and

water quality will be covered within the Core Strategy DPD of the emerging LDF.

Renewable Energy

- 4.73 In February 2004 the London Plan introduced a requirement for larger schemes to produce a proportion of their energy needs through onsite renewable provision. A figure of 10% was identified in the Mayor's Energy Strategy. To conform with this objective, applications for major commercial schemes over 1000 square metres should seek to produce 10% of the site's energy requirements on site from renewable energy sources. A number of schemes are beginning to emerge in 2005. Appropriate information will be added to subsequent annual monitoring reports demonstrating the introduction of renewable technologies. This requirement has been identified in the Local Development Framework Preferred Options Development Control Policy 32.
- 4.74 It is proposed that in testing Objective 7 one approach might be to state the number of planning approvals which have carried out an energy assessment. From this it will be possible to measure the number of approvals where renewable technologies were included on site as part of the application. The third aspect is the amount of energy that has been achieved from these schemes both in terms of percentages and the amount of electricity generated.

Objective 8: To safeguard and promoting the role of all town centres in Hillingdon, focusing retail, leisure and office developments which attract a large number of people, towards larger centres.

Local Services

- 4.75 Policy S1 seeks to direct new retail development which is appropriate in type and scale to the function of its location. During 2004-5 there was little new retail, leisure or office development in the borough. The 2004 Town Centre Retail Frontage survey revealed very few vacant Class A1 (Shops) in the borough. However, there is pressure to permit change of uses from A1 to non-A1 type uses (especially restaurants and takeaways) as retailing continues to adjust to a more competitive environment. The diversification of product ranges by supermarkets into comparison goods, the drift of shoppers to the internet and other mail order type retailing, and the polarisation of high street name businesses to the major centres and retail parks, has contributed to a weakening of the comparison goods retail offer in some locations in the borough notably Northwood Hills and Ruislip Manor. Whilst Policy S1 (Retail Development) still appears to be meeting its overall objectives

in terms of the scale of development and appropriate location within the town centre hierarchy, with the publication of Planning Policy Statement 6: Planning for Town Centres, interest by major retailers in the borough has risen, especially with regard to edge of centre locations. This will need to be carefully monitored especially with regard to appeal outcomes.

Objective 9: To promote more efficient use of brownfield land including the promotion, where appropriate, of higher density, mixed use development.

Business Development

- 4.76 Policies LE2 and S1 seek to locate new development on Brownfield sites. Productivity improvements in the retail and employment sectors will contribute to making more efficient use of brownfield land. During 2004/2005, 100% of employment floorspace developed was in previously developed land.

Housing

- 4.77 All housing completions for the period 2004/05 took place within previously developed land. This is an increase of 20% over the 80% completions on previously developed land for the previous economic year. Although there are a number of factors outside the local authority powers which determine the recycling of previously developed land, the fact that sufficient land has been identified for housing on brownfield sites up to 2016 will help to maintain a high level of land recycling over the next 11 to 12 years.
- 4.78 Density of housing development also contributes positively to the efficient use of land with 75% of all new housing completions developed at a density of at least 50 units per hectare.