

INTRODUCTION

1. This is the Non-Technical Summary of the Environmental Statement (ES) which assesses the environmental effects of proposals put forward by the West Stevenage Consortium (“the Consortium”) for the development of a new neighbourhood to the west of the A1(M) at Stevenage (“West Stevenage”). Further details about the full ES are set out on the back page of this summary.
2. The location of the site in relation to the surrounding area is illustrated on the Site Location Plan and on the Aerial Photograph, which includes references to locations of interest.
3. The ES accompanies an outline planning application for the development of approximately 5,000 dwellings and shops, business premises, leisure, social and community facilities, open space, landscaping, and provision of infrastructure, highways and public transport facilities, and ancillary facilities at West Stevenage.
4. The proposed development has been formulated to meet the requirements of the adopted Hertfordshire Structure Plan Review 1996-2011 (April 1998), which gives guidance on the extent of land excluded from the Green Belt and allocates it for the development of 5,000 dwellings and necessary associated development.
5. The proposals also reflect relevant development guidelines established in the emerging Local Plans for Stevenage Borough and North Hertfordshire District (withdrawn), the West Stevenage Masterplanning Principles Report and principles established by extensive public consultation exercises.
6. The overall Environmental Statement has been prepared having regard to the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

The Statement:

- (i) describes the location of the site and the surrounding area;
 - (ii) describes the development proposals and the alternatives considered;
 - (iii) identifies the environmental issues raised by the proposed development;
 - (iv) assesses the potential impacts, including their magnitude and significance;
 - (v) explains the measures to be taken to minimise, mitigate or overcome any adverse impacts; and
 - (vi) acknowledges situations where the monitoring of measures to overcome adverse impacts will be undertaken.
7. The scope of the matters considered in the ES has been agreed with Stevenage Borough Council (SBC), North Hertfordshire District Council (NHDC) and Hertfordshire County Council (HCC) and other relevant parties, as set out within the ES Scoping Statement (June 1999).
 8. The ES consists of a main report, which contains the findings of the Environmental Impact Assessment, together with an A3 booklet of plans, and 13 accompanying Appendices (some of which comprise more than one document).
 9. The predicted impacts of the proposed development are classified in the ES. These impacts can be beneficial or detrimental with major, moderate, minor or negligible significance and can affect a wide or a localised area over a short or long timescale.



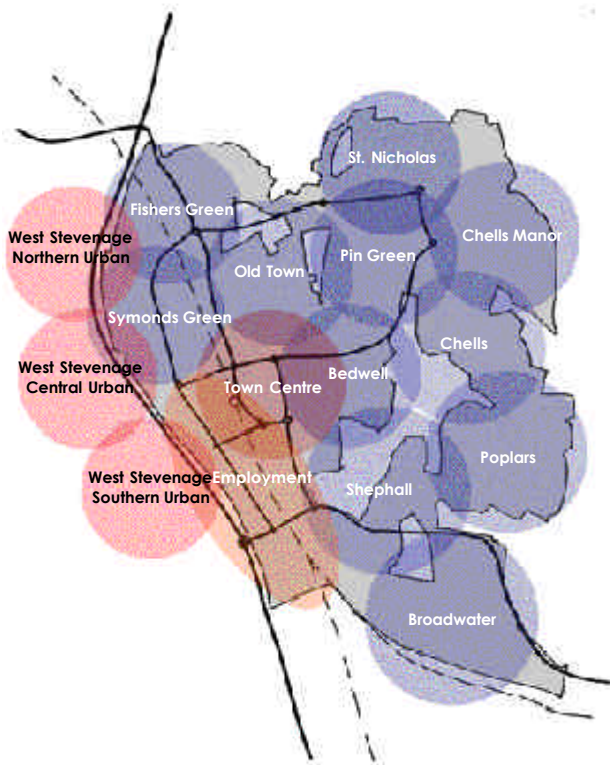
THE SITE AND THE SURROUNDING AREA

10. The development site extends to approximately 280.96 hectares (694.27 acres) and is located immediately to the west of the Hertfordshire town of Stevenage between junctions 7 and 8 of the A1(M).
11. The C20 Stevenage Road lies to the north, the A1(M) to the east, the Knebworth Park Estate to the south and the B656 Hitchin to Welwyn Road to the west of the site. Further to the north is the A602 Stevenage to Hitchin road (the Wymondley Bypass).
12. In terms of its sub-regional location, the site is located approximately 7 miles (11 km) to the east of Luton, 9 miles (14 km) to the north of Hertford and 2.5 miles (4 km) to the south east of Hitchin.
13. Several hamlets, groups of dwellings and farmsteads lie adjacent to the site. These include Todd's Green, Titmore Green, Lower Titmore Green to the north; The Wyck and Little Almshoe to the north west; Almshoe Bury, Coney Cottages, Rush Green Farm, Dyes Farm and Langley Bottom Farm to the west; and Norton Green and Langley to the south.
14. There are no public roads crossing the site, however, there is a reasonably extensive and well linked public rights of way network. This links the surrounding hamlets and groups of dwellings to each other as well as connecting to Stevenage via five crossings of the A1(M). The A1(M) crossings are located at Fishers Green, Symonds Green, Meadway, Bessemer Drive and Six Hills Way.
15. The site is located within an area of land under the administrative control of two Local Authorities. The northern part of the site is located within the predominantly rural North Hertfordshire District, whereas the southern part of the site is within Stevenage Borough, which also covers the existing town of Stevenage.
16. Within the area of the site covered by North Hertfordshire District Council, the site falls within the parishes of Wymondley (northern part), St Ippollitts (or St Ippolyts) (central and western areas), Langley (south western part) and Knebworth (southern end). Within the area covered by Stevenage Borough Council, the site falls within a predominantly rural area with no significant service provision. The adjacent semi-rural area has small scale facilities, for example public houses, small shops, churches etc.
17. There are five existing farm holdings within the site which predominantly farm arable crops, with small pastoral enterprises.
18. In terms of agricultural land quality, approximately 60% of the total site area (i.e. 168.6 ha/416.6 acres) comprises the lower classification of best and most versatile land, namely Grade 3a with some small pockets of Grade 2 at 4.2ha/10.3 acres (approximately 1.5%). This occurrence of good quality land reflects that found elsewhere in Hertfordshire.
19. Under the classification of agricultural land by the Ministry of Agriculture Fisheries and Food: Grade 1 is excellent quality, 2 is very good quality, 3a is good quality, 3b is moderate quality, 4 is poor quality and 5 is very poor quality.
20. The site occupies an undulating broad plateau which is orientated in a north-west to south-easterly direction. The land falls to the west of the plateau into the Langley Valley and northwards into the Almshoe Valley. West of the Langley Valley, the ground rises to a well-wooded ridge, whilst to the north of the Almshoe Valley, the land rises to an east-west aligned ridge. South of the site the woodlands of Watery Grove and Newton Wood (also known as Knebworth Woods) on the Knebworth Estate occupy an elevated area.
21. On the plateau, the landscape consists of extensive open arable fields, punctuated by a few small tree belts or woodlands. By contrast, hedgerows provide strong linear features in some of the valleys where smaller pastoral fields make up the landscape. The valleys are also notable for a number of listed buildings although none are recorded within the site.
22. In essence, arable fields occupy 79% of the site, grassland occupies 13%, woodlands occupy 3% and the former Norton Green landfill site occupies 5%.
23. Archaeological interest includes evidence of activity dating back to the Neolithic or late Stone Age, although this is restricted to the recovery of worked flint in ploughed fields. Recorded archaeology includes the probable course of a Roman road, which may relate to a small settlement of this period identified at Wymondley.
24. The zone of visual influence or visual envelope of the site is limited by existing vegetation and variations in the topography of the area. The site is generally visible from parts of the Almshoe Bury and the Langley Valley to the west, and also from the higher ground north of Stevenage and from Pin Green to the north east. Views from the town of Stevenage are limited by the A1(M) and the adjacent employment areas. Views from the Chilterns to the west or from the south on the Knebworth Estate are also limited by landform and woodland. Generally, where the site is visible locally, views of existing urbanisation of Stevenage are also possible.

25. The site itself forms an east-west transitional zone between the urban area of Stevenage and the hilly Chilterns region to the west of the B656.
26. A number of visual detractors exist within the area immediately surrounding the site including the Wymondley Transforming Station and associated overhead transmission lines to the north, Rush Green scrap yard to the east of B656, the former Norton Green landfill site and the travellers' site adjacent to the A1(M).
27. The site is subjected to noise from aircraft using London Luton Airport and traffic on the A1(M), particularly on the western and eastern sides of the site respectively. However, the ambient noise levels are moderately low and the concentrations of pollutants measured are indicative of good air quality.
28. Woodlands on site are comparatively small and include Lucas's Wood, High Broomin Wood and Upper Kitching Spring, all of which are designated as County Wildlife Sites.
29. To the south of the site lies Knebworth Woods Site of Special Scientific Interest (SSSI) (part of the Newton Wood on the Knebworth Estate), which comprises wet woodland and other habitats.
30. The hedgerows are generally species rich and several are classified as 'important' under the Hedgerow Regulations (1997), including many which mark historic parish boundaries. Kitching Lane is notable for its ecological interest as it is linked to the Knebworth Woods SSSI. This SSSI also supports some areas of species rich grassland which extends to Norton Green. There is also grassland in some locations within the site.
31. The site is not thought to be important for invertebrates although it is likely to provide habitat for foraging Bats. Some of the ponds in and adjacent to the site are known to contain Frogs, Great Crested Newts and Smooth Newts. Seventy-one species of birds have been recorded on the site including several rare or declining species such as Hobby, Quail, Grey Partridge, Linnet, Corn Bunting and Yellow Hammer. The majority of the site is known to be of importance for farmland birds.
32. The site supports some features that are of high nature conservation value in the local context. These include the County Wildlife Site woodlands and the bird fauna. No features within the site are considered to be of greater than high local value, although the Knebworth Woods SSSI to the south of the site contains a complex of habitats that are of national nature conservation value.
33. The former Norton Green landfill site lies in the south east corner of the overall development site and occupies an area of about 13.4 hectares. The landfill itself is currently waste ground and owned by English Partnerships. Operation of the landfill site ceased in 1989. The contents of the material deposited within the landfill site comprise principally a mixture of demolition rubble and clay soils.

THE PROPOSED DEVELOPMENT

34. The proposed development will involve the creation of a new neighbourhood at West Stevenage, comprising three linked villages, which have been planned and designed in a comprehensive and co-ordinated manner to create a sustainable and balanced community with a high quality living environment.



35. The planning and design of the proposed development has evolved over a period of 30 months in response to feedback received from the Environmental Impact Assessment process, technical consultations and local people. As part of this process the consultant team has undertaken an extensive programme of technical and public consultation, including the 'Garden City 21' programme, to create a comprehensive and practical vision for a sustainable new neighbourhood in this location.

36. In order to illustrate the development proposals a Master Plan (see centre pages) has been produced for the site and shows, amongst other things, the following:

- (i) residential areas capable of providing approximately 5,000 dwellings in areas of high, medium and lower density housing;
- (ii) three dedicated employment areas, comprising a mix of business and industrial units;

- (iii) a large mixed use centre, comprising a mix of shops, housing, employment and community facilities, and two smaller local centres;
- (iv) a secondary school and three primary schools;
- (v) focal points including village squares, village greens and landmark buildings;
- (vi) vehicular accesses to the site from Meadway and Bessemer Drive and a public transport only access from Todd's Green, together with a public transport spine road running north-south through the site;
- (vii) areas of open space which includes a linear park, natural green space, new planting, playing fields and allotments;
- (viii) a cemetery; and
- (ix) a green waste composting site.

37. The extent of the land uses shown on the Master Plan can be summarised as follows:

LAND USE	APPROXIMATE AREAS	
	Hectares	Acres
Residential	132.89	328.38
Employment	5.48	13.54
Mixed Use Centre	12.61	31.16
Local Centres	4.30	10.63
Schools	15.40	38.05
Open Space	105.05	259.58
Allotments	1.01	2.50
Cemetery	1.06	2.62
Distributor Road Corridor	2.16	5.34
Green Waste Composting Site	1	2.47
GRAND TOTAL	280.96	694.27

38. Taking into account the need to obtain planning permission and negotiate appropriate conditions and agreements relating to the proposed development, it is envisaged that development could start in 2004. On this basis, approximately 3,600 dwellings could be built by 2011 and approximately 5,000 dwellings by 2014.

39. In terms of meeting the Government's criteria for sustainable communities, as identified in its report entitled "Millennium Villages and Sustainable Communities" (DETR, May 2000), the proposed development will:

- (i) reduce the consumption of resources and make efficient use of land;
 - (ii) respect the existing character of the site's environment and, wherever possible, enhance it;
 - (iii) make the development attractive through careful attention to layout, appearance and landscaping;
 - (iv) facilitate a high quality of life for residents and commercial occupiers, e.g. by providing a wide range of housing, employment, social and community facilities, health provision and, by design and other measures, safety and security;
 - (v) provide affordable housing throughout the site and design the built environment to be accessible and convenient for use by the disabled;
 - (vi) encourage public participation in the running of the development by the creation of a Neighbourhood Trust and three management boards for the three villages to maintain the open spaces and other parts outside the public highway and other private areas; and
 - (vii) make the development commercially viable by providing land and, in some cases, buildings to accommodate services and facilities to serve the incoming population, as well as through day-to-day management provided by the Neighbourhood Trust and management boards.
40. Further details of the proposed development are included in a Development Principles and Design Guide ("DPDG") which forms part of the planning application.

ALTERNATIVE LOCATIONS FOR DEVELOPMENT

41. A number of possible alternative sites for strategic development were considered at an Examination In Public by an independent Panel of Government Inspectors (the Panel) as part of the process of preparing the Hertfordshire Structure Plan Review 1996-2011. These locations were: (i) South of St Albans (Napsbury) - approximately 3,500 dwellings; (ii) Royston - approximately 200 dwellings to the north and potential to the south; (iii) North West of Harlow (Maplecroft) - approximately 5,000 dwellings; and (iv) Bishop's Stortford - approximately 1,000 dwellings.

42. Following detailed consideration of these options, the Panel concluded (for reasons including environmental impact, traffic impact and sustainability) that none of the four locations was suitable for major residential development.
43. During the process of formulating the Master Plan, alternative locations for development to the West of Stevenage were also assessed by the consultant team. The aim of this assessment was (i) to ensure that the proposed development avoids any physical links with Todd's Green, Lower Titmore Green, Almshoe Bury, Coney Cottages and Norton Green; and (ii) provide a buffer of land between the development and the Knebworth Woods SSSI.

POLICY CONTEXT

44. The ES has been prepared to meet the requirement of the adopted Hertfordshire Structure Plan Review 1996-2011 (April 1998) in relation to the West Stevenage site. In particular:
- (i) Policy 5 which gives guidance on the extent of the land excluded from the Green Belt to allow for development west of the A1(M) at Stevenage, i.e. "north of Langley and Newton Wood, east of the B656 and south of St Ippolyts, and be defined so as to preclude coalescence with nearby settlements"; and
 - (ii) Policy 8 which requires that land suitable for the development of approximately 5,000 dwellings with necessary associated development to be provided at West Stevenage, of which 3,600 dwellings are to be built by 2011 (comprising approximately 1,000 dwellings in Stevenage Borough and 3,600 dwellings in North Hertfordshire District).
45. In addition, due regard has also be given to the specific policies and proposals for West Stevenage contained in the:
- (i) Stevenage District Plan Second Review 1991 - 2011, 2nd Deposit Draft (May 2001);
 - (ii) North Hertfordshire District Local Plan No. 3 Deposit Draft (February 2000) (now withdrawn); and
 - (iii) the Stevenage West Development, Master Planning Principles Supplementary Planning Guidance, which was adopted by Stevenage Borough Council in July 2000 and Hertfordshire County Council in January 2001 and approved by North Hertfordshire District Council as a basis for determining the

accompanying planning application in April 2001.

46. The proposals are also consistent with relevant national and regional planning guidance. In particular, the proposed development accords with Government planning policy guidance on housing which explains that an extension of an urban area is a sustainable form of development. The guidance also highlights the importance of mixed-use development, design quality, increased housing densities, reducing the need to travel and linking new development to public transport.

ENVIRONMENTAL ISSUES

Socio Economic and Community (Human Beings)

47. Within the context of the site and the surrounding area, consideration has been given to the present extent and location of the existing population, affordable housing requirements, community services, schools, emergency services, employment, healthcare facilities, recreation, social services and shopping.

48. The assessment of the predicted impacts on human

beings has shown that the increase in population resulting from the proposed development would create the need for new facilities and services for the above.

49. In this regard, land and, in some cases, buildings will be provided to accommodate the level and type of facilities and services which will be required by the incoming population. Specifically, provision will be made for: a proportion of new dwellings to be affordable; three community centres; three primary schools and a secondary school; a community fire station; an ambulance standby point; accommodation for the police; employment land; a health centre; sports hall; sports pitches; informal open space and shops including a 1,450 m² foodstore.



Transport, Traffic and Movement

50. The assessment of the predicted impacts on the existing and future transport network within West Stevenage and the surrounding area has been undertaken by modelling transport patterns. The results of this modelling has shown that the proposed development will place demands upon local transport network in terms of vehicular traffic and bus/rail usage.
51. To encourage a reduction in the need to travel by car, a sustainable public transport strategy has been designed. This strategy has taken into consideration the layout of the proposed land uses, the highway connections to Stevenage Town, public transport provision, offsite highway improvements and parking provision. A key feature of the strategy is the provision of a public transport spine within the site, which connects the residential, mixed use and employment areas to the Meadway and Bessemer Drive access points. (see Public Transport Strategy Plan opposite).
52. Through the implementation of the sustainable public transport strategy a substantial change in travel patterns and behaviour can be achieved at West Stevenage. For example, compared to the situation which typically exists in Hertfordshire (peak hour), use of the car will be reduced from 84% to 52%; bus use will double from 10 to over 20%; walking will increase from less than 10% to 17%; and cycling will increase from less than 1% to 3%.
53. In addition, it is estimated that 81% of all person trips (in the AM peak) are forecast to be contained within the site and the Stevenage area, thus demonstrating a very high level of local, contained trip making.
54. The proposed off-site highway improvements will ensure that congestion levels are no worse with the development than would otherwise have been the case.
55. To accompany the planning application, a Strategic Green Travel Plan has been included in the DPDC to provide the framework and delivery mechanism by which sustainable transport will be realised.

Rights of Way Network

56. An assessment has been made of the public rights of way (PROW) situated within the site and the surrounding area. As a result of undertaking this assessment, PROW located within the site, where possible, have been incorporated into the layout of the development. In this regard, some PROW will become part of Greenways, which will be designed to encourage walking, cycling and, in some cases, horse riding through the site as well as linking to the surrounding areas.

57. In addition, a series of other measures are proposed to encourage walking and cycling within and outside the site including the provision of routes within the linear park and open space and segregated pedestrian and cycle crossings of the A1(M). In addition, to provide for horse riding, Dyes Lane and a new route from Langley to Almshoe Bury Farm are proposed to be designated as bridleways.

Landscape and Visual Appraisal

58. An appraisal of the landscape and views of the site has been undertaken. This appraisal concludes that the proposed development would result in a change in views from a number of properties, roads and public rights of way in the medium to long term.
59. In order to address these changes in views, due consideration has been given to the layout of the land uses within the Master Plan and a landscape strategy has been devised. As part of the landscape strategy, provision will be made for substantial areas of planting and areas of informal open space within the development and along its edges to provide a "buffer" to views and benefit to the wider community. As the proposed structural planting matures, the development will be integrated into the wider landscape resulting in minimal adverse landscape or visual impact in the longer term. (see Landscape Strategy Plan overleaf).
60. As part of the landscape strategy, it is envisaged that environmental benefits will also arise, including the creation of new habitats, the management of those parts of the site which will not be built upon, and the enhancement of the local landscape character and distinctiveness.

Archaeology and Cultural Heritage

61. An initial assessment of the archaeological value of the site has been undertaken following a range of field surveys. The surveys conclude that there is low potential for nationally important archaeology within the areas proposed for development. The course of a Roman road will be preserved within the site whilst some sub-surface deposits would be built over. There are no listed buildings within the site itself or located in such proximity that their setting or continued use will be compromised. Less significant historic landscape features such as hedgerows and lanes will be incorporated within the proposed development wherever practicable.
62. Prior to any development, significant archaeological deposits will be further defined and recorded in accordance with national guidance and in liaison with the Local Authorities. Through the use of a range of techniques, any significant impacts on archaeology and the historic landscape will either be avoided or minimised.

Nature Conservation, Bio-Diversity and Aquatic Environment

63. A preliminary ecological survey has been carried out on the site and in the surrounding areas in order to identify the range of habitats and species present. Extensive consultation has been undertaken with statutory and voluntary nature conservation organisations. Approval and agreement has been reached regarding the scope of investigation, interpretation of results and outline mitigation proposals.
64. The principal nature conservation resources within the site are: the Lucas's Wood and High Broomin Wood County Wildlife Sites; the area of scrub and tall herbs above the Norton Green landfill site; the hedgerow along Kitching Lane; and a farmland bird population centred on the arable fields.
65. The principal nature conservation resources within the surrounding area are: the Knebworth Woods SSSI; Morio and Burleigh Meadow SSSIs and adjacent habitat; the Langley and Ippollitts Brooks corridor; the Almshoe Bury Regionally Important Geological Site; and land to the south of St. Ippollitts.
66. The nature conservation strategy has been designed to protect the important features of the site and the surrounding area, during both the construction period and in the long term. All of the woodland and other features of prime ecological interest have been retained within the development, and new corridors will be planted to link these features. A management plan will be devised to manage the ecological features around the development site, so that their ecological value is maintained in the long term.
67. In order to conserve the farmland bird population displaced from the site, funds will be made available to increase the capacity of suitable agricultural areas off-site for these birds.
68. Measures will be incorporated to improve off site public access so as to lead users away from areas of higher nature conservation value.
69. The overall significance of impact on ecology can be reduced to negligible or minor, through good design principles which seek to limit the impact of construction processes; manage public access to sensitive areas; and conserve, wherever possible, existing resources. In addition, habitats will be enhanced or newly created as part of the extensive linear park and open space areas.

Soils and Agriculture

70. A survey of land quality has been undertaken to determine what effect the proposed development would have on the national resource of the best and most versatile agricultural land.
71. In terms of the loss of land available for agricultural production, the proposed development will affect a high proportion of Grade 3a agricultural land, with pockets of Grade 3b and smaller pockets of Grade 2 interspersed over the whole site. In this regard, approximately 172.8 hectares of the site is identified as being best and most versatile agricultural land (Grades 2 and 3a), of which approximately 125.2 hectares will be situated beneath hard development (i.e. buildings, roads etc). In the main, the loss of Grade 2 agricultural land has been avoided.
72. The effect of the proposed development on farm businesses has also been assessed. Five commercial farm units and a hobby farm will lose land. The predicted impacts on the commercial farm units will be minimised by the proposed mitigation and the use of good urban design practice. In the case of the hobby farm, activity will permanently cease although this loss is of negligible agricultural significance.
73. Due consideration will be given to the use of soil disturbed as part of the construction process. The topsoil and subsoil in areas proposed for hard development, including buildings, roads and other infrastructure, will be safeguarded as a valuable resource for use in forming a noise attenuation bund alongside the eastern boundary of the site and earth modelling alongside the western boundary of the site (i.e. the formation of linear mounds of earth), for the levelling of undulating land to provide playing fields and for the improvement of adjacent agricultural land, where feasible.

Geology, Hydrology and Hydrogeology

74. Surveys have been undertaken to assess how and where water will drain from the proposed development. Sources of water include rain falling onto the site and water supplied to houses, businesses and other buildings.
75. In order to ensure that water flowing from the proposed development is returned to appropriate locations (i.e. either below ground or into rivers, streams etc) a sustainable drainage design strategy has been formulated. As part of this strategy, provision will be made for ponds and ditches throughout the site, which will be used to control the speed and volume of water flowing from buildings and hard surfaces into the ground or to watercourses. This strategy uses Sustainable Urban Drainage Systems which are supported by the

Environment Agency, the Government Agency responsible for the protection and management of water resources.

Norton Green Landfill Site

76. An assessment has been undertaken to establish the potential impact of the proposed development upon the former landfill site to the north of Norton Green. In this regard, consideration has been given to the future use of the landfill site and to the acceptability of using excavated materials to create a noise attenuation bund alongside the A1(M).
77. Following detailed consideration, it is concluded that following completion of the proposed development using appropriate types of building foundations, the environmental impacts of the proposed development on the landfill site and the underlying groundwater (i.e. water found beneath ground) will be of negligible to minor significance.
78. In addition, the redevelopment of the landfill site will result in the beneficial re-use of an otherwise unsightly plot of land that is currently targeted by fly tippers for unauthorised disposal of waste.

Noise and Vibration

79. The assessment of noise impact arising from the development of West Stevenage has shown that measures will be required to reduce the impact of noise arising from traffic using the A1(M) and as a result of traffic using Meadway/Redcar Drive to access the new neighbourhood.
80. To ensure that noise impacts do not exceed recognised standards for the benefit of the incoming population and for existing residents along Redcar Drive, provision will be made for a noise attenuation bund with an additional acoustic barrier on top, or an acoustic barrier, alongside the A1(M), and a barrier in front of Cartref (a semi permanent housing development) on Redcar Drive. In addition, all new dwellings will be designed to ensure the criteria given in 'Sound insulation and Noise Reduction for Buildings Code of Practice' are satisfied.
81. In terms of the impact of other potential significant noise generators (i.e. aircraft crossing the site originating from Luton Airport and Rush Green Airfield), it is considered that the flight paths and noise generated from aircraft will not conflict with the provision of the proposed development, nor affect the amenity of the incoming population.

Utilities and Services

82. Following discussions with the appropriate companies, it has been confirmed that the proposed development can be supplied with gas, electricity, telecommunications (i.e. telephones and digital cables) and water with negligible off-site impacts and negligible environmental impact within the site itself. In this regard, the electricity to all new buildings will be connected to Unit[e] or similar "green energy" provider who will match usage with electricity produced from renewable energy projects (primarily wind and water).
83. It has also been confirmed that refuse can be collected by conventional refuse vehicles and transferred to a tip or future refuse transfer station to the east of Stevenage. In addition, recycling will be encouraged by providing a green waste composting site, recycling centres in accessible locations throughout the site and smaller facilities designed into buildings.
84. In terms of the treatment of sewage, it is proposed that the existing trunk sewer from Stevenage to Rye Meads Sewage Treatment Works will be utilised.

Air Quality and Climate

85. An assessment has been made of existing air quality at West Stevenage. This has indicated that existing air quality at the West Stevenage site is good and will not represent a constraint for development of the type proposed. In addition, future trends indicate that improvements in local air quality can be expected between now and 2014.
86. The air quality assessment has also concluded that none of the air quality objectives of the National Air Quality Strategy will be compromised by the development proposals.
87. To ensure that potential air quality impacts will be mitigated, the proposed development and associated transportation links have been designed to minimise dependency on private motor vehicles and encourage use of public transport and other forms of sustainable transport. Provision has also been made for the use of energy efficient, low polluting sources of energy production including renewable energy sources, where feasible, and the inclusion of low emission public transport to minimise emissions of energy related pollutants and reduce emissions of greenhouse gases.
88. In addition, the provision of the bund and buffer strip between the site and the A1(M) will mitigate against potential impacts from traffic on the motorway and there will be some minor enhancement associated with planting additional trees within and beyond the development area.

Construction and Phasing

89. The construction of the proposed development will last for approximately 10 years. Building will begin on land adjacent to the Meadway access, in the centre of the site, and will radiate outwards. At each stage of the construction period, a balance of community services, shops, recreation and leisure facilities, and employment opportunities will be provided to meet the day-to-day needs of the incoming population.
90. As a direct result of the construction phase, opportunities will arise for local people and businesses connected with the construction industry to find employment.
91. In terms of the effect of the construction phase upon the environment and the existing local population, an assessment of the potential impacts has been undertaken relating to earthmoving, the construction of the Meadway access under the A1(M), traffic movements, disposal of surplus material and waste, noise and vibration, dust, mud on the roads, silt in watercourses, waste and litter, and off-site works.
92. As a result of this assessment, it is considered that the potential construction impacts will be short term and can be controlled or avoided by ensuring that the building contractors follow relevant codes of conduct, including specific British Standards, and through planning conditions placed on the development.

Combined Effects

93. The ES also includes an assessment of the combined effects arising from the proposed development. In this regard, combined effects generally relate to the interaction between the various direct impacts identified under the topic headings in the ES. An example of a combined effect topic is the A1 (M), as illustrated below.
94. In order to mitigate the impacts of existing noise generated from the motorway traffic on new housing, it is necessary to construct a bund 4-5 metres high. This has knock-on impacts (or impact interactions) with several other environmental aspects.
- (i) The bund involves land-take, some of which will occupy an area of ecological grassland, of local importance. This in turn, requires compensatory ecological measures elsewhere within the development proposals.
 - (ii) The bund when combined with an acoustic fence, also has a visual impact (which will be ameliorated by additional tree planting), as well as recreational impact in terms of land take, and the need to maintain existing PROW alignments.

- (iii) The bund has the potential to damage buried archaeology where it overlies the course of the Roman road. Mitigation comprises the development of a working methodology to ensure that the Roman road is not damaged by construction vehicles.
- (iv) The bund will be constructed within the air quality buffer and will tend to mitigate against the exposure of members of the public to atmospheric contaminants at this location. Planting of the trees will not only soften visual impact, but will also have a minor positive benefit to air quality, as vegetation absorbs certain types of air borne pollution, including that associated with vehicle emissions.
- (v) The bund will require a substantial amount of fill material (approximately 120,000 cubic metres). Inert material from the excavated landfill site will be used in the bund, and this has many indirect positive benefits including: (i) reuse of material within the development site; (ii) minimisation of lorry movements to redistribute material resulting in; (iii) reduced air and noise pollution from construction vehicles resulting in; (iv) reduced energy consumption; and (v) a positive reuse of existing brownfield land within the site.
- (vi) The tree planting to mitigate visual impact, will also, in the longer term, create a habitat for wildlife and an additional amenity resource.

95. In this regard, therefore, just one mitigation measure, encompasses a wide variety of effects on other aspects of the environment and community, but which are dealt with by a range of mitigation, compensation, or enhancement measures.

CONCLUSION

96. The ES represents a rigorous and extensive assessment of the proposed development of land at West Stevenage. The ES concludes that the proposals provide a sustainable development, which is in accordance with the relevant planning policies and guidelines provided at a national, regional, county and local level and reflects many of the outcomes from the public consultation exercises conducted by HCC, SBC and NHDC and the Consortium.
97. The ES confirms that many of the predicted adverse impacts resulting from the proposed development will be of no more than local significance and as such any impact will be kept to a minimum. The ES also confirms that the adverse environmental impacts are capable of being mitigated by design or through the use of planning conditions and obligations to ensure safeguards are in place prior to the commencement of development.
98. Overall, the assessment confirms that the provision of approximately 5,000 dwellings and associated development at West Stevenage can be implemented in a sustainable manner (e.g. the Master Plan has been formulated to reduce the consumption of land and respects the existing character of the site) and used with only limited adverse environmental effects.



FURTHER INFORMATION

The ES and Appendices may be inspected at the offices of Stevenage Borough Council (Daneshill House, Stevenage), North Hertfordshire District Council (Gernon Road, Letchworth), Hertfordshire County Council (Pegs Lane, Hertford), Stevenage Town Centre Library, Stevenage Old Town Library (unable to hold appendices), Letchworth Library, Hitchin Library and Knebworth Library.

Alternatively, the ES may be viewed on the West Stevenage web site at www.weststevenage.co.uk; or purchased from Barton Willmore Planning as following:

- The Planning Application Booklet, ES and Plans Document - £99.88 (inclusive of VAT)
- Development Principles and Design Guide - £117.50 (inclusive of VAT)
- A CD Rom £76.38 (inclusive of VAT)

To purchase documents please send a cheque made payable to "The West Stevenage Consortium" to Barton Willmore Planning, Beansheaf Farmhouse, Bourne Close, Calcot, Reading, Berkshire, RG31 7BW. (prices inclusive of postage and packing)

Hard copies of the Technical Appendices are individually priced and can be purchased separately from Barton Willmore Planning on 0118 943 0000.

CONSULTANT TEAM

To produce the ES and the accompanying appendices and plans, specialist consultants have been employed to provide an expert assessment of the various environmental impacts relating to the proposed development. The consultants who have contributed to this ES are as follows:

Barton Willmore Planning:

Lead consultants, planning, master planning and socio-economic issues and co-ordination of the ES.

CPM Environmental Planning and Design:

Ecological interests, archaeology and cultural heritage, agriculture and soils, public rights of way and co-ordination of the ES.

Barton Willmore Master Planning:

Master planning.

Barton Willmore Environmental:

Landscape and visual assessment.

Buchanan Consulting Engineers:

Transport, hydrology, geo-technical, utilities, construction activities, solid and liquid waste management.

Moir Hands and Associates:

Noise and vibration.

RPS Ashdown:

Air quality.

NEP Lighting Consultancy:

Lighting.

Waterman Environmental:

Ground conditions in relation to Norton Green landfill site.

HR Wallingford:

Hydrology and hydrogeology.