

---

# Non-Technical Summary

---

Westacott Urban Extension, Barnstaple

## Introduction

---

This document is a Non-Technical Summary (NTS) of the Environmental Statement (ES) that accompanies an outline planning application for the development of land to the east of Barnstaple, north of the A361 herein referred to as 'the site'). The ES reports the findings of the Environmental Impact Assessment (EIA).

The site is located approximately 3km to the south east of Barnstaple Town Centre; and directly borders the existing urban edge of Barnstaple, which sits to the west. The site measures 55.14ha, and the centre of the site is located at ST 258952 132166.

The planning application is in outline (apart from primary access) and seeks approval for:

- Erection of up to 820 dwellings (Use Classes C3 and Live-Work Units (Sui Generis));
- Up to 9,555m<sup>2</sup> of employment generating uses (Use Classes B1(a), B1(b), and D1);
- Up to 800m<sup>2</sup> of A-Class Uses (Use Classes A1-A5, AA);
- Land for Park and Change site (100 parking spaces);
- One-form entry primary school including early years provision (Use Class D1), and community use of on-site sport provision (Use Class D2);
- Green infrastructure including parkland, footpaths and recreational cycle routes, allotments, woodland planting and areas for informal recreation; and
- Associated engineering and ground works, including site preparation and remediation including ground works to create development platforms; the installation or improvement of services and infrastructure; the installation of drainage infrastructure, improvements/works to the highway network and other ancillary works and activities.

The EIA has been undertaken with input from a range of technical experts and qualified persons. This has enabled the preparation of a detailed ES which identifies and assesses the potential for significant environmental effects arising from the development and development process and the measures necessary to reduce and mitigate any identified impacts.

The ES is set out in a structured manner to allow easy navigation as follows:

- Volume 1: Main Document – provides the full text of the ES along with associated figures and tables of information;
- Volume 2: Technical Appendices – technical surveys, reports and supporting documents referred to in the main text of Volume 1; and
- Non-Technical Summary (this document) – a summary of the ES, the likely significant effects of the proposed development, appropriate mitigation measures and predicted residual effects.

The full ES, along with all the planning application documents, can be inspected at NDDC's offices at Lynton House, Barnstaple, EX31 1DG, and on the Council's online portal at <http://planning.northdevon.gov.uk/search.asp>.

Copies of the ES can be obtained on CD format for £5.00 from Savills, Embassy House, Queens Avenue, Bristol, BS8 1SB. Cheques should be made payable to 'Savills (UK) Limited'.

Alternatively, printed copies of the main ES document can be provided at a cost of £400 (including a CD to view the appendices) by request to: Savills, Embassy House, Queens Avenue, Bristol, BS8 1SB, telephone 0117 910 2200. Cheques should be made payable to 'Savills (UK) Limited'.

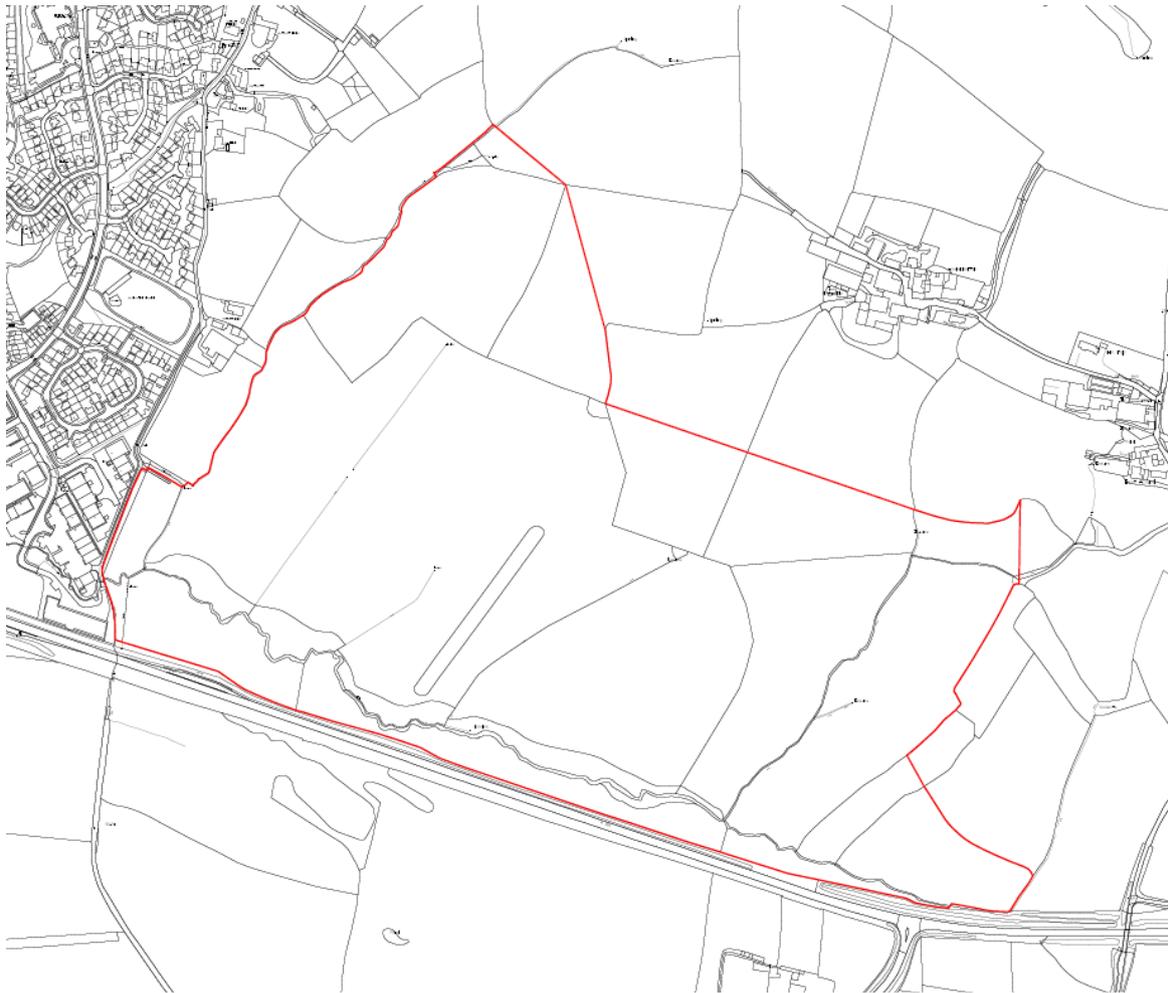
## Site and Surrounds

---

The site is located to the east of the town of Barnstaple, and covers 55.14ha of land. The site falls within the administrative areas of North Devon District Council (NDDC), and Devon County Council (DCC).

The site is bound by the A361 (North Devon Link Road (NDLR)) to the south; beyond which lies Portmore Golf Course, and the village of Landkey sits approximately 150m to the south-east of the site's southern boundary. To the north and east are open fields, with a number of isolated farmsteads and dwellings. To the west is the existing urban area of Barnstaple; the area immediately bordering the site being the urban area of 'Westacott'.

*Site Location Plan (not to scale)*



The site is predominantly agricultural, in use as pastoral grazing, with a range of linear woodland and hedgerows within and bordering the site. The site has four small spring-fed ditches flowing from north to south that rise from springs either on the site or just to the north and these streams form small valley features across the site. Site ground levels vary from roughly 103m AOD to 25m AOD; with the general fall of the land being north to south.

The vast majority of the site is located within Flood Zone 1 and is not at risk of flooding. The flood maps define a narrow corridor of flood zones 2 and 3 along the Whiddon Valley Stream, and along the spring-fed ditches.

The site is not covered by any statutory designations of national or international importance however there are two international designations within 15km; Braunton Burrows Special Conservation Area (SAC) (12km west) and Exmoor Heaths SAC (14.5km north-east). There are four Sites of Special Scientific Interest (SSSI) within 5km of the site: Bradiford Valley (3.3km north-west), Park Gate Quarry (3.6km south-west), Taw-Torridge Estuary (3.2km west) and Plaistow Quarry (4.4km north-west).

There are nine County Wildlife Sites (CWS) within 2km of the site, including Acland Wood CWS which is a narrow strip of semi-natural broadleaved woodland with a watercourse and species-rich hedgebank which runs within the southern part of the site, parallel to the A361.

There are no statutory landscape designations. The site lies across the 'Codden Hill and Wooded Estates' and 'North Devon Downs' landscape character areas identified in the Devon Landscape Character Assessment. The vale within which the site sits is characterised by its undulating topography, and the hedgerows, trees and woodland which reduce the visibility of the relatively large scale fields.

There are two Tree Preservation Orders (TPOs) in the south-west corner of the site and two Rights of Way cross the site.

There are no designated heritage assets on the site, however there is one scheduled monument, 85 listed buildings, and 4 conservation areas within the broader Study Area. In immediate proximity to the site, 250m to the north-east lies Acland Barton which consists of a cluster of dwellings and farm buildings including a Grade I Listed House and chapel, and Grade II listed stables and barn.

Landscape Features Plan (not to scale)



## Site Allocation and other Developments

---

The site forms part of land subject to a draft allocation for a 'Strategic Extension' within the emerging North Devon and Torridge Local Plan 2011-2031. The relevant allocation policy is BAR01 – Westacott Strategic Extension. The plan is currently at Examination; with the Inspector's Report anticipated in Autumn 2018. To date, no substantive issues have been raised with the allocation of the site.

The emerging Policies Map contained in the draft North Devon and Torridge Local Plan (2011-2031) identifies the site as being within an area for a 'New Mixed Use Development' and falling within the amended Development Boundary. Within the site are various routes which are identified for 'New Footpath/Cycle Route' and 'New/Upgraded Road', and a 'New Park and Change Facility' is located in the south-east corner.

NDDC granted consent on part of the allocation site, on Land at Westacott Grange, for up to 149 residential units, vehicular access from Westacott Road, landscaping, open space, drainage, infrastructure and associated development in June 2018. This EIA takes into account this scheme to ensure that any likely significant cumulative effects are considered.

In addition, six additional schemes have been considered as part of the cumulative assessment of likely significant effects:

- Venn Quarry (App. Ref: 61901): Outline – up to 158 holiday units, hotel (40-bed) with visitor centre, farm shop, café, and a range of outdoor recreation facilities;
- Roundswell Employment Site (App. Ref: 62879): Hybrid. Outline for mix of B1, B2 and B8 uses. Full for site access, park and change facility and landscaping;
- Mount Sandford Green (App. Ref: 54923/60488): Outline application for up to 250 dwellings and 2.8ha innovation park;
- Larkbear New Neighbourhood (App. Ref: 54762/61119): Outline – up to 820 dwellings and associated works;
- Fishleigh Road (App. Ref. 64300): Erection of 31 commercial units comprising 27 Use Class B1 and 4 Use Class B8 together with associated access, parking and landscaping; and
- Landkey (App. Ref: 58730): Outline – up to 77 residential dwellings, and up to 250 sq m of employment floorspace, alongside open space.

## The Proposed Scheme

---

The vision for the development is to create a new community with a distinctive sense of place and character within a network of multi-functional green and blue infrastructure. It will be an accessible place with a neighbourhood hub at its heart, forming a new gateway to Barnstaple.

In addition to residential development, the proposals include a primary school, neighbourhood hub, land for employment development, a site for a Park and Change and open space. The proposals retain existing pedestrian connections, and provide new pedestrian and cycle links to the west to facilitate access to the wider services, facilities, employment and leisure opportunities within Barnstaple.

Subject to achieving planning permission, it is anticipated that development on site would commence in 2020, with the first homes occupied in 2021. The entire development is anticipated to take 11 years to build; finishing in 2031.

The proposed development comprises the following:

- A mix of housing, providing up to 820 new homes;
- A 0.28ha neighbourhood hub which could deliver residential uses, retail units and other employment uses, including the potential delivery of community or health facilities;
- A new 1-form entry primary school, with early years provision, and land for its future expansion should the need arise;
- Land for employment uses, comprising a business park in the south-east of the site, and the potential for ground floor active uses within the site;
- Land for a park and change site; and
- Over 27ha of open space, comprising green corridors, new woodland, a hill-top park, green routes, play spaces, allotments and playing pitch provision (shared use with the primary school).

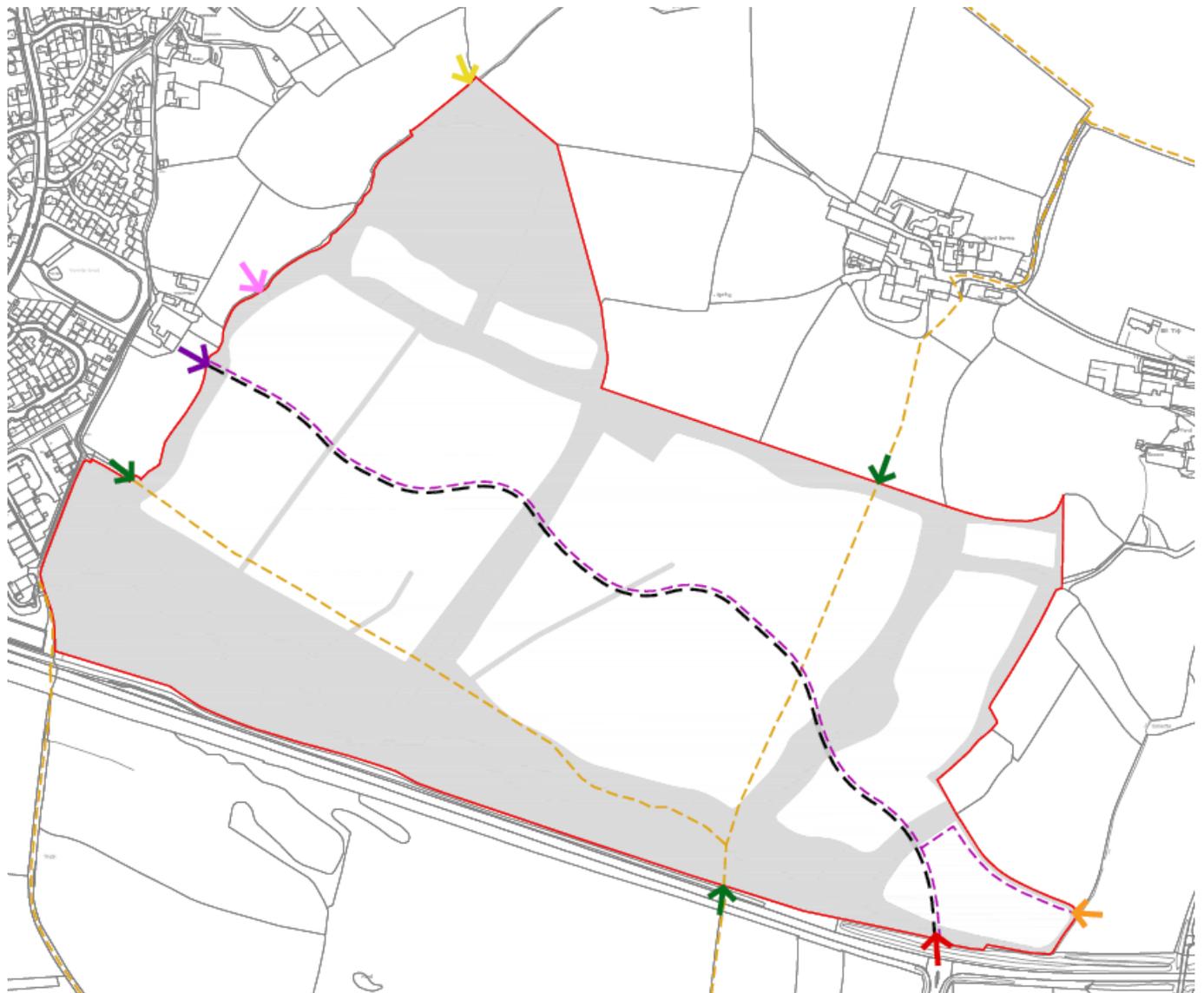
The planning application is submitted in outline, and as such, a series of parameter plans show land uses, building heights, access and green infrastructure provision.

Land Use Parameter Plan (not to scale)



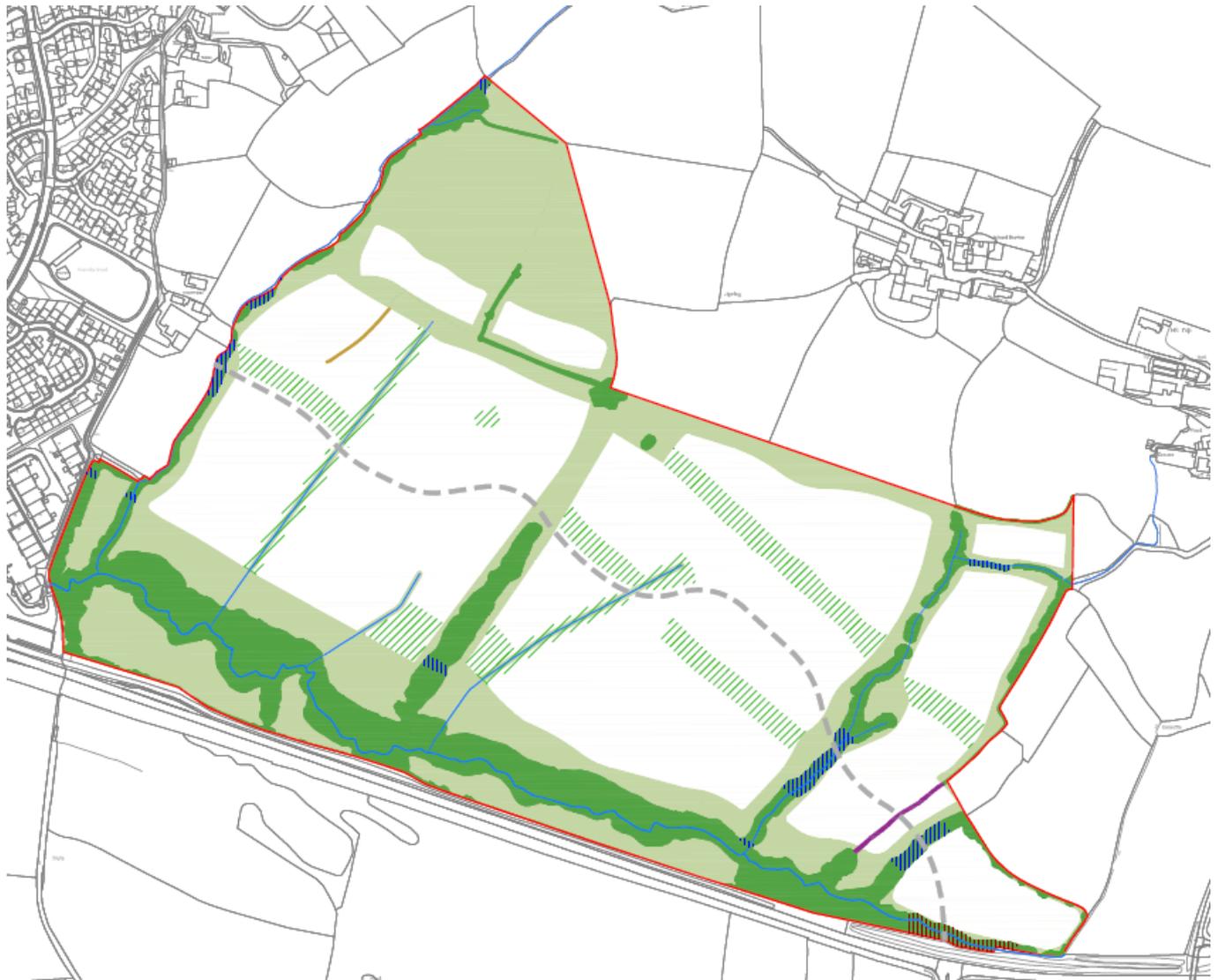
- |   |  |   |  |
|---|--|---|--|
|  | Site Boundary  |  | Primary School Site & Dual Use<br>Community Sport Provision  |
|  | Residential Development<br>(including, as required: access, drainage, Public Open Space, landscaping, parking, pedestrian/cycle links and associated infrastructure) |  | Potential Park & Change<br>(Parking shared with Employment Generating Uses)  |
|  | Residential Development with potential for ground floor Employment Generating Uses   |  | Public Open Space<br>(including, as required: access, allotments, play facilities, drainage, landscaping, retained vegetation, pedestrian/cycle links, and all necessary infrastructure) |
|  | Neighbourhood Hub<br>(including, as required: access, drainage, Public Open Space, landscaping, parking, pedestrian/cycle links and associated infrastructure)       |  | Indicative Alignment of Primary Street<br>(Exact alignment to be determined at reserved matters stage)   |
|  | Employment Generating Uses<br>(including, as required: access, drainage, landscaping, parking, pedestrian/cycle links and associated infrastructure)                 |   |  |

Access Parameter Plan (not to scale)



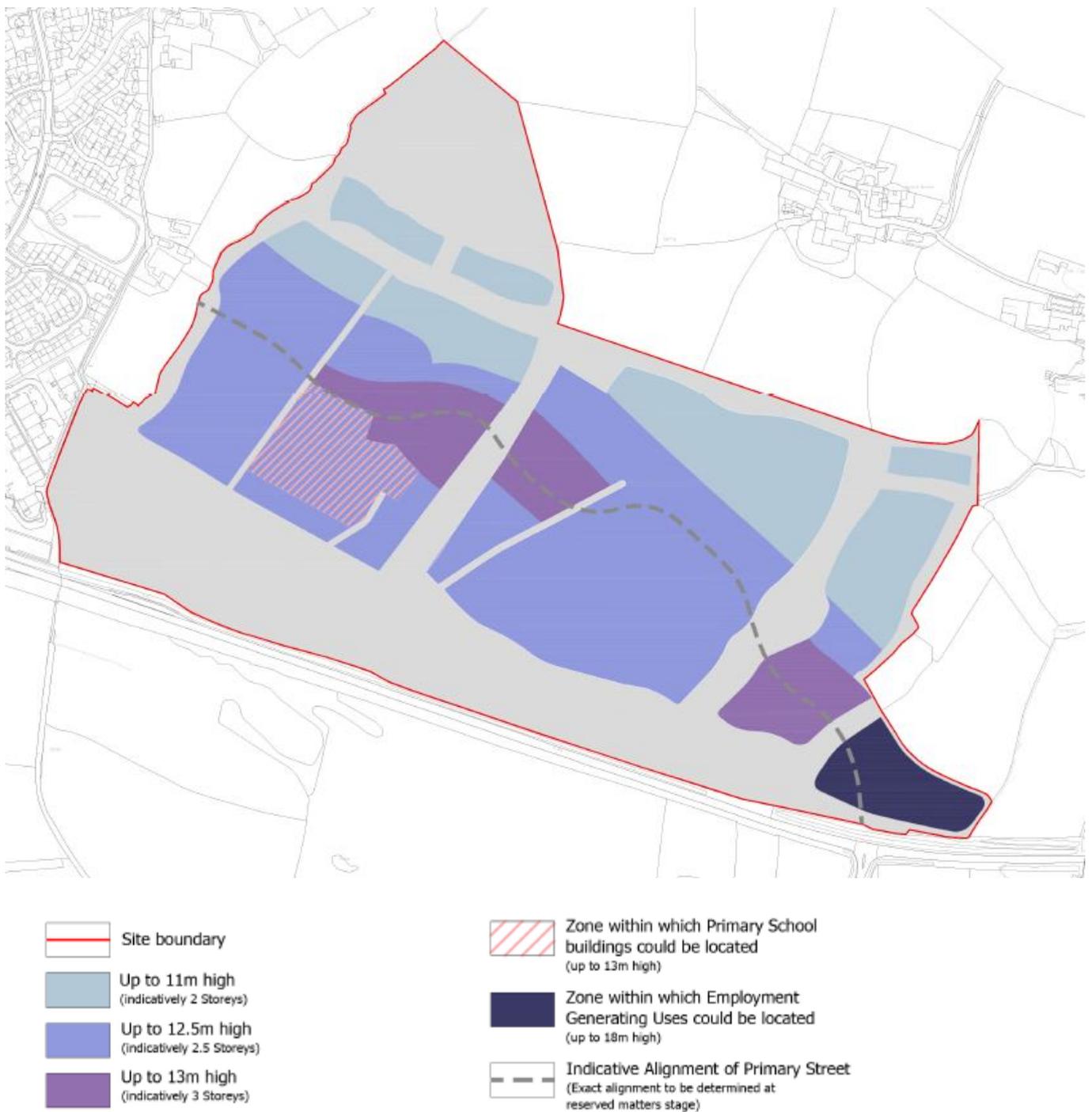
- |   |   |   |  |
|---|---|---|--|
|  | Application Boundary                        |  | Indicative Alignment of Primary Street<br>(exact alignment to be determined at reserved matters stage)           |
|  | Proposed Primary Access                     |  | Indicative Alignment of 3m Wide Footway / Cycle Way (exact alignment to be determined at reserved matters stage) |
|  | Proposed Secondary Access Connection Point  |  | Public Right of Way Footpath to be retained or diverted as necessary   |
|  | Proposed Additional Access Connection Point |   |  |
|  | Retained Pedestrian Access (PROW)           |   |  |
|  | Potential Pedestrian Access                 |   |  |
|  | Potential Pedestrian / Cycle Access Point   |   |  |

Green Infrastructure Parameter Plan (not to scale)



- |   |  |   |   |
|---|--|---|---|
|  | Application boundary   |  | Potential area where tree and hedgerow removal will be permitted for access, and all necessary infrastructure |
|  | Green Infrastructure<br>(Including, as required: access, public open space, play facilities, drainage, landscaping, retained vegetation, allotments, pedestrian/cycle links, and all necessary infrastructure) |  | Defunct Hedgerow to be removed  |
|  | Indicative Location of Green Infrastructure within Residential Development areas   |  | Indicative Alignment of Primary Street<br>(Exact alignment to be determined at reserved matters stage)        |
|  | Existing Trees and hedgerows to be retained  |  | Existing watercourses to be retained<br>(crossings to be permitted for access)                                |
|  | Existing Trees and hedgerows to be removed   |   |   |
|  | Area where tree and hedgerow removal will be permitted for access, and all necessary infrastructure  |   |   |

Scale Parameter Plan (not to scale)



The Design and Access Statement provides further design principles, for example a street hierarchy, access and movement strategy and play strategy; and these will guide future detailed planning applications on the site.

The Illustrative Masterplan is provided to assist the understanding of the scheme and indicate how inherent mitigation may be achieved on the site. It may subsequently be amended during the detailed design process, but would be in general conformity with the parameters plans above.

Illustrative Masterplan (not to scale)



- |   |                                   |   |                                    |
|---|-----------------------------------|---|------------------------------------|
|  | Application Boundary              |  | Additional Access Connection Point |
|  | Residential                       |  | Retained PROW Access               |
|  | Mixed-Use                         |  | Potential Pedestrian Access        |
|  | Employment                        |  | Potential Ped / Cycle Access       |
|  | School                            |  | Vegetation / Trees / Hedgerows     |
|  | Allotments                        |  | NEAP                               |
|  | Primary Street                    |  | LEAP                               |
|  | Secondary Street                  |  | LLAP                               |
|  | Primary Access                    |  | LAP                                |
|  | Secondary Access Connection Point |  | Linear Attenuation Feature         |
|   |                                   |  | Attenuation Basin                  |

## Alternatives

---

The EIA Regulations require the ES to set out the main alternatives considered by the developer.

The scale and nature of development is defined in the emerging Local Plan, and as such it would be inappropriate to consider alternatives to this.

Since the inception of the project, there has been significant consultation and debate on the form of the proposed development, both as part of the pre-application dialogue, public consultation and through the Design Review Panel. The masterplan, and associated parameter plans, have been developed based on a series of key principles which form the design rationale for the layout. It reflects the process of dialogue, discussions, feedback and workshop sessions with NDDC, DCC, statutory consultees, the Design Review Panel and parties who attended/responded to the public engagement exercise.

It also takes account of the opportunities and constraints identified from technical and environmental studies. A considerable amount of design work was undertaken by the applicant, guided by the design principles discussed with local authority officers and from site surveys and analysis. The detail of the masterplan at this stage is appropriate for an outline application and provides a reliable framework for future, more detailed design.

The sections below provide a summary of the assessments presented in the main ES.

## Socio-Economics

---

The effects of the proposed development upon people, the community and the economy have been considered as part of the EIA process. A number of positive socio-economic benefits are likely to arise as a result of the proposed development – both during site preparation / construction of the development and during operation. The effect of the proposals on local social and community facilities in and around Barnstaple have been investigated in the following areas:

**Employment and economy** – The development will help support construction firms operating in the area and provide direct and indirect jobs in the construction industry, as well as the supply chain. The construction phase of the development is predicted to support the direct employment of approximately 1,330 people in the construction industry. The overall construction period is likely to be 11 years. The construction effects will therefore be beneficial for employment opportunities.

The proposed employment land, primary school and retail uses (associated with the Neighbourhood Hub) will deliver 488-546 permeant jobs on the site; depending upon the mix of uses delivered, and an additional 116-128 off-site jobs. The site will therefore be beneficial for employment opportunities once operational.

**Provision of new housing** – The scheme will deliver housing which will assist in meeting the housing needs across northern Devon. The proposed mix of new housing, of up to 820 homes, will provide an important source of additional new homes to meet housing requirements, and represents the largest development site in the emerging Local Plan. This will have a major beneficial impact.

**Community facilities** – Without mitigation, the scheme could be expected to impact on existing community facilities given the additional population, but will also benefit new residents and the existing community in Barnstaple by providing a significant level of new additional open space and facilities within the proposed development. The development will provide land for a new primary school, and a neighbourhood hub (with space to deliver a community hall and health centre if appropriate). The delivery of a one-form entry primary school, and additional land for its future expansion should the need arise, will be a significant beneficial impact to the local community. Any further mitigation measures will be determined through the application process.

**Open Space and Leisure** – The overall demand generated for additional public open space will be met on the site through the provision of a new network of open spaces including natural green space, allotments, green links, play spaces, and playing pitch provision. These facilities will be integral for new residents, but would also benefit the existing community. The over-provision of open space will have a significant beneficial impact to the local community. The shortfall in playing pitch provision, as a result of the site's topography, has the potential to have a minor adverse effect.

## **Transport, Movement and Access**

---

An assessment has been undertaken of the transport, movement and access effects of the proposed development during construction and operation of each phase of development. The assessment has been based on a Transport Assessment prepared by Peter Brett Associates (PBA) which predicts and considers in detail the traffic generated by the proposed development in the context of the transport network.

Primary access into the site is proposed off the A361 (North Devon Link Road). The primary access will be via a proposed new roundabout on the A361 which will incorporate the existing A361/Blakes Hill Road junction. In accordance with the requirement of policy BAR01, secondary and additional access connection points are shown

to the remainder of the allocation site, as shown on the Access Parameter Plan above, and the roads will be delivered up to the site boundary at these locations.

Consideration has been given in the ES to the likely significant effects of the proposed development in relation to a variety of factors including driver delay, pedestrian movement, and accidents and safety. Effects have been considered during the construction and operation of the proposed development and appropriate mitigation is proposed to reduce and minimise any negative impacts. The operational assessment includes a future growth scenario, which confirms the changes to the existing highway network as a result of other developments within northern Devon.

The construction of the proposed development is likely to generate additional traffic, but this would be intermittent through the construction periods. As a mitigation measure, a Construction Environmental Management Plan (the "CEMP") will be applied to all construction activities across the site, and will define the appropriate hours of operation and routes to be used by Heavy Vehicles and other large construction vehicles associated with the site. The CEMP will also impose requirements for the various contractors on the site to co-ordinate activities to ensure that the construction activities with high HGV generation do not occur together.

A Framework Travel Plan is submitted with this planning application, which provides a set of measures aimed at further limiting the impact of the development on the local highway network. The future reserved matters applications will be accompanied by the submission for full Travel Plans for the residential, employment and education uses.

Providing that mitigation is effectively implemented, the proposed development is predicted to have a neutral adverse effect during construction, with HGV construction vehicle movements and light movements associated with construction workers anticipated to impact on baseline daily flows by less than 1%.

Once operational, the development will have a negligible impact on traffic flows on the A361, as it is expected that a maximum increase in vehicle terms of 11.6% or less is forecast across the majority of the study area (A39 Eastern Avenue and Westacott Road). The section of the A39 between the site access roundabout and the Westacott Road roundabout experiences moderate levels of severance, however the impact of the development is forecast to be minimal and traffic may be reduced through redistribution.

Link 7 (Newport Road) will experience a moderate development impact predominantly due to a low level of base traffic recorded during a typical day; but this impact is not considered significant.

It is expected that the development will have an impact on traffic conditions mainly affecting Driver Delay during the morning and evening peak periods. Where required, these impacts will be mitigated focusing first on addressing the need for trip making, and then the means of travel chosen. The TA does not identify any impacts severe enough that they could not be satisfactorily mitigated.

The impact of the development on Accidents and Safety will not be significant and the level of hazardous loads in the area will not be affected by the construction of the development.

## **Flood Risk and Drainage**

---

The ES assesses the potential hydrological (including flood risk) and drainage effects the development may have on the site and the surrounding area. The assessment includes a review of the current conditions found within the area and identifies mitigation measures where appropriate for those significant effects that may potentially arise as part of the project. The assessment is supported by a Flood Risk Assessment.

This chapter assessed the potential impacts on surface water and groundwater receptors, together with the flood risk associated with the development. Consideration is given to temporary effects during the construction phase as well as the effects during the operation of the development. The need for site specific mitigation measures is also identified and described. The nature of any residual effects that remain after mitigation is also discussed.

All construction sites have the potential to increase surface water runoff rates and volumes, alter drainage patterns and affect local and catchment wide flood risk. Therefore, mitigation measures will be incorporated through the Construction Environmental Management Plan to minimise the impacts. This would include use of best practicable measures.

Potential impacts associated with cumulative developments have been assessed to determine potential increase in Flood Risk to downstream receptors. The mitigation measures required as part of planning policy (as a result of the site's location within a Critical Drainage Area) and proposed by the scheme result in the level of impact that the proposals will have on existing receptors to be deemed as not significant.

Flood risk to future residents has all been mitigated by locating all flood vulnerable development in areas outside of flood zones. In areas where elevated groundwater levels have been identified, adjacent to the Whiddon Valley Stream, no development is planned. The EIA Parameter Plans, notably the Land Use Plan, provide a green buffer around the spring-fed ditches, either as identified green open space or within incidental amenity space within development parcels.

By meeting the requirements of planning policy to restrict post-development runoff rates to below greenfield runoff rates, the potential effects on the downstream flood risk are mitigated as far as reasonably practicable.

The assessment has demonstrated that with the use of appropriate mitigation measures, the site is suitable for development and would not result in any significant impact with regard to Flood Risk or Surface Water.

## **Air Quality**

---

An assessment of potential impacts on air quality has been undertaken for the proposed development. The likely significant effects resulting from the construction and operation of the proposed development have been assessed in accordance with the relevant and accepted guidance. The main air pollutants of concern related to construction are dust and particulate matter (PM10), and for road traffic they are nitrogen dioxide (NO2), PM10 and fine particulate matter (PM2.5).

The site is not located within an Air Quality Management Area (AQMA). The nearest AQMA to the proposed development is located more than 10 km away in Braunton. Air quality monitoring in close proximity to the site indicates that air quality in the area is good.

For the construction phase assessment, the study area is defined as up to 350 m from the site boundary in accordance with the Institute of Air Quality Management (IAQM) guidance on the assessment of construction dust effects. For the operational phase assessment, the study area is defined as roads within 250m of the site and those on which development traffic increases significantly in accordance with criteria defined by the IAQM and Environmental Protection UK (EPUK).

The construction phase assessment has identified appropriate mitigation to employ against construction dust impacts. Construction phase effects are judged to be not significant when the identified mitigation measures are applied through a Construction Environmental Management Plan for the site.

Concentrations of NO2, PM10 and PM2.5 have been predicted at a number of worst case locations representing existing properties adjacent to the local road network. The development is not predicted to have a significant effect on local air quality as concentrations of NO2, PM10 and PM2.5 are expected to be below the National Air Quality Strategy Objectives at existing residential locations.

In relation to air quality within the site for future residents, road traffic emissions from the A361 are of the most concern. However, proposed residential areas within the site are located approximately 95 m from the A361 and at

this distance, the influence of road traffic from the A361 on air quality within the site will be insignificant. Air quality within the site will therefore be acceptable for future residents.

Overall, the operational air quality effects of the proposed development are judged to be not significant.

## **Noise and Vibration**

---

The noise and vibration effects associated with the construction and operation of the site have been assessed. The chapter describes the existing noise environment in the area surrounding the site, considers the suitability of the site for the proposed development, and assesses the impact of the construction and operation of the proposed development on nearby receptors.

Noise impacts associated with the construction phase could impact on nearby properties. Therefore, mitigation measures will be incorporated through the Construction Environmental Management Plan to minimise the impacts. This would include use of best practicable measures.

Traffic flows associated with cumulative developments have been assessed to determine the impact on the existing road network and the potential increase of noise on existing receptors. The level of impact that development traffic is likely to have on existing receptors is deemed to be not significant.

Predicted noise levels at the proposed dwellings has been assessed. Gardens on land directly fronting A361 are likely to exceed recommended criteria. Potential mitigation for external noise in outdoor amenity areas may include the orientation of buildings such that the dwellings provide shielding from road traffic noise, in order to reduce gaps between dwellings as much as practically possible such that line-of-sight/overlooking of the roads is minimised. This would be secured through future reserved matter approvals.

Suitable internal noise levels for proposed residential buildings would be met through the specification of appropriate glazing and alternative ventilation schemes. The specifications of the external building fabric will be detailed at the reserved matters stage accounting for the window sizes and internal layout.

The assessment has demonstrated that with the use of appropriate mitigation measures, the site is suitable for development and would not result in any significant noise or vibration effects.

## Ground Conditions

---

The site has predominately remained undeveloped since the first available maps. Significant off-site historical land uses recorded include a railway line, quarries and factories. The site generally comprises open grassed farmland with five small streams flowing from north to south through the site that rise from springs either on the site or just to the north. These streams form small valley features across the site.

The geology on-site comprises Alluvium, Taw River Terrace Deposits and Pilton Mudstone Formation. Alluvium (clay, silt) locally along the alignment of the stream in the southern section of the site. Taw River Terrace Deposits Members 1-4 (clay, silt, sand and gravel) are recorded across the southern half of the site. The bedrock comprises the Pilton Mudstone Formation (formerly Pilton Shales). There is a geological fault recorded along the north-western site boundary orientated north-east to south-west. The radon protection maps published by the Building Research Establishment (BRE, 2015) show that the site is located within a higher probability radon area as 10-30% of homes are above the action level. Full radon protection measures are to be installed in all new dwellings as part of the construction phase of works and this will form part of the inherent design mitigation.

Geo-environmental laboratory analysis was undertaken on four topsoil samples, five Taw River Terrace Deposit samples and seven Pilton Mudstone Formation samples. For all samples analysed, the measured concentrations of potential contaminants were below the assessment criteria for a residential end use. As such, soil contamination is not recognised as a potential hazard on-site.

Identified receptors to ground conditions related impacts include human health (construction workers), groundwater and surface water.

Construction related impacts identified include ground instability associated with cut and fill earthworks impacting on construction workers and potential for construction plant to introduce new sources of contamination onto the site; impacting controlled waters and construction workers. In order to mitigate, construction workers are to follow industry good practice guidance and methods of working. A Construction Environmental Management Plan (CEMP) is to be followed for the duration of the works. In addition, the detailed approval of planning applications for the site would provide further detail in regard to the cut and fill exercise. The resultant effects on ground conditions during construction are anticipated to fall to a Minor Negative or Negligible, and are acceptable for the proposed development

No operational phase effects were identified for the site.

## Ecology and Nature Conservation

---

The Environmental Dimension Partnership (EDP) has assessed the likely significant effects of the proposed development on the important ecological features. The assessment included a review of the baseline conditions at the EIA site and surroundings, the likely significant ecological effects, the mitigation measures required to prevent, reduce or offset any significant adverse effects and the likely residual effects after these measures have been employed. Information regarding the baseline conditions was obtained through a desk study and Extended Phase 1 Habitat survey together with detailed surveys for dormice, bats, breeding and wintering birds and reptiles.

Whilst being dominated by intensive agricultural pasture, the site contains a number of locally important ecological features, in particular the woodland, mature trees and hedgerows (some of which are species-rich) and water courses. These habitats have been confirmed as supporting dormice, bats (foraging and roosting potential in some mature trees) and a limited assemblage of breeding and wintering birds.

Potential impacts on Acland Wood CWS and other locally important habitats will be avoided or minimised through inherent design mitigation. However in the absence of further mitigation, direct habitat loss and indirect disturbance of retained habitats during either construction or operation could potentially result in the damage/degradation of habitats and/or severance/fragmentation of habitat networks, all of which could also negatively affect species populations including birds, bats and dormice.

### Mitigation

In addition to the above hydrological effects, namely negative changes to the quality or quantity of surface water run-off during either construction or operation, could potentially affect downstream receptors including Taw-Torridge Estuary SSSI, Acland Wood CWS and non-designated habitats onsite.

The ecological mitigation strategy is designed to avoid or mitigate effects, compensate for any unavoidable effects and deliver ecological enhancement/biodiversity net gains. The overall strategy is made up of a range of standard measures delivered through several key mechanisms, namely:

- Detailed Design Measures – The parameter plans fix only the key elements of the layout, and the masterplan is illustrative, thereby allowing flexibility for specific detailed design measures to be secured and included within the proposed development. Such detailed design measures can, be secured through suitably worded planning conditions and addressed at the Reserved Matters stage for each phase of the development;

- Ecological Construction Method Statement (ECMS) – This would set out in detail the measures which will require implementation with respect to protecting important ecological features during the construction phase;
- Construction Environmental Management Plan (CEMP) – This would set out in detail the more general environmental control measures during construction (e.g. controlling air, water, noise and light pollution); and
- Landscape and Ecology Management Plan (LEMP) – This would set out the measures for the ongoing management, maintenance and monitoring of the IEFs and of those newly created habitats to maximise opportunities for biodiversity enhancement and gain.

These measures are capable of being secured by way of a suitably worded planning conditions attached to a planning consent.

### **Residual Effects**

Negative effects would be avoided or reduced through inherent mitigation incorporated into the EIA Parameter Plans and delivered through industry standard methodologies employed during the construction and operation phases via the ECMS, CEMP and LEMP (or equivalent documents) secured through appropriately worded planning conditions. The post-development landscaping will deliver significant positive effects for a range of habitats and species, in particular woodland, hedgerows, birds, bats and dormice. The proposed development in its operational phase will deliver a significant net gain for biodiversity, which would be beneficial to the local area.

### **Landscape and Visual Impacts**

---

The Environmental Dimension Partnership (EDP) has assessed the likely significant effects of the proposed development on the landscape and visual receptors. The assessment included a review of the baseline conditions at the EIA site and surroundings, the likely significant landscape and visual effects, the mitigation measures required to prevent, reduce or offset any significant adverse effects and the likely residual effects after these measures have been employed.

The site's topographic context and the established presence of mixed deciduous mature vegetation serve to contain and limit intervisibility with the wider area. This relative visual enclosure is less prevalent in medium distance views from the south, in such views however, existing built form is a regular and expected component.

## Summary of Likely Effects

In terms of likely effects on landscape character, the assessment finds that while the character of the site itself would inevitably change as a result of change of use from agricultural land to one of built, the significant effects predicted would be relatively contained. This is primarily due to the extensive visual containment of the site, and the fact there where the site is visible, it is already seen in the context of existing residential areas (Barnstaple and Landkey), recreational fringe land uses (such as Portmore Golf Course) and busy roads (A361).

With regards to likely effects on views and visual amenity, the assessment finds that there are significant effects on two Public Right of Way (PRoW), which pass through the site, and those in relative close proximity to the southern boundary.

In terms of likely significant effects on public highways, no minor or main roads are predicted to experience significant effects. In addition, it is predicted that there may be likely significant effects on three residential receptor groups, which are located near or adjacent to the site boundary.

## Mitigation

The proposals are located within agricultural fields with existing mature tree and hedgerow vegetation on its boundaries which serve to screen views of the proposed development. The proposed development is sensitively sited, and in an environment where it represents a component consistent with the immediate environment and the site landscape character presented. In addition, the proposed development enhances and retains the sites tree stock, by avoidance through the location of proposed areas for development, and, with the additional planting on site to aid with visual containment.

The above landscape and visual mitigation measures (in reality these are largely factors of the site and the proposed development, rather than measures in their own right) have been taken into account in the subsequent identification of environmental effects where they are discussed in relation to the different receptors identified.

In addition to the inherent mitigation identified above, a Landscape Strategy is presented within the Design and Access Statement that will aid with visual screening of the proposals from close and more distant range from early on during completion.

## **Residual Effects**

With regards to residual effects on landscape character, the assessment finds that there is no change in significant effects upon the site itself and within a few hundred meters of the site boundary, whilst effects on the wider landscape character would remain not significant. This is primarily due to the extensive visual containment of the site described above and the maturation of the comprehensive proposed Landscape Strategy.

With regards to residual effects on views and visual amenity, the assessment finds that there are significant effects on Public Right of Way (PRoW), to the south of the site. No public highways are predicted to experience residual significant effects at year 15 of completion. In terms of residential receptors, three groups, in close proximity to the site are expected to experience residual significant effects.

It would be very unusual for a greenfield urban extension not to give rise to some predicted 'significant' visual effects. Receptors predicted to experience a significant effect are located either adjacent or close to the site boundary. It is notable that receptors beyond the immediate site boundary to the north, east and west do not experience significant change. This is due primarily to the screening effect of development, the rolling topography, and vegetation across the site context, which increases with distance; and the fact that the proposals will be seen, nestled within the existing well vegetated landscape of where built form is a regular and expected visual component. The strategic Landscape Strategy submitted with the proposed development will also contribute to mitigation of effects.

Accordingly, the LVIA concludes that the Site can accommodate the proposed development, and that there is no 'in principle' or policy landscape or visual reason why the site should not be developed.

## **Cultural Heritage and Archaeology**

---

The Environmental Dimension Partnership (EDP) has assessed the likely significant effects of the proposed development on archaeology and cultural heritage receptors. The assessment included a review of the baseline conditions at the EIA site and surroundings, the likely archaeology and cultural heritage effects, the mitigation measures required to prevent, reduce or offset any adverse effects and the likely residual effects after these measures have been employed.

A baseline assessment, in the form of a desk-based assessment and a programme of investigative fieldwork has identified the potentially sensitive archaeological and cultural heritage receptors (heritage assets) within the site and its wider zone of influence.

The assessment established that the site contains no designated heritage assets. The Grade I listed Acland Barton and Chapel (1107676), located on high ground at Acland Barton c. 250m to the north of the site, and the Grade II listed Stables with loft over approximately 5 metres south west of Acland Barton (1107677) and Grade II listed Barn about 10 metres north west of Acland Barton (1107678). The investigative fieldwork has established that the site does not contain any known non-designated assets or archaeological deposits of significance. The historic landscape character of the site is identified as of no greater than low sensitivity.

Mitigation has been incorporated into the design to reduce the identified potential adverse impacts of the proposed development on the listed buildings wherever possible, through the maintenance of an appropriate buffer of undeveloped land around the boundaries of the farm complex within which they are located and the retention, wherever possible, of the hedgerows and extant woodland within the site that form part of the historic landscape character. The retention of the historic hedgerows and extant woodland wherever possible, has similarly limited the effects the development on the historic landscape.

The proposed development is predicted to result in a minor adverse impact on the group of listed buildings at Acland Barton, arising from the loss of farmland in their wider settings. In policy terms, the identified minor and negligible adverse effects on the three listed buildings at Acland Barton resulting from the loss of farmland in their wider settings equates to 'less than substantial harm'. Insofar as this loss might be perceived to cause harm to the listed buildings, it would be very limited and at the bottom end of 'less than substantial'. As such, the LPA will be required to balance the limited 'less than substantial harm' to these assets against the considerable public benefits of this scheme, in determining the planning application.

The site does not contain any known non-designated assets or archaeological deposits of significance. As such, it has been established that there is no potential for an impact on any archaeological remains or non-designated heritage assets within or beyond the site.

The historic landscape of the site will experience a minor adverse effect.

## **Waste**

---

The potential effects associated with material arising from the excavation and construction, and operation of the proposed development has been assessed.

## **Excavation and Construction Impacts**

The primary objective is to reuse material generated on site through excavation within the site itself for levelling and 'fill'. The Devon Waste Plan confirms that the existing permitted capacity for construction waste significantly exceeds current levels of recycling and the levels anticipated toward the end of the construction stage. The level of excavation and construction waste estimated over the development period therefore presents no long-term infrastructure implications.

It is therefore considered that impact of construction waste as a result of the proposed development will be not be significant.

### **Operational Impacts**

The commercial and educational elements of the development are estimated to produce a maximum of 1,520 tonnes per annum. In 2009, 455,000 tonnes of Commercial waste were generated across Devon. The additional volume estimated represents 0.3% of this recorded figure.

When the proposed development has reached the detailed design stage, a further waste management strategy will need to be prepared. This ensures the scheme fully accounts for the North Devon collection regime and any local recycling facilities that may be appropriate for the proposed development.

It is therefore considered that impact of operational waste as a result of the proposed development will be not significant.

### **Climate Change**

---

A climate change assessment has been undertaken to assess the likely significant effects of the proposed development upon climate change and the likely significant effects of climate change on the proposed development. The assessment considers national and local policy and is based on the UK Climate Change Projections 2009 (UKCP09) which broadly describe how climatic conditions, including long-term seasonal averages and extreme weather conditions, may change over future decades.

Based on the UKCP09 projections, the following changes can be expected:

- Warmer, drier summers;
- Milder, wetter winters;
- An increase in annual average temperature of between 2 and 3 °C;
- Fewer days with snow and frost;

- Increase in number of hot days and greater frequency of dry spells;
- More intense downpours;
- Short periods of intense cold weather; and
- An increase in the frequency of storms and high winds.

This is likely to become more intense over time.

### **Construction Impacts and Effects**

Construction related climate risks relate to the increased likelihood for extreme weather events such as heavy rain, hot weather events and high winds. These climate hazards have the potential to disrupt or delay the construction programme due to the unsafe conditions for workers and potential damage to works. However, these changes are not considered to be significant during the construction period of 2020-2031. Additional mitigation will include the implementation of a Construction Environmental Management Plan (CEMP), which will set out measures to manage construction works, including measures in relation to general health and safety for workers.

Construction impacts are judged to be Not Significant.

### **Operation Impacts and Effects**

The release of greenhouse gas (GHG) emissions from the proposed development are expected to have limited contribution to national, local and sector values as it will be built in accordance the Part L of the Building Regulations that specifies requirements for design standards, energy efficiency and low carbon homes. Further to this, the promotion of sustainable transport and provision of walking and cycling routes connecting the site to the wider Barnstable area will reduce GHG emissions associated with the proposed development.

Climate change may have an overall impact on several environmental aspects. This includes impacts to human health due to increased temperatures. Inherent mitigation in building design, for example the provision of open space, should promote healthy lifestyles for all members of the community and provide evaporative cooling at night, helping to reduce the risk of building overheating, helping to maintain thermal comfort during periods of extreme heat.

Extreme weather events, such as flooding or droughts, may cause several temporary adverse effects. Inherent mitigation, including locating vulnerable development away from flood zones and restricting surface water runoff rates, reduces the impact of extreme weather events on the proposed development. Additional mitigation includes

a range of water saving measures to be employed to reduce water demand, and therefore reduce the severity of droughts on the proposed development.

Warmer, dryer summers and milder wetter winters are likely to have a long-term impact on species' ranges, potentially causing flora and fauna to relocate to more tolerable climate conditions. Important habitats and species present are widespread and the site is not near the edge of their ranges. The projected change in temperatures is not anticipated to result in any significant effects on important ecological features.

Operation impacts are judged to be Not Significant.

## **Cumulative Impacts**

---

The EIA considers the combined effects of the proposed development with other development in the local area, notably the consented Land at Westacott Grange, immediately bordering the site to the west. In addition, a number of other schemes, consented or pending, within Barnstaple have been identified, and are considered as part of the cumulative site assessment.

The social and economic benefits that the combined developments can potentially have are significant, and have been assessed through the emerging Local Plan 2011-2031 Examination. This assessment identifies that cumulatively the schemes are not anticipated to have an adverse impact, with each granted planning consent on the basis that of delivering appropriate mitigation of its own impact. The proposed development will have a beneficial cumulative impact in terms of the additional education land identified, which could meet needs arising from the identified cumulative sites.

The Transport, Movement and Access assessment is based on the analysis undertaken to inform the modelling work set out in the TA. The future operation of the links within the study area has been calculated using growth factors and survey data agreed with DCC. The growth from the development projections has been controlled to the National Trip End Model (NTEM) dataset, using TEMPro V7.2. This includes all allocated local plan sites as well as traffic movements associated with the consented 'land adjacent to Westacott Grange' site located adjacent to the application site. On this basis, the cumulative effects of the proposed development in conjunction with other schemes is inherent within the assessment presented.

The traffic modelling with future growth informed the air quality, and noise and vibration assessments, and as such, the cumulative effects of the proposed development in conjunction with other schemes is also inherent within their assessments. The proximity of Land at Westacott Grange has been considered, given the potential cumulative

impact of construction effects on air quality, noise and vibration, however both schemes will be subject to an CEMP, which will appropriately mitigate any construction impacts.

The cumulative effects of the proposed development and Land at Westacott Grange have been considered in the ground conditions chapter, which concludes that CEMPs will control the potential for construction impacts in terms of contamination and controlled waters, to ensure that the cumulative effect is minor adverse or less.

In terms of ecological impacts, the other proposals evaluated have either been approved, or are pending approval, and as such will be designed to accommodate and mitigate ecological interests to fulfil planning policy requirements and thereby inherently protect ecological interests across the wider landscape from cumulative development effects. Owing to the limited ecological interests on site and the absence of significant effects predicted, cumulative effects in combination with the other projects evaluated are considered therefore to be restricted to the loss of small numbers of farmland birds, which could be significant at no greater than a local level.

There would be an increase in built development in the local area with associated consequences for the character of the landscape, which would become more urbanised than is currently experienced. However, the extent to which this is perceived in the visual context is limited. Furthermore, limiting factors include existing land form, land cover or built development as well as the maturation of landscape proposals anticipated to be delivered as part of all the schemes.

The assessment has established here is no potential for significant adverse cumulative effects to archaeology and cultural heritage receptors resulting from the construction or occupation of proposed development in combination with any of the other sites under consideration.

The assessment concludes that there are no significant cumulative effects relating to air quality, noise and vibration, ground conditions, ecology or cultural heritage.