



# SEVEN BRETHERN BANK BARNSTAPLE

## ENVIRONMENTAL IMPACT ASSESSMENT VOLUME 3: NON-TECHNICAL SUMMARY

June 2021

Prepared for:  
North Devon Council



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# 1 INTRODUCTION

## Background

- 1.1 This document provides a non-technical summary of the findings of the Environmental Statement (ES), which has been prepared on behalf of North Devon Council (the Applicant) for the demolition of the existing leisure centre and construction of up to 180 dwellings together with all associated infrastructure and the provision of a replacement long stay car park and a temporary gypsy/travellers vent space and at Seven Brethren Bank in Barnstaple, Devon. The location of the application site is shown within Figure 1 below.
- 1.2 The principal objective of the EIA Process is to provide North Devon Council (and other interested parties) with sufficient information on the proposed development and its likely environmental effects to assist in making a decision on whether planning permission should be granted.
- 1.3 There are three basic steps used within the EIA process in order to meet this objective, which are as follows:
- **establish existing environmental conditions** (known as baseline conditions) including any current environmental problems;
  - **identify, predict and assess the significance of the likely environmental effects**, for both the construction and operation phases of the development which could be expected as a result of the proposed development; and
  - **design mitigation, management and enhancement measures**, which are proposed to be adopted to prevent, reduce or remedy any significant adverse effects. Consideration is also given to measures that would be promote positive environmental benefits as a part of the proposed development.
- 1.4 Consultation with statutory and non-statutory organisations has been undertaken throughout the pre-application process and feedback received during a public consultation exercise (held on 11th July 2019) has helped to inform and shape the development proposals.
- 1.5 Cumulative effects from other proposed or committed developments in the vicinity of the application site have been considered within each of the technical chapters

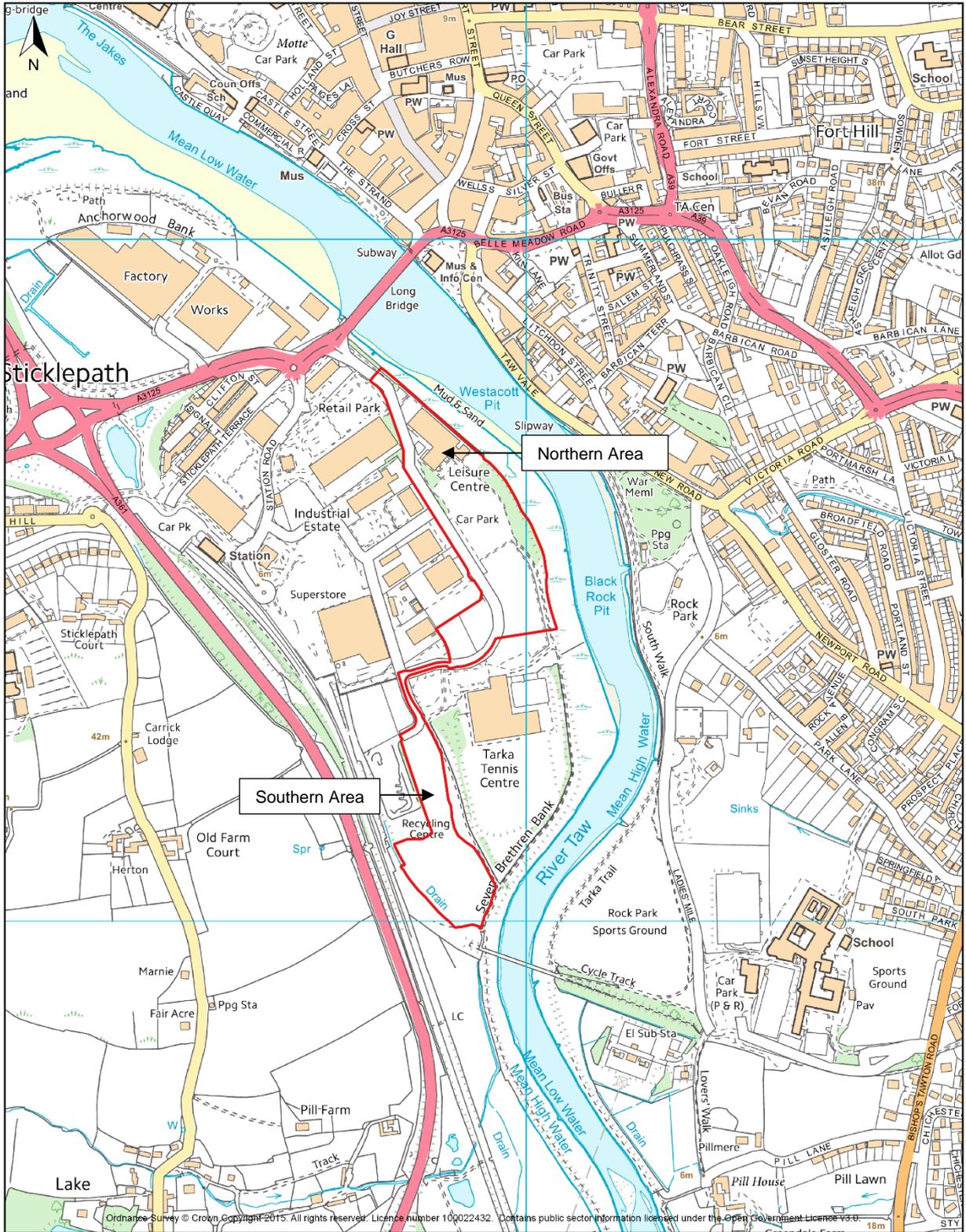


Figure 1: Site Location Plan

## 2 PLANNING POLICY

- 2.1 This chapter provides an overview of relevant planning policies for the proposed development at the national and local level. A more detailed review of (and response to) individual policy and guidance is contained within each technical assessment chapter of the ES.
- 2.2 The UK Government first published the NPPF in March 2012 with the objective of 'achieving sustainable development'. Where development should be guided by twelve 'Core Planning Principles'.
- 2.3 The North Devon and Torridge Local Plan was adopted in October 2018 and its purpose is to set out the long-term vision for how the towns, villages and countryside of northern Devon will develop and evolve in the period up to the year 2031. Table 2.1 below, lists the individual policies within the Local Plan and the relevant chapters within this ES in which they are referred to.

**Table 2.1: NDC Local Plan Policies**

<b>NDC Local Plan Policy</b>	<b>ES Chapter Reference</b>
Policy DM01: Amenity Considerations	Chapter 14: Socio-economics and Health Impacts
Policy DM02: Environmental Protection	Chapter 7: Air Quality Appendix 9.1: Sustainability Statement Chapter 11: Ground Conditions
Policy DM03: Construction and Environmental management	Appendix 9.1: Sustainability Statement
Policy DM04: Design Principles	Appendix 9.1: Sustainability Statement
Policy DM05: Highways	Chapter 15: Traffic and Transport
Policy DM06: Parking Provision	Appendix 9.1: Sustainability Statement
Policy DM07: Historic Environment	Chapter 8: Archaeology and Cultural Heritage
Policy DM08: Biodiversity and Geodiversity	Appendix 9.1: Sustainability Statement
Policy DM08A: Landscape and Seascape Character	Chapter 12: Townscape and Visual Heritage
Policy DM09: Safeguarding Green Infrastructure	Chapter 12: Townscape and Visual Heritage Appendix 9.1: Sustainability Statement
Policy DM10: Green Infrastructure Provision	Chapter 12: Townscape and Visual Heritage
Policy ST01: Principles of Sustainable Development	Appendix 9.1: Sustainability Statement Chapter 12: Townscape and Visual Heritage
Policy ST02: Mitigating Climate Change	Chapter 9: Climate Change Appendix 9.1: Sustainability Statement Chapter 12: Townscape and Visual Heritage Chapter 16: Water Resources and Flood Risk
Policy ST03: Adapting to Climate Change and Strengthening Resilience	Chapter 9: Climate Change Appendix 9.1: Sustainability Statement Chapter 12: Townscape and Visual Heritage Chapter 16: Water Resources and Flood Risk
Policy ST04: Improving the Quality of Development	Chapter 12: Townscape and Visual Heritage
Policy ST05: Sustainable Construction and Buildings	Chapter 9: Climate Change Appendix 9.1: Sustainability Statement
Policy ST06: Spatial Development Strategy for Northern Devon's Strategic and Main Centres	Chapter 2: Planning Policy

<b>NDC Local Plan Policy</b>	<b>ES Chapter Reference</b>
Policy ST09: Coast and Estuary Strategy	Chapter 12: Townscape and Visual Heritage
Policy ST10: Transport Strategy	Chapter 15: Traffic and Transport
Policy ST11: Delivering Employment and Economic Development	Chapter 14: Socio-economics and Health Impacts
Policy ST14: Enhancing Environmental Assets	Appendix 9.1: Sustainability Statement Chapter 11: Ground Conditions Chapter 12: Townscape and Visual Heritage
Policy ST15: Conserving Heritage Assets	Chapter 8: Archaeology and Cultural Heritage Chapter 12: Townscape and Visual Heritage
Policy ST16: Delivering Renewable Energy and Heat	Appendix 14.1: Sustainability Statement
Policy ST18: Affordable Housing on Development Sites	Chapter 14: Socio-economics and Health Impacts
Policy ST22: Community Services and Facilities	Chapter 14: Socio-economics and Health Impacts
Policy ST23: Infrastructure	Chapter 15: Traffic and Transport Appendix 9.1: – Sustainability Statement
Policy BAR: Barnstaple Spatial Vision and Development Strategy	Chapter 2: Planning Policy
Policy BAR13: Seven Brethren	All Technical Chapters
Policy BAR20: Strategic Green Infrastructure Links	Chapter 15: Traffic and Transport
Policy BAR21: Flood Management Strategy	Chapter 16: Water Resources and Flood Risk
Policy BAR22: Green Wedges	Chapter 10: Ecology and Nature Conservation

- 2.4 The Local Plan allocates sites for housing, employment, retail and green space to ensure that land is available in appropriate locations to meet the sustainable growth targets set out within the Plan. The site at Seven Brethren Bank is allocated within the Local Plan under Policy BAR13: Seven Brethren and further detail on this is included within Chapter 2: Planning Policy of the ES.

### 3 THE PROPOSED DEVELOPMENT

#### The Application Site

- 3.1 The application site currently comprises of two areas of land for re-development that are linked by a road (Seven Brethren Bank Road).
- 3.2 The northern area of the application site currently comprises the North Devon Leisure Centre (NDLC) (soon to be relocated to the south of the application area, extending the Tarka Tennis Centre) the Seven Brethren Short and long stay pay & display car park and a temporary gypsy and travellers site/event space. This area is bounded by a flood defence wall and the River Taw to the east, Seven Brethren Bank Road to the west and the site allocated for the relocation of the new NDLC is located to the south.
- 3.3 The southern area of the application site currently comprises marshy grassland and scrub and is bounded by a public footpath and sports pitches to the east, the Seven Brethren recycling centre to the north-west, public open space to the west and south and a railway line further to the west.
- 3.4 The site covers an overall area of 6.64 hectares (ha).

#### The Proposed Development

- 3.5 The regeneration proposals involve developing the northern area of the site for residential use under an outline planning application. In summary, the redevelopment of the northern area of the site will include the following:
- up to 180 dwellings of a mix of tenures catering for a range of lifestyles;
  - creation of public open spaces and landscaping;
  - sustainable drainage measures and improvement to flood defences; and
  - new accesses for vehicles and enhanced riverfront pedestrian and cyclist routes.
- 3.6 The southern area of land will comprise of the relocated long stay car park which will provide up to 328 car parking spaces including a temporary gypsy and travellers site/events space. The car parking area will be used as an events space for the purpose of holding the Barnstaple Fair which visits the site twice a year. An ecological buffer will be maintained and enhanced along the western and southern boundary of the site to provide a strong habitat corridor around the site boundaries.

- 3.7 The proposed development will incorporate a variety of high-quality green spaces that will include individual garden areas for residential dwellings, communal garden areas, amenity parklands, green roofs and buffer and structural planting. The areas of green space and landscaped attractive open spaces will benefit people of all ages and create more habitats for wildlife as well as widen the overall biodiversity value of the site.

### **Alternatives and Design Evolution**

- 3.8 The ES should include a description of the reasonable alternatives which are relevant to the development proposals and an indication of the main reasons for the option chosen taking into account the likely effects of the development on the environment.
- 3.9 This site is allocated for regeneration in the Adopted Local Plan. Furthermore, planning permission has been granted to relocate the existing leisure centre and therefore consideration needs to be given to its future. It is considered that the regeneration opportunities referenced in Policy BAR13 cannot be achieved without redeveloping the car park and enhancing the waterfront setting of this site.
- 3.10 The proposed development has evolved through a series of design iterations and has responded to environmental constraints and opportunities identified through the EIA process Local Planning Authority (LPA) pre-application comments and planning policy objectives, consultation with statutory and non-statutory organisations, as well as the public (via a public consultation event) and with due consideration to the Applicant's development objectives.
- 3.11 Consultation was carried out with stakeholders and the community pre Covid 19 and the current proposals have evolved having regard to the feedback received and the changing conditions emerging from the pandemic. The key changes include a reduction in the density of the scheme, the number of units reduced from 245 to 180, with the number of apartments significantly reduced and townhouses increased.
- 3.12 The proposed outline masterplan was shaped by environmental constraints determined through site investigation and survey work. A number of constraints plans that were created throughout the masterplanning process are included as Appendix 4.1 of this ES to illustrate the design evolution. Key constraints were historical contamination on site and flood risk.

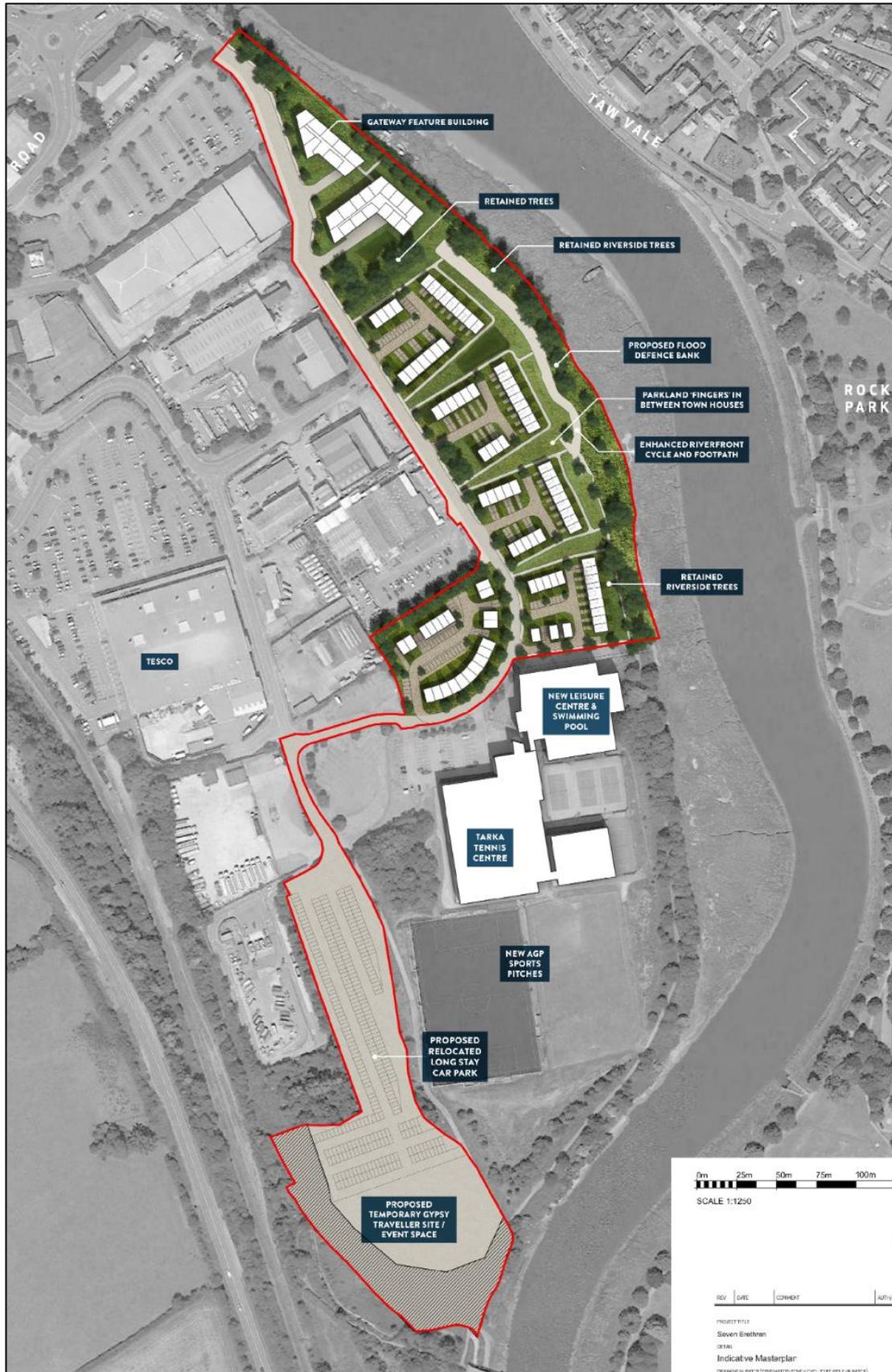


Figure 2: Illustrative Masterplan

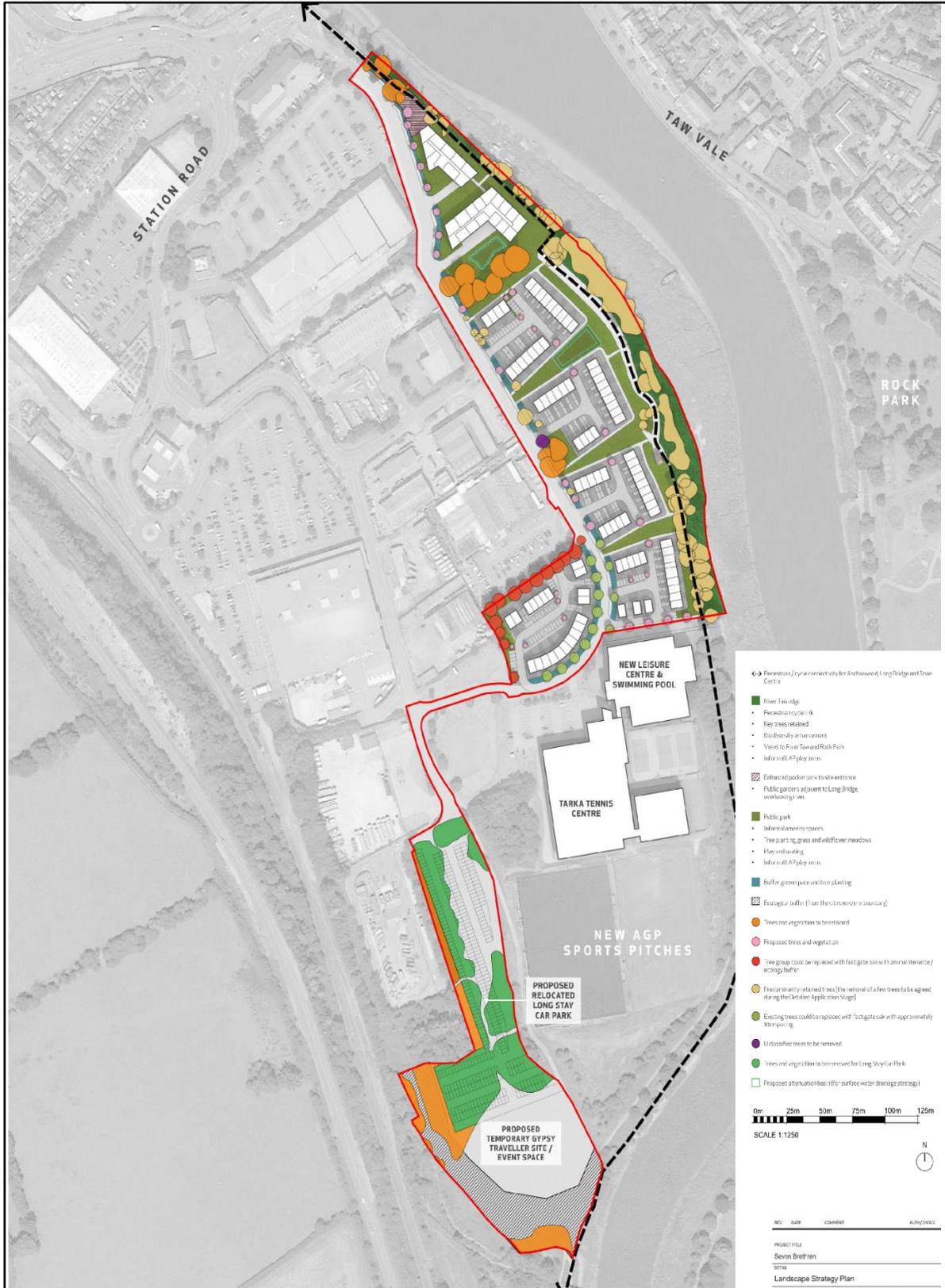


Figure 3: Landscape Masterplan

## 4 ASSESSMENT METHODOLOGY

- 4.1 The EIA has been carried out in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and associated guidance set out in the former Department of the Environment, Transport and the Regions (DETR) Circular 02/99.
- 4.2 The principal objective of the EIA process is to provide the Local Planning Authority, statutory consultees and other interested parties with a clear and concise technical document that provides sufficient information on the proposed development and its likely environmental effects to assist in making a decision on whether planning permission should be granted.
- 4.3 The effects that are considered to be significant prior to mitigation are identified within the ES. The significance of these effects reflects judgement on the importance or sensitivity of the affected receptor(s) and the nature and magnitude of the predicted changes.
- 4.4 Environmental effects may be both adverse (negative) or beneficial (positive). Quantification of these effects, particularly in relation to comparative assessment between environmental disciplines, requires consistent assessment criteria to be used throughout.
- 4.5 Statutory and non-statutory bodies have been consulted as part of this EIA, either through the EIA Scoping Opinion process and/or during the assessment stages of the EIA and each technical chapter includes a summary of consultation undertaken to inform the corresponding assessment. Consultation has been undertaken with the public, Town Council and Council Member on 11<sup>th</sup> July 2019, where consultation panels were on display showing work undertaken to date including baseline conditions, the overall vision, the landscape strategy and the masterplan. The feedback received during the consultation exercise informed and shaped the proposals for this application.
- 4.6 The likely cumulative effects from other proposed or committed developments in combination with the Seven Brethren Proposals are also considered within each technical assessment chapter.

## 5 CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT

- 5.1 This subsection provides a summary of Chapter 6: Construction Environmental management of the ES.
- 5.2 A Construction Environmental Management Plan (CEMP) will be prepared for the construction phases of the proposed development. This will outline methods for contractor and general public liaison, hours of work, methods to deal with complaints and outline management practices to control dust, traffic and access, waste, water resources, ecological and archaeological effects, ensuring a high level of control throughout the construction works. An outline of the likely content of the CEMP is included in Chapter 6 of the ES.
- 5.3 The construction period is anticipated to be approximately 4 years from commencement in 2022. During the construction period, the works on the site can be broadly divided into three main stages, as follows:
- enabling works/site preparation;
  - construction of infrastructure and residential elements; and
  - removal of final construction assets from the site.

### Environmental Management

- 5.4 Potential environmental impacts during the construction phase are largely dependent on attention to management controls (e.g. watering to control dust, etc.) and best practice techniques will be implemented and adhered to closely by the construction contractor.
- 5.5 Where significant construction impacts have been identified, these are addressed within the individual technical chapters of the ES (Volume 1). There is potential for environmental impacts to occur during day to day construction operations or from individual instances of mal-operation or accident, for example. Therefore, prior to construction, a number of procedures for construction and environmental management would be agreed with the Local Planning Authority.

## 6 AIR QUALITY

- 6.1 This subsection provides a summary of **Chapter 7: Air Quality** of the ES.
- 6.2 The site is not located within or in close proximity to an Air Quality Management Area (AQMA). Automatic air quality monitoring is undertaken by North Devon Council approximately 1 km east of the site, and from reviewing this data, it is identified that roadside particulate matter concentrations are expected to meet the annual mean objective at the application site.
- 6.3 An assessment of the potential impacts during the construction phase has been carried out and this has shown that, limited releases of dust and particulate matter are likely to be generated from on-site activities. However, through good site practice and the implementation of suitable mitigation measures, such as producing a Dust Management Plan and submitting it to the Council for approval prior to construction, the impact of dust and particulate matter releases will be effectively mitigated and the resultant impacts are considered to be **Negligible**.
- 6.4 Dispersion modelling has been carried out to assess the impact of the operational traffic of the proposed development on local pollutant concentrations and the suitability of the application site for its proposed end use with regard to air quality. The results indicate that predicted concentrations of relevant pollutants (Nitrogen dioxide (NO<sub>2</sub>) and Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)) concentrations are below the relevant objectives within the proposed development and at nearby sensitive receptors.
- 6.5 Future occupants of the proposed development would not be exposed to pollutant concentrations above the relevant objective levels, therefore, the impact of the proposed development with regard to exposure to air quality is considered to be **Negligible**.
- 6.6 It is concluded that air quality does not pose a constraint to the proposed development, either during construction or once operational.

## 7 ARCHAEOLOGY AND CULTURAL HERITAGE

- 7.1 This subsection provides a summary of **Chapter 8: Archaeology and Cultural Heritage** of the ES.
- 7.2 Baseline research has established that much of the floodplain beneath the site is likely to have been significantly reworked and the potential for the preservation of extensive archaeological remains is considered to be Low. This is particularly so for the prehistoric period.
- 7.3 Baseline research has also established that it is highly unlikely that the site contains evidence of any Romano-British, early medieval, medieval and post-medieval activity as any evidence has likely been destroyed by construction groundworks required for the NDLC, damaged or destroyed during groundworks required for the hard-standing and car parks and deeply buried under landfill.
- 7.4 The proposed mass and height of the proposed development will not compete with, overwhelm or dominate the riverside outlook from the Barnstaple Town Centre or Newport Conservation Areas or listed buildings with a riverfront outlook. However, given the increase in the built riverside mass of the proposed development and the increased height at its northern end, the overall residual effect of the proposed development upon the significance of these designated heritage assets is predicted to be **Minor Adverse** or, in accordance with the criteria in the NPPF, less than substantial.
- 7.5 It should be emphasised that as the northern part of the site is an outline planning application, the effects of this element of the proposed development on the Conservation Area can only be assessed indicatively at this stage. However, given the presence of the existing leisure centre, the principle of development here should not be viewed as an overriding heritage constraint especially as the mass and height of the proposed development will not compete with or overwhelm the existing riverside outlook from the Conservation Area. Indeed, although there may be a minor adverse effect at an outline stage this is difficult to confirm and appropriate design could instead result in a positive effect. Consultation will be carried out with the North Devon Council Conservation Officer during the detailed design of the northern area of the site to ensure that any perceived harm is minimised

## 8 CLIMATE CHANGE

- 8.1 This subsection provides a summary of **Chapter 9: Climate Change** of the ES. This assessment considered the potential impacts in terms of the adaptability and ability to mitigate the impact of climate change on the proposed development.
- 8.2 Key climate projections over the next 50 + years will result in numerous changes in the UK climate including but (not limited too) hotter and drier summers, milder and wetter winters and soils becoming drier on average. These changes are set to have substantial impacts on the construction and maintenance of buildings and also on the natural environment.
- 8.3 During construction, best practice measures will be applied in order to reduce CO<sub>2</sub> emissions from construction activities. This will include recommending specific construction materials for use that have a lower embodied carbon as well as monitoring construction traffic to minimise impacts on air quality and emissions production.
- 8.4 During the operational phase of the development, there are a number of measures that have been incorporated into the design, as follows:
- the incorporation of sustainable drainage systems to provide attenuation and required water quality measures taking into account the added effect of climate change;
  - green infrastructure (such as green roofs) and landscaping (such as planting of trees) will provide natural cooling and help reduce risk of overheating;
  - climate resilient plants will be planted where possible to ensure there is no significant risk to soft landscaping features; and
  - water efficient sanitary appliances will be incorporated into the residential units.
- 8.5 The proposed development has been designed so that the dwellings are orientated to maximise solar gains and natural lighting. This will reduce the energy requirements needed for heating and minimise greenhouse gas emissions. The scheme will also promote active travel by improving the pedestrian and cycle connections through enhancing the existing riverside pedestrian/cycle route that runs adjacent to the River Taw.
- 8.6 Overall, the residual effect with regard to Climate Change is considered to be **Minor Adverse**. The project has followed a review and design process to identify potential impacts from changing climatic conditions. This process has adhered to all relevant policy and legislation as summarised earlier in this chapter. A range of measures to adapt and mitigate for these future scenarios has been incorporated into the design, construction and management processes for the proposed development at Seven Brethren Bank.

## 9 ECOLOGY AND NATURE CONSERVATION

- 9.1 This subsection provides a summary of **Chapter 10: Ecology and Nature Conservation** of the ES.
- 9.2 Baseline assessment has been undertaken and this includes a range of ecology surveys at the site which identified the following:
- the site is used by at least 11 species of bat for commuting and foraging with moderate activity levels and limiting roosting opportunities;
  - suitable nesting and foraging opportunities for a number of common bird species;
  - relatively low numbers of wintering bird population within the site associated with the River Taw/Torrige Site of Special Scientific Interest (SSSI);
  - the site supports a low population of common lizard and slow worm
  - the site supports three locally important invertebrates; other invertebrates are common and widespread; and
  - the marshy grassland supports a diversity of species including an abundance of southern marsh orchid.
- 9.3 During the construction phase, it is calculated that there will be a loss of habitats and loss of biodiversity units which could result in loss of terrestrial foraging habitats for bats, in a moderate loss of breeding bird nesting habitat as well as loss of reptile foraging habitat (grassland and scrub). However, ecological mitigation has been built into the design through retention of the habitats of greatest interest (site boundaries comprising broad-leaved woodland, marshy grassland and tree-lines). Areas of open space, attenuation ponds, hedgerows, native planting, gardens, tree planting and green roofs are included within the design and will have a beneficial ecological impact. Unavoidable loss of these habitats will be compensated for with off-site habitat creation and management to enable a net gain in biodiversity. The off-setting will comprise creation of an area of broad-leaved woodland, marshy grassland, wildflower meadow and scrub habitat in order to compensate for habitats lost and aim to achieve a 10% net gain in biodiversity across the site.
- 9.4 Sufficient areas for off-setting have been identified by North Devon Biosphere in the Penhill area; where riparian woodland is proposed in the Venn and Landkey Streams. North Devon Biosphere is also looking for sites to restore or create marshy grassland in response to sea level rise taking some of the existing marsh areas likely to be upstream on the Taw Valley. North Devon Biosphere have agreed to provide costs and a letter of commitment to create marshy grassland, woodland and scrub habitats
- 9.5 A CEMP will be produced and this will include methods of working to minimise the likelihood of damage to retained and adjacent habitats as well as protecting species and habitat from disturbance through noise, vibration lighting and construction activities. With these mitigation measures in place, the residual effects is considered to be **Negligible**.

- 9.6 During the operation of the proposed development any retained and new habitats will be subject to a ten-year Habitat Management Plan (HMP). The HMP will include measures to be implemented on site to maintain and enhance the ecological value of retained and created habitats. As well as this, a sensitive lighting strategy will be implemented and litter will be minimised through education of the public and through law enforcement.
- 9.7 Recreation areas will be provided to encourage people away from the more sensitive habitat areas. The Tarka Trail along the eastern boundary of the site will be retained enabling a continued public access feature and access within the retained woodland habitat will be discouraged though planting of scrub habitat along the woodland edge.
- 9.8 Braunton Burrows Special Area of Conservation (SAC) is located 8.7 km west of the site and it has been identified that proposed residential growth is likely to adversely affect protected habitats for which the SAC is designated. Therefore, in accordance with North Devon Council's interim guidance, a contribution of £100 per unit will be provided to cover mitigation costs including additional wardening, education, visitor information and monitoring projects. This will ensure planning permission can still be granted for net increases in new residential dwellings in the period until the management plan can be implemented.
- 9.9 The residual effects of habitat degradation and disturbance on designated sites, habitats and species are considered to be **Negligible**.

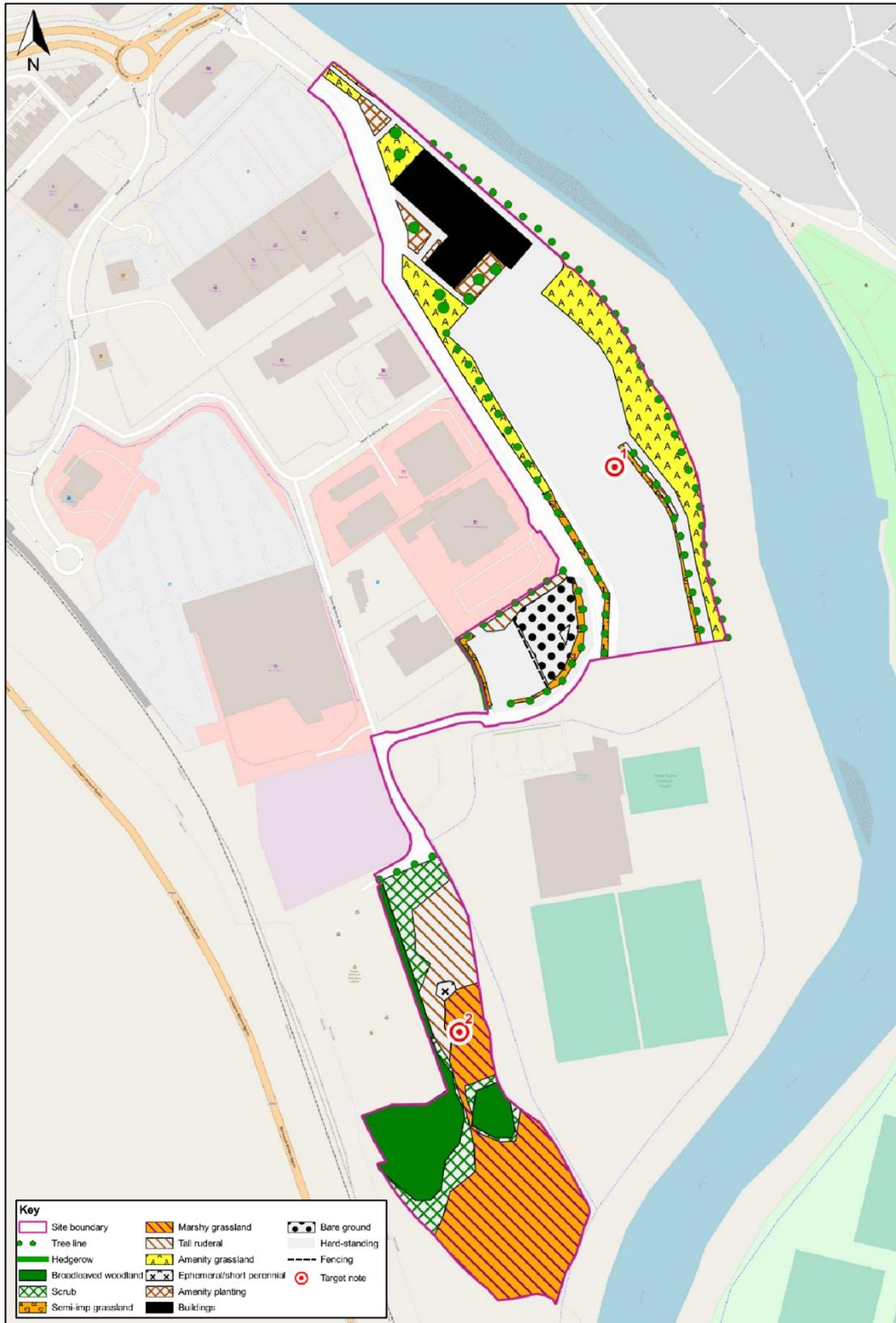
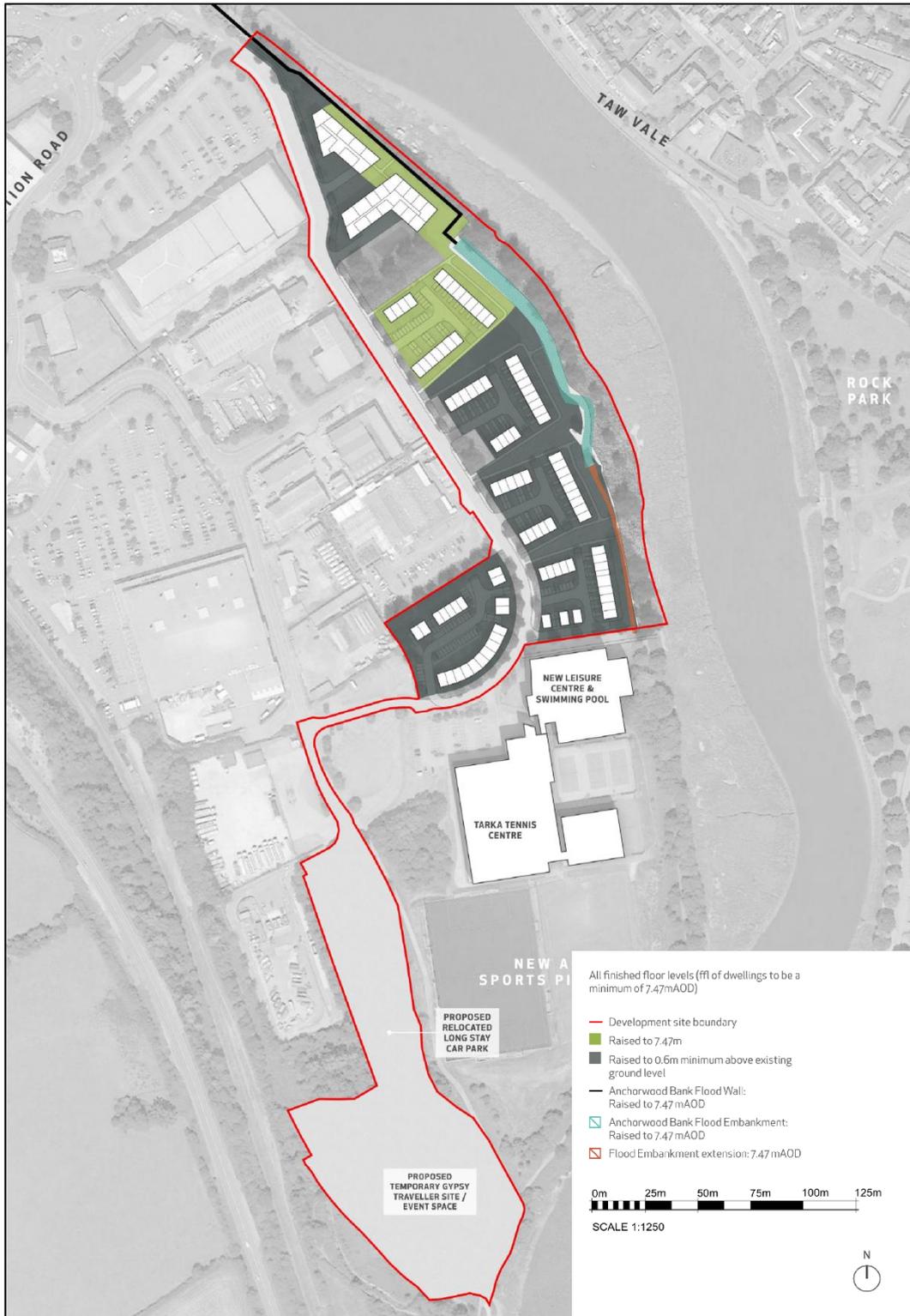


Figure 4: Phase 1 Habitat Plan

## 10 GROUND CONDITIONS

- 10.1 This subsection provides a summary of **Chapter 11: Ground Conditions** of the ES.
- 10.2 Site investigations have confirmed that the existing site includes elevated contaminant and ground gas concentrations, as well as areas of asbestos identified within the underlying ground.
- 10.3 An assessment on the potential effects of the proposed development on sensitive receptors such as human health, controlled waters (surface water and ground water) and construction materials has been undertaken and this has not identified any potential significant impacts that cannot be readily mitigated
- 10.4 All the potential effects of the project in relation to arising from the ground conditions are commonplace in the redevelopment of brownfield sites and are readily overcome by standard engineering good design and practice. Therefore, all of the residual impacts for both the construction and operational phases have been identified as **Negligible**.
- 10.5 Long-term impacts to human health are not expected to be significant as the site would be covered by hardstanding (car parking areas, access roads and building footprints) or engineered clean cover and materials associated with flood defence structure and end users therefore protected from direct exposure to any ground contamination. Figure 5 shows the ground raising plan for the site which comprises of 0.6 m capping across the full site area along with further ground raising for flood risk purposes.
- 10.6 In addition, ground gas will be managed by installation of appropriate ground gas protection measures in the construction phase and any long-term impacts to controlled waters will be mitigated by implementing good practises during the construction phase. Where necessary, these will be supported by an appropriate on-going groundwater monitoring plan which would be detailed in the Remediation Strategy.

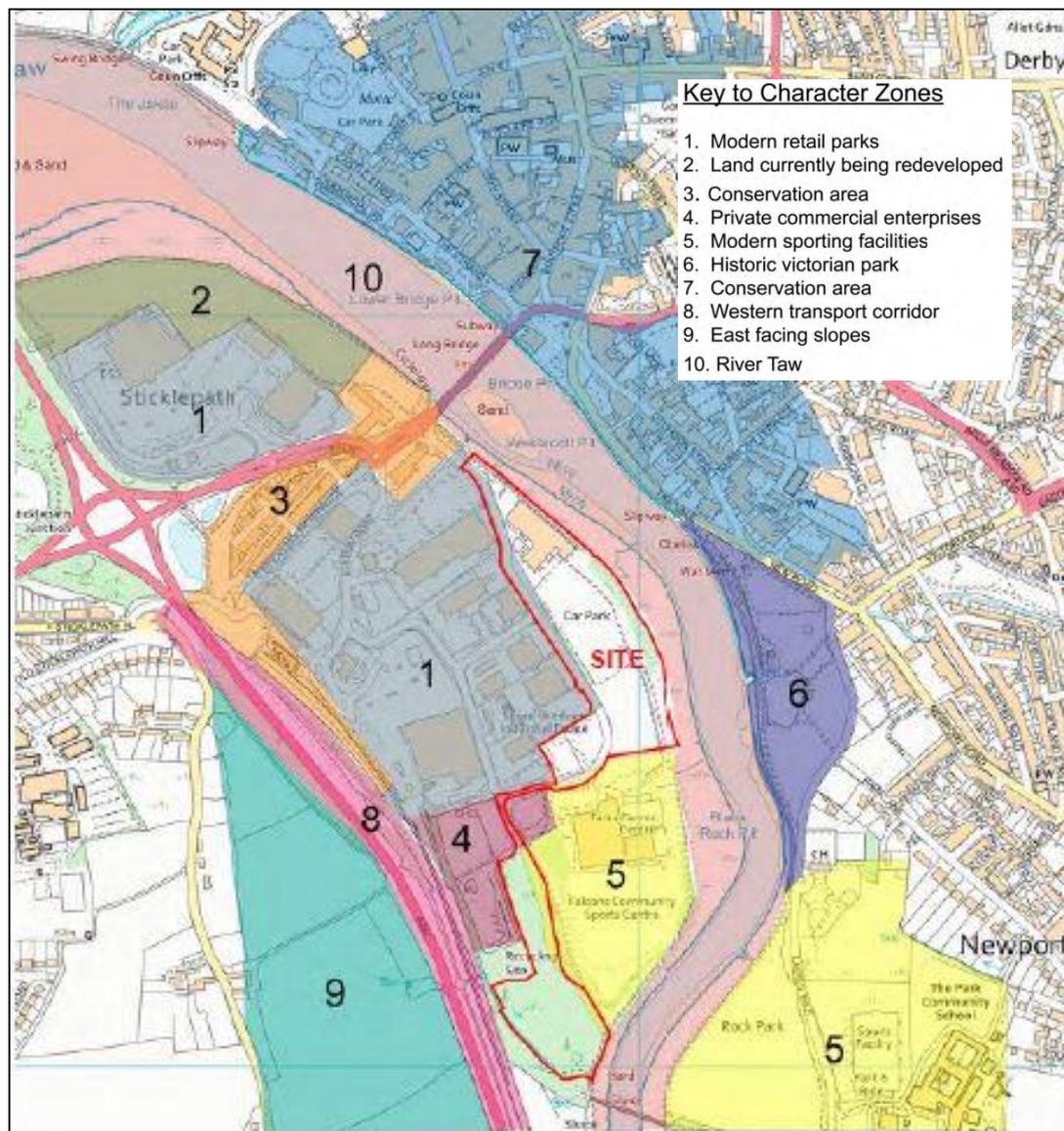


**Figure 5: Ground Raising Plan**

## 11 TOWNSCAPE AND VISUAL AMENITY

- 11.1 This subsection provides a summary of **Chapter 12: Townscape and Visual Amenity** of the ES.
- 11.2 The current site no longer makes a positive contribution to townscape character and visual amenity, with the existing leisure centre being dated and the associated car park does not make the best use of a prime riverside location. The proposed apartment blocks to the north will present a more articulated architectural response than the monolithic block of the existing leisure centre and will beneficially establish a gateway feature at the end of Long Bridge.
- 11.3 The most significant adverse impact associated with the development will be the potential loss of some of the trees along the riverbank. Although this may open up views of some parts of the proposed development, the buildings proposed will establish a more visually attractive townscape than the existing parked cars and commercial units which are visible on the far side of the car park within the most sensitive riverside views. The proposed terraces of townhouses will echo and compliment the historic buildings which line the east bank. Any tree loss will be compensated for with new planting which will eventually re-establish a tree lined edge to the river.
- 11.4 The proposed development will represent a continuation of the regeneration to the north (around the Oliver Buildings and further downstream) and will tie in with the Tarka Tennis centre and the new NDLC (the Tarka Centre, which is under construction). Overall, the townscape and visual effects will be **Beneficial** of at least Moderate significance.
- 11.5 The only adverse effects will be associated with the construction of the long stay car park and the temporary gypsy and travellers' site/events space within an area of scrub to the south, representing the urbanisation of a green area with uses which are generally considered to be less visually appealing. The adverse townscape and visual effects can be mitigated to a certain degree through retention of key areas of trees and scrub and new landscaping. This area also benefits from good visual enclosure provided by the tennis centre, recent mounding and tree planting associated with the AGP and boundary tree cover.
- 11.6 The existing site is well lit but not all the light sources are configured optimally to minimise obtrusive light, although there are no significant receptors close to the site on the west bank to be affected. Obtrusive lighting effects associated with the redevelopment of the northern part of the site could be reduced with an appropriate lighting strategy.
- 11.7 The most significant obtrusive lighting effect will arise from the construction of the long stay car park and gypsy and travellers' site/events space although this lies adjacent to existing floodlit AGP. While the light levels within this area will increase, there are few human receptors nearby to be affected other than users of the footpath who may benefit from a greater level of illumination for safety.

- 11.8 The proposed development and other schemes along the west bank will establish visual homogeneity and while the amount of built form will increase, the overall appearance is likely to be perceived as beneficial (subject to detailed design) both in terms of townscape and visual amenity.
- 11.9 The redevelopment of vacant or under-used land is also likely to be regarded as positive. The proposed development in association with other consented and proposed developments will result in **substantial beneficial** cumulative townscape and visual effects which will far outweigh the few adverse landscape and visual effects identified.



**Figure 6: Character Areas**

## 12 NOISE AND VIBRATION

- 12.1 This subsection provides a summary of Chapter 13: Noise and Vibration of the ES.
- 12.2 The EIA considers the likely effects of the proposed development with respect to noise and vibration. The assessment has been based on environmental noise measurements and calculations undertaken for the application site.
- 12.3 The impact of noise and vibration during construction of the proposed development has been predicted and assessed in accordance with British Standards. Generic mitigation measures (such as vehicle maintenance, electrically powered equipment preference and engines switched off when vehicles are standing) have been recommended which, when implemented, are capable of ensuring that the impact of noise and vibration during the construction of the proposed development is adequately controlled.
- 12.4 An assessment has been carried out to determine the suitability of the application site for residential accommodation. Proposed residential units will require appropriate glazing and ventilation specification, in order to achieve the required internal noise levels.
- 12.5 The impact of the increase in road traffic associated with the proposed development has been assessed. It is predicted that significant effects from any increase in road traffic noise would be unlikely at existing receptors adjacent to the surrounding roads.
- 12.6 Whilst the proposed development is in close proximity to the Sticklepath Industrial Estate, on-site observations indicate that there are no identified commercial noise sources that would be likely to cause any significant impact at the proposed development.
- 12.7 Overall, the noise and vibration effects will have a **Negligible to Minor Adverse** effect and are not considered to be significant.

## 13 SOCIO-ECONOMICS AND HEALTH IMPACTS

- 13.1 This subsection provides a summary of Chapter 14: Socio-Economics and Health Impacts of the ES.
- 13.2 During construction, the proposed development will generate economic activity by providing employment opportunities. It was determined that 27 full time equivalent jobs during construction would be generated which would benefit the local community, particularly as there is a high proportion of residents within the locality who work within the construction sector so have the skillset required.
- 13.3 The delivery of 179 residential units of varying size and tenure will contribute towards local housing provision. The development also provides extensive landscaping including retention of existing trees, shrub planting and play space, which provides community space for residents to enjoy, thus improving their health and wellbeing through social interaction. In addition, the proposed development has been designed to minimise the risk of crime and improve the sense of security through a number of measures including secure shed storage and low planting to public spaces to enable natural surveillance.
- 13.4 The associated future population of 430 persons that these units would bring about will contribute to the local economy through additional local expenditure. It was identified that there would be sufficient capacity across local healthcare facilities, including GP surgeries, to accommodate for this population. It was also identified that there would be sufficient capacity for the projected child yield at the local nurseries, primary and secondary schools to accommodate for the future population.
- 13.5 The existing leisure centre on site is to be demolished as part of the proposed development. However, it is to be redeveloped as part of the Tarka Tennis extension. This ensures that the existing leisure facilities are not lost and thus no adverse impacts arise on health and wellbeing.
- 13.6 The assessment concluded that during construction, a CEMP including a dust management plan would minimise the impacts of construction activities on the environment, including minimising noise and the production of dust. Dust can have adverse impacts on health, thus best practice measures to reduce dust would ensure health is not affected. The temporary nature of construction also minimises any adverse impact. Overall, construction effects range from **Negligible to Moderate Beneficial**.
- 13.7 The assessment identified that contributions are necessary to maintain primary school capacity as a result of the proposed development and cumulative schemes. The assessment concluded that no other mitigation measures were required during operation and operational impacts range from **Negligible to Major Beneficial**.

## 14 TRAFFIC AND TRANSPORT

- 14.1 This subsection provides a summary of Chapter 15: Traffic and Transport of the ES.
- 14.2 The EIA considers the likely effects of the proposed development with respect to Traffic and Transport. The assessment has been based on the findings of the Transport Assessment which has been undertaken by Hydrock in May 2021 and includes the results of transport modelling for the area and identifies any transport issues relating to the existing site and an assessment of the traffic predicted to be generated by the proposed redevelopment and the corresponding traffic impact on the surrounding local highway network.
- 14.3 During the construction phase, the presence of additional large vehicles on the local highway network has the potential to have an adverse effect on fear and intimidation of vulnerable road users. Furthermore, construction traffic has the potential to have an adverse effect of driver severance and delay as well as disruption to pedestrians. However, vehicle movements will be controlled and regulated by a Construction Logistics Plan (CLP), which will provide a framework for the management of construction vehicle movements to and from the site. The CLP will set out measures so that construction materials can be delivered and demolition and construction waste can be removed in a safe, efficient and sustainable manner. Overall, the residual impacts associated with the construction phase are deemed to be of **Negligible** significance, short-term and temporary in nature.
- 14.4 A detailed Traffic Assessment (TA) has been undertaken for the proposed residential development, including the production of a microsimulation model. Analysis of the modelling results show that the modelled Seven Brethren study area is able to accommodate the additional residential trips associated to the proposed residential redevelopment in committed traffic growth forecast year conditions. The presence of additional vehicles on the local highway network has the potential to have a local Minor Adverse effect on driver severance and delay, but a Negligible effect on pedestrians, cyclists and public transport.
- 15.1 By way of mitigation, a comprehensive Travel Plan has been prepared and this sets out a long-term strategy for reducing residents and visitor dependence on travelling by private car in favour of more sustainable modes of travel. The residual impacts associated with the operational phase are deemed to be of **Negligible** significance, long-term and permanent in nature.
- 14.5 In addition, whilst it is considered that the Seven Brethren residential development does not explicitly cause a detrimental increase to issues expected on the local road network, it is considered appropriate that given its location a highways contribution towards a scheme at the Station Road roundabout and Long Bridge traffic signals, on the A3125 Sticklepath Terrace.
- 14.6 It is the aspirations of NDC and the Local Plan to encourage and improve sustainable modes of transport. It is therefore considered that any contributions should seek to enhance the walking and cycling connectivity between Seven Brethren Bank, Anchorwood Bank and the town centre.

## 15 WATER RESOURCES, DRAINAGE AND FLOOD RISK

- 15.1 This subsection provides a summary of Chapter 16: Water Resources and Flood Risk of the ES.
- 15.2 This assessment considered the potential effects of the proposal on water resources, drainage and, flood risk. The key considerations are the potential effects on water resources, water supply, infrastructure, flood risk and drainage.
- 15.3 During the construction and operational phase, there is the potential for an increase in surface water runoff which could lead to flooding elsewhere. However, mitigation measures that include implementing a sustainable drainage system strategy (refer to Figure 7 below), will ensure there is no significant effect on surface water drainage and that any surface water runoff has appropriate required level of water quality treatment and is controlled and discharged at an appropriate rate.
- 15.4 The interruption of local abstractions and the interruption of groundwater causing elevated risk of groundwater flooding during the construction phase has been considered. However, it is concluded that as there are no abstractions located in close proximity to the site and no basements within the development the application site will have no significant effect on groundwater levels and flows.
- 15.5 During operation of the proposed development and considering the site is located within Flood Zone 3 (high risk), there is risk of fluvial tidal flooding at the site. However, the development includes raising the existing flood defence crests level to provide protection for the operational lifetime of the development (taking into account climate change) and raising the floor levels of the residential development above the flood level. As well as this, the development includes a 8 m maintenance buffer to flood defences to ensure they are maintained to a high standard (refer to Figure 8 below).
- 15.6 Finally, water-saving devices and wastewater infrastructure improvements will be incorporated within the development.
- 15.7 In conclusion, given the location and nature of the receptors, the overall residual effect of the proposed development with regard to water resources, drainage and flood risk is considered to be **Negligible** during both the construction and operation phases of the development.



Figure 7: Surface Water Drainage Plan



**Figure 8: Flood Defence Plan**

## 16 SUMMARY

- 16.1 The ES sets out the key international, national and local legislation and planning policies that provide a compelling case for the development at Seven Brethren Bank in Barnstaple.
- 16.2 Appropriate mitigation measures have been identified, where necessary, in the ES which will prevent, reduce or off-set any likely adverse effect of the proposed development on other environmental facets during the construction and operational life.
- 16.3 It is concluded that Air Quality, Ground Conditions, Traffic and Transport and Water Resources, Flood Risk and Drainage do not pose a constraint to the proposed development, either during construction or once operational and the residual effects are considered to be **Negligible**.
- 16.4 The residual effect of Archaeology and Cultural Heritage is considered to be **Negligible to Minor Adverse** as a result of the proposed development. However, at the detailed design stage of the residential development, it is considered that recommended design parameters can be provided to ensure that all residual effects are Negligible.
- 16.5 The residual effect with regard to Climate Change is considered to be **Minor Adverse**. A range of measures to adapt and mitigate for these future scenarios has been incorporated into the design, construction and management processes for the proposed development at Seven Brethren Bank.
- 16.6 It is concluded that following the proposed mitigation measures, the proposed development will have a **Negligible to Minor Beneficial** effect on the ecology and nature conservation.
- 16.7 It is concluded that in relation to townscape and visual amenity, the proposed development will have at least a **Moderate Beneficial** residual effect. There is an adverse residual effect will be associated with the construction of the long stay car park and gypsy and travellers' site/events space on the area of scrub to the south. However, this can be mitigated by appropriate screen planting (such as a native hedge) between the car park and the footpath.
- 16.8 Overall, the noise and vibration effects will have a **Negligible to Minor Adverse** effect and are not considered to be significant.
- 16.9 With regard to socio-economics and health, the residual effects during construction phase range from **Negligible to Moderate Beneficial**. The assessment concluded operational impacts range from **Negligible to Major Beneficial**. It is considered that there is a requirement for primary school contribution given the cumulative impact of the development on local education provisions.
- 16.10 Overall, the ES has not identified any exceptional circumstances which contravene prevailing legislation or planning policy and, in this regard, it is concluded that the proposed development at Seven Brethren Bank in Barnstaple should be given planning consent.

