Caulmert

Land at Dinting Road, Glossop

Sustainability Statement

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1 Introduction

WYG has been commissioned by Caulmert Ltd, on behalf of N. Dignan & J Wood, to prepare a Sustainability Statement in support of an online planning application to the council for the proposed redevelopment of the Land at Dinting Road site in Glossop. The development will comprise a mixture of up to 65no. 1-4 bedroom new build dwellings.

The site is located on the edge of Glossop. At present the site is rough pasture land within the open countryside and bounded by the Manchester to Glossop railway line and employment development to the immediate south, Green Belt space to the north and residential development to the east and west.

This Sustainability Statement details the sustainability credentials of the residential development proposal.

2 Background and Context

2.1 International and National Context

The concept of sustainable development was defined in 1987 by the World Commission on the Environment and Development as "development which meets the needs of the present, without compromising the ability of future generations to meet their own needs". This concept represents the core principle of the planning system, and has been adopted world-wide through a variety of national, regional and local initiatives.

At the Earth Summit (the United Nation Conference on Environment and Development held in Rio de Janeiro in 1992) governments around the world committed to sustainable development, and two years later, in 1994, the UK government was the first to produce its national sustainable development strategy. In 2005, Securing the Future was published, updating and improving the 1994 strategy in line with the performance trends shown against some of the indicators. The updated strategy was tailored to the new economic situation, to new policies, and to the new political framework. Securing the Future sets out the national principles that should guide policies towards sustainability objectives:

- Living with environmental limits;
- Ensuring a strong, healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and,
- Using sound science responsibly.

This set of shared UK principles has been agreed by the UK Government, Scottish Executive, Welsh Assembly, and the Northern Ireland Administration.

Legislation for guiding sustainable, low carbon development is largely enshrined in the following:

- The Climate Change Act (2008) - creates a new approach to managing and responding to climate change in the UK, by setting ambitious, legally binding targets to reduce GHG emissions by 80% on 1990 baseline levels by 2050. It does this through powers to help meet those targets, strengthening the institutional framework and establishing clear and regular accountability to the UK Parliament and to the devolved legislatures.
- The Planning and Compulsory Purchase Act 2004 - requires a mandatory Sustainability Appraisal (SA) to be carried out for all Development Plan Documents as part of the new

planning system. The purpose of the SA is to assess the likely social, environmental and economic impacts of implementing the proposed development plans and related programmes. In compliance with European legislation (Directive 2001/42/EC), a Strategic Environmental Assessment (SEA) must also be carried out alongside an SA to fully assess the likely effects of the plan or programme on the environment. Regional SA/SEA objectives and recommendations guide the development of local planning policy.

- The Energy Act (2008) - implements the legislative aspects of the 2007 Energy white paper and updates energy legislation to reflect the availability of new technologies and emerging renewable technologies, the UK's changing requirements for secure energy supply (such as offshore gas storage) and to protect the UK's environment .

Together, the Planning Act, the Climate Change Act and the Energy Act ensure that legislation adequately underpins the UK's long-term energy and climate change strategy.

The UK Government's National Planning Policy Framework (NPPF) sets out the vision for planning in England and the key policies which will underpin it. NPPF makes it clear that sustainable development is at the heart of the planning system, and sets out the key principles that should be applied to ensure that development plans and decisions taken on planning applications contribute to the delivery of sustainability. According to NPPF:

"The purpose of the planning system is to contribute to the achievement of sustainable development. The policies, taken as a whole, constitute the Government's view of what sustainable development in England means in practice for the planning system".

There are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- An economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
- A social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- An environmental role – contributing to, protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural

resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

2.2 Local Context

Sustainable development within High Peak is predominantly managed through the implementation of the High Peak Local Plan Policy: Sustainable Design and Construction February 2013. The Local Plan polices are supplemented by the Council's Residential Design Supplementary Planning Document (SPD), which provides additional guidance on how to achieve sustainable buildings in Glossop. This confirms the requirement for new dwellings to achieve a Code Level 4 rating as a minimum.

However, it is noted in the recent Ministerial Statement issued on the 25th March 2015 that the Code for Sustainable Homes assessment methodology will be abolished.

Policies of the Local Plan with particular reference to the SPD include, but are not limited to, the following:-

Policy EQ 1 Climate Change
Policy EQ 2 Landscape Character
Policy EQ 3 Countryside Development
Policy EQ 4 Biodiversity
Policy EQ 5 Design and Place Making
Policy EQ 6 Built and Historic Environment
Policy EQ 7 Green Infrastructure
Policy EQ 8 Trees, woodland and hedgerows
Policy EQ 9 Pollution and Flood Risk Management

For all developments applicants are also required to complete the Council's Sustainable Development Checklist, a copy of which can be found in Appendix B.

3 Sustainability Statement

3.1 Introduction

Various key performance indicators (KPIs) can be assessed in order to identify how the proposals have taken sustainability into consideration. The following KPIs are taken from the High Peak District Council Sustainability Checklist, which forms part of the Council's Sustainable Design and Construction Supplementary Planning Document (SPD).

The key relevant sustainability objective topic areas obtained from the above document are:

- Land Use
- Landscape Protection
- Heritage Management
- Layout
- Travel and Transport
- Energy Efficiency
- Renewable Energy
- Pollution Control
- Waste Management
- Water Management
- Biodiversity and Open Space

This Statement identifies how the proposed residential development will contribute towards sustainability covering the above topics as well as some other areas of sustainable development as appropriate. A number of different aspects have been considered to illustrate the sustainability of the new development, as presented below.

A copy of the High Peak District Council Sustainability Checklist is provided in Appendix B.

A number of the key actions taken in order to contribute towards sustainable development can be demonstrated through the use of the Code for Sustainable Homes (CfSH) with a minimum targeted 'Level 4' rating. Whilst the methodology has been abolished by a recent Government Housing Standards review, many of the principles detailed within the scheme ensure the design and

construction team demonstrate that the development proposals either incorporate or go beyond best practice. Details are provided below on how each of these aspects is addressed, grouped under relevant sustainability categories.

3.2 Code for Sustainable Homes – Assessing Environmental Performance

The aim of CfSH was to mitigate the impacts of new dwellings on the environment, enabling them to be recognised according to their environmental benefits and to provide a credible, environmental label for dwellings. The system of environmental issues group in the following categories:

Energy	Operational energy and CO_2 issues
Water	Consumption and leakage related issues
Materials	Environmental implications of material selection
Surface Water Runoff	Management of surface water runoff and flood risk
Waste	Environmental implications of waste generation
Pollution	Air and water pollution issues (excluding CO_2)
Health & Wellbeing	Indoor and external issues affecting occupants
Management	Overall policy and procedural issues
Ecology	Greenfield/brownfield and ecological value site issues

Each of the above CfSH contains a number of environmental issues, which reflect the options available when designing, procuring and constructing a building. Specific requirements for each issue are detailed to achieve each level.

3.2.1 Minimum standards – Code for Sustainable Homes

Mandatory minimum performance standards are set for some issues. These issues are:

- Mat 1: Environmental impact of materials;
- Sur 1: Management of surface water run-off from developments; and,
- Was 1: Storage of non-recyclable waste and recyclable household waste.

The two issues with increasing mandatory minimum standards are:

- Ene 1: Dwelling emission rate
- Wat 1: Indoor water use.

3.2.2 Council's Policy Requirements and Expectations

Although High Peak Borough Council has confirmed that there are no requirements to complete a Code for Sustainable Homes (CfSH) assessment for this particular site, where possible, the principles of Code for Sustainable Homes have been considered in the design process in order to enhance the sustainability credentials of the development.

It is noted in the recent Ministerial Statement, issued on the 25th March 2015, that the Code for Sustainable Homes assessment methodology will be abolished.

This statement details the conclusion of the Housing Standards Review and the new policy on the application of technical housing standards which applies immediately to all local planning authorities and qualifying bodies. The Deregulation Bill 2015 on which this is based, takes immediate effect and has direct impact on the application of existing Code policies, and the setting of new Code policies.

Following consultation in 2014 the Government decided to remove the Code for Sustainable Homes assessment methodology and incorporate new additional optional Building Regulations on water and access and space standards. The new national technical standards are expected to come into force in October 2015.

From 26 March 2015 until 30 September 2015, the Government's policy is that where there is an existing plan policy which references the Code, authorities may continue to only apply:

- a requirement for a water efficiency standard equivalent to the new national technical standard (aligned to Code Level 3),

All the key requirements for sustainability identified by High Peak Borough Council have been identified and reviewed as part of this Sustainability Statement. This shows that although there are no requirements for a formal Code for Sustainable Homes assessment to be undertaken for the development; however, the design team is aware that sustainability is an important issue for the development and considerations have and will continue to be included within the scheme design as well as the construction process, to ensure key sustainability criteria are addressed throughout all stages of the project.

3.3 Land Use

The Landscape Impact Assessment (2014), as part of the High Peak Borough Council Local Plan, confirms the site lies within 0.9km of Glossop Town Centre. The site has been approved for development for residential dwellings contributing to sustainable housing options within Glossop. The proposed location connects residential clusters to the east and west, which are well connected to Glossop town.

The aim of the development is to provide a safe and accessible residential area. The proposals for the site are residential, however the area that the site is located in benefits from a number of amenities a short distance away. Traffic free play areas are included in the proposals and a large proportion of the site will be open space and amenity areas.

3.4 Landscape Protection

The site is currently agricultural land that slopes steeply from north to south. It contains a public footpath and a number of trees, which are located mainly around the perimeter. Both of these features will be retained as part of the proposals. The boundary to Dinting Road is marked by a thick hedge.

The proposed residential development will be modest in scale and the visual impact of the development is likely to be largely localised. It is likely that the development will remain in keeping with the social and economic location and character of the immediate area and beyond.

The site contains no statutory nature conservation designations and there are no such sites within the immediate vicinity of the site. The site contains no listed buildings; however, an Archaeological Desk Based Assessment is included within the application. It has been confirmed that there is no requirement for an Environmental Impact Assessment to be included in this development's planning application, although issues regarding ecology will be addressed.

A Landscape Appraisal has been conducted to identify the key character issues to the immediate vicinity of the site and to respond to recommendations with sympathetic design. A Land Impact Assessment conducted on behalf of High Peak Borough Council notes that 'the impact on the setting of the National Park is limited due to the proximity and location of the surrounding development'.

The landscape design proposal responds to the challenges of introducing housing to a steeply sloping site with a degree of visual prominence, especially from the south:

a) **Existing Trees and vegetation**: The visually strong hedge line along Dinting Road will be retained and brought under management by the ecology proposals.

   The hedge will be thickened with native planting to produce a strong visual barrier and maintain an ecological connection along Dinting Road. The trees and associated vegetation along the southern boundary will be retained within the development proposals.

b) **Built Form:** Buildings are aligned predominantly along the contours of the site. The building line is staggered slightly to break this up visually, so houses do not appear as one 'mass'.

c) **Open Space:** A central public open space is created close to the site entrance from Dinting Road and visible from it, to act as a clearly identifiable decision point within the site. New tree planting on the northern side of this creates a strong backdrop, with more open ground to the southern, side of the site, where there is potential for local informal play.

The aim of the development is to provide a safe and accessible space for the community to engage and interact with one another, therefore encouraging a diverse and vibrant community, whilst maintaining a safe site that is accessible for all.

d) Planting: Planting to roads consists predominantly of hedges of evergreen type responding to the scale of built form and reflecting planting species used locally. Larger native material is used at the site entrance, with diminishing size of material as spatial scale reduces. Species would be used to match those employed in the existing housing to the east, especially around the Howard Park area, such as beech, privet and box. Street tree planting would be occasional to mark corners, close vistas or punctuate views in rear gardens and would be of smaller species especially natives like birch, rowan and cherry. Ecological connections at the site boundaries would be retained and strengthened with new planting.

A tree constraints plan has been produced to categorise and identify root protection, as well as locations in relation to the proposed development. The roadside hedging and trees are retained to maintain visual aesthetics from the road. A preliminary tree survey identifies the species and age of the assessed trees to identify any management required and protection required during and post construction.

3.5 Heritage Management

A Design and Access statement identifies the site to lie within National Character Area 43: Manchester Pennine Fringe. This reflects the proximity to the adjacent Pennine moors and valleys transitioning from moorland to urban area. Woodland cover and field boundaries are a distinctive characteristic of this area with a wide range of woodland types concentrated along river valleys.

3.5.1 Reflection of Local Heritage Features

The site is identified by Derbyshire County Council's 'The Landscape Character of Derbyshire as lying within the Dark Peaks' 'Settled Valley Pastures' Landscape Character Type (LCT).

It is likely the development will remain in keeping with the social and economic location and character of the immediate area and beyond.

In terms of the surrounding land uses, the character of the development is not considered to give rise to any significant negative effects and is appropriately situated within a proposed mixed use area.

The Archaeological Assessment produced by CgMs (March 2015) considers that the site has a limited potential for archaeological evidence from all periods, therefore the potential to discover archaeological finds and features on site is considered to be low.

3.5.2 External Materials Sympathy to Character and Appearance

Building elements including the foundations, walls, roofs, windows and their glazing, cladding and hard landscaping will be chosen to be sympathetic to the local environment whilst reinforcing civic pride.

Building elements including the foundations, walls, roofs, windows and their glazing, cladding, external stairways and hard landscaping should be chosen to be sympathetic to the local environment. The development will, wherever possible, encourage the use of materials from the local area. In addition to this, all timber on site should be sourced in accordance with the UK Governments Timber procurement policy.

Protection of the development's buildings from degradation such as from environmental factors will also be intrinsically considered as part of the design process. As highlighted, the site is not considered to be at significant risk from flooding, and as such, this will extend the life of the building through being at lower risk.

The development will be designed to a robust standard and will protect materials from the effects of high pedestrian traffic, public areas and thoroughfares.

3.6 Layout

3.6.1 Mix of dwelling size, type and affordability

A Landscape and Visual Impact Assessment (March 2015) has been undertaken by DSA Environment and Design which confirms the view from land in prominent locations surrounding the potential development. This identifies that the thick hedge along Dinting Road and the topography greatly restricts views from the north. The development will be visible from the south. To mitigate the view of the development in the surrounding areas the main hedging to the road side and parameter trees are retained and enhanced with further native planting.

The development will provide dwellings ranging from 1 bed dwellings up to 4 bed dwellings, therefore providing a range of accommodation to suit individuals, couples and families of differing sizes and budgets. This will contribute to social cohesion throughout the site, allowing residents of all ages and needs to remain within the area.

3.6.2 Relationship with existing settlement patterns and traditions

The Design and Access Statement includes a Landscape Appraisal. This details that how site lays to the southern side of Dinting Road. The road connecting Glossop with Brookfield and Hadfield is roughly 1,000m northwest of Glossop town centre. A small 'square' of land is understood to be owned by Derbyshire County Council and lies at the south-eastern corner adjoining the neighbouring St. Luke's C of E primary school.

Beyond the western end of the site a narrow lane serves a number of cottages including Fingle Cottage, Ferncliffe and Overdale. A bridge crosses the railway line towards the western extremity of the site. At the eastern end of the site lies the housing area of Birchside Avenue. This comprises two storey mainly detached houses of 1970s vintage. The land to the west and north of the site is, like the site itself, predominantly open space. North of Dinting Road the land is grazed farmland. To the south beyond the railway line and continuing east towards the centre of Glossop lays a large industrial area accessed off Surrey Street.

A Landscape Impact Assessment conducted on behalf of High Peak Borough Council notes that the impact on the sitting of the National Park is limited due to the proximity and location of the surrounding development. The suggestion to strengthen and retain vegetation on the periphery and in the east of the site has been carried into the site's proposals to reduce visual prominence. The site layout has been designed to include open spaces and landscaped areas. This gives the feel of space and breaks up the landscape to ensure it maintains a rural 'feel' and is in keeping with the

surrounding areas. Parking spaces will be provided for the dwellings; however this will not dominate the street scene and will be in keeping with the surrounding area.

3.7 Travel and Transport

The development will encourage the uptake of more sustainable modes of transport such as cycling and walking, ensuring the reliance on the use of the private car is reduced.

3.7.1 Transport Assessment

A draft Transport Assessment has been produced for the development. The assessment illustrates the transport options in place for all local residents and identifies opportunities to promote sustainable transport options within the scheme.

The proposals are likely to give rise to additional traffic during the construction phases of the development (and during occupation of the houses). There are residential properties directly east of the development which may be affected by this construction activity. Any potential negative effects here are not expected to be abnormally higher than other development projects and the potential adverse effect would be temporary and mitigated by conditions attached to construction operating hours.

3.7.2 Alternative Transport Options

The site encourages access by more sustainable modes of transport such as cycling and walking, so the reliance on the use of the private car is reduced. The Transport Assessment details the key walking and cycling routes assessed for safety and pedestrian designation. Within the 2km walking and 5km cycling catchments are several amenities and facilities identified as we as local employment opportunities. Options for access to bus stops are within the walking catchment and the recommended walking distance defined in current guidance. Rail transport towards Manchester is accessible from the site falling within the recommended 2km maximum walking distance.

3.8 Energy Efficiency

3.8.1 Siting and Orientation

In order to maximise the healthy sustainable design of the dwellings, all units are designed to make best use of daylighting and natural ventilation. The final layout of the houses will maximise lighting and ventilation into the key occupied spaces, providing a healthy and comfortable space for occupants.

The site has been designed to allow natural outdoor spaces with new tree planting to provide shading, accessible relaxation space and links to local biodiversity. All new dwellings will have significant private outdoor space also.

Every effort has been made to design the layout of the dwellings to allow for as much natural lighting as possible, reducing the need for reliance on artificial light and improving living conditions, particularly in areas where close work may be undertaken such as kitchens and home office areas.

The orientation of the houses lined along the elevations of the sloping hill will offer significant north-south and east-west wind protection. The enhanced hedging and planting to the road side as well as the embankment to access the development will offer additional wind protection to the houses to the south of the development.

3.8.2 Meeting Level 4 CfSH

Whilst there are no specific performance requirements for the new dwellings to be assessed against the Code for Sustainable Homes criteria at Level 4, it will be demonstrated that a 19% improvement upon the 2013 target emission rate (TER) will be achieved.

3.8.3 Energy Efficiency & Supply

a) **Insulation and heating**: Opportunities to utilise insulation products in the building envelope which have a low environmental impact and high thermal performance will be investigated to ensure that the thermal performance of the building envelope is as effective as possible. In addition, the design will seek to achieve through building specification, an air tightness which is less than that required under Building Regulations; lower air leakage means less heat leakage.

   The orientation of the dwellings will aim wherever possible, to ensure that they are exploiting passive solar gain and thereby capturing heating benefits.

Materials will be selected where appropriate with the aim of providing good insulation to avoid overheating in summer and reducing heating demand in winter.

b) **Lighting:** Initially when reviewing site layout and building orientation, consideration will be given to the building arrangement with the aim of maximising daylight while avoiding excessive solar gain within the new build elements wherever the site layout allows. As a minimum standard all of the dwellings will be fitted with a 100% dedicated energy efficient fittings

c) **Ventilation and cooling:** It is envisaged that a natural ventilation system will be used wherever possible and throughout all new dwellings. It is not envisaged that cooling systems will be required.

d) **Control Systems:** A comprehensive metering strategy will be installed as part of the development works to allow individuals to monitor their energy consumption. It is anticipated that the energy metering will be linked to the incoming electricity and heat supply within the dwellings.

3.9 Renewable Energy

In order to establish the most sustainable approach to energy provision throughout the development, a detailed Renewable Energy Statement has been produced by WYG. The report considers how the whole site can minimise energy demand and consumption. The report recommends the following approach in order to attain the sustainable requirement of meeting a 10% improvement upon the 2013 Target Emission Rate (TER). The report appraises the following renewable/LZC technologies:

- Solar energy (photovoltaic and solar thermal)
- Hydro energy (hydroelectric from rivers, waves & tides etc)
- Wind energy (wind turbines, mills and pumps)
- Biomass/Biogas (biomass/biogas boilers/CHP)
- Ground Source Heat Pumps (direct from natural 'hot spots' etc as opposed to using heat pumps)
- Combined Heat and Power (where the fuel source is not renewable i.e. gas/oil)
- Air Source Heat Pumps (where the energy driving the pump is not renewable)

The report presents 3 viable options to minimise fossil fuel consumption. Each feasible option will allow the development to attain the Council's sustainable energy requirement of at least 10% improvement on the 2013 Target Emission Rate. These viable options include: PV panels (1.5KW), micro wind turbine (5m diameter) and air source heat pump (5KW). It is anticipated that one of these design options will be progressed as the development proposals are developed.

3.10 Pollution Control

During operation of the proposed development, it is possible that there will be pollution impacts that will require management. A Geophysical report (June 2015) produced by Brownfield Solutions has assessed the site for any contamination effects. Overall the risk of contamination is low for the site; however a potential source of ground gas has been identified on site and off site which is considered to be a moderate to low risk to site end users at this stage. Gas protection measures may need to be incorporated within the new dwellings.

Given the location and its intended use, the development is not considered to be located within a sensitive area; therefore, any identified effects are less likely to be considered as significant.

Noise and Light Pollution

The construction activities are not anticipated to include any further noise generation than other urban development projects. Any potential temporary adverse effects will be mitigated by conditions attached to construction operation hours. Acoustic surveys and studies will be undertaken by suitably qualified acousticians to establish the likely noise generated by the development from plant. Where appropriate this will be designed out and where necessary, acoustic screening will be used to minimise impacts.

Light pollution can be caused where careful consideration is not given to the specification, location and operation of external lighting systems within a development.

In order to minimise light pollution, where possible the need for excessive external lighting will be removed through careful design without adversely affecting the safety and security of the site and its users. When this route has been taken, any remaining lighting needs will be addressed ensuring that compliance can be demonstrated with the Institute of Lighting Engineers (ILE) Guidance Note for the reduction of obtrusive light, 2011. Standard lighting will be automatically switched off over night in line with best practice. Safety and security lighting required over night will operate at a lower level as recommended by the ILE.

3.10.1 Water, Air and Land Pollution Reduction during Construction

During construction, it is envisaged that there may be impacts associated with noise and light pollution. However these will be minimised through careful construction management practices.

During construction, external lighting design and any plant noise will be carefully managed to minimise any negative effects. The contractor will adopt best practice to ensure the risk of pollution to air and watercourses is controlled and that opportunities to monitor and report on energy and water consumption during construction are sought. In addition, the site will be managed in an environmentally and socially considerate manner. Staff will be given appropriate training during their site induction and toolbox talks.

The site will be monitored by an experienced industry professional to assess performance against the eight areas of the Considerate Constructors Scheme.

3.11 Waste Management

In order to reduce the amount of waste going to landfill, the waste hierarchy will be adopted in line with best practice. Waste will be designed out by prioritising reduction, reuse and recovery of materials, exploring off-site construction methods which can significantly reduce the amount of waste produced on site, materials optimisation and waste efficient procurement (e.g. supplier take back schemes).

3.11.1 Site Waste Management Plan (SWMP)

A Site Waste Management Plan (SWMP) will be produced for the construction stage of the development.

During construction, the contractors will adopt management measures to minimise waste generated on site and maximise recycling of any waste that is produced to divert as much as possible from landfill. To assist the construction team the Principal Contractor will produce a Site Waste Management Plan (SWMP) for the development, to identify opportunities to minimise waste generation and identify appropriate waste management routes for waste materials. This may also be referred to as a Resource Management Plan (RMP), to ensure that all opportunities for resource efficiency have been addressed.

The SWMP/RMP will cover as a minimum the following key issues:

- A target benchmark for resource efficiency, i.e. m^3 of waste per $100m^2$ or tonnes of waste per $100m^2$;
- Procedures and commitments for minimising non-hazardous waste in line with the target benchmark;
- Procedures for minimising hazardous waste;
- A waste minimisation target and details of waste minimisation actions to be undertaken;
- Procedures for estimating, monitoring, measuring and reporting hazardous and non-hazardous site waste. If waste data is obtained from licensed external waste contractors, the data needs to be reliable and verifiable, e.g. by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms;
- Procedures for sorting, reusing and recycling construction waste into defined waste groups, either on-site or through a licensed external contractor;
- Procedures for reviewing and updating the plan;
- The name or job title of the individual responsible for implementing the above.

In order to make more efficient use of materials over the lifecycle of each dwelling and its components, the design team will aim to undertake a review of materials efficiency throughout the building project where possible. This will include a review of opportunities for using fewer materials and, where appropriate, procuring materials with higher levels of recycled content. It may also include the adoption of alternative means of design/construction that result in lower materials usage and lower wastage levels including off-site manufacture and use of pre-assembled service pods.

3.11.2 Internal and/or External Waste Recycling Facilities

Clearly labelled recyclable waste storage areas should be provided within easy access of each dwelling, which will be of an adequate size to facilitate recycling of waste.

The waste storage areas for each dwelling are anticipated to meet both the Council and CfSH sizing requirements and will cater for both standard and recyclable waste, and be clearly labelled as such to avoid cross contamination. These will include segregation of waste arising in accordance with current waste collections delivered by High Peak Borough Council and include collections for non-recyclable waste, recyclable waste, food and green wastes respectively.

Adequate internal waste storage areas will be considered as part of the design to residential units to meet the recommended storage space of 7 litres per bin, with where possible, at least 3 separate bins provided.

The sustainable management of waste has been given a high priority in the design of the development in terms of both construction and operational waste generation.

3.12 Water Management

3.12.1 Flood Risk Assessment

The impact of climate change has been considered, including the effects of increased flash flooding and other extreme weather events.

A Flood Risk Assessment produced by WYG confirms the proposed development lies within Flood Zone 1 and confirms that the site is considered to be at a low risk of flooding from all sources.

3.12.2 Surface Water Impacts

Two options have been considered in conserving the surface water for the proposed development and consideration will be given to each of these as the design development proposals progress:

- Option 1 proposes that the application site discharges to the existing watercourse that bisects the application site at a peak greenfield discharge rate of 17.4 l/s
- Option 2 proposes that the application site discharges to the existing United Utilities public surface water sewer within Birchside Avenue at a peak greenfield discharge rate of 10 l/s

3.12.3 Water Consumption Reduction

Rainwater harvesting has been considered in the Flood Risk and Drainage Assessment. This strategy is identified as being potentially appropriate for the site.

In order to minimise potable water consumption the following measures will be considered within the new dwellings:

- Low/dual flush toilets
- Low flow showers
- Low flush taps
- Flow restrictors to pipework

It is envisaged that through the adoption of the above, primary consumption can be significantly reduced. In order to meet the requirements for both Code Level 3 & 4, potable water consumption should be reduced to less than 105 litres/person/day, which can be achieved through the careful specification of sanitary ware fittings.

3.13 Biodiversity and Open Space

3.13.1 Designing for Open Space

All new dwellings will be provided with their own private external green space.

A central public open space will be created close to the site entrance from Dinting Road and visible from it. New tree planting on the northern side of the site creates a strong backdrop, with more open ground to the southern, where there is potential for local informal play.

3.13.2 Creation of Functional Linkages and Promotion of Green Corridors

A visually strong hedge line along Dinting Road will be retained and brought under management, in accordance with the ecology proposals.

The hedge will be thickened with native planting to produce a strong visual barrier and maintain ecological connection along Dinting Road. The trees and associated vegetation along the southern boundary will be similarly retain and managed.

3.13.3 Protected Species Disturbance and Creation of Alternative Habitats

The habitat composition of the site was considered to have potential to support legally protected/BAP wildlife species including reptiles, bats, nesting birds and badgers. A number of recommendations were made in respect of the protection of nesting birds and badgers.

A Phase 1 Habitat Survey has been undertaken for the site confirming that it is 'highly unlikely' the development would adversely affect any designated or Local Wildlife Site.

As detailed above, a Phase 1 Habitat Survey has been undertaken at the site and recommendations for enhancement have been included within the accompanying report.

Proposed Site Plans produced by Bowker Sadler Architecture detail the location of two 'Detention Basins' to provide a wet woodland habitat one being at the T-junction to the back of the development and the other at the far-east of the development. Further detailed work will be undertaken for the development by a suitably qualified ecologist (SQE) where required. An appraisal will consider the key CfSH issues on species diversity and enhancement of the site biodiversity following construction. Adopting the recommendations of the ecologists into the scheme and landscape design will assist the scheme to increase species diversity at the site and ensure that any ecological features are protected where possible.

3.13.4 Layout Contribution to Trees and Woodland

The Land Impact Assessment confirmed that the proposals would have a low ecological impact on the site.

There is the intention to include an area of public open space, retention of hedgerows and trees as well as planting of native species to visually break up the site. Boundary features between dwelling gardens and existing hedgerows with encourage wildlife movement throughout the site.

3.13.5 Landscaping Proposals for Trees and Shrubs Selection

Enhancement recommendations are provided within the Landscape Impact Assessment and Phase 1 Habitat reports which predominantly relate to external boundary vegetation retention. Native trees and shrubs will also be planted to visually "break-up" the site internally and edges externally. These recommendations will be incorporated within the development design wherever feasible.

4 Report Conclusion

The development has shown that it will comply with all of the relevant policies from High Peak Borough Council. It will provide much needed residential accommodation adjacent to existing residential areas.

In addition to this the landscaping proposals will ensure a safe and vibrant community space to encourage interaction of people from a wide range of backgrounds. The community will benefit from a holistic space which will improve the area and will minimise its impact on the environment.

Appendix A – Report Conditions

WYG Engineering Ltd.

REPORT CONDITIONS

This report is produced solely for the benefit of N. Dignan & J Wood and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual

environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors

Sustainability performance is influenced by many factors over prolonged periods, including the degree to which advice on assessed sustainability measures is incorporated into detailed designs and specifications, then implemented and operated. WYG accept no liability for issues with performance arising from such factors. In particular, WYG accept no liability for the outcome of BREEAM, EcoHomes, CEEQUAL and other assessments. It is noted these assessments typically depend on the degree to which measures are implemented and on good evidence being supplied to demonstrate compliance. It is assumed that proposed sustainability measures will be assessed by others within the project team (e.g. in terms of likely energy consumption).

Appendix B – High Peak Borough Council Sustainability Checklist

Content of Local Plan Policy	Comments on how policies met by development proposal
Land Use	
Does the proposal improve vacant or derelict brownfield land?	Not applicable to this development.
How does the location widen transport choice for people and goods?	Not applicable to this development.
Landscape protection	Refer to landscape protection section of this report.
How is building design appropriate to the character of the landscape?	Refer to landscape protection section of this report.
Heritage Management	
How do proposals reflect the local heritage features?	Refer to heritage management section of this report.
How are external materials sympathetic and appearance of the features?	Refer to heritage management section of this report.
Layout	
Does the development include a mix of dwelling size, type and affordability?	Refer to site plan.
Does the development relate well to existing settlement patterns and traditions?	Refer to site plan.
Does the development include principles from 'Secured by Design'?	Refer to design and access plan.
How does the development meet the National Playing Fields Association 'Six Acre Standard'?	Refer to site plan.
Travel and Transport	
Has a travel plan been submitted?	The transport assessment confirms that a travel plan is not required for the development.

Content of Local Plan Policy	Comments on how policies met by development proposal
How does the site encourage access by alternatives to a private car?	Refer to Transport section of this report.
How do proposals meet parking standards?	Refer to Transport section of this report.
If development is over 100m2 have three secure bicycle parking spaces been provided?	Refer to Transport section of this report.
Energy Efficiency	
Do siting and orientation make maximum use of sunlight and wind protection?	Refer to Energy Statement.
Does the development meet level 3 of the Code for Sustainable Homes of BREEAM standard of Very Good?	Refer to Energy Statement.
Renewable energy	
What percentage of on-site energy generation will be met by renewable?	Refer to energy statement
What is the total capacity of all the renewable technology installed on site (in MW)?	Refer to energy statement
Pollution Control	
If the site is known to be unstable or contaminated, has an assessment of the effects been undertaken?	Refer to site investigation
How will the development be designed to reduce the impacts of noise and light?	Refer to pollution control section of this report.
How will the site be managed to reduce pollution, air and land during construction or demolition?	Refer to waste management section of this report.
Waste Management	
If the proposal is for a residential development of 100 or more houses or a commercial development over 1000m2 or more, has a statement been submitted detailing how waste	Not applicable to this development.

Content of Local Plan Policy	Comments on how policies met by development proposal
generated from construction and occupation will be managed?	
Water Management	
If the development affects an area liable to flood, has a flood risk assessment been submitted?	Refer to flood risk report.
How has consideration been given to the impact of surface water? Is there use of permeable paving material/sustainable urban drainage systems on site?	Refer to flood risk report.
How does the development include rain-water harvesting opportunities and/or minimising water use by occupants?	Refer to flood risk report.
Biodiversity and open space	
How does the design maintain, contribute to and enhance open space?	Refer to phase 1 habitat survey.
How does the development create functional linkages within the current network of open space and help to promote green corridors?	Refer to land use section of this report.
Does disturbance occur to a protected species and if so, does the development provide adequate alternative habitats to sustain at least current levels of the population?	Not applicable to this development.
How does the layout maintain and contribute to trees and woodland?	Refer to tree constraints plan.
Have landscaping proposals been submitted and how are selected trees and shrubs suitable for the chosen site?	Refer to phase 1 habitat survey.