THIS LICENCE is made the day of 202

BETWEEN

1. **CRANLEIGH PARISH COUNCIL** of Council Office, Village Way, Cranleigh Surrey GU6 8AF ("the Parish Council") and
2. **The Person or Persons** whose name and address is set out in Part 1 of the Schedule ("the Licensee")

RECITALS

1. The Council is the owner of the Recreation Ground known as Snoxhall Fields the boundary of which where it adjoins properties in the road known as Hitherwood is shown by the red line on Plan 1 annexed
2. The Council has previously allowed by way of licence owners of properties in Hitherwood to erect a fence on the western side of the red line and the existing hedge

OPERATIVE PROVISIONS

1. **IN CONSIDERATION** of and subject to the agreements on the part of the Licensee hereinafter contained the Parish Council hereby grants to the Licensee the right to use the land enclosed by the fence ("the land")

2. **THIS LICENCE** is not a tenancy or lease and does not confer on the Licensee the right to exclude the Parish Council or their agents employees or any other authorised person from the land

3. **THE LICENCE** shall continue until determined as provided in clause 5

4. **THE LICENSEE** hereby agrees with the Parish Council (to the intent that their obligations shall continue throughout the period of this Licence) as follows:-

   (a) To maintain, cultivate, use and keep the land as garden ground only in conjunction with the adjoining property of the Licensee

   (b) On the determination of this Licence to peaceably vacate the land and to leave the same in a neat and tidy condition

(c) Not to fell prune or remove any trees on the land without the prior written consent of the Parish Council

(d) To permit the Parish Council access to the land from time to time for the purpose of enabling the Parish Council to carry out maintenance and any other necessary work to their adjoining property they being responsible for all or any damage caused

(e) To maintain the fence erected on the western boundary of the land in good condition replacing and renewing the same as necessary

DETERMINATION

5. **THIS LICENCE** may be determined by the Parish Council at any time by giving to the Licensee not less than six month's written notice and upon the expiry of such notice this Licence shall forthwith determine but without prejudice to any right of action or remedy of the Parish Council against the Licensee in respect of any previous breach or infringement of any of the agreements on the part of the Licensee herein contained

6. **THIS LICENCE** and the benefit thereof is personal to the Licensee alone and the Licensee shall not seek or purport to assign or change the same nor shall it be deemed by implication or otherwise to confer on the Licensee any privileges or rights whatsoever over the land other than those expressly granted

7. **ANY** notice authorised or required to be given under the Licence shall be in writing and any notice to the Licensee shall be deemed to be sufficiently served if addressed to the Licensee and left at or sent by recorded delivery post to their address as stated in this Licence and any notice to the Parish Council shall be sufficiently served if left at or forwarded by recorded delivery post to the Parish Council at the address stated in this Licence

THE SCHEDULE

The Licensee

Full Names

The Property

Signed for and on behalf of
Cranleigh Parish Council .....

Signed by

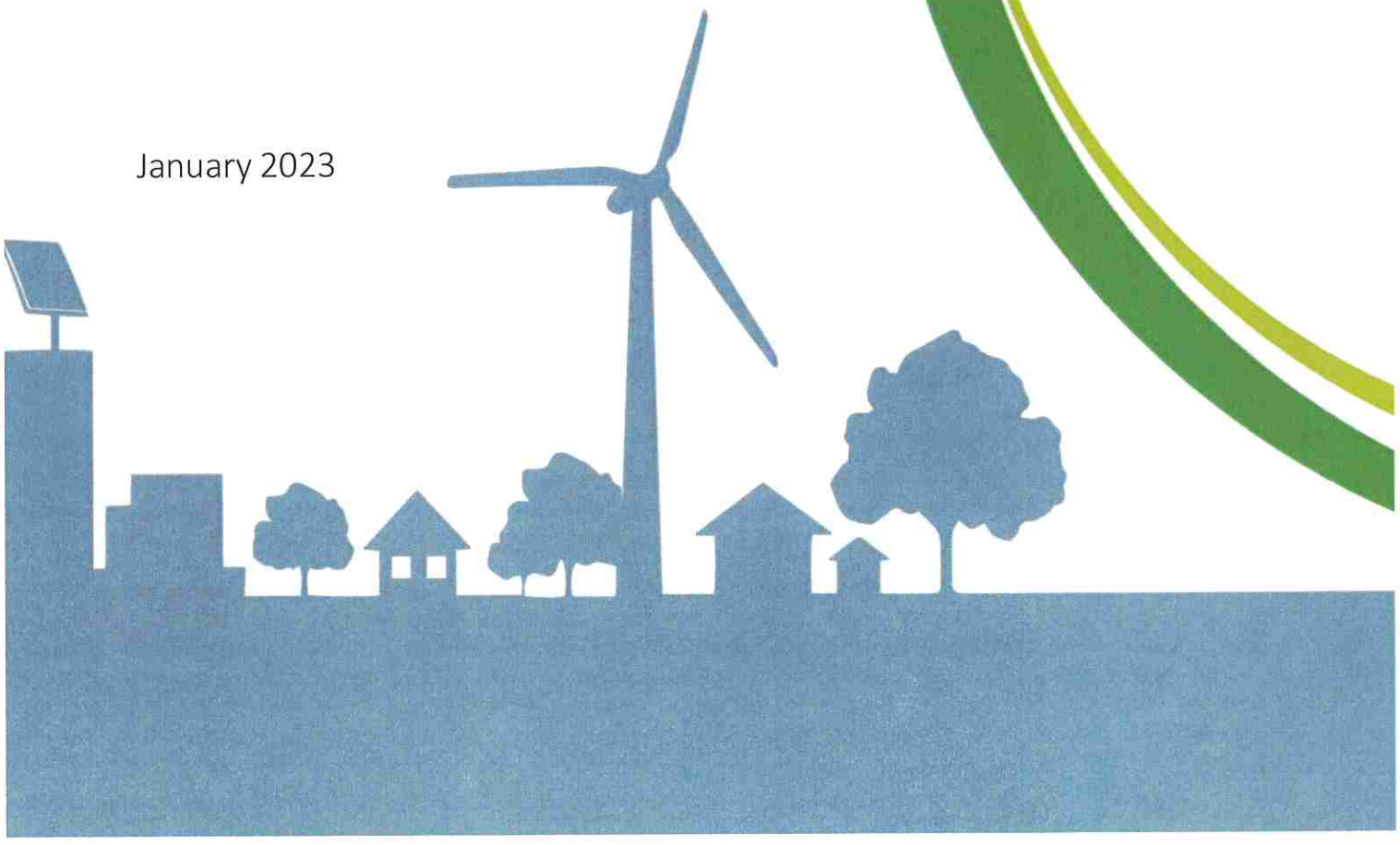
.....

Scene Connect Ltd
46A Constitution St
Edinburgh
EH6 6RS

Cranleigh Parish Council

Low Carbon Heat Network
Feasibility Study

January 2023



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Date:	January 2023
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Version 2.1	Cranleigh Heat Network – Feasibility Study (Draft Final)

Scene Connect Ltd.

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Website: www.scene.community

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NOMENCLATURE

CAPEX	Capital Expenditure
CPC	Cranleigh Parish Council
WBC	Waverley Borough Council
CIBSE	Chartered Institution of Building Services Engineers
DHN	District Heat Network
EIA	Environmental Impact Assessment
EPC	Energy Performance Certificate
GBR	General Binding Rules (Under Controlled Activity Regulations)

GSHP	Ground Source Heat Pump
GSHPA	Ground Source Heat Pump Association
HIU	Heat Interface Unit
IRR	Internal Rate of Return
LPA	Local Planning Authority
LPG	Liquified petroleum gas
MW	MegaWatt
MWh	MegaWatt hours
NPV	Net Present Value
OPEX	Operational Expenditure
RCEF	Rural Community Energy Fund
SCC	Suffolk County Council
WSHP	Water Source Heat Pump

1. Introduction

Cranleigh Parish Council (CPC) secured funding through the UK Government Rural Community Energy Fund (RCEF) to undertake a feasibility study into the viability of developing low carbon heat supply options and low carbon electricity supply within Cranleigh.

The study was undertaken between May 2022 – December 2022 to understand the feasibility of Low Carbon heat supply options and solar photovoltaics (PV). This report provides the outcomes of the feasibility process, including technical, financial, and commercial recommendations, as well as a project roadmap for onwards development.

The following report is structured as follows:

Chapter 1: Introduction.

Chapter 2: The Site.

Chapter 3: Planning & Environmental Baseline.

Chapter 4: Baseline Energy Assessment, mapping and modelling energy demand in the village.

Chapter 5:

Technical Appraisal, assessing local resource, including thermal and electricity generation options.

Chapter 6: Options Appraisal, conducting high-level scheme design options appraisal.

Chapter 7: Financial Assessment, financial, carbon and impact modelling.

Chapter 8: Community Engagement, governance and commercial assessment.

Chapter 9: Operation & Governance, recommendations and roadmap.

Chapter 10: Conclusions.

Further information, including graphical outputs, mapping and data resources can be found in the report appendices.

1.1. Cranleigh Context

Cranleigh is a village southeast of Guildford, Surrey with a population of around 11,500 people and 4,779 households. The village occupies an area of roughly 32.8 km^2, and local governance is overseen by the Cranleigh Parish Council, Waverley Borough Council, and Surrey County Council.

Local history is routed back to prehistoric and Roman era with some Roman buildings and Roman Tile kilns on the east border of the Parish. The Anglican parish church from 1170 is present and restored extensively in 1847. The Industrial revolution saw the Wey and Arun canal open in 1816, providing a route to London via the Thames. This later became unpopular due to the railways and roads, including the B2127, running east to west and the B2128, running north (from Guildford) to south now the main routes to Cranleigh.

Alongside it's historical and cultural importance, Cranleigh is situated in the northwest of The Weald and is therefore sensitive from an environmental perspective. The Surrey Area of Outstanding Natural Beauty (AONB) is situated to the north, with an Area of Great Landscape Value (AGLV) to both the west and east of the village boundary.

Cranleigh is primarily a commuter town, with many residents commuting to Guildford and London for work. The village is a considered a cultural centre, with an arts centre and various cultural and community-focused events hosted in the village throughout the year. Cranleigh has three primary schools, four churches, three supermarkets and numerous hospitality and retail properties located primarily in the core of the village.

Of particular relevance to this study are parcels of land owned by the Parish Council – Snoxhall Fields and Bruce McKenzie Memorial Field – which are both located to the south of Guildford Road (B2128). Adjacent to these

sites is Cranleigh Leisure Centre, which Waverley Borough Council is currently planning to replace by 2025 with a £20 million low carbon leisure development and associated infrastructural improvements.

Further information on the sites included within this study may be found in Section 2.

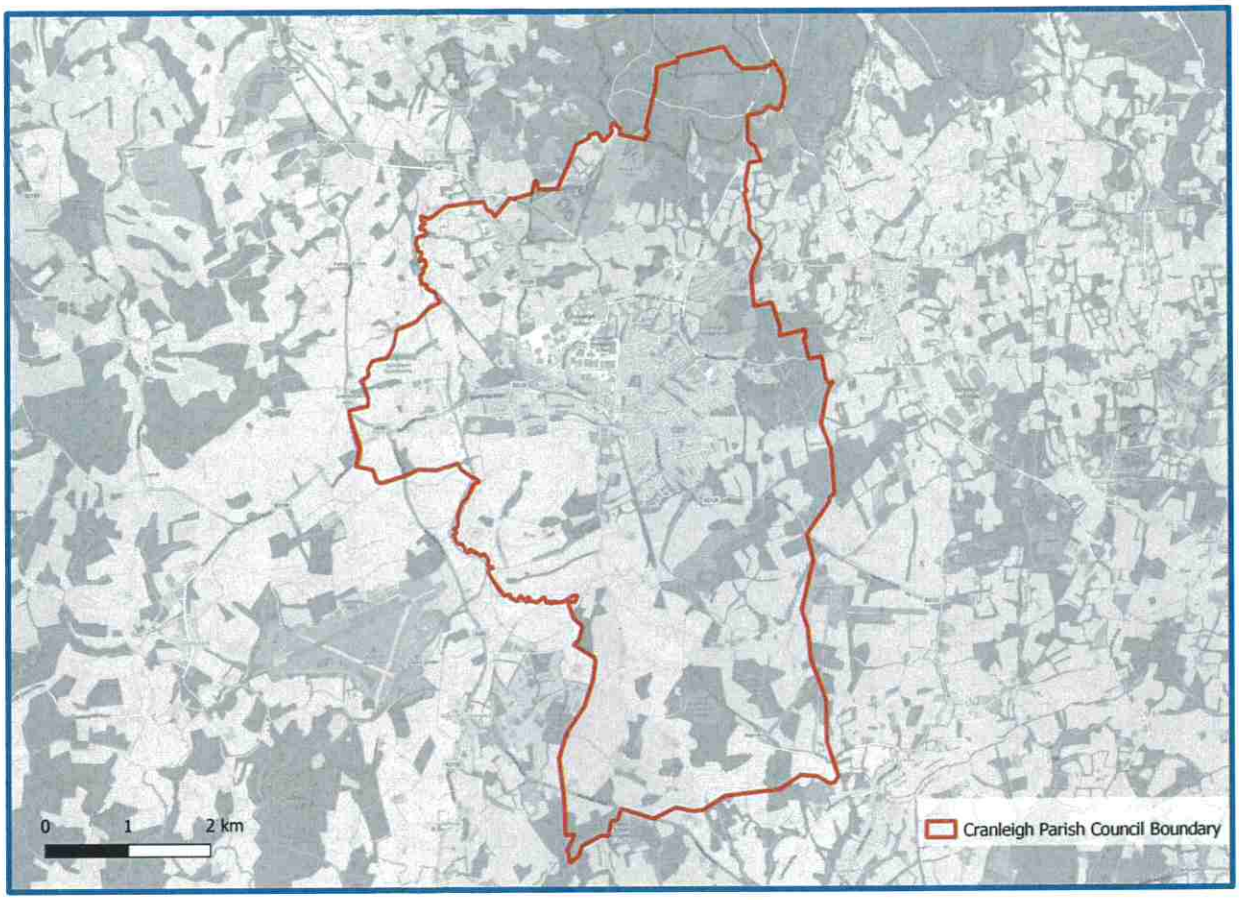


Figure 1.1 – Cranleigh Parish Boundary

1.2. Technology Overview

The below sections provide a basic overview of the two low carbon development options considered within this study – A district heat network supplied by heat pumps and ground-mounted solar PV.

1.2.1. About Heat Networks

A District Heating Network (DHN) delivers hot water from one (or more) energy supply sources. The water is distributed through a series of underground pre-insulated pipes, to heat individual buildings in a closed loop system.

Each property connected to the system receives energy through a Heat Interface Unit (HIU) or directly from the network, which replaces the need for individual boilers at each building. Modern HIU have a similar level of user control as modern boilers, and similar maintenance requirements, avoiding the need for specialist servicing.

The HIU includes, amongst other things, a heat exchanger that transfers heat from the DHN network to each building's internal heat network (pipes and radiators, or under-floor heating). These systems are in widespread use in many northern European countries, but due in a large part to infrastructure investment decisions taken in the 1960's in the UK reflecting the opening of natural gas resources in the North Sea, their deployment in the UK to date has been very limited.

A decentralised heating network avoids the need for a separate energy centre, with individual heat pumps in each building, each connected to the heat supply. It is only appropriate in a smaller scale context, and therefore its deployment is less widespread.

To distinguish between these two potential approaches to developing a heat network, this report refers to the district heating network approach as a 'Centralised' DHN system, and to the distributed heating network as a 'Decentralised' DHN system, including heat pumps within properties.

Whichever approach is taken, there are significant benefits from supplying heat through heat networks, including:

- Highly efficient generation from direct supply of heat.
- Substantial reduction in CO_2 emissions.
- Cost savings from improved efficiency, and more predictable prices.
- Improved load characteristics (heating requirements can be spread more evenly across different uses, with commercial properties tending to need heating through the day, while residential properties tend to need heat in the morning and evening).
- Potential to use renewable energy sources to generate the heat wholly or partially.
- Potential to use local fuel sources, increasing energy security.
- Reduced dependence on boilers within individual buildings (albeit this requirement is generally replaced with the need for HIU or individual heat pumps).

To justify development, heat network performance needs to provide a service equivalent or better to existing sources of heat supply, and heating charges which are equal to or lower than the alternative heating costs.

Although heating networks can operate at higher temperatures, comparable to conventional wet heating systems inside buildings (with a flow and return temperature typically of 80°C / 60°C), this is generally less efficient, as more input energy is required to generate the high temperatures, and more heat is lost in the distribution network. Lower temperature networks are possible, and several different options have been considered (60/40 and 55/40, with and without Domestic Hot Water). Lower temperature networks often require upgrades to building fabric to improve energy efficiency and building heating systems to maintain heat output capacity.

Best practice is to take a 'fabric first' approach, to improve the energy efficiency of buildings first. This has benefits for reducing energy demand in the first place, irrespective of whether the existing heat supply is replaced.

In addition, a wet heating system is usually necessary (with radiators). The buildings in Cranleigh have a variety of different heating systems: where there is an existing system, allowance needs to be made for flushing it out, and potentially increasing the size of radiators and pipework; where there is no existing system (for example where the heating is provided through storage heaters or electric panel heaters), allowance needs to be made for installing a new wet heating system.

Clearly it makes sense to undertake energy efficiency works and heating system upgrades at the same time to minimise disturbance to residents or building users. However, it also introduces a complexity in terms of how the works are financed and funded.

For the feasibility stage, the financial modelling relates to the project, based on an optimal scenario for the system. Modelling includes capital and operational costs relating to the heat supply and heat distribution between buildings (the network) and the energy efficiency and internal heat distribution within buildings. These factors determine project viability based on providing a service equivalent or better to existing sources of heat supply, and heating charges which are equal to or lower than the alternative heating costs.

At the next level of detail, building specific assessments will need to be undertaken to confirm or otherwise viability for individual customers, and consider mechanisms for financing and funding considering eligibility for different funding programmes.

1.2.2. About Solar PV

Solar PV (Solar Photovoltaics) is the generation of electricity using energy from the sun. Modern solar panels produce electricity from daylight and do not require direct sunlight, although more electricity is produced on bright, sunny days.

Enough sunlight falls onto the earth every hour to meet the world's power demands for an entire year, so harnessing and using this free energy can help reduce our reliance on other sources of energy and be beneficial to the environment as well. By installing Solar PV panels, you can produce free, green energy. Solar PV panels are normally mounted on the roof of your building although they can also be placed on the ground when a suitable roof is not available. A device called an inverter changes the DC electricity produced by the panels into 'useable' electricity that can then be used to power appliances in your home or can be fed back into the National Grid. Solar PV panels contain no moving parts, are low maintenance and roof mounted systems will typically be adequately cleaned by rainfall.

In the UK energy market, domestic and non-domestic solar PV arrays are frequently installed across the country. Demand for solar installations has increased dramatically in 2021 / 22 due to dramatic increases in electricity prices. The cost of solar PV is generally on a decreasing trend, as panel performance increases and production costs decrease. Supply chain issues resulting from the COVID-19 pandemic and increased demand has led to short term increases in solar PV costs and material availability.

Within Waverley Borough Council's area there is 11.6 MWp of solar generation capacity, installed across 2,295 sites. Solar PV is by far the most dominant small-scale generation technology, comprising 71% of all small-scale renewable energy generation in the Borough.

1.3. Organisations

The following organisations are relevant to the study and have played a role in supporting and creating this report.

Cranleigh Parish Council

Cranleigh Parish Council (CPC) acts on behalf of the village of Cranleigh, representing the interests of the community and engaging with all local residents. CPC sits below the Waverly Borough Council. CPC sits below the Waverly Borough Council (WBC) and Surrey County Council (SCC), in the east of England, and while CPC can provide its input on planning applications and proposals within the Parish area, the Borough and County Council normally make the final decisions. Parish Councillors are subject to re-election every four years and the clerk provides advice on law and procedure, administrative support and implements council decisions and policy. All Members of the Parish Council are required to comply with a Code of Conduct in the performance of their duties.

Rural Community Energy Fund

The Rural Community Energy Fund (RCEF) is a £10 million programme which supports rural communities in England to develop renewable energy projects, which provide economic and social benefits to the community. The RCEF is administrated by the South West Net Zero Hub and has provided funding for this heat network feasibility study. The RCEF closed in April 2022 and is not expected to provide any further project funding to Cranleigh.

Scene

Scene Connect Ltd. (Scene) is a UK based social enterprise established in 2011 with the intention of furthering the community energy sector in Scotland and further afield through innovative partnership and use of land. The organisation works with landowners, developers, and community groups to further opportunities for a range of

community developments, expanding from its initial focus on renewable energy, through benefits packages, joint ventures, and wholly owned projects. Scene are the technical consultants who have produced this feasibility study in partnership with CPC and our subcontractors.

TownRock Energy

Founded in 2013, TownRock Energy is a geothermal energy consultancy based in Edinburgh, Scotland and is the leading specialist in all aspects of the UK's geothermal resources. The Company's mission is to access the abundant geothermal energy of the earth's subsurface to provide zero-carbon, 24-hour renewable heating and cooling to industrial, commercial, and domestic energy users. TownRock Energy provided geothermal assessment and heat generation modelling within this feasibility study.

2. The Site

This section provides an overview of the proposed location for low carbon heat and electrical generation and supply developments in Cranleigh. This feasibility study is led by an assessment of generation potential from two areas of land to the South of Cranleigh, nearby to a number of public, commercial, and areas of domestic demand. The land parcels included in this study are:

Snoxhall Fields is approximately 15 Acres (62,000m^2). Approximately 10,000m^2 of the Snoxhall Fields is covered by the public buildings, parking and play park area. This option has been split into three section, Snoxhall Option A, B and C. Option A and B are seen as viable for heat and / or solar PV generation, whilst options C has not been included in this study due to its smaller size, as well as its designation as an Area of Strategic Visual Importance (ASVI).

Bruce McKenzie Memorial Field is approximately 8 Acres (32,500m^2). Split into two halves, the eastern half of Bruce McKenzie Field is currently used as a football pitch. Both sections of this land parcel are deemed suitable for either heat generation or solar PV installation.

Based on the resource availability from these land parcels, a demand assessment was conducted to understand the scale of heat and electricity demand which could be met by these land parcels. The demand locations assessed within this study include:

- A planned **Leisure Centre**, situated at the location of the current Cranleigh Leisure Centre.
- **CPC owned properties**, including the council offices, Snoxhall Pavilion and community centre, village hall and nearby public conveniences.
- **CPC leased properties**, including the band room, citizens advice bureau, Scouts HQ and Guide Hut
- **Wider public services** and properties, including Cranleigh Village Hospital, Medical Centre, and Library.
- **Nearby domestic properties**, including properties on and adjacent to Newlands, Knowle Lane, Overford Drive and Hitherwood.

Figure 2.1 provides an overview of the land parcels and properties included within this study.

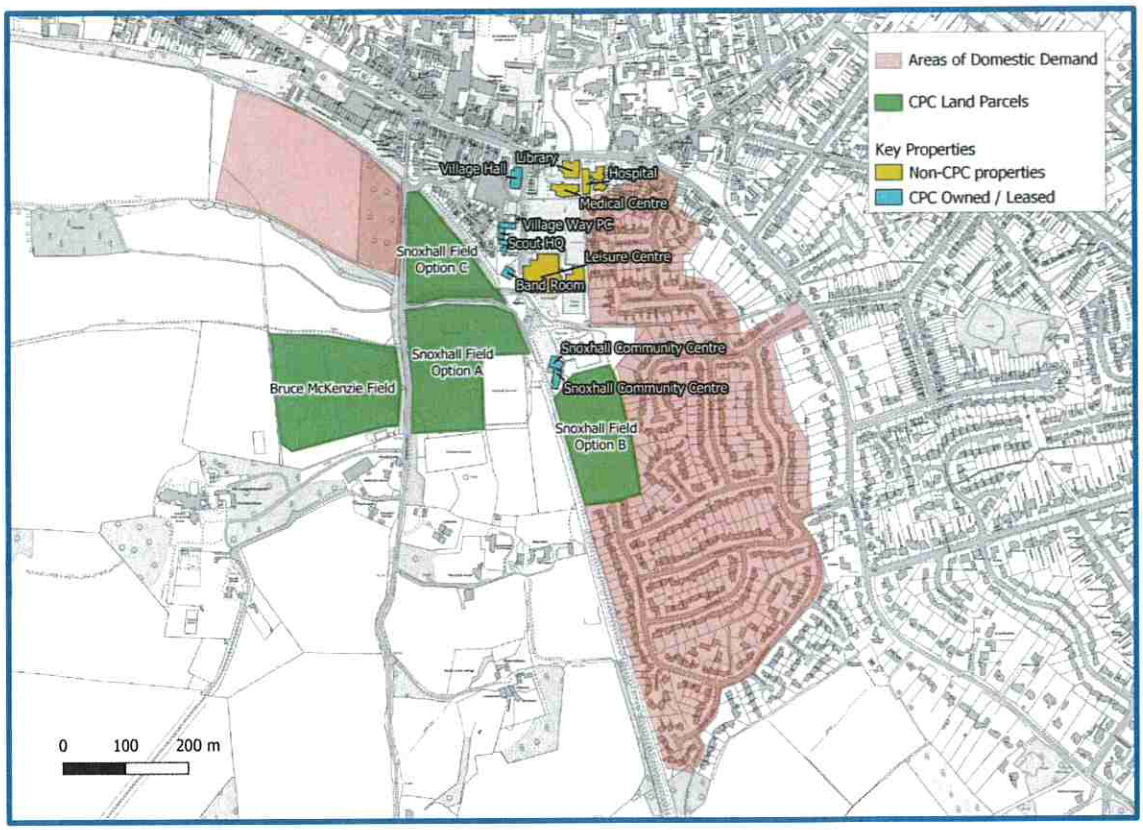


Figure 2.1 – Cranleigh Site Assessment

3. Planning & Environmental Baseline

A review of relevant environmental and planning policy and regulation in relation to the proposed Heat Network has been carried out. The following reference sources are of relevance to developing a heat network:

- The Climate Change Act 2008, (HM Government, 2008)
- Energy white paper: Powering our net zero future, (HM Government, 2020)
- Heat and Buildings Strategy, (HM Government, 2021)
- Surrey's Climate Change Strategy (Surrey County Council, 2020)
- Waverley Borough Local Plan Part 1: Strategic Policies and Sites February 2018
- Local Plan Part 2: Site Allocations and Development Management Policies (Pre-Submission Stage)
- Cranleigh Neighbourhood Plan (Pre-Submission Stage)
- The Environmental Permitting (England and Wales) Regulations (2016)
- Water Resources Act (1991) Statute Law Database

3.1. Planning & Permitting

National and local planning guidance is explored in relation to heat network and solar PV development are set out in this section.

3.1.1. Heat Networks

Heat networks are subject to a number of specific and emerging planning and permitting conditions. These conditions are dependent on the size and extent of, and technologies used within, the network, as well as the local area in which the network is located.

The below statements provide context regarding planning and permitting activities which *may* be required for a heat network in Cranleigh. Due to the expected scale of development, an Environmental Impact Assessment (EIA) is not expected to be required, but engagement with, and seeking screening opinions from, regulators will be a necessary step in the permitting process.

1. Planning of geothermal energy schemes is determined by local planning authorities (LPA). Planning consent is required for the development of large GSHP systems and for deep geothermal projects, in some cases including an EIA.
2. In England and Wales, GSHP systems that utilise groundwater (open-loop systems) are subject to groundwater licensing[1] and environmental permitting[2] regulations issued by the Environment Agency as environmental regulator. Some larger schemes (open-loop and closed-loop) may also require planning permission.
3. WSHP (Water Source Heat Pump) is currently regulated slightly differently to open-loop borehole systems. Systems which meet standard rules: environmental permitting (2014), can typically be deemed acceptable. This includes limitations on abstraction levels ($20m^3$ – $1000m^3$/day) and temperature differential (Delta T <8°C), which small scale heat networks typically fall within.
4. Currently under review (for England & Wales) by the regulator, water abstraction licensing is expected to move into the Environmental Permitting Regulation framework in 2023[3]. While this is likely to simplify the application process for GSHPs, some in industry remain concerned that regulations and planning guidance for GSHPs are not sufficiently clearly defined.

[1] Water Resources Act (1991) Statute Law Database
[2] The Environmental Permitting (England and Wales) Regulations (2016)
[3] Department for Environment, Food & Rural Affairs (2021) Changes to the regulatory framework for abstraction and impounding licensing in England

5. It can take 6 – 18 months for the pre-application consent(s) and another 9 – 12 months for the licences and permits. In addition, the Environment Agency is currently reviewing its water resource charges[4], including the application charges applicable to open-loop GSHPs. The proposed change from a fee of £135 for all schemes to a charge of potentially up to £18,308 for large schemes in areas of limited water availability is regarded by the industry as prohibitive to the growth of open-loop GSHPs.
6. The Environment Agency has recently (December 2021) consulted on amendments to the Environmental Permitting (England and Wales) Regulations 2016 to implement a similar framework in England for closed- loop schemes. The amended regulations would include a requirement for closed-loop GSHPs to comply with GSHPA standards under the General Binding Rules (GBR).
7. In England and Wales, heat network developers currently do not have the statutory right to access private land for construction or maintenance purposes. Instead, they must negotiate these arrangements on a voluntary basis which can slow down project development or increase project costs. BEIS is currently preparing legislation to address these challenges, including access rights and the regulation of heat networks[5]. It is expected that this legislation will be introduced in 2024/25.
8. Abstraction licences are time limited and typically last between 6 – 18 years. Renewals must be sought after this point, typically for a further 12-year period.

3.1.2. Solar PV

Part 14 of *The Town and Country Planning (General Permitted Development) (England) Order 2015* provides details regarding the development constraints and conditions for the development of solar equipment. In general, developments are assumed to be permitted on residential homes and blocks of flats, except when the proposed solar array does not meet the requirements of size, spacing, and natural or cultural heritage constraints.

Ground mounted solar PV installations will generally require planning permission unless the array is less than $9m^2$ (~4-5 panels), but screening via the local planning authority is recommended. Generally, 'standalone' systems don't need permission as long as they comply with the below guidelines:

- Rated capacity is <50 kWp;
- Array is no higher than four metres;
- Sited at least 5m from boundaries;
- Size of array is limited to $9m^2$;
- Array is not installed within boundary of a listed building;
- In the case of land in a Conservation Area or in a World Heritage Site, the array should not be visible from the highway.

For larger systems (>50 kWp), the prior approval of the Local Planning Authority is required at a minimum and generally systems of this scale will require full planning permission. Within Cranleigh there are a number of sensitivities which are anticipated to affect any solar PV development, including:

- Visibility of the solar array from the village of Cranleigh, leading to visual impacts on the nearby **conservation area**;
- **Glint and glare** impacts on neighbouring properties and roads which may require mitigation through specific siting requirements or screening of particular viewpoints;
- Impacts on the **Snoxhall Field ASVI**, either directly through intentions to implement solar PV in this zone or indirectly through visual impact from an adjacent site.

Engagement with the local planning authority will ensure that any proposed siting and scheme design is suitable and viable within this local context. Consultation will also clarify any planning permission requirements and specific assessment requirements (e.g., landscape and visual impact assessment (LVIA), glint & glare assessment). It is not anticipated that a development of the scale(s) set out in this report would require an Environmental Impact Assessment (EIA).

[4] Environment Agency (2021) Water resources charge proposals from April 2022
[5] HM Government (2020) Energy white paper: Powering our net zero future

3.2. Local Plan

Surrey County Council produced a Climate Change Strategy in 2020 in partnership with all district and borough councils in the County. The strategy highlights that all 12 local authorities in the county are committed to ensuring that *"residents live in clean, safe and green communities, where people and organisations embrace their environmental responsibilities"*. In particular, the strategy states intentions to:

- **Deliver 15% of local electricity use from solar PV by 2032**, with strategic priorities to install new generation capacity (SP1) and smart, localised energy systems which benefit local residents and businesses (SP2).
- **Reduce domestic housing emissions by 66% by 2035**, with strategic priorities to support energy efficiency retrofits (SP1), facilitate low carbon residential development via local planning policy (SP2), and promoting of sustainable siting of future residential developments (SP3).
- **Reduce commercial and public building emissions by 61% by 2045 and municipal emissions by 100% by 2030**, including strategic priorities to improve energy efficiency standards in commercial properties (SP1), update planning policy to better integrate local renewable energy generation and vehicle electrification (SP2), and work to promote green infrastructure and climate adaptation (SP3).

The strategy also states that all new authority buildings (or buildings funded by SCC) must consider solar panels, low carbon heating options, and district heat network connection within the development planning process.

Waverly Borough Council's (WBC) Local Plan Part 1 was adopted in February 2018 and is the main planning document for the area. It covers the council's growth expectations for the next 18 years by addressing the social and environmental aspects of the economy, infrastructure and education and skills. Local Plan Part 2: Site Allocations and Development management policies is at the Pre-Submission Document phase, as of September 2022. There are some noteworthy inclusions based on the Climate Emergency declared by WBC in September 2019, following UK Government commitment to become carbon neutral by 2050.

Additional to the Local Plan, CPC has prepared a Neighbourhood Plan for land use up to 2032. Formal consultation on the Neighbourhood Plan was conducted in 2021. The plan sets out a vision based on the reflections of local people thoughts and feelings on the area. Key policies from the local plan relating to low carbon development, solar PV and heat networks include:

Policy SP1: Sustainable Development

When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF). It will always work proactively with applicants to find solutions so proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Policy CC1: Climate Change

Development will be supported where it contributes to mitigating and adapting to the impacts of climate change, including measures that

- Use renewable and low carbon energy supply systems
- Provide high standards of sustainable design and construction with built-in resilience to climate change (e.g., from food risk, storms, higher temperatures, and drought);
- Use green infrastructure and SuDS to help absorb heat, reduce surface water runoff, and support habitat networks.

Policy CC2: Sustainable construction and Design

The Council will seek to promote sustainable patterns of development and reduce the level of greenhouse gas emissions by:

- Ensuring all new development, including residential extensions, include measures to minimise energy and water use through its design, layout, landscape, and orientation.
- Encouraging the use of natural lighting and ventilation
- Building at higher densities where appropriate and supporting mixed-use development

Policy CC3: Renewable Energy Development

Renewable energy development should be located and designed to avoid significant adverse impacts on landscape, wildlife, heritage assets and amenity. Appropriate steps should be taken to mitigate any adverse impacts, such as noise nuisance, food risk, shadow flicker and interference with telecommunications, through careful consideration of location, scale, design, and other measures. The Council particularly encourages applications from community-led projects. Development in the Green Belt will be considered in accordance with advice in the NPPF.

Policy RE3: Landscape Character

New development must respect and where appropriate, enhance the distinctive character of the landscape in which it is located.

The Area of Strategic Visual Importance - Pending a review of the detailed boundaries in Local Plan Part 2, the Areas of Strategic Visual Importance will be retained. The appearance of the ASVI will be maintained and enhanced. Proposals for new development within the ASVI will be required to demonstrate that the development would not be inconsistent with this objective.

3.3. Natural & Cultural Heritage

Issues of natural and cultural heritage sensitivity must be addressed to satisfy the local planning authority and avoid or minimise any negative impacts of potential energy development implementation on or near natural and cultural assets within Cranleigh.

3.3.1. Natural Heritage

Cranleigh is situated in an area of environmental importance, with several designations of national and regional importance nearby. These designations include:

- **Surrey Hills Areas of Outstanding Natural Beauty** (AONB), 0.5km to north of Cranleigh affecting development adjacent to the northern boundary of the village and those that may be visible from the north.
- **Area of Great Landscape Value** (AGLV), 2.5km to the west and 0.5km to the east of Cranleigh affecting development adjacent to the west and east boundaries of the village.
- **Local Nature Reserves** (LNR) - Sayers Croft (11 ha), 1.5km to the east of Cranleigh designating an area of diverse woodland, grassland, marsh, and open water habitats.
- **Green Belt** to the north and east of Cranleigh
- **Site of Special Scientific Interest** (SSSI) at Smokejack Clay Pit (56 ha), 4km to the south-west of Cranleigh designating an area of exposed lower cretaceous rocks and fossil record.

A heat network, which predominantly comprises infrastructure within the built environment, is unlikely to have significant impacts on the natural heritage. However, where there is likely to be disturbance to existing vegetation and the natural environment, it will be necessary to assess the impact. Furthermore, visual impacts

from the implementation of above ground infrastructure (e.g., a heat network energy centre) should be considered in the context of both local visual impacts and impacts on nearby designations (AONB, AGLV).

Development of solar PV should avoid designated environmental and cultural locations and visual impacts should be assessed locally (including potential for glint and glare impacts) as well as in regard to wider designations in the area (AONB, AGLV). Solar PV development on Green Belt designated land is unlikely to be permissible.

Additionally, the Local Plan 2 there is an **Area of Strategic Visual Importance** (ASVI) designation detailed, covering the study area. A 2018 review[6] of this AVSI notes that *"The Council will seek to ensure that the appearance of Areas of Strategic Visual Importance, as shown on the Proposals Map, is maintained, and enhanced. Development inconsistent with this objective will not be permitted."* Critically, this area is considered important from a visual perspective, providing an accessible visual break in the built form of Cranleigh, and protecting views from the Downs Link path, which is widely used by the Cranleigh community. The ASVI is highlighted as an important recreational space, and as a space which promotes biodiversity.

Use of this area for developments which negatively affect these values would not be permitted. Particularly, development of ground-mounted solar PV in this area is likely to adversely impact on these values. Use of the land for subterranean development would be permissible (e.g., ground-source heat pump collectors), although some disruption during installation would be unavoidable.

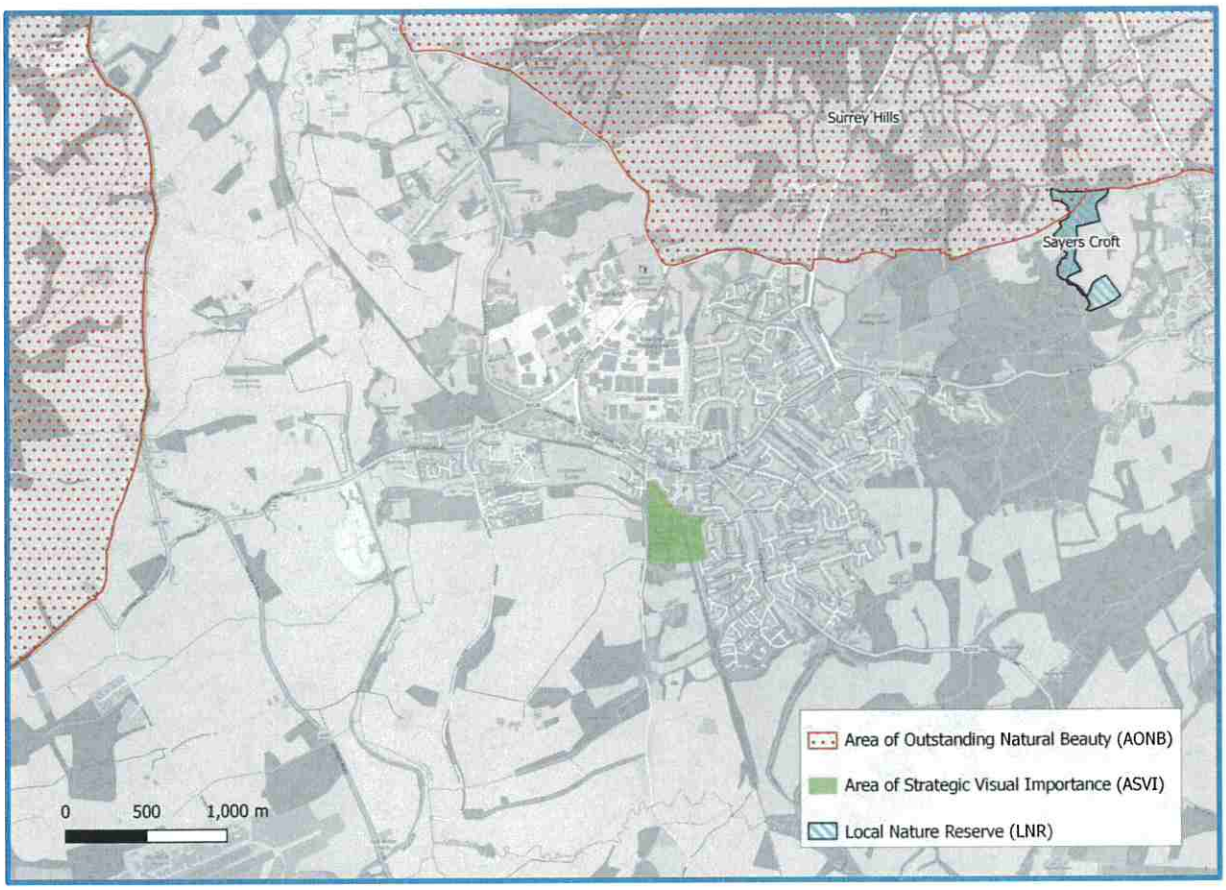


Figure 3.1 – Environmental constraints in Cranleigh

[6] Cranleigh Parish Council (2018) *Review of Cranleigh's Area of Strategic Visual Importance (ASVI)* . Available at: https://www.cranleigh-pc.gov.uk/_UserFiles/Files/N%20Plan/Cranleigh%20ASVI%20Review%20July%202018%20FINAL.pdf (Accessed: 13 December 2022)

3.3.2. Cultural Heritage

A preliminary assessment of cultural heritage designations has been undertaken of nationally designated sites and of listed buildings within Cranleigh. These designations may have an impact on the development of a heat network, including generation infrastructure (e.g., boreholes), supply routes and internal works (e.g., energy efficiency or heat system upgrades). Visual considerations from solar PV development should also be considered, such as visual impacts of a solar array on the conservation area.

There are 103 grade II and II* listed properties within Cranleigh, as well as a scheduled monument to the south. The Cranleigh Conservation Area, when designated in 1983, was centred on the High Street and the north side of the Common. Following a review in 2016, this was extended to include the south side of the High Street and the south side of the Common (Table 3.1, Figure 3.2).

Table 3.1 – Cultural Constraints in Cranleigh

Designation	Name
Conservation Areas	CRANLEIGH CONSERVATION AREA.
Scheduled Monument	MEDIEVAL MOATED SITE WEST OF VACHERY FARM (1013038)
Listed Building (II)	102 RECORDS (Available via Historic England)
Listed Building (II*)	CHURCH OF ST NICOLAS (1044371) ALFOLD STORES AND THE MAGNOLIAS (1044392)

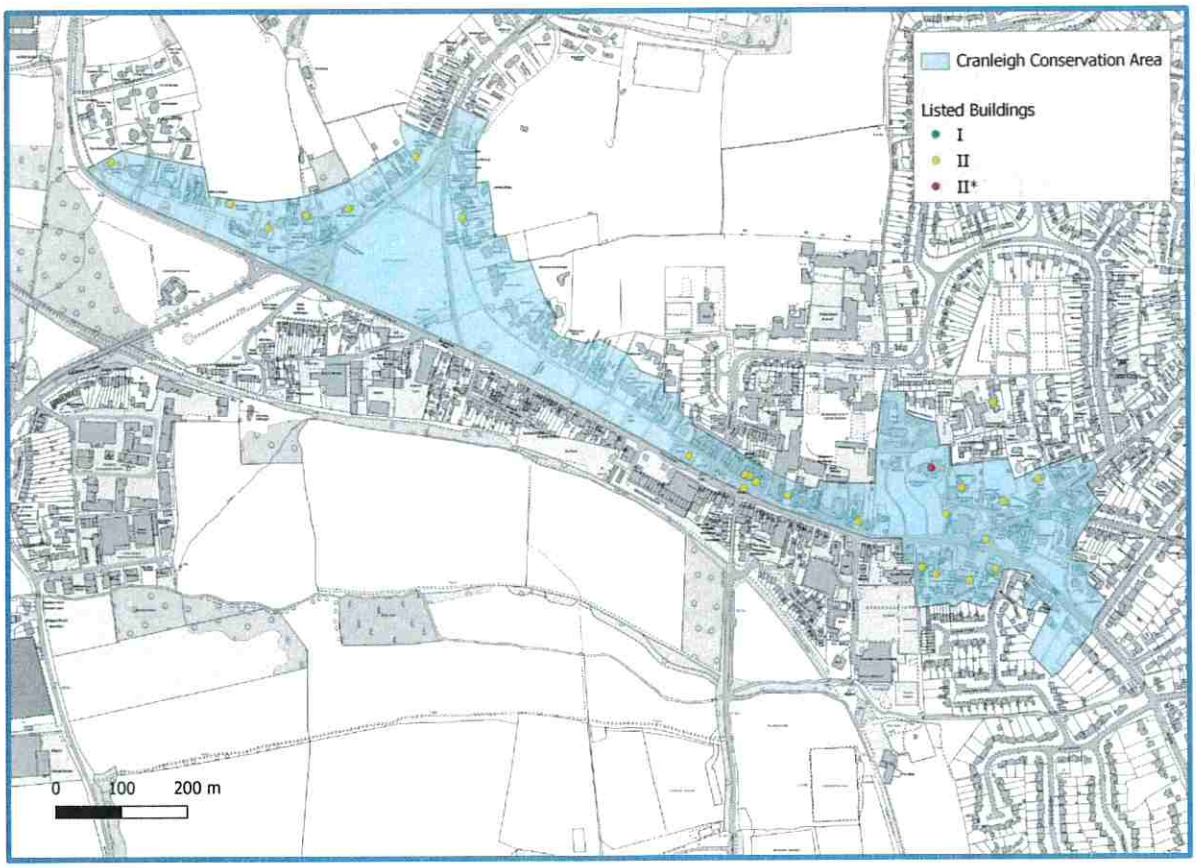


Figure 3.2 – Cultural constraints within Cranleigh

4. Baseline Energy Assessment

This chapter provides an overview of the energy generation potential of the CPC land identified within this study, as well as the energy demand of CPC and wider nearby properties in Cranleigh.

With a focus on energy demand of the properties with respect to heat and electricity, we have generated demand profiles ranging from a daily to annual profiles depending on the granularity of the data available. This helps in understanding the energy demand across the year which is then compared with the local heat and electrical generation potential. Peak heat loads are assessed to understand the maximum required heat load within a typical year, thus allowing accurate sizing of bother thermal collection, compressors, and heat delivery systems (e.g., boreholes, heat pump and radiators).

The information provided is a critical building block in understanding the energy, carbon, and economic impacts of developing a heat and electricity supply in Cranleigh, providing the evidence base for heat and electricity network feasibility and design.

4.1. Methodology

Scene undertook a data gathering exercise using a combination of desk-based sources and stakeholder engagement. The desk-based exercise involved an initial briefing from the client on the rationale behind the site selection process for the cluster, together with a high-level spatial orientation and mapping of Cranleigh. This process was used to identify the key anchor load, potential secondary loads to consider, and suitability in principle of different technology options.

Publicly available information was reviewed to source initial energy data, primarily from the EPC (Energy Performance Certificate) register, which includes domestic and non-domestic buildings. Non-domestic buildings require a Commercial EPC (CEPC). EPCs are valid for ten years and provide information about the building fabric and energy consumption based on a survey. EPCs are required for all rented property and when a property is sold or has renewables installed (and wants to claim renewable subsidies). Public buildings and those occupied by public authorities above a specific size and public usage require a Display Energy Certificate (DEC) which are updated or renewed on an annual basis. The DEC shows the energy performance of the building based on actual energy consumption for the previous 12 months. There are some limitations on the accuracy of the data provided as not every building has an EPC (e.g., those which have not been sold or rented within the previous 10 years), however, it is a very useful starting point for understanding the energy demand for individual buildings.

Data was collected between July – August 2022 in collaboration between Scene and Cranleigh Parish Council. Energy bills of certain buildings were shared by CPC, while the rest was taken from EPC and through assessment of building characteristics in line with CIBSE energy benchmarking practices. It is worth noting that due to taking data from a combination of sources different techniques may have been used to calculate heat demand and this introduces a degree of uncertainty into the modelling, reflecting the feasibility stage of the project.

4.2. Demand Assessment

Estimated annual heat demand of the proposed CPC properties within this study is approximately 1,097 MWh/year based on the collected data. Peak heat demand on the coldest days of the year is projected to be 295 kW and annual electricity demand totals 573 MWh / year.

Table 4.1**Error! Reference source not found.** provides an overview of total heat demand for CPC owned and leased properties in Cranleigh over a typical year. Based on the below results, it is anticipated that the leisure centre would be the key heat and electrical load within any proposed low carbon system or network. Other high energy demand opportunities include the CPC Council Offices, Hospital and Health Centre.

Table 4.1 – Heat and electricity demand from CPC owned and leased properties

SI no.	Building Name	Annual Heat Load (MWh)	Peak Heat Load (kW)	Annual Electricity Demand (MWh)
001	Cranleigh Library	33.60	9.03	30.90
002	Citizen's Advice Bureau	6.84	1.84	4.56
003	Cranleigh Band Room	2.61	0.70	11.45
004	Village Hospital	282.70	75.98	61.98
005	Village Hall	54.49	14.65	11.08
006	Cranleigh Health Centre	89.23	23.98	84.69
007	Snoxhall Community Centre	47.07	12.65	5.08
008	Snoxhall Pavilion (Inc Nursery)	55.42	14.90	13.87
009	Village way (Public Conveniences)	0.30	0.08	0.20
010	Common (Public Conveniences)	0.20	0.05	0.13
011	Youth Centre	3.05	0.82	2.03
012	Guide Hall	6.03	1.62	4.02
013	Cranleigh Scout HQ	3.06	0.82	2.04
014	CPC Council Office	7.61	2.05	5.08
015	Snoxhall Fields	1.67	0.45	1.11
016	Leisure centre (proposed)	502.47	135.05	334.98
	TOTAL	**1,096.5**	**294.70**	**573.3**

Whilst the primary heat demand focus is on large non-domestic loads, this study also explores integration of domestic properties into a heat network in Cranleigh. Using local property types and expected energy consumption patterns for the local area, four scenarios have been calculated to estimate the additional heating energy load on the system were domestic properties factored in. Table 4.2 shows scenarios (A – D), consisting of 50, 55, 60 and 65 domestic properties respectively, with a spread of different built fon line with property type patterns in the vicinity.

Domestic properties within the vicinity of the proposed sites would have an estimated total heat demand of 738 – 960 MWh / year, with a peak load of 410 – 530 kW. Further information on how these scenarios have been applied to the recommended heat network proposal can be found in Section 5. Further information and data relating to energy demand can be found in Appendix A.

Table 4.2 – Energy Demand assessment for potential domestic properties

Domestic Scenario	No. of Domestic Properties							Estimated total heating demand	Estimated peak hourly demand
	Total	Bungalow Detached	House Detached	House Mid-Terrace	House Semi-Detached	House Enclosed Mid-Terrace	House End-Terrace	MWh/year	MW
A	**50**	1	30	7	8	1	3	**738**	0.41
B	**55**	1	33	8	9	1	3	**812**	0.45
C	**60**	1	36	9	10	1	4	**886**	0.49
D	**65**	1	39	9	10	1	4	**960**	0.53

5. Technical Appraisal

This section presents the initial results from the technical, energy and environmental modelling of energy demand and generation potential across the identified properties and sites within this study. Both thermal resource and solar PV generation opportunities have been assessed within this section, with further appraisal of energy scenarios – including proposed solar PV and heat network designs - provided in Section 0.

As detailed in Section 2, the sites assessed are the Snoxhall Playing Fields and Bruce McKenzie Memorial Field, which are both owned by Cranleigh Parish Council.

The selected generation technology options which have been assessed include:

- Ground-source heat (GSHP)
- Air-source heat (ASHP)
- Solar PV (ground-mounted array)

An appraisal of wider resource opportunities was conducted, and technologies discounted based on several factors, including:

- Open-loop ground-source heat, on the basis of a hydrogeological assessment which has not identified the suitable conditions for water abstraction (e.g., an underground aquifer);
- Water-source heat (e.g., river-source systems), due to unsuitable flow conditions for nearby watercourses and large distances between larger watercourses and energy demand centres;
- Waste-water heat, due to a lack of nearby wastewater infrastructure suitable for heat extraction.

5.1. Heat Demand Overview

The heat demand from the Cranleigh Parish Council buildings and proposed leisure centre was determined using energy consumption data from the submitted community request for information (RFI), publicly available EPCs and CIBSE-standard property averages for similar building types.

From the heat demand modelling conducted, two key parameters and their estimates form the basis of design scoping, and the crux of the technology appraisals are:

- Peak Heat Demand Capacity Estimate = 294.5 kW
- Annual Heat Demand Consumption Estimate= 1,096.5 MWh/year

With discussions of the potential inclusion of domestic properties, four scenarios have been considered which together give a representation of expansion for the network beyond non-domestic properties if the capacity is there.

Within our heat demand modelling, we have not modelled any net change in heat demand for the community over time, as there are too many variables to project this effectively (e.g., the timings and extent of energy efficiency measures undertaken by individual households; the impact of increasing demand due to changing occupancy patterns or change of tenant; etc).

5.2. Technology Overview

Table 5.1 provides an overview of the technologies considered within this study, with details on heat network layout typologies and characteristics provided in Table 5.2.

Townrock Energy's geology and hydrology assessments have informed the choice of technologies, confirming that ASHP and boreholes for both high-temperature and low-temperature GSHPs would be viable in Cranleigh. If GSHP is preferred, CPC should commission a "thermal response test" within the potential land parcels for the borehole fields to confirm the heat availability from these sites.

Engagement with the Distribution Network Operator (SSEN) was undertaken to understand limitation on technology viability due to local electricity grid constraints. Whilst there is no known grid constraint which will limit the development of new demand-side technologies, including both energy centre and aggregate distributed heat pumps, detailed assessment must be undertaken by SSEN to understand specific limitations on connections within Cranleigh.

Table 5.1 – Technology Options

Technology Option	Explanation
Closed loop ground source heat pump system	A collection (or array) of boreholes used to regenerate the heat of a carrier fluid that feeds into one or multiple heat pump units, where temperatures are then elevated for end-users, providing low carbon heating.
Air source heat pump system	One or multiple heat pump units conveniently placed to extract air from the outside atmosphere and used to elevate temperatures for a centralised heat pump or pumps or on an individual property basis.
Grid-connected ground-mounted PV System	An array of solar photovoltaic panels situated on one or more of the land parcels detailed within this study. The system has been assessed against total local electrical demand and heat network electrical demand to optimise array sizing.
4th Generation Heat Network (Centralised, High Temperature)	4th generation heat networks are supplied by a centralised energy centre but differ significantly from previous generations in having lower operating temperatures. Heat is supplied at or below 70°C, which generally improves efficiency across all heat networks, but especially those energised by heat pumps, which perform better at low temperatures. Highly insulated pipework is used, with large, centralised thermal storage to smooth energy demand and aid heating efficiency.
5th Generation Heat Network (Distributed, Low Temperature)	5th Generation Heat Networks are notably different from previous generations. Heat production is decentralised – using heat pumps – in each property. They operate at low temperatures and often require supplementary heating and thermal storage at the property level. There are two types: • Those that use ambient temperature heat (i.e., the natural temperature of water as it comes out the ground), which is then distributed to heat pumps in each apartment. • Those that use <25°c heat – where a central heat pump Is used to maintain the distribution system at around 20°c followed by a second lift in temperature by individual heat pumps in each property. On residential schemes, this is often a more expensive way of delivering heat than a 4th generation system, especially on large developments. 5th generation schemes may require supplementary domestic hot water cylinders and immersion heaters, which presents space issues. It also involves purchasing power from the grid – often at premium domestic rates. Therefore, there may be a lack of transparency from these hidden costs without separate metering.
Open-Loop Network	An open loop geothermal system pipes ground water directly from a nearby aquifer to a centralised or decentralised geothermal heat pump. After the water returns from the heat pump interface, it's reinjected into the aquifer via a reinjection well, which is located a suitable distance from the original extraction location.
Closed-Loop Network	A closed loop geothermal system continuously circulates a heat transfer solution through buried or submerged plastic pipes around the heat network. The loop is filled just once and requires only a moderate amount of thermally conducting fluid within the pipe

Technology Option	Explanation
	system. The same fluid is recirculated within the closed loop, with underground pipes connecting to a centralised or decentralised heat pump to provide heating and cooling.

5.3. Example Systems

Table 5.2 provides an overview of key components within a heat network, including visual examples at the scales relevant to a heat network in Cranleigh.

Table 5.2 – Overview of Heat Network Technologies and components

Heat Network Piping Heat network piping delivers high, medium, or low temperature water to properties on a heat network. The water travels through an underground insulated pipe network to a heat interface unit (HIU) located in each property, which provides heating and hot water and allows individual temperature control. The cold water then returns back to the energy centre to be heated and circulated again. An example of high temperature (insulated) heat network pipe is provided on the right.	
Energy Centre An Energy Centre is where the heat is generated to supply the community heating system. Heat is brought into each property through a 'heat exchanger' (i.e., heat pump), where heat energy is generated using electricity and supplied to properties via the network. All typical in-property heating controls are available, and to the end user the central heating and hot water system works in the same way as a domestic gas or oil-fired central heating system without the need for any combustion to take place inside the property. An example heat network energy centre (Swaffam Prior) is provided on the right.	
Ground-source Borehole Ground-source heat pump boreholes are vertical ground arrays or collectors used to extract heat energy from rock to a ground source heat pump. They save space and minimise disruption in heat pump installation projects, as you usually only need 150mm width of available space per borehole. Depths of boreholes range from around 60m to 200m There are two types of boreholes that can be used with ground source heat pumps: closed loop and open systems. A closed loop borehole is a closed circuit containing a heat transfer fluid, while an open loop borehole uses a natural water source as its transfer fluid – exposing it to external elements. An example of a borehole being installed is provided on the right.	

Air-source Heat Pump Air-source heat pumps deliver lower temperatures than conventional boilers, so they work well with underfloor heating or radiators with a larger surface area for a property level solution. Commercial scale systems can deliver higher temperature heat. Air-source heat pump systems have a life expectancy of approximately 20 years. An example air-source heat pump is provided on the right.	
Distributed Ground-source Heat Pump A ground source heat pump is a renewable heating system that extracts low-temperature solar energy stored in the ground or water using buried pipework and compresses this energy into a higher temperature. A ground source heat pump provides a property with 100% of its heating and hot water all year round. An example internal shoebox heat pump is provided on the right. This is a Kensa heat pump and would deliver ~6kW of heat energy, typical for a moderate sized house.	
Ground-mounted PV Solar Panels While most solar arrays are installed on rooftops, ground mounted solar panels make use of land space for optimal and high-volume generation, or in cases where a suitable roof isn't available. As most residential homes don't have tons of spare land, ground mounted PV is most often chosen for commercial properties or utility solar farms A solar PV array in Cranleigh would be capable of meeting local demand, including direct supply of large electricity demand properties (such as the leisure centre) and supplying the electrical requirements of a district heating network. Further to this, excess energy could be captured via electrical storage or exported to the national energy network.	

5.4. Generation Assessment

There are several low carbon thermal energy options available in Cranleigh that require comprehensive assessment to determine their viability as sufficient, dependable, and sustainable solutions for renewable heating applications. These options are:

- Closed loop borehole ground source heat pump system.
- Air-source heat pump system (energy centre).
- Air-source heat pump system (distributed low carbon counterfactual).
- Hybrid options, including "peaking" technologies such as ASHP and biomass.

Heat generation assessments were conducted by Townrock Energy to understand available thermal resource and potential scheme characteristics in the context of Cranleigh's baseline heat demand. A generation-led approach has been taken for this technical appraisal, meaning that Townrock Energy have assessed the available land areas and determined provisional designs for each.

The land parcels that have been deemed suitable within this option appraisal are:

1. Bruce McKenzie Field
2. Snoxhall Field (west side)
3. Snoxhall Field (east side)

To understand **ground-source heat pump** opportunities, a geological assessment has been undertaken of the different land parcels available within the site. Their assessment has confirmed the demand capacities for each land parcel (Table 5.3) and correspond to the land parcels shown in Figure 5.1. Notably, Bruce McKenzie Field and Snoxhall Field West Side both have suitable land area and thermal resource to meet the demand specified in the baseline assessment. Detailed assessment of the final land requirements and potential network designs can be found in Section 0.

From the desktop geological assessment of the sedimentary rocks below Cranleigh, the current estimates for the key thermogeological data are:

- Average ground thermal conductivity, $\lambda = 2.05$ W/m·K
- Average ground specific heat capacity, $c = 2.39$ MJ/m^3·K

Air-source heat pump modelling was undertaken and, using local air-temperatures, a heat network with an air-source heat pump capacity of ~250 kW (electrical) is anticipated to provide requisite heat energy to meet the demand of all core buildings. Further capacity would be required to meet local domestic demand. While the overall risk of installing air-source heat pumps is significantly less than that associated with the installation of ground-source heat pumps, the average efficiency of the technology is significantly lower. This means that electricity usage and running costs are greater for this option.

Air-source heat pumps are deemed a good option for Cranleigh in either of the scenarios:

- Where there is insufficient land available to provide ground-source heat pump energy to serve the heat demand.
- If heat demand is below a certain threshold.

All scenarios are compared against a **"low carbon counterfactual"** of all properties within the study moving onto ASHP systems individually. This ensures that any proposed heat network option offers viable technical performance, financial returns, and carbon savings against an expected low carbon future scenario.

All scenarios were also assessed to understand how each technology proposed can meet peak heat demand initially, before further analysis was conducted to understand how primary technologies could meet baseload heating requirements (e.g., 80% of the year) with a second, **"peaking" technology option** for infrequent use on the coldest or highest heat demand days of the year.

Table 5.3 – TownRock Energy Assessment of land parcels

Location	Area Available (m^2)	Full Load Equivalent Hours	Approx No. of Boreholes	Total Annual Heat Supplied (MWh^{th})	Peak Heat Supplied (MW^{th})
Bruce McKenzie Field	22,200	1800	119	2,064	1.15
		2000			1.03
		2400			0.86
		3000			0.69
Snoxhall Field West Side	19,800	1800	107	1,841	1.02
		2000			0.92
		2400			0.77
		3000			0.61
Snoxhall Field East Side	15,800	1800	87	1,469	0.82
		2000			0.73
		2400			0.61
		3000			0.49

Figure 5.1 - Land Parcels for Ground Source Heat Pump

5.5. Solar Photovoltaics (PV)

A solar array assessment was undertaken at the available land parcels using PV*SOL, an industry-standard solar assessment tool. The analysis conducted includes assessment of solar resource availability over a typical year, installation capacity, annual generation capacity, and utilisation rates. Analysis of local shading was also conducted to provide accurate assessments of generation potential year-round.

Table 5.4 provides a summary of the solar potential from the various locations across the Bruce McKenzie Memorial Field and the Snoxhall Fields. The options presented have been assessed alongside a heat network scenario in Section 6, defining the required land areas to meet local electrical demand and / or heat network electrical demand.

Table 5.4 – Solar PV technical generation assessment

Location	Number of PV modules	Solar PV Capacity (MW)	Annual Generation (MWh)
Bruce McKenzie Field (West)	3,364	1.26	1,072.6
Bruce McKenzie Field (East)	2,990	1.12	953.9
Snoxhall Field (Option A)	5,772	2.16	1,770.3
Snoxhall Field (Option B)	4,276	1.60	1,311.3

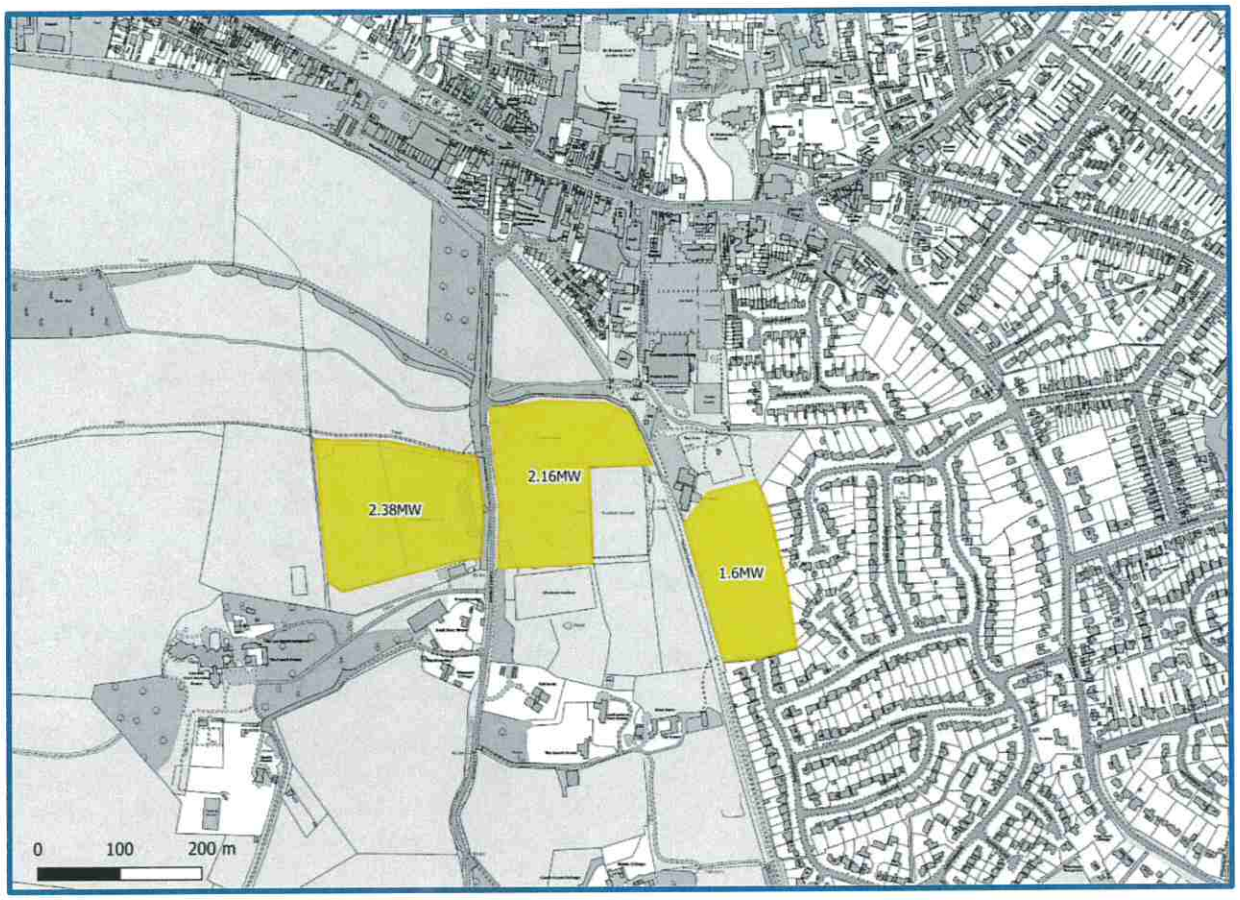


Figure 5.2 – Solar PV array options and generation capacities (kW)

6. Options Appraisal

This section provides an overview of each technology and system configuration assessed in terms of technical, financial, and wider impact metrics, including carbon emissions reduction and social impact.

Based on the above technical analysis, 2 heat network scenarios have been proposed and assessed within this study, including:

1. Centralised GSHP (closed loop) with solar PV for CPC and Leisure Centre properties
2. Centralised GSHP (closed loop) with solar PV for CPC, Leisure Centre, and 65 domestic properties
3. Centralised ASHP with solar PV for CPC, Leisure Centre, and 65 domestic properties

This section also provides an overview of requirements for heating system upgrades, energy efficiency measures under different network scenarios, and electricity supply considerations.

A further scenario has been assessed to understand the potential for distributed building-by-building Air-source Heat Pump systems for CPC properties and the Leisure Centre. This is known as the "low carbon counterfactual," enabling us to compare heat network options with a distributed transition to low carbon heating systems.

6.1.1. Technical Inputs

The below technical information has been used within this study alongside baseline energy demand data to conduct this technical assessment. Data is based on 2022 values where possible, providing an up-to-date overview of system performance and impact.

Important Note

Heat temperatures within heat networks

All heat network options within this report have been developed on the basis of relatively high flow (70°C) and return (45°C) temperatures. This has been done to match temperatures with the performance specifications of existing heating systems in Cranleigh (Electric, Oil, etc.).

Whilst high temperature heat delivery offers several benefits – including reduced need to deliver energy efficiency works within village properties and reduced likelihood of heat emitter upgrade requirements – there are a number of important drawbacks. In brief, high temperature networks require greater capital investment (through higher network costs, due to the greater need to reduce thermal losses from piping) and operating costs (due to lower efficiency and therefore greater operation of heat pump units, leading to higher electricity bills). There are two ways which this can be addressed:

1. Reduce network temperatures slightly to ~60 °C flow and 40 °C return temperatures. This will marginally reduce capital and operating costs and may be sufficient for some properties to retain existing heating systems and reducing the need for wholesale energy efficiency improvements.
2. Reduce network temperatures to optimal levels for heat pump operation (~50 °C flow and 30 °C return), greatly reducing capital and operating costs but likely requiring greater levels of energy efficiency improvements in homes as well as the need for heat emitter upgrades.

Table 6.1 – Overview of system and performance variables used within this study.

Variable	Value
Technical	
Annual Demand	1,097 MWh
Peak Demand	295 kW

Variable	Value	
Technical		
ASHP Coefficient of Performance		2.5
GSHP / RSHP Coefficient of Performance		4.0
High temperature network	Flow temperature	70°C
	Return temperature	45°C
Electricity Network CO_2e intensity (2023)		110g / kWh
GSHP land requirement (closed loop)		11,794 m^2
Energy Centre land requirement		200m^2

6.1.2. Heating System Upgrade

Using information from the baseline assessment, Table 6.2 provides an overview of potential heating system upgrade requirements across properties in Cranleigh alongside potential system costs and relative levels of disruption to the property owner / tenant.

As previously noted, a high temperature network is likely to be compatible with existing wet heating systems without the requirements to upgrade or upsize heat emitters. A lower temperature network option may be viable in Cranleigh but would be expected but is likely to require more extensive improvements to existing wet heating systems.

Table 6.2 - Overview of heating system upgrade costs and disruption

Property Name	Upgrade Requirements	Estimated Individual Cost	Level of Disruption
Cranleigh Library	Install wet heating system	£0 - £10,000	Moderate
Citizen's Advice Bureau	Install wet heating system	£2,500 - £6,000	Moderate
Cranleigh Band Room	May required larger radiators	£0 - £3,000	Minimal
Village Hospital	May required larger radiators	£0 - £80,000	Minimal
Village Hall	May required larger radiators	£0 - £15,000	Minimal
Cranleigh Health Centre	May required larger radiators	£0 - £25,000	Minimal
Snoxhall Community Centre	May required larger radiators	£0 - £15,000	Minimal
Snoxhall Pavilion (Inc. Nursery)	May required larger radiators	£0 - £12,000	Minimal
Cemetery	Install wet heating system	£1,000 - £3,000	Moderate
Village way (PC)	Install wet heating system	£1,000 - £3,000	Moderate
Common (PC)	Install wet heating system	£1,000 - £3,000	Moderate

Property Name	Upgrade Requirements	Estimated Individual Cost	Level of Disruption
Youth Centre	May required larger radiators	£0 - £5,000	Minimal
Guide Hall	Install wet heating system	£2,500 - £6,000	Moderate
Cranleigh Scout HQ	Install wet heating system	£2,500 - £6,000	Moderate
CPC Council Office	May required larger radiators	£0 - £2,000	Minimal
Snoxhall Fields	May required larger radiators	£0 - £3,000	Minimal
Leisure centre (proposed)	Requires heating system specification for heat pump supply	£0 - £40,000	N/A
Domestic Properties (electric)	May required larger radiators	£0 - £4,000	Minimal
Domestic Properties (gas)	Wet heating system install	£2,500 - £6,000	Moderate

6.1.3. Electricity Supply

During 2022, the UK has faced large increases in energy costs and there is ongoing volatility in the national and international energy markets. Modelling electricity prices over both short- and long-term timescales is exceptionally challenging.

Within this study, a 2023 electricity price of 31.2p / kWh has been used, with adjusted long term price projections provided by BEIS long term fuel price forecasts (2020). This is in line with BEIS predicted "high scenario domestic tariff".

This rate is similar to typical domestic and non-domestic energy prices in 2022/23 based on several assumptions:

- High electricity prices are expected to continue in the short to medium term (4 – 7 years) based on currently available projections;
- Electricity prices will reduce and stabilise in future, as geopolitical and fuel supply issues stabilise;
- Electricity prices may further reduce in future through low carbon uptake and decoupling of electricity and fossil fuel prices in the UK energy market.

Power Purchase Agreements

It may be possible to reduce electricity costs further through direct purchase of electricity from an energy supplier or generator. Known as a Power Purchase Agreement (PPA), this form of long-term energy supply contract has several benefits:

- The ability to secure lower than energy market rates for energy supply;
- Tailoring of supply tariffs to use scenario, such as energy centre demand profiles;
- Long term certainty over energy prices;
- Low carbon credentials through PPAs with renewables generation owners / suppliers.

Direct Supply

Direct supply of renewable energy to a heat network is feasible and can greatly improve viability through the reduction of operating electricity costs for heat pump operation. This could function through direct supply of electricity to a centralised energy centre from a large generator (e.g., ground-mounted solar PV array) or via electricity supply to decentralised heat pumps (e.g., via domestic rooftop solar PV).

Wind turbines may provide a preferential source of electricity for a heat network, as generation tends to be higher in winter months in comparison to solar PV, in line with higher heating demand and associated heat

pump electricity demand. This has not been modelled due to the low likelihood of a wind turbine being permissible near to Cranleigh given planning restrictions on onshore wind in 2022 and the nearby AONB designation.

6.2. Option 1 – CPC Properties & Leisure Centre

This scenario is based on a single source of heat to meet the annual heat demand of CPC buildings and the planned leisure centre from closed loop boreholes via a GSHP energy centre and high temperature heat network. A solar array has been designed to meet some of the electrical demand of the heat pumps and energy centre. This scenario has been defined to meet Cranleigh's total peak demand (0.29 MW). The rationale for using GSHP over ASHP is that peak demand is expected in winter months, and therefore GSHP provides a more reliable and efficient heat source due to its higher coefficient of performance and stability of ground temperatures in comparison to air temperatures.

Key scheme characteristics:

- Demand: CPC properties and Leisure Centre
- Heat Supply Ground-source heat pump (closed loop)
- Solar PV: 200 kW
- Number of boreholes = 59
- Area required for boreholes = 0.012km^2 (1.2ha)
- Borehole depth = up to 200m

6.2.1. Network Layout

Figure 6.1 provides an overview of the proposed network design for scenario 1. This scenario would require 672m of piping across the entire network. The energy centre would require up to 200m^2 of land, with a further 0.012km^2 of land area required for 59 closed-loop boreholes.

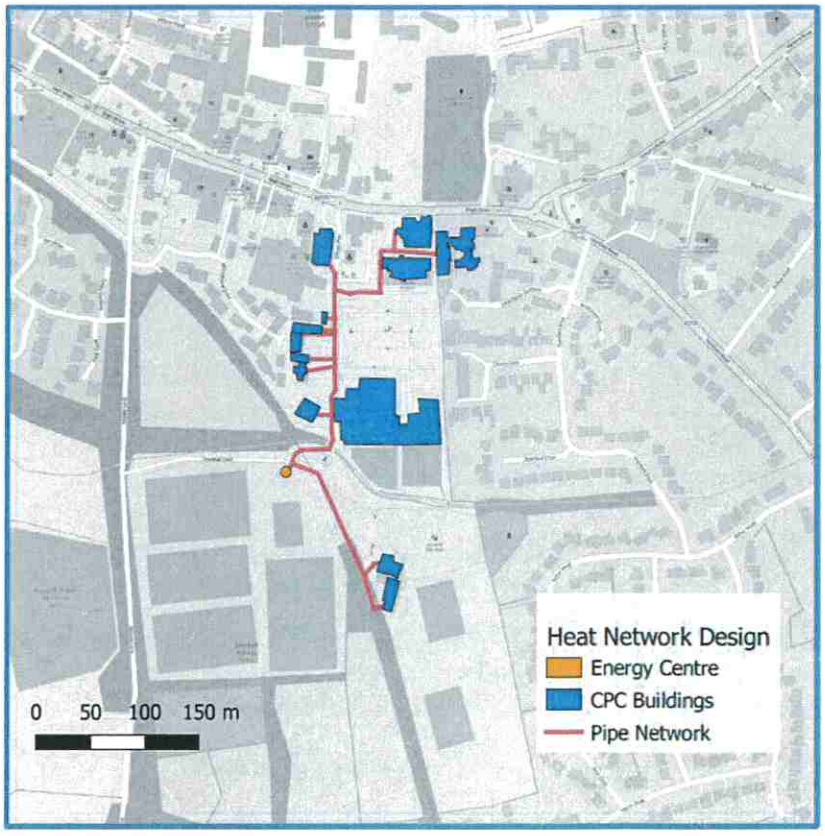


Figure 6.1 – Scenario 1 Network Layout

6.2.2. Technical Assessment

Figure 6.2 details how a centralised GSHP system could meet the annual heat demand of Cranleigh, based on data obtained from the baseline assessment (2022). A GSHP system scaled to meet annual demand of 1096.5 MWh with a high temperature heat network would meet heating demand throughout the year. For a large proportion of the year, the centralised GSHP option would provide greater heating potential than is required and therefore would enable increased or new demand loads to be considered within the network. Utilisation rates across a typical year are expected to be 20.87% with an aggregated coefficient of performance of 4.

Electricity demand for heat pump operation would total 274.2 MWh / year, costing £85,002 (at £0.31/kWh). Annual carbon emissions from system operation would be 30 tCO_2e.

Within this scenario an optimised solar PV installation of 200 kW has been specified. This would generate 101 MWh / year, operating at an annual load factor of 6%. Electricity generation would provide 49.4 MWh / year for heat pump operation, saving £16,306 on annual grid electricity costs, and generating £14,942 income from grid export (based on an export tariff of £0.20 / kWh).

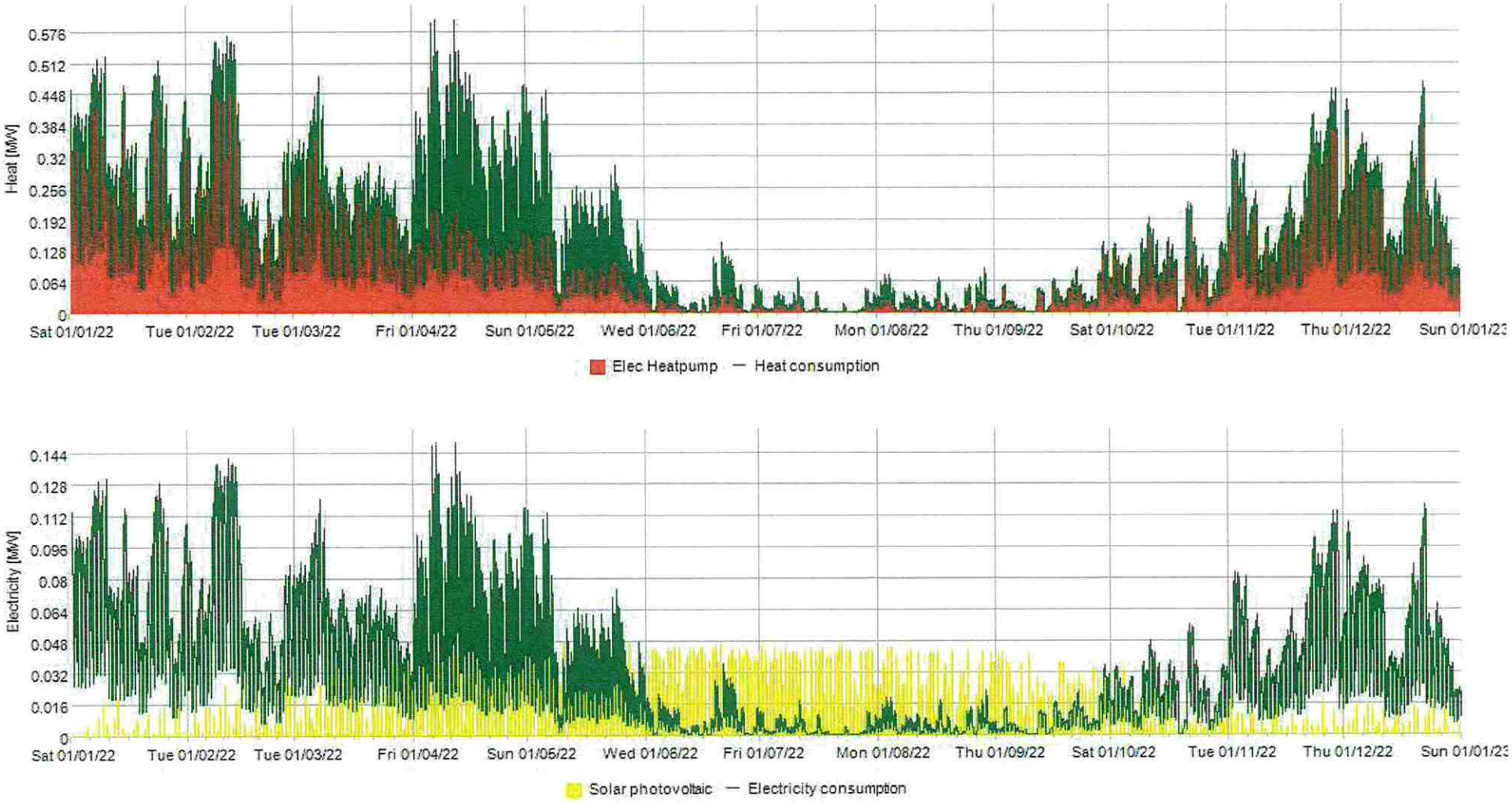


Figure 6.2 – Overview of demand and generation for option 1 over a one-year period

6.3. Option 2 – CPC, Leisure Centre, and Domestic Properties (GHNF Variant)

This scenario is based on a single source of heat to meet the annual heat demand of CPC buildings, leisure centre and up to 65 existing domestic properties in the area from ground-source heat from closed loop boreholes via a GSHP energy centre and high temperature heat network. A solar array has been designed to meet some of the electrical demand of the heat pumps and energy centre. This scenario has been defined to meet total peak demand (0.82 MW) of the defined properties. The rationale for using GSHP over ASHP is that peak demand is expected in winter months, and therefore GSHP provides a more reliable and efficient heat source due to its higher coefficient of performance and stability of ground temperatures in comparison to air temperatures.

This demand scenario has been designed to ensure that the scheme would be eligible for government support through the Green Heat Network Fund (GHNF). This requires a minimum annual demand of 2.0 GWh across the proposed network.

Key scheme characteristics:

- Demand: CPC properties, Leisure Centre and 65 domestic properties.
- Heat Supply: Ground-source heat pump (closed loop)
- Solar PV: 200 kW
- Number of boreholes = 109
- Area required for boreholes = 0.022km^2 (2.2ha)
- Borehole depth = up to 200m

6.3.1. Network Layout

The network layout for this design including approximately 65 existing domestic properties would build upon the basis established for Option 1. The extended network design for this option will be dependent on both the number of domestic properties to be included and the location of the exact domestic properties to be included.

A network assessment was conducted based on nearby domestic properties surrounding Newlands Road, John Wiskar Drive, Overford Drive, and Hitherwood. An estimated 1,258m of network piping would be anticipated for a network to reach the stated number of properties in one or several of these areas.

6.3.2. Technical Assessment

Figure 6.3 details how a centralised GSHP system could meet the annual heat demand of Cranleigh, based on data obtained from the baseline assessment (2022). A GSHP system scaled to meet annual demand of 2,096 MWh with a high temperature heat network would meet heating demand throughout the year. For a large proportion of the year, the centralised GSHP option would provide greater heating potential than is required and therefore would enable increased or new demand loads to be considered within the network.

Utilisation rates across a typical year are expected to be 22.57% with an aggregated coefficient of performance of 4. Electricity demand for heat pump operation would total 514 MWh / year, costing £159,371 (at 0.31p/kWh). Annual carbon emissions from system operation would be 56 tCO_2e.

Within this scenario an optimised solar PV installation of 200 kW has been specified. This would generate 101 MWh / year, operating at an annual load factor of 6%. Electricity generation would provide 63 MWh / year for heat pump operation, saving £11,718 on annual grid electricity costs and generating £12,600 income from grid export (based on an export tariff of £0.20 / kWh).

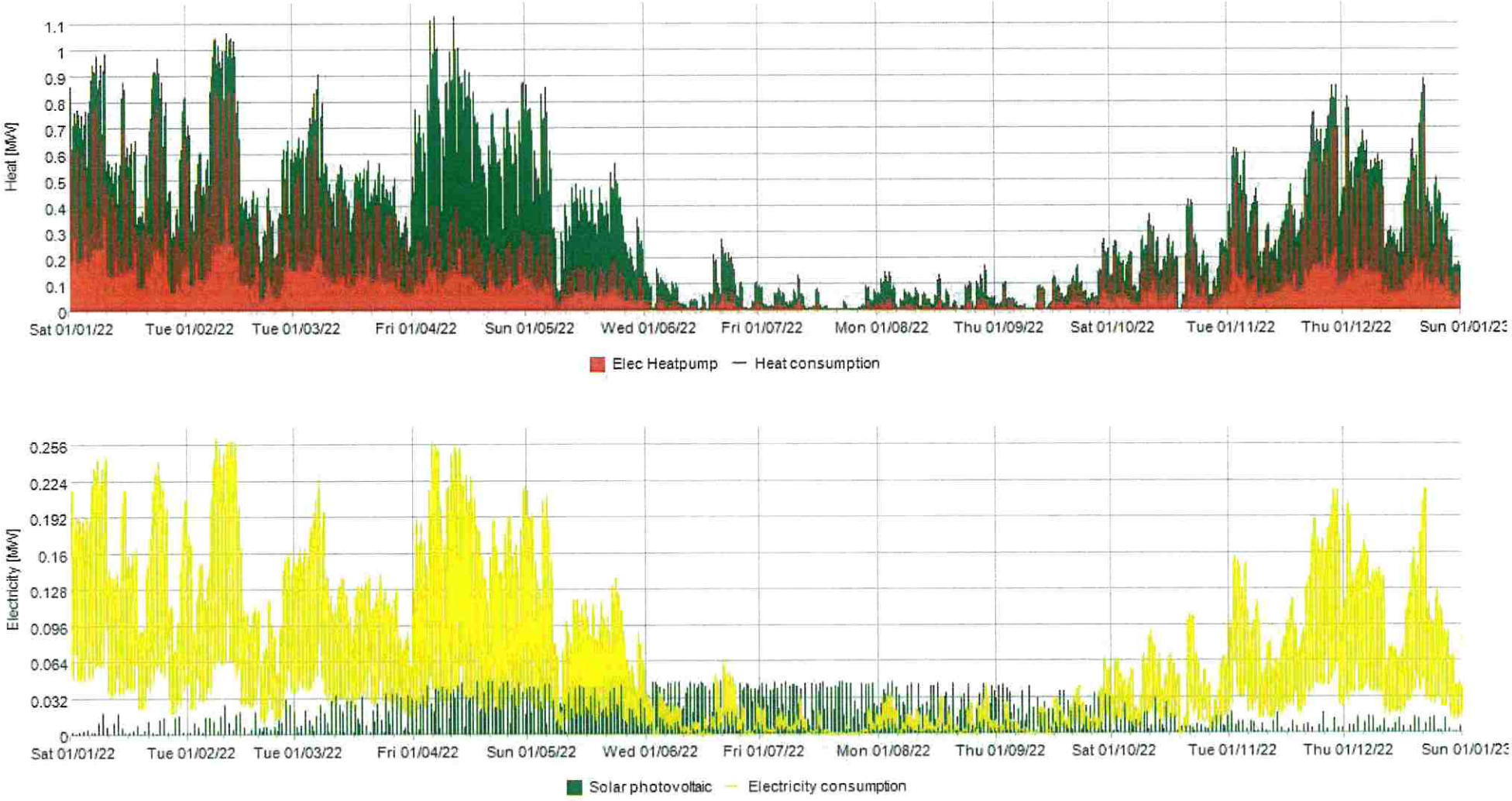


Figure 6.3 Overview of demand and generation for option 2 over a one-year period

6.4. Option 3 - Centralised ASHP

The option of a centralised Air Source Heat Pump meeting the demand has also been assessed. An ASHP of approximately 250 kW electrical capacity. A centralised ASHP installation would reduce the requirement for large land parcels, due to boreholes no longer being required, but generally operate at far lower efficiency levels, particularly in winter months.

While a centralised ASHP would be capable of meeting the heat demand of both demand scenarios detailed, the low efficiency of ASHP means that this option would require almost double the input electricity to run as a ground source heat pump meeting the same heat demand.

Demand Scenario 1: CPC Properties and Leisure Centre

Anticipated electricity use from a centralised ASHP installation would total 480.2 MWh / year, costing £148,862 (at 0.31p/kWh) and emitting 53 tCO_2e annually.

Demand Scenario 2: CPC Properties, Leisure Centre, and 65 domestic properties

Anticipated electricity use from a centralised ASHP installation would total 822.4 MWh / year, costing £254,944 (at 0.31p/kWh) and emitting 91 tCO_2e annually.

ASHP implementation should also consider specific planning restrictions around noise pollution, although sensitive siting and selection of low noise heat pumps can mitigate these issues very effectively. For the purposes of this study, a centralised ASHP is therefore not recommended from a technical standpoint. Further information on viability may be found in the financial appraisal.

6.5. Counterfactual – ASHP Distributed (Low Carbon Counterfactual)

The ASHP counterfactual is the "do minimum" scenario for Cranleigh. It assumes that, in line with government intentions and decarbonisation trends, all the CPC properties and the leisure centre move onto individual property-by-property ASHP systems. From a technical perspective, ASHPs would therefore meet CPC building's heat demands with individual systems designed to specifically to meet the requirements of the relevant property.

Electricity demand for heat pump operation across all the relevant properties in Cranleigh would total approximately:

Scenario 1 (CPC, Leisure Centre): 438.8 MWh/year, costing £136,028 (at 0.31p/kWh).

Scenario 2 (CPC, Leisure Centre, 65 domestic properties): 822.4 MWh/year, costing £254,944 (at 31p/kWh).

It is important to note that all energy tariffs (i.e., electricity costs) have been modelled at 31p/kWh across the project for comparative assessment. Due to the greater centralised demand from Options 1, 2 and 3, it is anticipated that preferential tariffs may be obtained under these scenarios. Under the Counterfactual scenario, a higher tariff may be experienced, therefore increasing operational costs, and reducing long term price stability (e.g., 2023 domestic electricity tariff rates are currently 34p/kWh in the UK with a price cap in place but expected rise). Furthermore, options 1, 2 and 3 have been appraised based on high temperature heating networks, which reduce requirements for internal energy efficiency works and heating system upgrades. Distributed ASHPs would likely require a greater level of efficiency retrofit and heating system upgrade that the other presented options, increasing scheme costs.

The total cost per kW for air source heat pumps installed in the UK has remained consistent over the decade from 2011. According to OFGEM data the total cost of air source heat pumps as at 2020 ranges between £50 - £2,700/kW with the median price at approximately £1,400/kW.

N.B. Planning restrictions (e.g., Cultural Heritage for Conservation Area / Listed Building consent, Amenity for Noise Impact) may not permit the installation of ASHP for many properties, so this is a theoretical counterfactual only.

6.6. Counterfactual – Do Nothing

This counterfactual is the "do nothing" scenario for Cranleigh. It assumes that government policy and decarbonisation trends do not progress heating decarbonisation and therefore all the Cranleigh Parish Council properties maintain existing heating systems and replace with the same heating system at the end of life (i.e., Oil, LPG, electric heating).

Meeting the existing annual generation of the Cranleigh Parish Council buildings and the anticipated leisure centre is estimated to cost approximately £130,000 annually. Using 2021 conversion factors, carbon emissions under this scenario would total 344 tCO_2e/annum.

N.B. This counterfactual would likely require reversing legislation (Climate Change Act), withdrawing from international agreements on climate change, and stepping back from the UK's stated position as a leader on climate action, so this is a theoretical counterfactual only.

7. Financial Assessment

This section provides a comparative assessment of the 5 scenarios appraised in Section 6, including assessment of:

- Project Net Present Value (NPV) without grant
- Project Net Value (NPV) with Grant
- Project Social NPV

Table 7.1 details some key terminology to aid in understanding the analysis conducted within this section. A comparative overview of financial outputs for each scenario can be found in Appendix C.

Table 7.1 – Key financial assessment terminology

Term	Description
Heat Price	The heat tariff charged to energy end users as a £ / MWh value. This has been modelled at a static (index-linked) rate across the project lifetime.
Fixed Tariff	A standing charge for energy end users. This has been fixed at £120 / year (index linked) across the project lifetime for all scenarios.
Connection Charge	This is the cost to the end user for connecting to the heat network. This has been set to £0 for all scenarios to reflect the intentions to offer zero cost access in the first phase of connection. Connection charges may be incurred for properties joining the network at a later date, to cover the costs of connection works.
CAPEX	Capital expenditures (CapEx) are funds used to acquire, upgrade, and maintain physical assets such as land, plant, buildings, technology, or equipment.
OPEX	Operating expenses (OpEx) are the costs incurred for running day-to-day operations, including metering and billing costs, electricity bills, or system maintenance.
IRR	Internal rate of return (IRR) is a metric used in financial analysis to estimate the profitability of potential investments. The higher the projected IRR on a project—and the greater the amount it exceeds the cost of capital—the more net income the project generates
NPV	Net Present Value (NPV) is a method of calculating your return on investment (ROI) for a project or expenditure. By looking at the income expected from a given investment and translating those long-term returns into equivalent values at the point of investment, a decision on investment can be taken.
SNPV	Social Net Present Value (SNPV) is a similar process to NPV, discounting future social value of projects against the time value of money to provide a comparable SNPV value across projects. Within this study, SNPV is used to understand environmental metrics (CO_2e), comparing the relative carbon emissions reduction value against the low carbon counterfactual scenario (distributed ASHPs).
NPV (with grant)	Within this study, analysis has been undertaken in the context of a Green Heat Network Fund (GHNF) capital grant across all scenarios. All scenarios fulfil the requirements of the GHNF (>100 connections, <100g CO_2e / kWh^{th}, intervention rate of max 50% CAPEX, Social IRR of ≥3.5% over 40 years against baseline values). The GHNF would provide up to 50% of capital costs as a grant, therefore reducing upfront scenario costs by the same percentage.

7.1. Financial Overview

Detailed appraisal of each scenario considered are provided within this section, with an overview of key outcomes provided in Table 7.1. All analysis has been conducted over 60-year project lifetimes, with 40-year parameters reported in line with HNDU requirements.

The ASHP counterfactual does not provide a financial projection due to the fact that there is no aggregate owner of the system as there is within all network scenarios. Individual homeowners would be responsible for CAPEX and OPEX costs, and all financial and social returns calculated at the individual property level.

Centralised ASHP has been discounted from this section due to its poor technical and financial performance in relation to GSHP (closed loop) systems. GSHP (closed loop) and ASHP distributed options are presented as the recommended options to progress.

Table 7.2 – Overview of Options Appraisal Outputs

Scenario	CAPEX	OPEX (/year)	Grant	IRR (40 year)	NPV (40 year)	Social NPV (40 year)
Scenario 1 – CPC Properties and Leisure Centre						
ASHP Distributed	£740,134	£143,228	No	-	-	-
GSHP Closed Loop	£1,031,076	£175,946	No	3.22%	-£774,510	-£76,143
Scenario 2 – CPC Properties, Leisure Centre and 65 Domestic Properties						
ASHP Distributed	£740,134	£291,394	No	-	-	-
GSHP Closed Loop	£4,463,744	£355,903	No	4.29%	-£433,447	£227,953
			Yes	6.78%	£848,417	£1,509,816

7.2. Financial Modelling Approach

Financial modelling was conducted using a bespoke financial scenario model developed for the Cranleigh Heat Network. Energy and financial model inputs were generated using EnergyPro software.

The Cranleigh financial model uses these EnergyPro outputs and several optional inputs to understand lifetime financial requirements and outcomes for each heat network scenario, including:

- Heat tariff (variable and fixed price);
- grant funding regime (including GHNF as standard);
- rate of inflation;
- discount rate;
- electricity costs (if desired);
- carbon credit value;
- social cost of carbon (used to calculate Social NPV).

7.2.1. Heat Tariff Design

Heat network operators typically earn revenues by charging customers using a two-part "heat tariff". The "variable tariff" is a cost per unit heat (p/kWh) and a "fixed tariff", or "standing charge", is a fixed fee for access to the system. This can be compared to the unit cost and standing charge in other utilities (e.g., electricity or gas).

Our modelling approach assumed that the same tariff was charged for all technologies to allow comparison between each scenario. Current tariffs from the billing data provided by CPC were assessed and used as a baseline from which to work from. It is important to note that, from the billing data received, CPC have a very preferential electricity tariff (16p / kWh). As of January 2023, this is 50% lower than the current price cap (34p/kWh) for UK homes and businesses and further price rises are anticipated in 2023 / 2024.

An overview of the three heat tariff scenarios appraised within this study is provided in Table 7.3 with the recommended option being **Scenario 2**, which has been used for the projections in **Error! Reference source not found.**. Scenario 2 would lead to an increase in heating costs for all properties based on existing CPC electricity and heating tariffs. It is anticipated that CPC will be subject to significantly higher heating and electricity tariffs in the short term, as will all candidate properties within this study. If this occurs, the commercial rationale for adopting a heat network or distributed ASHP systems will be improved.

Table 7.3 – Heat Tariff Scenarios Appraised

Scenario	Variable Tariff £ / MWh	Fixed Tariff £ / year	Description
1	160	280	Matched to current CPC electricity tariff
2	200	280	Matched to differential between current UK energy price cap, electricity cost projections (BEIS, 2020), and CPC billing.

7.3. Scenario 1: Current CPC Tariff

The cost of electricity, according to CPC property billing data relating to early 2022, is 16p/kWh. The annual standing charge for these properties is 77p/day. These tariff rates are far below current market rates and demonstrate that CPC currently has an extremely low electricity tariff. Higher rates would be expected at the point of renegotiating energy contracts with the supplier(s), in line with current and future price caps.

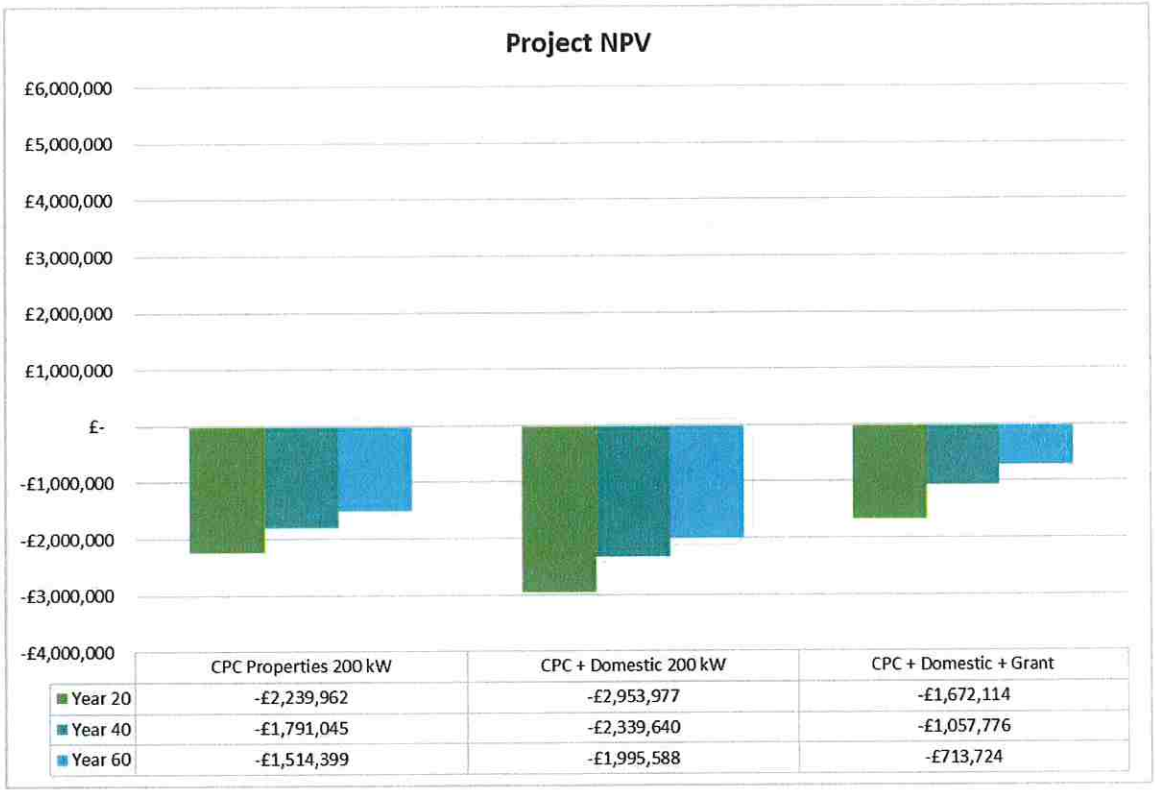
The below rates have been used in scenario 1 to match the current cost of electricity to CPC:

- Variable tariff: £160/MWh
- Fixed tariff: £280/year

Error! Reference source not found. shows that under this tariff, no options demonstrate financial viability over 40 years. This means that – at the current electricity price current paid by CPC – none of the options presented are considered financially viable, even with 50% grant support for option 2.

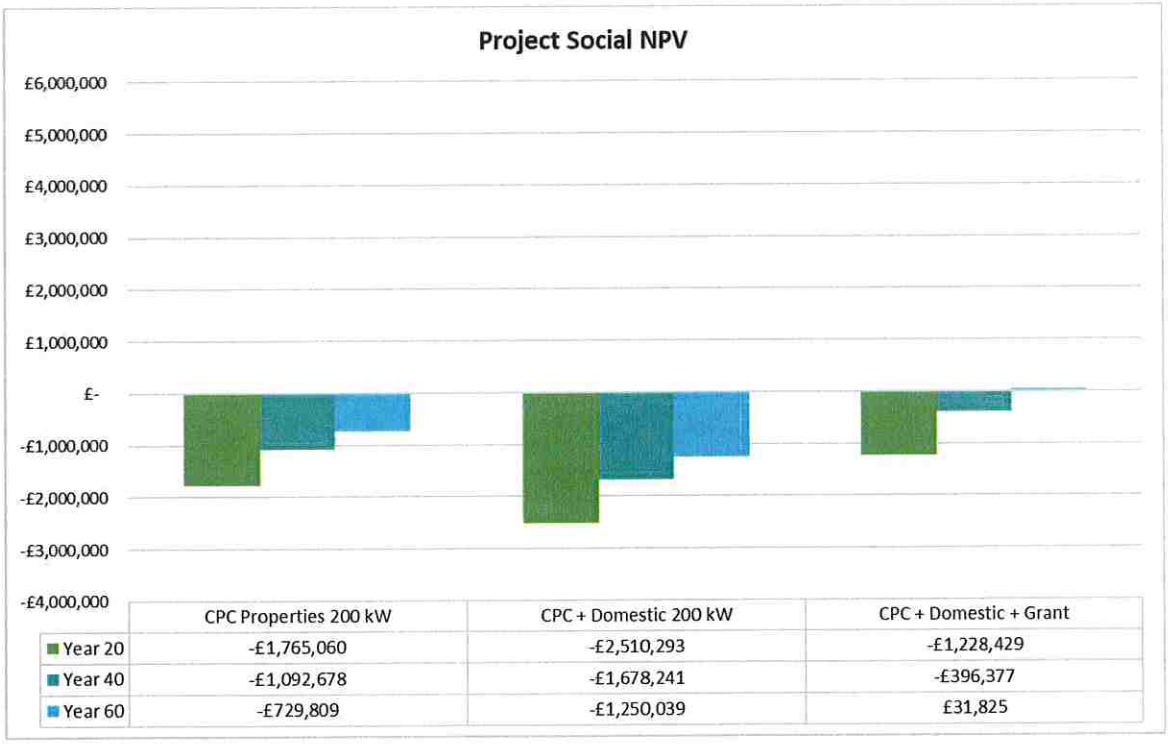
Scenario	CAPEX	OPEX (/year)	Grant	IRR (40 year)	NPV (40 year)	Social NPV (40 year)
Scenario 1 – CPC Properties and Leisure Centre						
GSHP Closed Loop	£1,031,076	£192,399	No	0.28%	-£1,791,045	-£1,092,678
Scenario 2 – CPC Properties, Leisure Centre and 65 Domestic Properties						
GSHP Closed Loop	£4,739,707	£355,680	No	0.44%	-£2,339,640	-£1,678,241
			Yes	2.37%	-£1,057,776	-£396,377

Table 7.4 – Heat Tariff Scenario 1



	CPC Properties 200 kW	CPC + Domestic 200 kW	CPC + Domestic + Grant
Year 20	-£2,239,962	-£2,953,977	-£1,672,114
Year 40	-£1,791,045	-£2,339,640	-£1,057,776
Year 60	-£1,514,399	-£1,995,588	-£713,724

Figure 7.1 – Heat Tariff Scenario 1 Net Present Value



	CPC Properties 200 kW	CPC + Domestic 200 kW	CPC + Domestic + Grant
Year 20	-£1,765,060	-£2,510,293	-£1,228,429
Year 40	-£1,092,678	-£1,678,241	-£396,377
Year 60	-£729,809	-£1,250,039	£31,825

Figure 7.2 – Heat Tariff Scenario 1 Social Net Present Value

7.4. Scenario 2: Hybrid Tariff (Current and Price Cap)

This scenario is a hybrid between the current CPC variable tariff and current (December 2022) electricity price cap in the UK. While this rate is higher than the tariffs shown in the billing data provided by the CPC reflecting rates in early 2022, this is a more accurate estimation of current and medium-term energy tariff rates. While it is uncertain how energy prices and price caps will vary in future, by using this variable tariff, the energy users included in this study will be guaranteed stability and certainty in the cost of their energy provision.

The below rates have been used in scenario 1 to match the current energy price cap:

- Variable tariff: £200/MWh
- Fixed tariff: £280/year

In terms of financial viability of the scheme, this scenario shows positive IRR over 40 years across each of the demand options, with positive NPV and Social NPV demonstrated under option 2 with 50% grant support.

Scenario	CAPEX	OPEX (/year)	Grant	IRR (40 year)	NPV (40 year)	Social NPV (40 year)
Scenario 1 – CPC Properties and Leisure Centre						
GSHP Closed Loop	£1,031,076	£175,946	No	3.22%	-£744,510	-£76,143
Scenario 2 – CPC Properties, Leisure Centre and 65 Domestic Properties						
GSHP Closed Loop	£4,463,744	£335,903	No	4.29%	-£433,447	£227,953
			Yes	6.78%	£848,417	£1,509,816

Table 7.5 – Heat Tariff Scenario 2

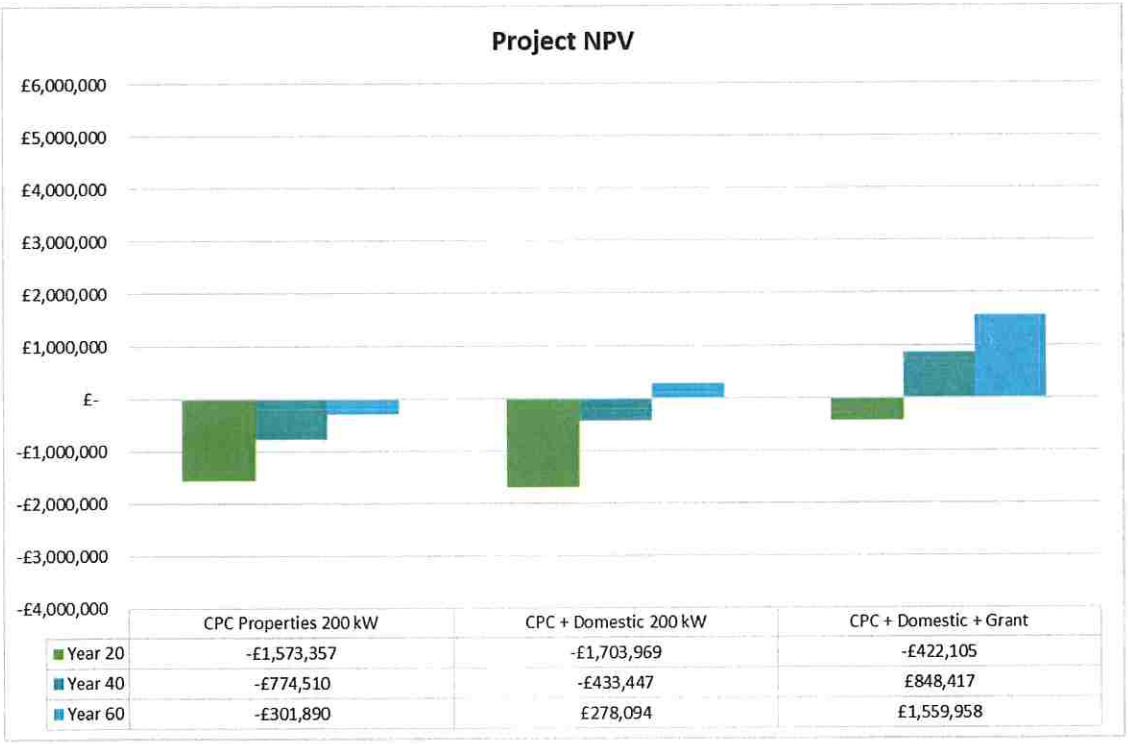
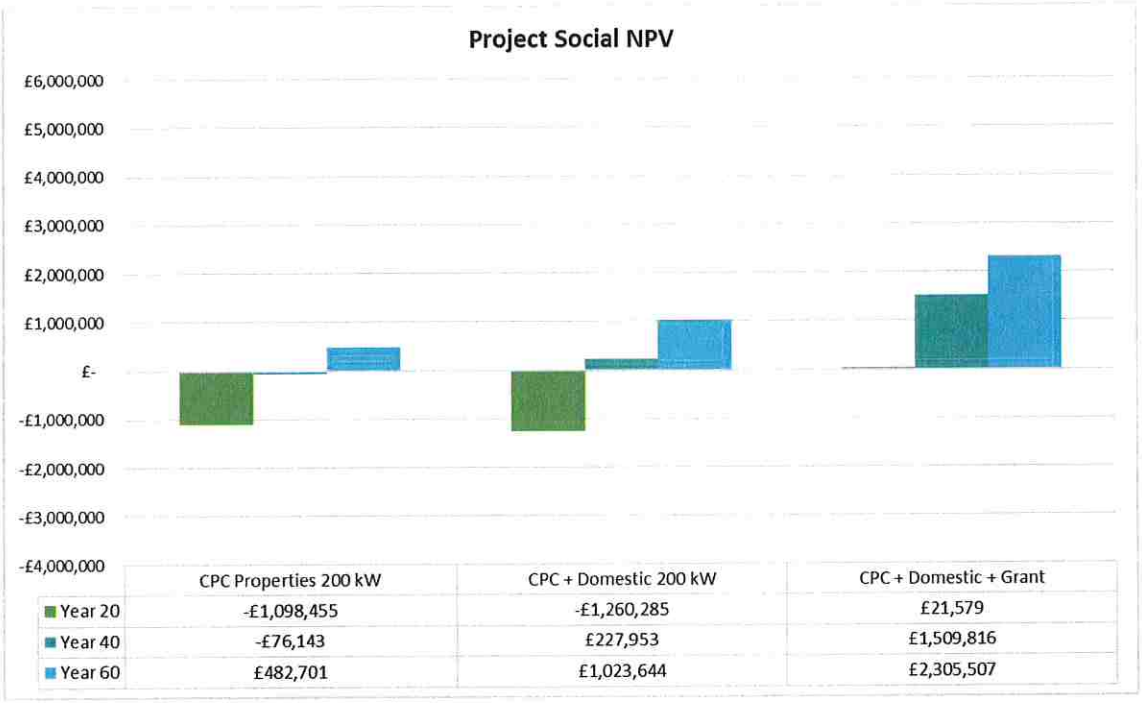


Figure 7.3 – Heat Tariff Scenario 2 NPV



	CPC Properties 200 kW	CPC + Domestic 200 kW	CPC + Domestic + Grant
Year 20	-£1,098,455	-£1,260,285	£21,579
Year 40	-£76,143	£227,953	£1,509,816
Year 60	£482,701	£1,023,644	£2,305,507

Figure 7.4 – Heat Tariff Scenario 2 Social NPV

Funding Sources

Funding will be required to further develop a heat network in Cranleigh after the completion of the initial feasibility study. The RCEF funding programme is no longer available and therefore Stage 2 funding for this project must be obtained from an alternative source. At present there is no bespoke fund available for this type of further development expenditure (DEVEX), although opportunities may include:

- Funding support or partial funding from the district or county council.
- Coordinated funding for stage 2 works with other parish councils and community organisations pursuing heat network projects in England.
- Engagement with BEIS Heat Network Development Unit (HNDU) to provide bespoke funding and expert support for DEVEX.

Development funding would be required to support further technical testing (e.g., test boreholes), financial assessment and structuring, end-user engagement, consenting, and detailed system design.

Capital funding is expected to total between £2m and £5m. Large investments of this nature typically require several funders, which may include:

- Green Heat Network Fund (GHNF) which would support up to 50% of capital costs of the project.
- District and / or County Council funding.
- Crowdfunding via local, regional, or national share or bond raises.
- Investment via carbon pricing and provision of carbon offsets.

The modelled financial returns are not large enough to attract private sector financing – this is common for heat networks, which are infrastructure investments. Most heat networks with retrofit elements require public sector involvement and investment. Further detail regarding funding options and sources may be found in Appendix B.

Social NPV (SNPV)

All scenarios assessed provide notable social return on investment. This study uses UK Government (BEIS) methodology to appraise social net present value across the lifetime of the proposed heat network scenarios.

SNPV is an important metric for funding assessors, including the GHNF, which recognise that the transition to low-carbon energy must deliver multiple social benefits. SNPV calculations are included within the financial

model as standard to enable Cranleigh to understand how social carbon pricing can support a potential application to GHNF in future, if desired.

Further opportunities for revenue generation may be associated with pricing of carbon (i.e., carbon credits). This is not an approach that has been utilised in heat network investment in the UK previously but is becoming an increasingly viable source of partial funding, enabling investors to offset their carbon emissions through supporting heat network delivery.

8. Community Engagement

This section details the community engagement strategy and outcomes over the course of the heat network feasibility study and recommendations for next steps engaging with the Cranleigh community and key stakeholders.

Stakeholder engagement within a feasibility study is a staged process with several aims:

1. Awareness Raising

The focus of this stage is on building support in the local area from potential scheme participants (i.e., heat off-takers). Engagement with regulators, network operators, etc., was conducted once initial demand and resource assessments was completed (phase 2 onwards).

Works conducted included:

A. A community engagement event at the Cranleigh Village Hall on the 3rd of June 2022, at which Scene conducted a drop-in session with the support for CPC, Community Energy South, and OVESCO, followed by an introduction to heat networks presentations (see Appendix E) and Q&A session with participants.
B. Development of briefing for stakeholders, setting out project ambition, objectives, and outputs as of the end of phase 1 and revised at the point of final reporting for onward engagement.
C. Direct communications with stakeholders, including requests for information (RFI), emails and phone calls with stakeholders.

2. Developing Dialogue

The purpose of this stage is to identify opportunities for heat generation, transmission, and use, and to further discussions with stakeholders relevant to these areas. Further to this, identification of potential barriers (e.g., regulatory, non-supportive stakeholders) was conducted during this stage, with a view to removing or reducing these barriers through dialogue.

A. Discussing land options for energy generation (boreholes, heat pumps) and supply (heat piping) infrastructure with CPC.
B. Developing discussions with potential heat customers via direct communications and sharing of the briefing for stakeholders.
C. Engagement with the energy network operator to understand grid constraints, Environment Agency regarding planning constraints, and Waverley Borough Council (WBC) in regard to local government support.

3. Building Support

The purpose of this stage is to build the critical mass of energy customers / loads which will underpin project viability. This stage is where in-principle support for the project is developed. Engagement included:

A. Direct conversations to communicate specific activities, outcomes and benefits relevant to each potential heat customer's property(s), e.g., landowners, anchor loads or key stakeholders.
B. Engagement with anchor load stakeholders to understand and record expected level of support.
C. Develop support from relevant authorities and regulators through continued information sharing.

4. Securing Buy-in

This stage focuses on securing support in writing. This is particularly appropriate during the final phases of the feasibility study and as a next step in securing known support for a heat network in Cranleigh. This would include:

A. Establishing in-principle support from anchor loads and key stakeholders via a memorandum of understanding (MoU).
B. Continued engagement with all heat customers to maintain support and momentum.
C. Formal screening opinions and advice from regulators based on expected scheme designs.
D. Public presentation and media release of final reporting, project outcomes and development roadmap.

8.1. Other Stakeholders

Scene engaged with other non-community stakeholders to understand local constraints, progress project opportunities and raise awareness about the heat network project. The outcomes of this engagement work are provided in Table 8.1.

Table 8.1 - Specific stakeholder engagement outcomes and next steps

Stakeholder	Level of Support	Outcome(s)	Next Steps
Surrey County Council (SCC)	Moderate	High level discussions with SCC have identified a willingness to support a heat network project in Cranleigh.	Further discussion of specific scheme designs, opportunities for funding support from SCC, and wider enabling works (e.g., EEM) should be conducted.
Waverley Borough Council (WBC)	High	WBC are positive about the project aims and has indicated interest in relation to supply of the planned leisure centre.	Improved understanding of BDC's interests, wider local properties under BDC ownership and details on the leisure centre development plan should be discussed. The impacts of a heat network in Cranleigh from BDC's perspective would enable scheme design improvements and help to bring BDC onboard as a project partner.
Environment Agency	Moderate	Initial screening of heat network intentions has been discussed with the EA. No major constraints have been identified in relation to any of the heat source options, including open-loop systems.	Screening opinions should be sought for specific heat sources and network layouts.
Scottish & Southern Energy Networks (SSEN)	Moderate	Engagement with technical designers at SSEN was conducted and local grid constraints discussed. There are some supply-side constraints which would affect the distributed GSHP scenario particularly.	Further detailed assessment of centralised generation scaling, and locations is required. This must be conducted via a "budget estimate" with a specific scheme design in place.
Potential Anchor Loads (commercial and public properties)	Moderate	All commercial property owners have been engaged via the RFI survey and in some cases, direct engagement. Heat demand data has been provided for most commercial properties and willingness to engage further on connection opportunities has been demonstrated.	Continued engagement with all potential end users is necessary. For larger loads, this is very important for the financial viability of the scheme. Commercial properties should be considered priority end users and agreement in principle should be sought as the project progresses towards detailed design.

8.2. Community Benefits

Alongside social value, as conducted in the financial assessment, several further benefits and impacts are expected as a result of a heat network in Cranleigh. These are detailed in **Error! Reference source not found.**.

Table 8.2 Potential social benefits of a community heat network in Cranleigh

Benefit	Description	Applicable Scenarios
Air quality	Improvements through replacement of existing heating system replacement and reduced traffic for fuel delivery.	All
Carbon reduction	Reductions through replacement of existing heating system replacement and reduced traffic for fuel delivery	All
Energy Networks	Reduced impact on grid from electrical systems via greater heating efficiency of HPs and energy centres.	All
Heating Quality	Better quality of heat to property owners.	All
Energy Bills	Reduced cost of heat compared to building level heat pumps.	Option 2 – grant funded only.
Price Certainty	Greater price certainty compared to fossil fuels.	All
Maintenance requirements	Longer equipment lifetimes and therefore reduced maintenance costs.	All
Health	Benefits of higher quality heat in reducing fuel poverty and associated issues (e.g., lack of warmth, condensation, etc.).	All

9. Operation & Governance

Different models and structures are currently used in the electricity and heat supply market in the UK. This chapter explores potential delivery models, potential ownership, and corporate structuring options, and provides recommendations for use within the Cranleigh Heat Network in line with the aims of Cranleigh Parish Council.

9.1. Heat Network Governance

There are several options available to civil organisations (e.g., Parish Council) which may play a role in a heat network project. Most often this role is at "arms-length" where a civil organisation or charity plays a role in governance but does not operate the operational commercial entity. The operational entity may be a subsidiary company (e.g., a special purpose vehicle) or a third party (see section 9.2).

It is not expected that a Parish Council, such as CPC, would be able to fully take on the ownership and management of a heat network, due to the high financial and human resource requirements, as well as the resulting liability of operation (particularly in relation to non-parish council customers). There are examples throughout the UK of district / borough and county councils playing a central role in heat network ownership and management – such as Cambridgeshire County Council's leading role in the Swaffham Prior heat network.

Based on the provided scenarios within this report, there are several modes of governance which may be suitable for a heat network in Cranleigh. Generally, with any scheme which includes non-CPC owned properties, it is highly recommended that partnerships with wider public sector organisations is investigated.

#	Scenario	Suitable Governance Arrangement
1	Centralised Heat Network CPC Properties Only	100% Parish Council Ownership
		Joint Venture with Public Sector
		Joint Venture with Private Sector
2	Centralised Heat Network CPC Properties Domestic / Commercial non-CPC	Joint Venture with Public Sector
		Joint Venture with Private Sector
		Joint Venture with Community Organisation
3	Individual ASHPs	Individual Ownership (e.g., CPC, Medical Centre)
		100% CPC Ownership

Table 9.1 – Suitable governance arrangements by heat network scenario

Where domestic properties and other non-CPC owned properties are included in a heat network, there is an opportunity to investigate community-owned and led heat network development. This can help to provide local community buy-in to the project (i.e., support for the heat network and customer sign up), as well as ensuring that the benefits of the heat network are felt locally, including lowering energy bills, carbon emissions and reducing pollution. Furthermore, community-led energy can provide access to funding, such as share raise capital. Table 9.2 provides an overview of the available forms of community governance most frequently utilised in the energy sector and in relation to community-owned heat networks.

Table 9.2 – Community Governance Options

Name	Description
Community Land Trust (CLT)	A CLT is a non-profit, community-based organisation committed to the stewardship and affordability of land, housing and other buildings used for community benefit in perpetuity. CLTs are usually constituted as Industrial & Provident Societies (IPS), or Companies limited by Guarantee and have charitable status. They typically provide affordable homes, community gardens, civic buildings, pubs, shops, shared workspace, energy schemes and conservation landscapes. CLTs have been used to deliver and manage heat networks in the UK, including the Swaffham Prior heat network in which the Swaffham Prior CLT has developed a joint venture heat network with Cambridgeshire County Council (the landowner).
Registered Society (RS) / Community Co-operative	There are various forms of RS which provide a social or community benefit which include a co-operative, a company limited by guarantee and a community benefit trust or BenCom (further details on the BenCom structure below). RS are registered under the Co-operative and Community Benefit Societies Act 2014. They are all forms of body corporate. The co-operative and BenCom structure both have a share capital and are owned and controlled by the stakeholders who become members upon acquiring a share. Each member will have one vote. An RS is registered with the Financial Conduct Authority and not under the Companies Acts. Co-operatives have previously been used by community organisations to deliver heat network projects – including Woolhope Woodheat Co-operative and Springbok Sustainable Wood Heat Co-operative – but more recently have fallen out of favour due to ineligibility for several tax relief programmes, including Social Investment Tax Relief (SITR).
Community Interest Company (CIC)	A CIC is a body corporate which can take the form of a company limited by guarantee or with a share capital or even a RS structure. A CIC is designed either to trade for a social purpose, or to carry out activities which will benefit the wider community. A CIC must therefore pass a community interest test and satisfy the CIC Regulator that it will provide some form of community benefit. A CIC, as a company limited by shares, can raise equity finance. The assets of a CIC however are protected by means of an asset lock. In general terms, an asset lock will restrict profits being distributed to the members or shareholders to ensure that they are applied in accordance with the CIC's purposes. Dividends for investors are also capped, which can make it an unattractive investment for investors seeking a higher rate of return on their investment. A CIC cannot be a charity. Whilst this has the advantage that the purposes of a CIC are not restricted to the approved categories of charitable purposes set out in the 2005 Act with the result that they can be much wider in their application, it does mean that a CIC does not receive favourable tax treatment.
Community Benefit Company (BenCom)	A BenCom is designed to benefit the wider community as a whole, within the scope of its' defined purposes. Unlike an IPS co-operative, it is not necessary to be a member of the BenCom in order to benefit from it. So, a BenCom will provide a wide level of public benefit within the defined community. BenComs have a number of benefits, including: - Every member has an interest in the running of the BenCom owing to their shareholding and will therefore have a greater say in the community benefits that it will provide. Every member has one vote. - Limited liability protection for members. - They can raise funds through the issue of share capital. - It can become a charitable body with favourable tax treatment.

9.2. Ownership Structures

There are three possible approaches for CPC to developing and operating a heat network in Cranleigh:

1. Via a publicly-owned and operated Energy Services Company (ESCo);
2. As a shared ownership project alongside a commercial partner;
3. In partnership with a third-party owner and operator.

The above options have differing benefits and limitations and may be applied variably throughout stages of the project (development, construction, operation). Each of the options will have a different resourcing, responsibility and risk level for CPC and any subsequent community entity.

9.2.1. Energy Services Company

Cranleigh Parish Council – or more likely a commercial subsidiary or standalone community entity – will become involved in energy services as part of its aspirations for generation of heat, demand management and energy efficiency work.

Because of the diversity of activities undertaken and services offered by an ESCo, finding a meaningful definition of what an ESCo actually is can be difficult. A definition commonly adopted in the UK, including by the energy regulator, Ofgem, is derived from the EU's 2006/32/EC Energy Service Directive: "*an entity that provides a commitment to deliver the benefits of energy to a specified level of performance and reliability.*" Figure 9.1 shows an overview of the energy services domain in which ESCo's can operate.

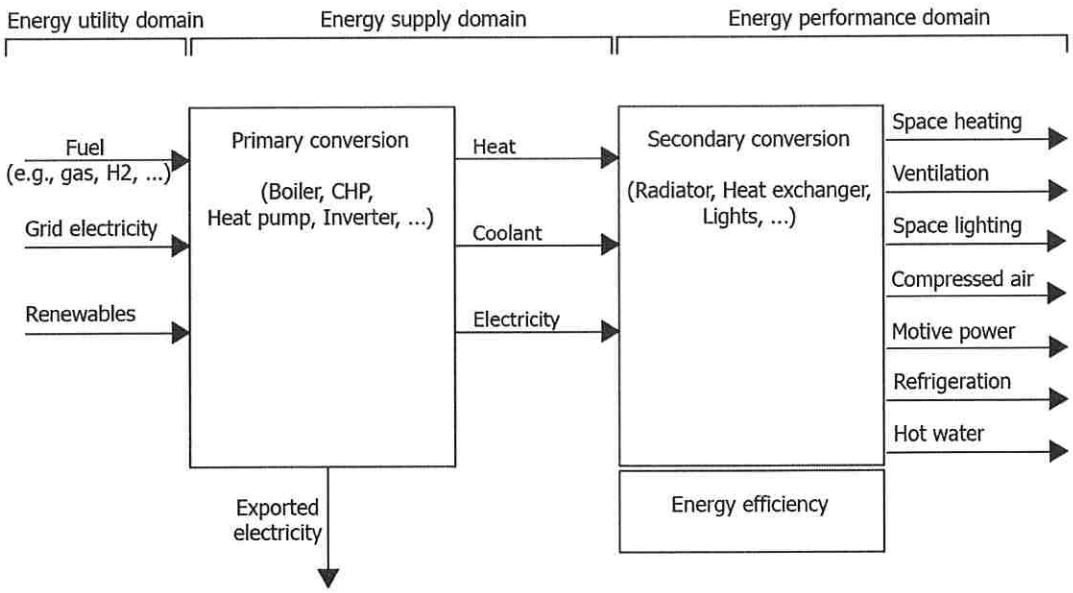


Figure 9.1 – Stylised Overview of Energy Services

There are two features that further specify the role of ESCos beyond the very general definition mentioned above:

1. ESCos have the aim of improving and / or providing energy cost savings, which may include the provision of lower-cost energy services but can also refer to providing energy efficiency and/or higher quality energy services.
2. ESCos generally take on some or all of the risk associated with the delivery of energy service(s).

Improving or Providing Energy Cost Savings

There are many ways in which an organisation can improve or provide energy cost savings by implementing an ESCo model:

1. **Procurement:** Cost savings may be achieved through the collective purchasing of energy, such as electricity and fluid fuels (e.g., propane, fuel oil). Direct supply arrangements, such as developing a Private Wire Network (PWN) or heat network, would be a more intensive example of this.
2. **Investment in generation:** These range from financial investment through taking equity in a generation asset, to a more 'hands-on' approach where the ESCo plays an active part in project development and/or uses the heat or electricity generated.
3. **Demand-Side Management:** By influencing when energy is used by consumers, an ESCo can benefit a local or national energy system whilst creating revenues in the process. Demand-side management is often used to try to match energy supply and demand, and to reduce system stress in times of peak demand.
4. **Control over end-user energy tariffs and technologies:** with potential for capturing net surplus and/or reducing fuel poverty.
5. **Energy Performance Contracting (EPC):** This is a form of financing in which capital improvements are funded from cost reductions that result from energy efficiency upgrades.

Co-ordinating activity, such as through an ESCo, creates the potential to maximise the benefits and retains decision making / control within the community.

Setting up and operating a fully community-owned and run ESCo has the highest human and capital resource requirements of the three detailed options. In practice, much of the operational resource burden may be outsourced to third party operators (e.g., metering and billing, maintenance contracts).

9.2.2. Shared Ownership

A shared ownership approach may be beneficial where resourcing, reasonability and risk reduction is a primary objective of CPC. In practice a community vehicle (e.g., a special purpose vehicle) would be set up and an agreement made with another commercial or public partner for investment and operation of the heat network.

Shared ownership can provide:

- Access to development funding and capital finance.
- Human resources and expertise in heat network delivery and operation.
- Risk reduction through sharing of the project liabilities and access to more secure resources.
- A lasting partnership which may provide a vehicle for future low carbon projects in Cranleigh.

The other side of this arrangement is that the needs and requirements of the partner organisation must be met. This could include financial incentives (i.e., income) from the project or wider priorities, such as prioritisation of specific buildings within the heat network.

Whilst theoretically a safe option for heat network delivery and operation, shared ownership may directly impinge on the economic returns of the project, customer energy bill savings, and potentially the wider socio-economic benefits community-led energy projects can deliver.

Based on the above statement, shared ownership is not the recommended approach to community heat network delivery but should be considered where a willing and supportive project partner can operate within the community's parameters and requirements.

9.2.3. Third-Party Ownership

The final option is for the community not to have an ownership role in the project. An example of this may be a community developing the basic feasibility of a heat network and passing the project onto a commercial or public entity to take the project forward, including financing, installing, and operating the network.

This is the lowest risk option on the part of the community, as the community would not own any elements of the network and may have input into the terms and conditions of heat supply agreements. This model also enables selection of an experienced organisation to take forward and operate the project, and most critically access to project finance.

Third party ownership may be suitable in some circumstances, such as where most properties within the proposed network are owned by a single entity (e.g., housing association or local authority) and that party if willing to take the project forward, or where there is no other clear route forward for the project in terms of both governance and / or financing.

There are negative consequences of choosing this model, particularly the loss of control on the part of the community. This would reduce the role the community can play in heat network development (designs, extents, etc.), operational protocol, and tariff setting. Furthermore, the third party would seek to benefit from the network financially, either through returns or prioritisation of their owned assets.

The important thing to note at this stage is that heat network projects are long-term assets with long-term revenue generation prospects, but potentially low margins. This means that small-scale heat networks are unlikely to be attractive to third-parties or may necessitate high tariffs to derive profit.

9.3. Financing Structures

As described above, the ownership and financing structure options for the ESCo model range from wholly-owned and operated by the community, to a joint venture between community and private sector, to one in which a private sector partner assumes full responsibility.

Each of these structures has a different risk profile. In considering the most appropriate structure, it is important to recognise that risk generally goes hand in hand with control: the more control desired by the community over a heat network, the more risk must be taken on. Conversely, a risk-averse approach is likely to result in some loss of control over the community's ability to achieve its strategic objectives for the network. For example, if the goal is to maximise reduction in heating costs, this may not be possible considering the private sector partner's requirement to ensure commercial returns for its investment. However, it may not be possible for the community to fully finance a heat network.

Figure 9.2 has been adapted from DECC's Investor guide to Heat Networks[7] (2015) illustrating the relationship between control and risk.

[7] DECC (2015). Investing in the UK's Heat Infrastructure: Heat Networks.

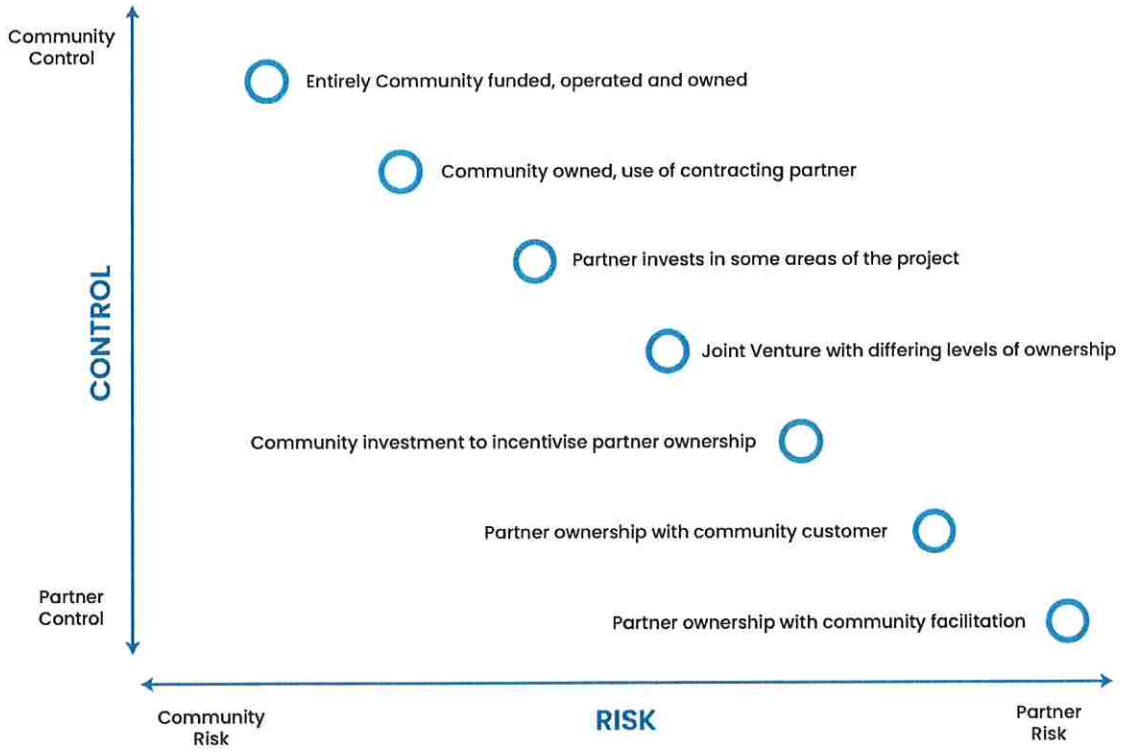


Figure 9.2 – Relationship of control to risk

There exists a direct relationship between the level of control over the entity and its aims and functions, and the level of risk assumed by the controlling party. This means decision-making must balance the prospective aims and outcomes of the ESCo against an 'acceptable level' of risk. The risks are dependent on a large number of factors, not least the capacity and willingness of the community to take on risk and assume control of the project(s), or the availability of suitable and experienced partners to deliver some or all of the project(s) successfully.

Corporate Structuring Options

Choosing the most appropriate commercial structure will depend largely on the favoured supply and ownership model options.

A **Limited by Shares** structure is most suited to models that require upfront external investment and subsequent returns on that investment and where there is more than one investor who may want flexibility around their involvement and exit strategy. One of the key features of this approach is that it seeks to pay profits and any liability is limited to the amount invested. The benefits of Limited by Shares model are that it is straightforward to establish, allows different ownership percentages, provides clarity over control, and enables dividends to be paid and investment to be traded. The major downside is that a limited by shares structure would be liable for corporation tax. A standard set up for a community project is to have the company set up as a fully owned subsidiary, with any profits gifted to a parent charity.

Limited by Guarantee structures are most suited to not-for-private-profit distributing enterprises which are required to either own assets, enter into contracts or employ staff. The key features of this model are that there are no shares, surpluses are recycled back into the business and liabilities are limited to £1 guarantee on insolvency. Limited by Guarantee structures allow for application for charitable status, which comes with benefits such as corporation tax relief and business rates relief. Restricted financing options for this structure and limited flexibility in exit strategies can make this option unviable in certain circumstances. Limited by guarantee companies are often used as the parent companies in community energy projects.

9.4. Business Models

In the UK, there are typically two business model approaches that ESCos supplying heat follow. These are Energy Performance Contracts (EPC) and Energy Supply Contracts (ESC), which can be utilised separately or together. The third model, most often used in continental Europe, is Chauffage contracts. The fundamental commonality between these three approaches, as typical for any ESCo, is that they focus on energy efficiency.

Energy Performance Contracting (EPC)

There are two common forms of EPC, guaranteed savings, and shared savings. Under the guaranteed savings model, the customer finances the project and the ESCo will guarantee a minimum energy savings level. Any savings exceeding this level are then split between the ESCo and the customer. With shared savings, the ESCo finances the project, and the savings are then split between the customer and ESCo according to a predetermined split.

EPCs are suited to large scale projects, particularly in the public sector, because the savings guarantee makes it a safe investment. In many cases, EPC projects generate 20 - 30% energy savings and the contract times are generally around 10 - 15 years. The EPC is a complex contract with high transaction costs, which in many ways make them less suitable for smaller projects. In addition, the often-long payback times make it less attractive.

Energy Supply Contracting (ESC)

Energy Supply Contracting is a supply side energy efficiency measure and ensures delivery of useful energy, referring to energy that a customer has 'practical' use for, such as heat, cooling, or steam, as opposed to energy carriers such as oil or biomass fuels. The ESCo would take on the responsibility for everything needed to deliver useful energy to the customer. For example, in the case of heat this could include planning and instalment of heat interface units (HIUs), energy distribution, operation and maintenance or production facilities and the procurement of fuel.

ESCs are often oriented toward decentralised power supply. In most cases ESC is investment free for the customer and the contracts typically run for 10-15 years. The energy efficiency measures are taken on the supply side to ensure lower cost of operation, which often amount to 10-20%.

Chauffage

Chauffage contracts, also referred to as 'comfort contracting', are used quite frequently in continental Europe and are a more extreme form of energy management outsourcing. It is a contract form that revolves around providing a function, with the ESCo typically taking complete responsibility for the provision of an agreed set of energy services, for instance space heating. The function can be related to temperature, lighting level, air quality etc. A common example is providing a certain (or relative) temperature of a building, for example maintaining a temperature of 21°C.

Compared to EPC, these contracts are less complex with lower transaction costs and without the need for costly measurement and verification. The EPC's may have more comprehensive demand side energy efficiency measures reaching a wider range of areas and may be better suited for larger building pools. The Chauffage model works especially well in the commercial buildings sector.

Integrated Energy Contracting (IEC)

IEC is a business model that combines elements from both ESC and EPC, with the aim being to involve both supply side and demand side energy efficiency measures. The business model of integrated energy contracting is normally based upon the standard Energy Supply Contracting model, whereby the ESCo will get remuneration for the useful energy delivered, as well as a flat rate service remuneration for operation and maintenance.

9.5. Metering and Tariff Options

Metering

Heat metering and billing regulations have been introduced to implement the requirements of the European Energy Efficiency Directive in the UK. All new heat networks are required to install meters and controls so that

customers can manage their heating. There are also requirements to provide customers with transparent billing information.

The heat network is fundamentally different to the gas or electricity markets, in that as a closed loop network, rather than a national grid, there is only one 'supplier'. Appropriate governance structures need to be put in place for all heat customers to provide safeguards that the heat tariff is equivalent, if not discounted, against other forms of energy supply. This is also necessary to provide the incentive for heat users to sign up in the first place – particularly given the potential for up-front connection costs, and the inevitability of construction disturbance caused by the implementation of building efficiency measures, internal wet system upgrades (upsized radiators), and boiler replacement – with Heat Interface Units to enable connection to a low temperature network or individual heat pumps.

Voluntary guidance on heat networks is contained in the Heat Networks: Code of Practice for the UK (2020), prepared jointly by the Association for Decentralised Energy (ADE) and the Chartered Institution of Building Services Engineers (CIBSE). Amongst the areas covered is heat metering, to inform choices on how to select metering, prepayment and billing systems that are accurate and cost effective.

Tariffs

Revenue modelling from heat sales should account for current and future predicted energy tariffs, providing levelised cost savings across the community where feasible. This cost often includes the capital cost of internal building works as necessary. At a more detailed stage, the proportion of the charge relating to heat supply (common to all buildings), and the proportion relating to repaying energy efficiency and wet heating system works (building specific) can be defined.

Specific decisions on heat prices must be made to enable detailed financial and revenue modelling, including:

- How investment cost of heat interface unit (HIU) and branch connection are shared between the network operator and the customer;
- Standing/capacity charges for heat (£/kW) supplied to customers and whether this cost varies between customers; and
- Unit cost of heat (£/kWh) supplied to customers:
- Whether this cost varies between different types of off-takers;
- Whether or not cost varies with time of day, season, etc.;
- Whether or not the tariff rates be linked to gas-prices, for instance through a % discount or offset and floor-price.

The unit cost of heat is not the only consideration. For example, if the network operator provides financial support for the investment in energy efficiency improvements to customer properties, then these should result in an overall reduction in heat demand. It may then be reasonable to consider a higher unit cost than the Business-as-Usual alternative while offering customers a reduction in their annual energy bill.

9.6. Job Creation and Upskilling

The establishment of an ESCo delivery vehicle or shared ownership approach would create the opportunity for new job creation and upskilling of individual capabilities. As a newly formed ESCo, commercial, technical, and administrative roles will be created. For example, management roles will be created to oversee the running of the organisation; technical roles will be created to service the heat pumps and network; and administrative and marketing roles to deal with the customer facing sides to the business. These new roles can be sourced from individuals from the local area or outsourced to third party(s) as required.

Some of these jobs will require new expertise, and requisite training for local individuals may be integrated into procurement packages as part of the necessary outsourcing of the installation works. The development process can be leveraged to upskill individuals, thus contributing to establishing a more diversified workforce. This increased expertise in local expertise could support the delivery of subsequent phases of the heat network or wider local energy development in Cranleigh.

It is necessary to note that significant further input will be required to progress this opportunity from this feasibility stage to an operational heat network. Serious consideration should be given to including dedicated and funded personnel resource within the community to support the ongoing delivery of this work.

9.7. Recommendations

Cranleigh Parish Council has the ability to take the project forward via a number of scenarios, seeking to either decarbonise public properties, extend to commercial properties within the local area, and / or extend to domestic properties in the local area. The final scenario chosen will determine the recommendations for commercial structuring and governance forms. Prior to a decision on which scenario to progress, a number of recommendations can be made:

1. To engage with both district and county council to share feasibility outcomes and discuss appetite, support, and financial requirements of each organisation in relation to heat network development in Cranleigh. This may help to define the ambition which CPC is capable of taking on (i.e., with or without wider public sector support).
2. To identify and engage with potential partners in the local area, including both community organisations and commercial entities which may be able to support further development (e.g., detailed feasibility), engage with local end users (domestic and non-domestic) to ascertain local interest, and to understand whether a community-led approach to heat network development is feasible.

Whilst it is an early stage in the proposed heat network project, there are a number of benefits of setting the project up as a community-led and owned entity. Typical commercial forms include Community Benefit Societies (BenCom) and Community Interest Companies (CIC), which offer numerous benefits, including:

- Definition of an underlying constitution and therefore aims and principles under which any low carbon project may be taken forward.
- Transparency in these principles and intentions to the public, in particular Cranleigh residents, providing a justification for all low carbon ideas pursued and evidence of the socially driven aims of CPC.
- Distance from CPC Council, enabling greater autonomy on both sides and shielding the Parish Council from liability, risk and criticism of low carbon projects and their intended outcomes
- Legitimacy through the successful setup and operation of the community entity, as well as fulfilling requirements for specific funding streams.
- Whilst the community organisation may take forward the heat network in the future, there are a number of other low carbon activities which the organisation could facilitate in the meantime. This could include energy efficiency support, energy switching advice, or addressing fuel poverty.

It is recommended that an active approach to both the district and county councils should be undertaken to develop interest in the heat network project, discuss potential partnership options, and identify particular funding streams which may support further development work or ancillary low carbon projects in Cranleigh.

10. Conclusions

As detailed within this study, a heat network within Cranleigh is viable on the basis of a closed-loop ground source heat pump system with tariffs set according to national energy price caps. This study has focused on defining a heat network that is self-supporting in the first instance, whilst prioritising decarbonisation and long-term energy bill stability for the CPC buildings and community.

This report proposes that:

- Through both technical and financial appraisals, **closed-loop ground-source heat pump is expected to be the most viable heat generation opportunity**.
- Based on the ability to centralise electricity costs and derive heat sales, **a centralised (energy centre) heat network is a preferred network solution** with electricity provided by solar PV.
- The **recommended heat network options outperform the low carbon counterfactual across lifetime energy cost and social NPV values**, demonstrating that they are preferable solutions.
- Heat networks suffer from poor financial performance when compared to fossil-fuel derived energy sources**. Grant funding for capital costs would greatly improve economic outcomes and viability**.
- **The only viable situation where GHNF grant funding is obtainable would be for a network with >2GWh annual heat demand**. This would necessitate the development of a community heat network, incorporating CPC properties, leisure centre, and >65 domestic properties.
- **A smaller heat network may be viable without GHNF support but would require alternative support from national, county and district council**. This may be in the form of full or partial grant funding or via low interest financing.
- **Without funding support, distributed ASHPs should be considered** as the next most viable means of decarbonising CPC properties and wider Cranleigh properties.
- 2022 / 23 has seen dramatic fluctuation and market-wide increases in energy costs in the UK. This has been modelled in the short to medium term, but financial viability is dependent on accurate energy price predictions. **This is a project risk and should be reviewed throughout the development process.**
- In the event that non-CPC demand is incorporated into a heat network, local demand and sign up will be a critical underpinning to any heat network. Phase 2 development should include **engagement with residents and businesses**, including securing agreement in-principle with potential customers.
- In all instances apart from the distributed ASHP network, a high temperature heat network has been assumed for the purpose of modelling. This reduces the need for internal energy efficiency and heating system upgrades in properties but is not an optimal approach to heat pump operation. Stage 2 development should include **sensitivity testing of low and high temperature network variants**, to understand viability against home report data.
- **Better understanding of properties in Cranleigh will be required to take forward a successful heat project.** This includes room by room heat loss surveys for all buildings as well as assessment of existing heating systems and energy efficiency measures.

10.1. Recommendations

Our recommendation to Heating the CPC properties is to progress the investigation and development of a heat network supplied by ground-source heat pumps via a closed loop system.

Key considerations are highlighted below:

1. **Financial performance of the recommended GSHP systems is positive under a defined heat tariff**, which seeks to balance network viability with end user bills. Understanding of long-term CPC energy costs will allow a cost-benefit analysis to be undertaken against the proposed tariff in this report.
2. There are a number of viable land areas around the CPC properties which would be viable for a GSHP and solar PV array. This allows flexibility in land choice, however, due to community preferences, the **Bruce McKenzie Memorial Field** is the recommended site for this project.

3. Current modelling shows that a **GSHP heat network with 2GWh of heating demand would be eligible for the Green Heat Network Funding (GHNF)**, providing up to 50% of commercialisation costs and greatly improving system viability.
4. Where a heat network with <2GWh of annually heat demand is to be progressed, **wider sources of funding should be assessed**, including public funding (national, regional). Without grant or low interest loan funding, a smaller heat network variant is not anticipated to be financially viable.
5. **Without funding support, CPC should investigate options for individual distributed ASHP systems across all properties**. This will enable staged decarbonisation without the upfront costs of a heat network. Building surveys and quotations would provide accurate understanding of required heating system and thermal efficiency upgrades on a building-by-building basis.
6. CPC should **engage with community organisations** to progress wider low carbon projects in the village, as well as to meet the requirements of future funding.

10.2. Project Roadmap

A project roadmap has been set out below, demonstrating the scope of works required to develop the heat network proposal to the point of investment ready.

Technical Assessment	• Review Network Designs • Building Surveys • Detailed Heat Load Modelling
Detailed Design	• Test Borehole and Thermal Response Test • Detailed Network Design
Financial Appraisal	• Full Financial Appraisal • Sensitivity Analysis • Outline Business Case
Community and Stakeholder Engagement	• Heat Supply Agreements • Heads of Terms (HoT) • Ongoing Engagement
Funding routes, governance models	• Funding Application • Secure Partnership(s) • Constitute Operational Body
Planning and Grid	• EIA Screening • Grid Application • Planning Application (if required)
Implementation Roadmap	• Detailed Business Plan • Programming • Risk Assessment • Procurement
Construction	•Installation of energy centre, networks and individual property upgrades.
Operational	• Monitoring & Evaluation • Ongoing Management & Maintenance

Appendix A – Technical Data

This appendix provides further detail in relation to thermal resource and heat demand data for this study.

Table A.1 – Energy Demand Assessment for non-domestic properties

SI no.	Building Name	Annual Heat Load (MWh)	Peak Heat Load (kW)	Annual Electricity Demand (MWh)
001	Cranleigh Library	35.10	9.43	20.70
002	Citizen's Advice Bureau	12.20	3.28	11.41
003	Cranleigh Band Room	36.60	9.84	2.61
004	Village Hospital	282.70	75.98	0.00
005	Village Hall	54.49	14.65	5.89
006	Cranleigh Health Centre	89.23	23.98	0.00
007	Snoxhall Community Centre	41.70	11.21	5.08
008	Snoxhall Pavilion (Inc Nursery)	42.70	11.48	13.87
009	Cemetery	0.12	0.03	0.20
010	Village way (Public Conveniences)	0.30	0.08	0.50
011	Common (Public Conveniences)	0.20	0.05	0.33
012	Youth Centre	3.05	0.82	5.08
013	Guide Hall	3.62	0.97	6.03
014	Cranleigh Scout HQ	3.06	0.82	5.10
015	CPC Council Office	220.83	59.35	12.69
016	Snoxhall Fields	1.67	0.45	2.78
017	Leisure centre (proposed)	502.47	135.05	837.44
	TOTAL	**1,330.0**	**357.5**	**929.7**

Table A.2 – TownRock Energy Assessment of land parcels

Location	Area Available (m^2)	Full Load Equivalent Hours	Approx No. of Boreholes	Total Annual Heat Supplied (MWh^{th})	Peak Heat Supplied (MW^{th})
Bruce McKenzie Memorial Field	22,200	1800	119	2,115	1.18
		2000			1.06
		2400			0.88
		3000			0.71
Snoxhall Option A	19,800	1800	107	1,887	1.05
		2000			0.94
		2400			0.79
		3000			0.63
Snoxhall Option B	15,800	1800	87	1,505	0.84
		2000			0.75
		2400			0.63
		3000			0.5

Appendix B – Funding Appraisal

This appendix provides and overview of funding opportunities for heat networks in the UK as of 2022.

Green Heat Network Fund

The Green Heat Network Fund (GHNF) is a three-year, £288m capital grant fund that opened to applicants in March 2022. It provides support to organisations in the public, private, and third sectors in England. The GHNF builds on the progress and development made by the Heat Network Investment Project (HNIP) and the Green Heat Network Fund Transition Scheme that opened in July 2021.

Objectives

The GHNF objectives are to:

- Achieve carbon savings and decreases in carbon intensity of heat supplied in the UK.
- Increase the total amount of low carbon heat utilisation in heat networks (both retrofitted and new heat networks).
- Contribute towards market transformations across the investment landscape and supply chain that will better prepare the heat network sector for further decarbonisation.

Eligibility

The GHNF is open to applicants from organisations in the public, private and third sectors who are responsible for the development of heating and cooling networks in England, that:

- meet the initial GHNF gated metrics covering the carbon intensity of heat delivered, consumer detriment, the minimum annual heat energy demand and the scheme's social IRR;
- are able to provide all supporting documentation;
- are legal entities (such as companies or organisations). Public sector organisations such as NHS Trusts and other governmental departments may also apply.

The below eligibility metrics gates apply for the GHNF.

Metric	Minimum score
Carbon gate	100gCO_2e/kWh thermal energy delivered to consumers
Customer detriment	Domestic and micro-businesses must not be offered a price of heat greater than a low carbon counterfactual for new buildings and a gas/oil Counterfactual for existing buildings
Social IRR	Projects must demonstrate a Social IRR of 3.5% or greater over a 40-year period
Minimum demand	For urban networks, a minimum end customer demand of 2GWh/year. For rural (off-gas-grid) networks, a minimum number of 100 dwellings connected.
Maximum capex	Grant award requested up to but not including 50% of the combined total commercialisation + construction costs (with an upper limit of £1million for commercialisation)
Capped award	The total 15-year kWh of heat/cooling forecast to be delivered will not exceed 4.5 pence of grant per kWh delivered (this figure will remain under review)

Non-heat/ cooling cost inclusion	For projects including wider energy infrastructure in their application, the value of income generated/costs saved/wider subsidy obtained should be greater than or equal to the costs included.

Eligible Costs (Commercialisation)

Commercialisation funding is available to projects that have already undertaken a techno-economic feasibility study and conducted off-taker engagement, potentially with heads of terms in place. An internally approved business case setting out how the project is expected to be procured and financed would also be expected at this stage.

Further work is expected to be required on any project before a final investment decision can be made. Activities may include (but are not limited to):

- Final contract negotiation for Energy Supply Agreements;
- Procurement of the heat network delivery, or procurement of the concession that will deliver the network depending on approach;
- Legal, technical, commercial, and financial support throughout the procurement process;
- Planning requirements;
- Agreeing utility connections;
- Environmental Impact Assessment and other assessments as necessary for planning and/or licencing;
- Geological surveys and exploratory investigations.

Eligible Costs (Construction)

Support for construction covers all aspects of building a heat network – from accessing sources of low-carbon heat, construction of energy centres and thermal stores, laying of pipes and installation of heat interface units, metering, and controls in premises.

Funding Rounds

Application Round	Final Submission Date
Round 1	27 May 2022
Round 2	26 August 2022
Round 3	25 November 2022
Round 4	24 February 2022
Round 5	26 May 2023
Round 6	25 August 2023
Round 7	24 November 2023
Round 8	23 February 2024
Round 9	24 May 2024
Round 10	30 August 2024
Round 11	29 November 2024

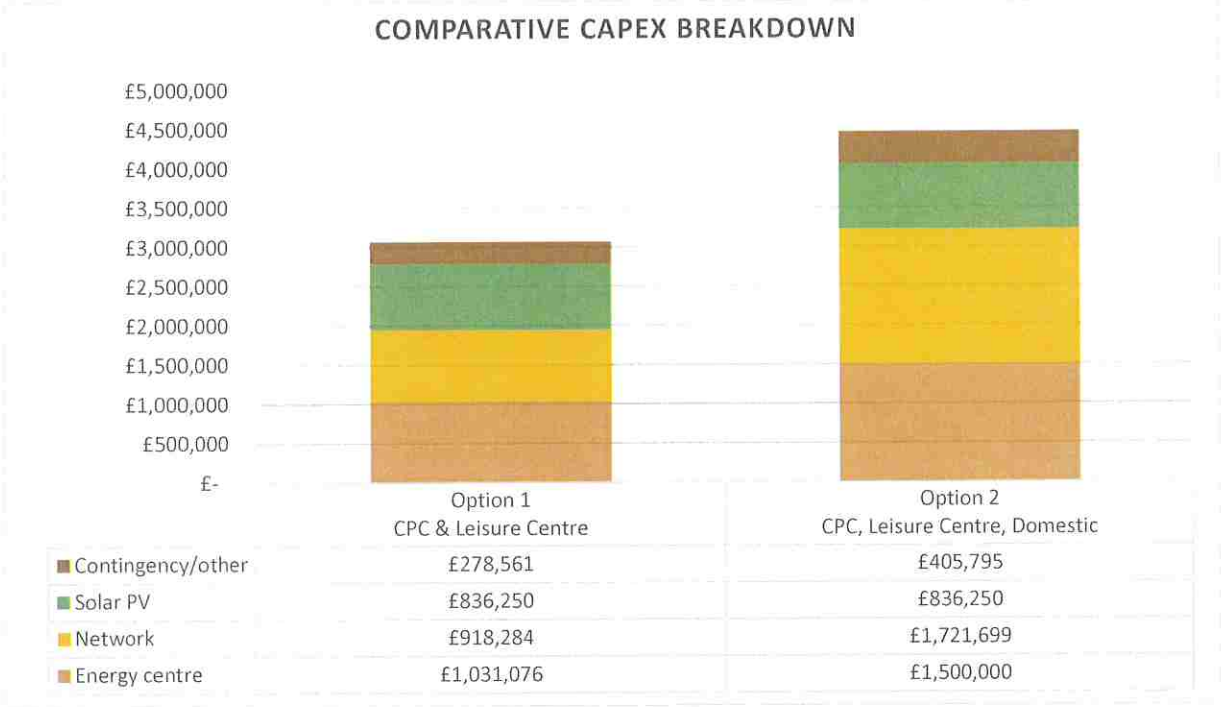
Energy Company Obligation (ECO)	The Energy Company Obligation (ECO) is a government energy efficiency scheme in Great Britain to help reduce carbon emissions and tackle fuel poverty. ECO is the main scheme for supporting energy efficiency improvements including insulation and some heating improvements in low income and vulnerable households. The ECO is not a government grant, but an obligation placed on the largest energy suppliers to support households install energy improvements.
Community Financing	£400 million has been raised through community shares and bond offers by more than 126,000 people since 2012. Community Share and bond offers are therefore an effective way for groups to raise money for projects that benefit a particular community. They are an increasingly popular way to secure the long-term future of community businesses, enabling money to be raised from the people who it matters most to – the right kind of money from the right kind of people. A community share or bond offer in relation to a heat network could be undertaken against the financial viability of the scheme - providing returns to investors over the project lifetime – or against wider environmental and social impacts, such as carbon emissions reduction.
Boiler Upgrade Scheme (BUS)	The UK government is providing grants to encourage property owners to install low carbon heating systems such as heat pumps, through the Boiler Upgrade Scheme (BUS). The scheme is open to domestic and small non-domestic properties in England and Wales and runs from 2022 to 2025. • £5,000 off the cost and installation of an air source heat pump. • £5,000 off the cost and installation of a biomass boiler (non-gas grid properties). • £6,000 off the cost and installation of a ground source heat pump. This may be particularly appropriate for financing of decentralised heat network schemes, with property owners covering the cost of the heat pump after grant and connecting to an ambient loop system. **Eligibility** The scheme is open to domestic and small non-domestic properties with: • an installation capacity up to 45kWth (this covers most homes and small business properties). • a current energy performance certificate (EPC), with no outstanding recommendations for loft or cavity wall insulation. Grants are only available for: • air source heat pumps. • biomass boilers (non-gas grid properties) • ground source heat pumps (including water source heat pumps and those on shared ground loops). Hybrid heat pump systems, for example a combination of a gas boiler and air source heat pump, are not eligible.
Public Sector Decarbonisation Scheme	The Public Sector Decarbonisation Scheme provides grants for public sector bodies to fund heat decarbonisation and energy efficiency measures. Accessing this scheme would require partnership with the district and / or county council. The PSDS scheme is designed to help upgrade heating systems in public buildings, to ones often powered by cleaner, cheaper and renewable energy. This will help reduce fossil fuels as well as making public buildings more comfortable and cheaper to warm. This is important as we know most of the buildings in the public sector still rely on burning fossil fuels for heating, hot water, and catering.

	The upcoming (September 2022) Phase 3b will allocate up to £635m of funding to public sector organisations, to be spent in financial years 2023/24 and 2024/25. This is split by financial year, with up to £402m to be allocated for 2023/24 and up to £233m to be allocated for 2024/25.

Appendix C – Financial Scenarios

This appendix provides an overview of financial inputs and scenarios assessed during this study.

CAPEX Costs



	Option 1 CPC & Leisure Centre	Option 2 CPC, Leisure Centre, Domestic
Contingency/other	£278,561	£405,795
Solar PV	£836,250	£836,250
Network	£918,284	£1,721,699
Energy centre	£1,031,076	£1,500,000

Network Costs

Network costs generated via THERMOS software. The below costs are high temperature network costs for connection of an energy centre to all properties within the village. Variability in network costs applies in low temperature scenarios and for connection of generation resource locations.

Option 1 – CPC, Leisure Centre – High Temperature Piping Spec (HT)					
ø	Length	Cost	Cost	Losses	Capacity
mm	m	¤	¤/m	kWh/yr	kW
20	937	575,215	£615	85,084	5
25	140	88,752	£636	13,651	8
32	98	65,342	£669	11,635	16
40	73	52,091	£709	9,954	28
50	83	63,256	£763	12,574	51
65	65	54,946	£849	11,118	98
80	16	15,288	£942	2,957	104
100	3	3,394	£1,070	627	177
TOTAL	**1,415**	**£918,284**	-	**147,599**	**486**

Option 2 – CPC, Leisure Centre, Domestic – High Temperature Piping Spec (HT)					
ø	Length	Cost	Cost	Losses	Capacity
mm	m	¤	¤/m	kWh/yr	kW
20	1,757	£1,078,476	£615	159,524	9
25	262	£166,403	£636	25,595	15
32	183	£122,510	£669	21,815	30
40	138	£97,665	£709	18,662	53
50	155	£118,600	£763	23,575	95
65	121	£103,018	£849	20,845	184
80	30	£28,664	£942	5,544	195
100	6	£6,363	£1,070	1,176	331
TOTAL	**2,652**	**£1,721,699**	-	**276,736**	**912**

Financial Inputs – GSHP Option 1 & 2

SCENE

Input assumptions

Level of Sign up	100%
Project start year	2023

	Counterfactual - heating oil	Counterfactual - building-level ASHP	CPC Properties 200 kW	CPC + Domestic 200 kW	CPC + Domestic + Grant
Tab name	Mixed Fuel Sources	ASHP Distributed	Projections - high temp GSHP	Projections - high temp GSHP	Projections - high temp GSHP
Coefficient of Performance		2.5	4.0	4.0	4.0
Annual electricity demand (MWh)			274.2	514.1	514.1
Annual electricity production (MWh)			101	101	101
Solar Array size			200	200	200
Electricity demand met by solar array (MWh)			52.6	63.0	63.0
Annual electricity exported to grid (MWh)			48.2	37.8	37.8
Annual fuel supply (MWh)	1,126				
Annual heat production (MWh)	1,126	1,126	1,096	2,056	2,056
Annual carbon emissions (tCO2e)	278	-	30	56	56
Number of connections (initial)	16	16	16	81	81
Heat price (assumed matched to oil)					
Whole life cost of heat (£/MWh)					
Variable (£/MWh)	£ 109.00	£ 84	£ 200.00	£ 200.00	£ 200.00
Standing charge (£/property/year)	£ 120	£ 120	£ 280.00	£ 280.00	£ 280.00
Electricity tarrif (£/MWh)			£ 175.00	£ 175.00	£ 175.00
Electricity sold to grid rate (£/MWh)			£ 180.00	£ 180.00	£ 180.00
Network connection fees (/property)			£ 5,000	£ 5,000	£ 5,000
Revenue	£ 124,610	£ 96,470	£ 223,776	£ 433,900	£ 433,900
Capex:					
Energy centre			£ 1,031,076	£ 1,500,000	£ 1,500,001
Network			£ 918,284	£ 1,721,699	£ 1,721,699
Solar PV			£ 836,250	£ 836,250	£ 836,250
Tertiary works			£ -		
Contingency/other			£ 278,561	£ 405,795	£ 405,795
Opex					
Combined annual O&M (fixed and variable) (£)		36,450	£ 106,381	£ 194,291	£ 194,291
Fuel costs (p/kWh)				-	-
Electricity costs (p/kWh)					
Repex					
Year 61					
Year 61					
Year 61					

Grant regimes				
Capex grant		GHNF	GHNF	GHNF
Revenue grant				
Carbon credits				

Operational assumptions		
Annual change in heat demand	0%	
Price forecast	High	Residential
Inflation	2.0%	
Discount rate	5%	
Carbon price (for SPV)	Low	

Grant eligibilty check: GHNF				
Carbon gate - max 100gCO2/kWh th		27.48	27.47	27.47
System size - min 100 connections		N	N	Y
Intervention size - max 50% of total capex				50%

Appendix D – Community Engagement

This appendix provides the community engagement process undertaken and materials produced during this study.

1. Stakeholder Briefing Paper

In a time of rising energy bills, international energy insecurity, and an ongoing climate crisis, the benefits of identifying cheap, local, and low carbon alternative sources of energy are increasingly clear.

Cranleigh Parish Council is undertaking a project to address these issues, and seeks to:

1) **Investigate options for decarbonising heat to council properties, businesses, and homes**, providing heating and hot water through a heat network powered by renewable energy sources.
2) **Investigate options for low carbon electricity generation** and supply on Parish Council land, including installation of a ground-mounted solar PV system.
3) **Improve thermal efficiency measures to properties in Cranleigh**, to reduce the energy demand, energy costs, and to enable the development of a low carbon heat network.

To reduce local fossil fuel reliance, Cranleigh Parish Council has obtained funding from the UK Government's Rural Community Energy Fund (RCEF) to undertake a feasibility study for a local, low carbon heat supply project.

The study is being conducted by community energy consultants, Scene, between June – October 2022. The study will develop the optimal design for a heat network in Cranleigh, advise the Parish Council on whether this solution is viable, and detail the expected impacts and benefits to local residents and businesses.

Our Plan

We are investigating if it is feasible to install a **ground-source heat network** and **solar panels** in an area of the Bruce Mackenzie Field or Snoxhall Field which would provide heat and electricity to nearby buildings.

Within Cranleigh, the aim is to deliver space and water heating to buildings with high heating demand, including the proposed leisure centre. This would allow residents and businesses to reduce their use of fossil-fuels and direct electric heating, moving onto lower cost, lower carbon systems.

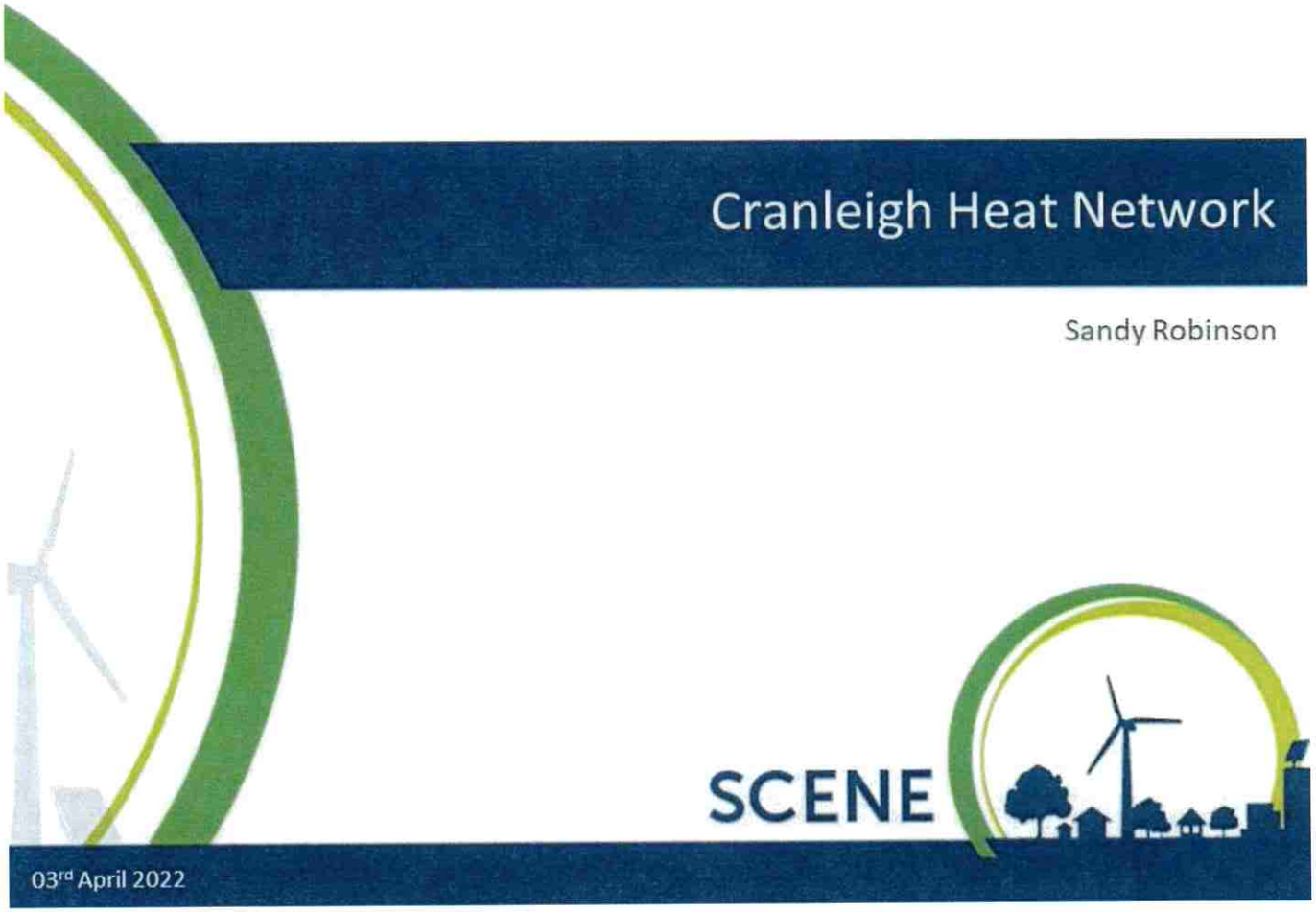
So far, we have developed and understanding of how much energy we could produce from these parcels of land (take a look at our map!). We are now working to optimise the system for the local area, ensuring that buildings are powered renewably without negatively affecting current use of the land in question.

Get Involved

Throughout this feasibility study, we will be providing key stakeholders with information regarding the project's progress. We are conducting a public meeting on the 3rd December 2022 to present the outcomes of our study and our plans for a low carbon Cranleigh.

To find out more, ask questions, or get involved with the project, please contact the project team:

Sandy Robinson, Project Manager (Scene): sandy.r@scene.community


Cranleigh Heat Network
Sandy Robinson
SCENE
03rd April 2022

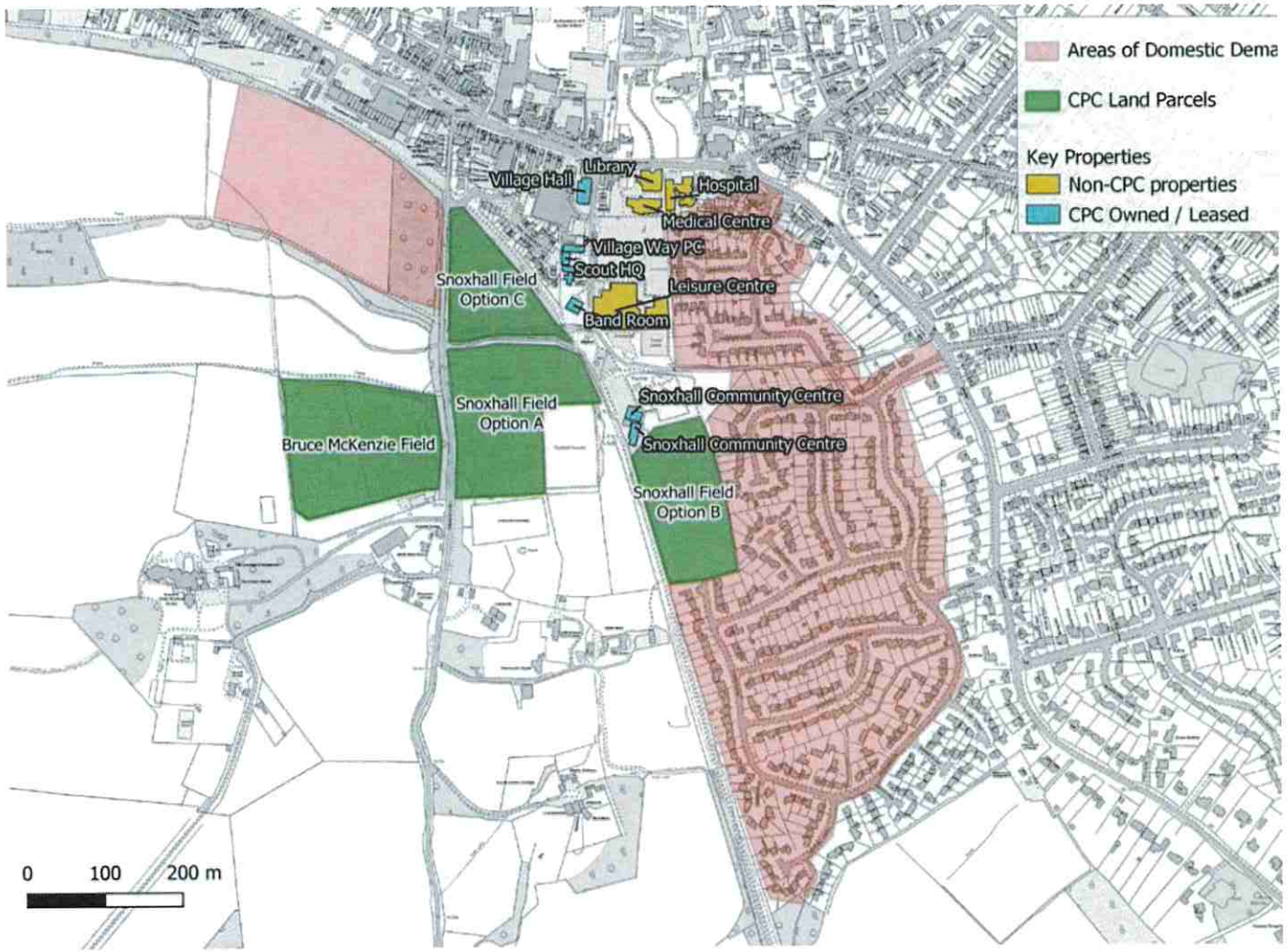
Project Aims

Investigate options for decarbonising heat to council properties, businesses, and homes, providing heating and hot water through a heat network powered by renewable energy sources.

Investigate options for low carbon electricity generation and supply on Parish Council land, including installation of a ground-mounted solar PV system.

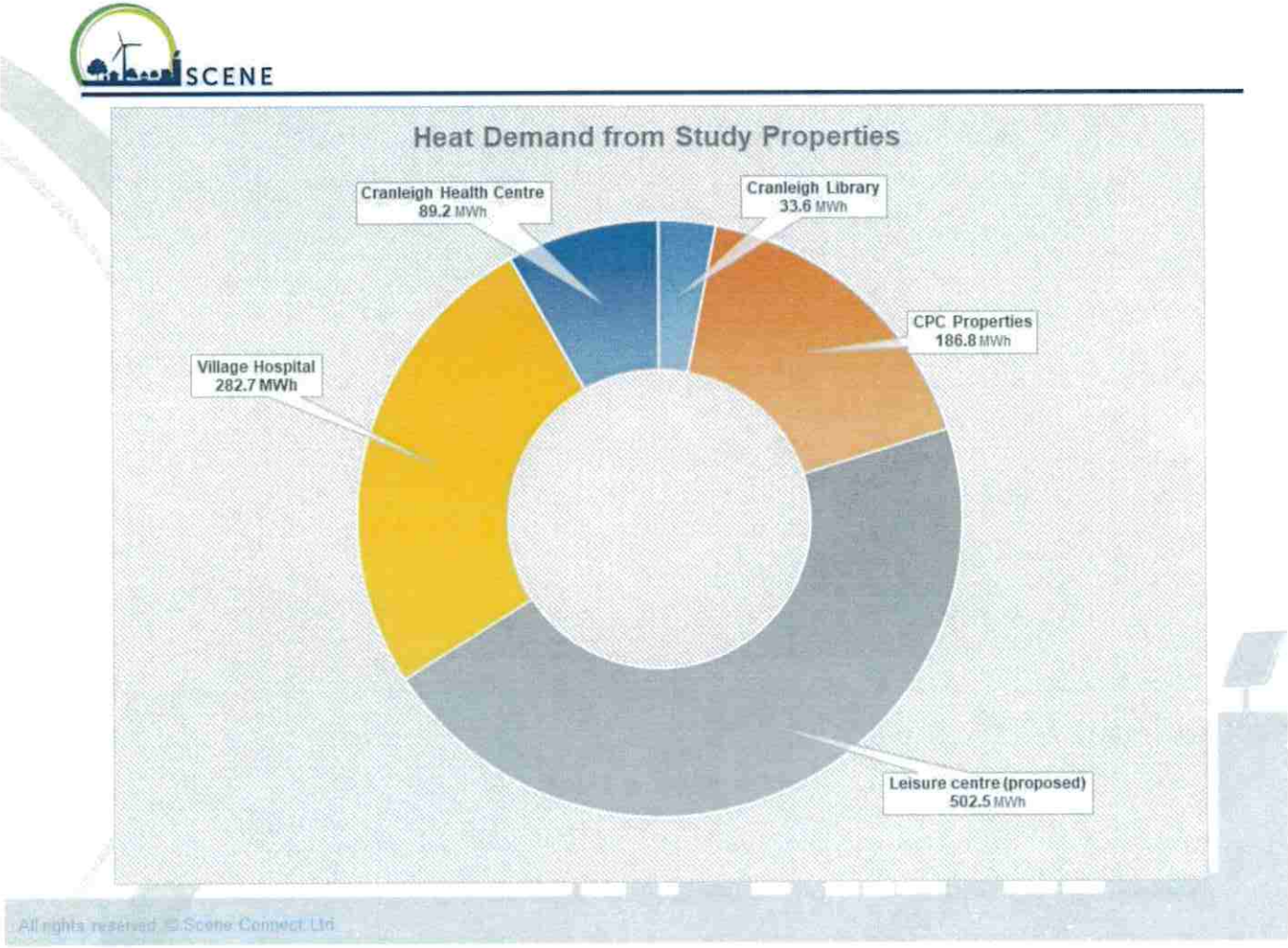
Improve thermal efficiency measures to properties in Cranleigh, to reduce the energy demand, energy costs, and to enable the development of a low carbon heat network.


Cranleigh Context
Off-grid Low Carbon Energy


Areas of Domestic Dema
CPC Land Parcels
Key Properties
Non-CPC properties
CPC Owned / Leased
Village Hall
Library
Hospital
Medical Centre
Village Way PC
Scout HQ
Leisure Centre
Band Room
Snoxhall Field Option C
Snoxhall Field Option A
Snoxhall Field Option B
Bruce McKenzie Field
Snoxhall Community Centre
Snoxhall Community Centre
0
100
200 m

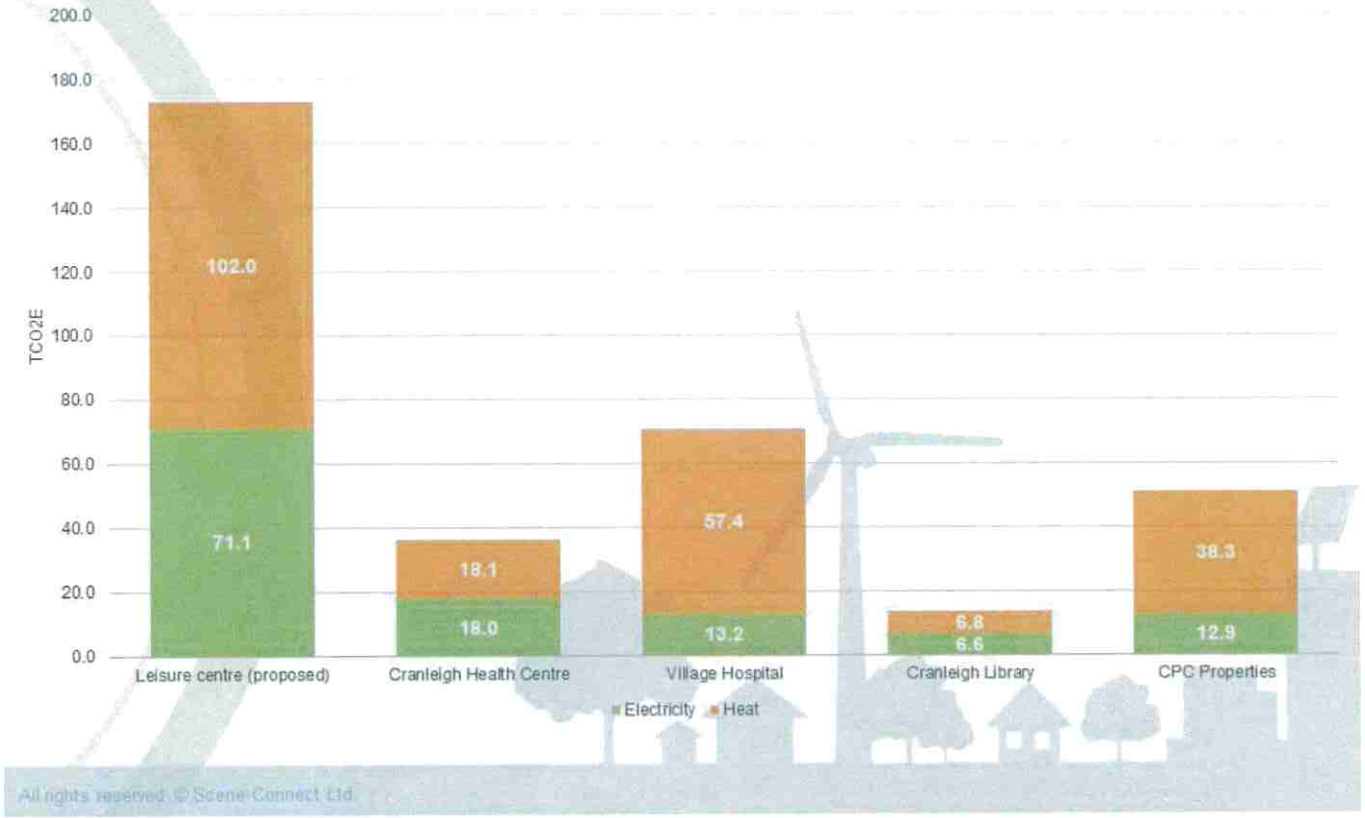
Facts & Figures

Scenario	No. Properties	Annual Energy Demand	Annual CO2e Emissions
A	17	1,125 Megawatt Hours	344 Tonnes
B	17 (non-domestic) 66 Domestic	2,011 Megawatt Hours	593 Tonnes


SCENE
Heat Demand from Study Properties
Cranleigh Health Centre
89.2 MWh
Cranleigh Library
33.6 MWh
CPC Properties
186.8 MWh
Village Hospital
282.7 MWh
Leisure centre (proposed)
502.5 MWh
All rights reserved © Scene Connect Ltd

SCENE

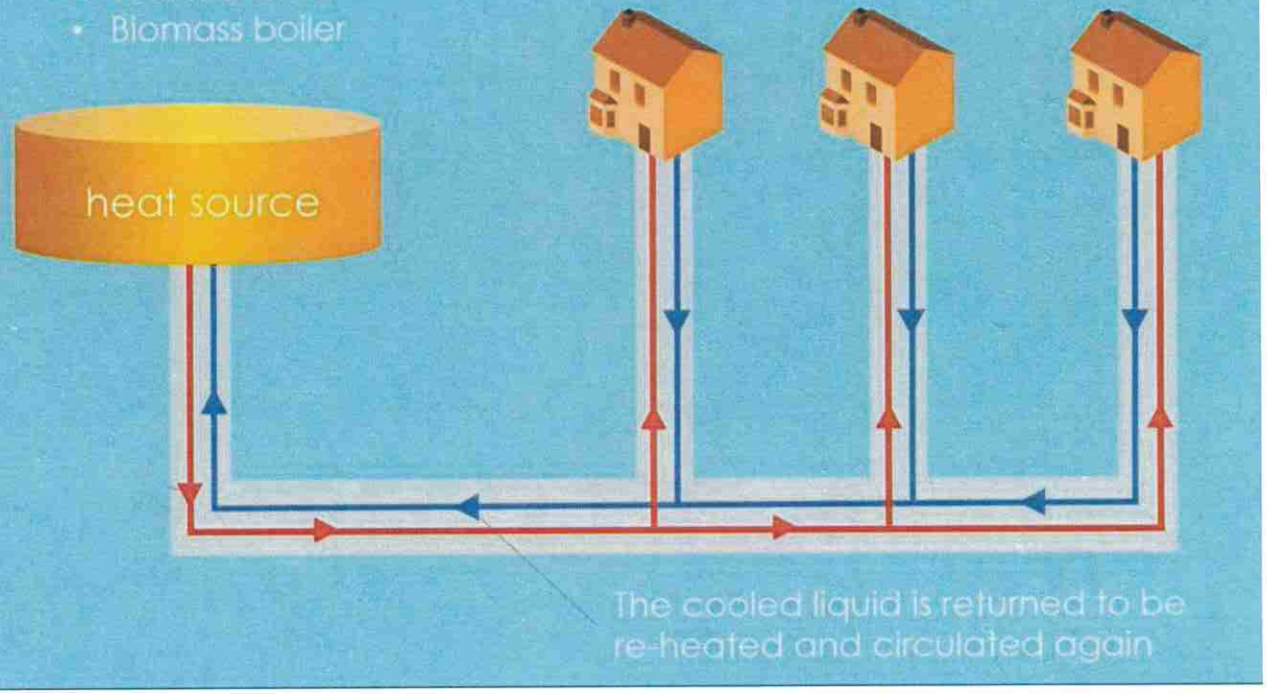
CARBON EMISSIONS FROM ENERGY USE IN CRANLEIGH



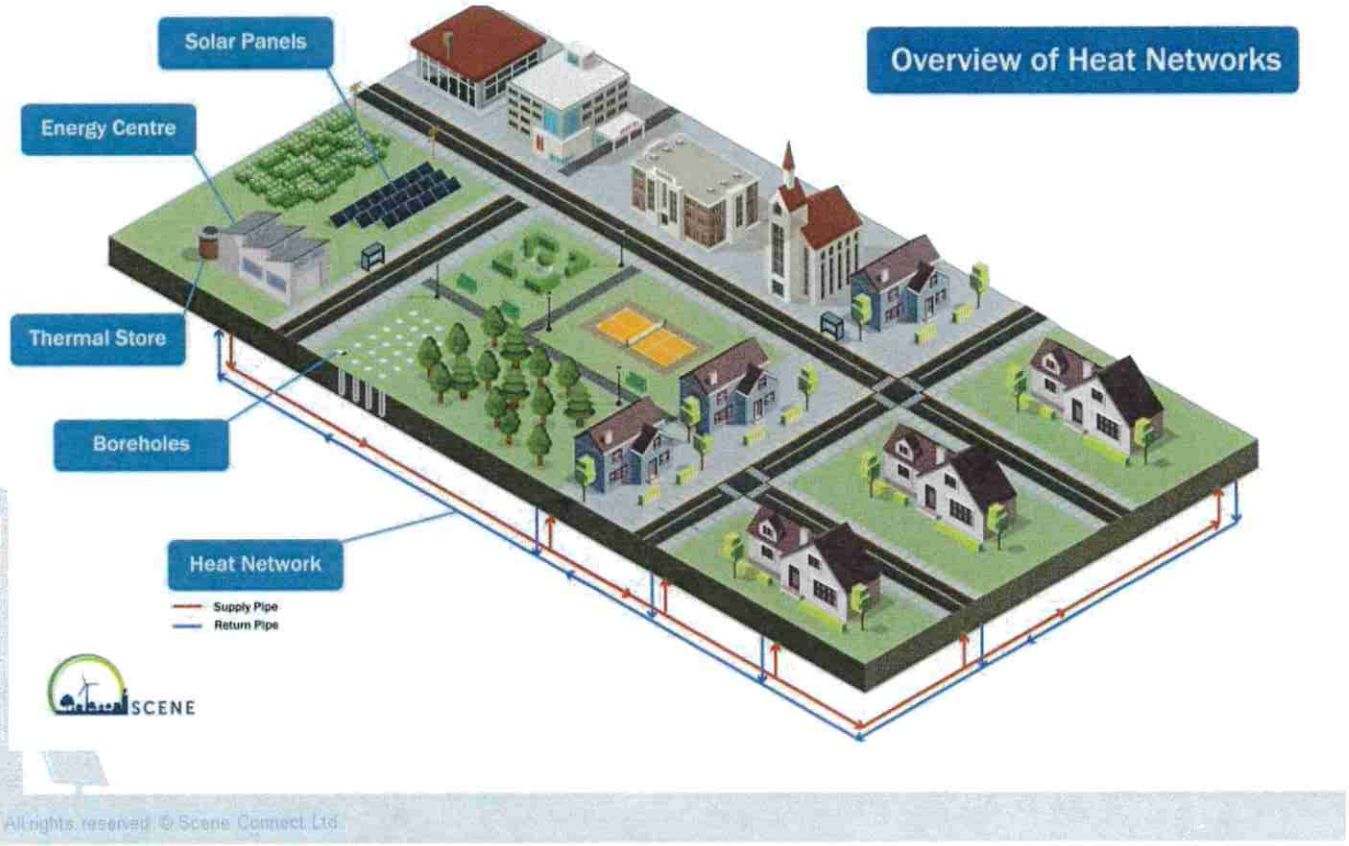
About Heat Networks

Heat Network Design

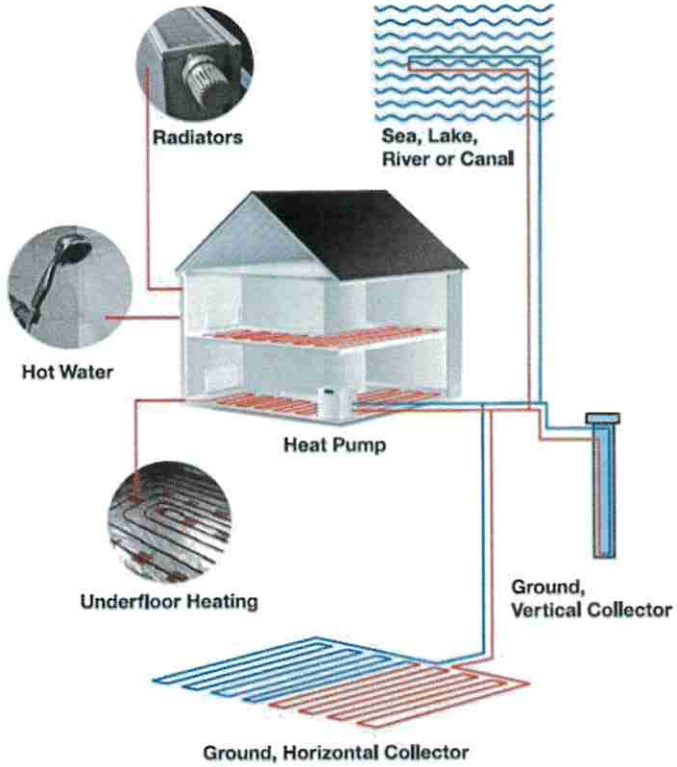
- Anaerobic digester
- Ground source
- Water source
- Biomass boiler

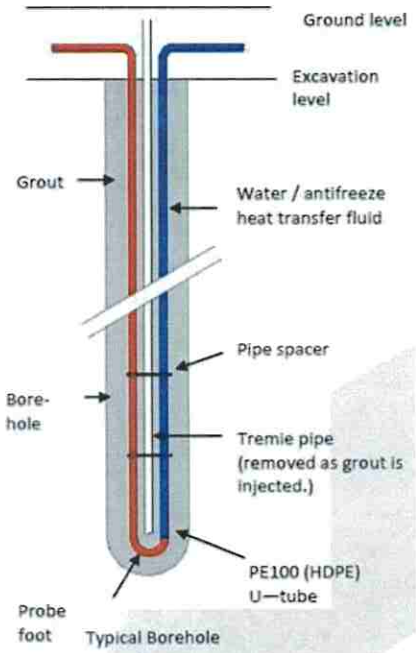


Solar PV and Heat Pumps



Heat Sources

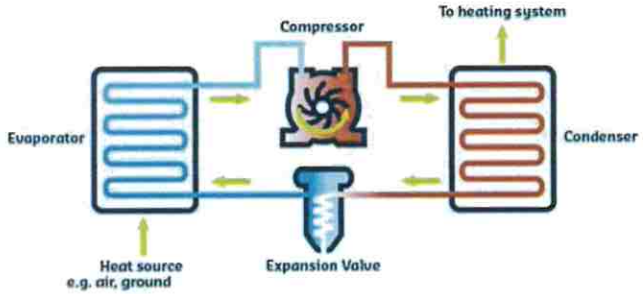




Heat Pumps Explained

Heat Pumps

- Act like a regular boiler, providing hot water and heating when needed.
- Transfer energy from the heat source through to hot water within the user's home.
- Require a small amount of electricity to run the pump system.

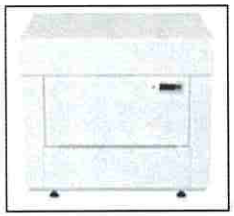


Buffer Tanks

- Are part of the heat pump system, providing storage for heat energy and improving system efficiency.
- Similar to a standard water tank, they store energy generated through the heat pump for when it is needed.

Example Heat Pump Systems

Small Domestic
[< 6kW]
(50 x 45 x 35 cm)



Large Domestic
[6 - 15kW]
(100 x 50 x 57 cm)

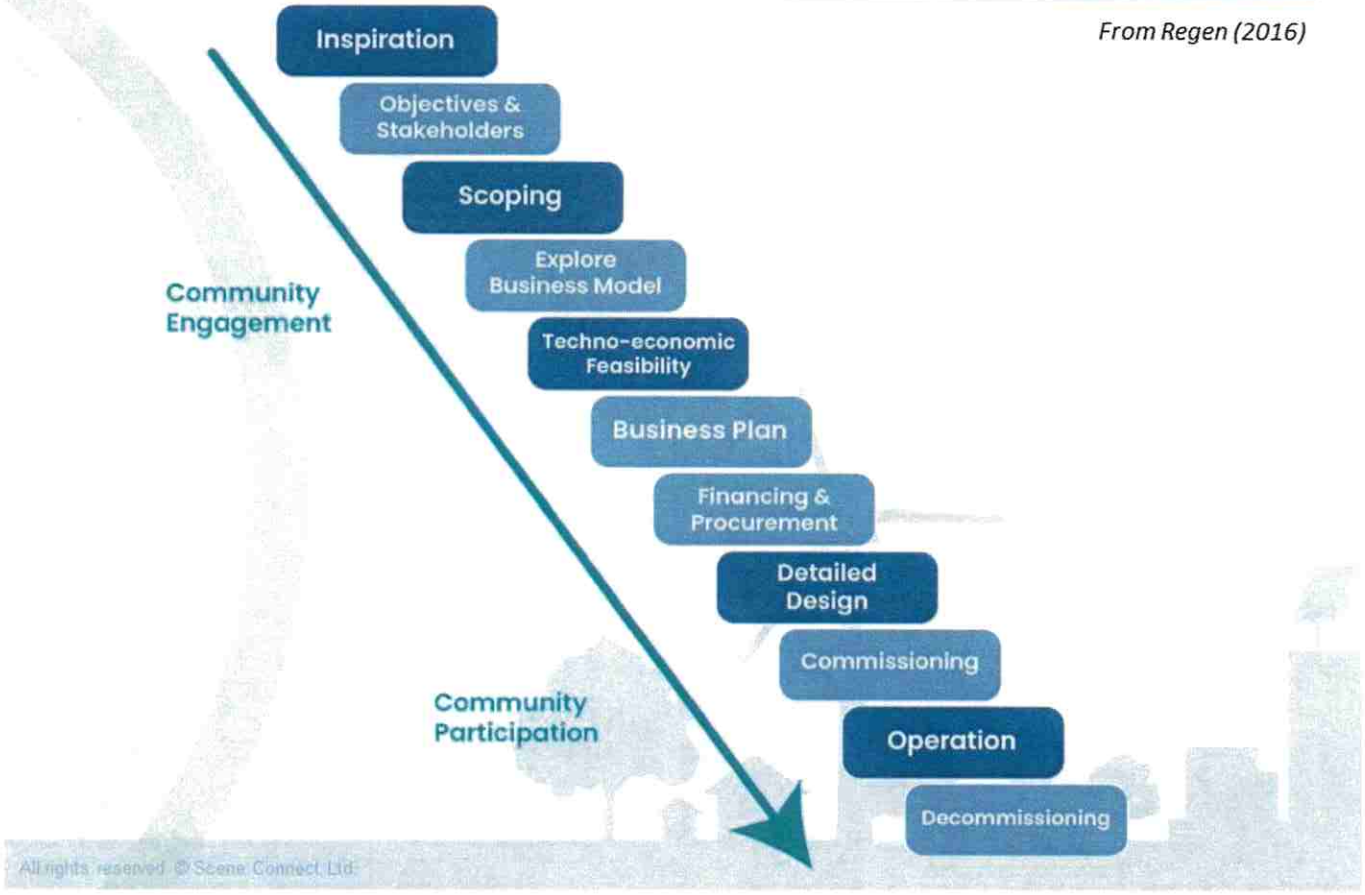
Small Commercial
[15 – 20kW]
(90 x 90 x 57 cm)

Large Commercial
[> 20kW]
(170 x 80 x 90 cm)


Project Roadmap

Project Roadmap

From Regen (2016)



Getting Involved

A successful energy project will require support from CPC, non-domestic and domestic stakeholders

1. Get involved by talking to our project team
2. Share your email address for regular project updates
3. Promote the project to others in Cranleigh
4. Ask questions!

Community Energy South

- We mentor and develop the community energy sector
- Support Cranleigh towards net zero
- How should Cranleigh progress the project?
- Would you like to save energy in other ways too?

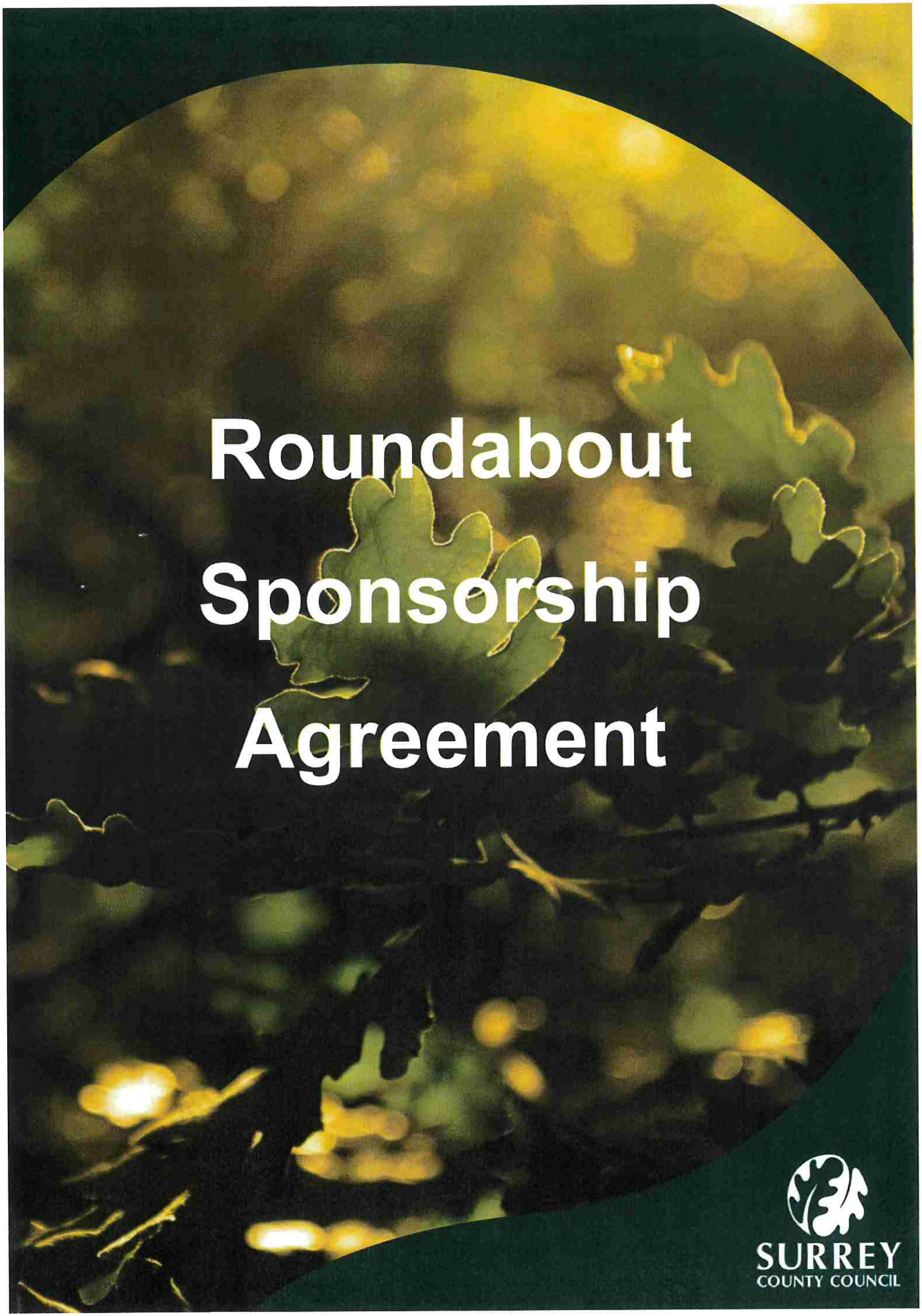
Talk with us about supporting you

QUESTIONS?

Sandy.r@scene.community

+44 (0)131 603 8822

www.scene.community


Roundabout
Sponsorship
Agreement
SURREY
COUNTY COUNCIL

Contents

Introduction

Surrey County Council has worked in partnership with many of the borough and district councils to permit roundabout sponsorship by businesses. The scheme has enabled borough and district councils to:-

- improve the appearance of roundabouts
- improve the image of Surrey as a vibrant location for businesses, and
- promote the range of businesses already located here.

The scheme is now being extended to parish and town councils to further allow local communities to take pride and control of their local environment. Any local council that wishes to apply for the scheme must meet and agree to the terms and conditions in all seven sections of this agreement.

"Partner" Council

A district, borough, town or parish council that enters the roundabout sponsorship scheme for the purposes of this document **will be known as a "partner council"** and will act as agent for the county council in its capacity as highway authority.

Parish and town councils can apply to become a partner council and maintain and place sponsorship adverts on roundabouts in (all or part of) their administrative area where the borough or district council does not currently administer.

Conditions of the scheme

General

1) The partner council should aim to give similar priority to all roundabouts which are available for sponsorship and take maintenance management of roundabouts for an agreed geographical area (ordinarily consisting of specified district/borough wards).

2) The partner council is expected to work in partnership with Surrey Highways however the partner council will be responsible for roundabout marketing (either directly or through an agent).

3) The partner council will be expected to fully and exclusively manage all arrangements for the sponsorship of all available roundabouts to the satisfaction of the county council. These include;

   - Appropriate professional marketing of all sites
   - Management of competent horticultural companies in the planning, development and undertaking of landscaping, planting and maintenance for each site
   - Design, commissioning and placement of sponsored signing

4) Situations may arise where Surrey Highways as the highway authority and utility companies are required to undertake work on sponsored roundabouts. In these circumstances reasonable reinstatements will be carried out but the partner council would need to allow for appropriate making good.

5) In certain locations the partner council will need to allow for "Britain in Bloom" and other similar initiatives. The partner council may be asked to take over this type of scheme or may be asked to work in conjunction with existing arrangements.

6) The planting and design of a roundabout can affect drivers' behaviour and road safety. Any significant proposed changes must be discussed with your local highway team. Any significant hard landscaping changes will require prior approval from your local highway team (for example, use of shingle, rocks, structures).

7) The species selected for planting should take account of the need for minimal maintenance throughout their life, and not harm native plants. We actively encourage and support an eco-progressive attitude towards the planting and maintenance of the roundabout.

8) New planting should ensure that that there is no detrimental effect on county council property or utility equipment (either in the short-term or long-term, for example tree roots). The partner council agrees to indemnify the county council against any claims in relation to utility equipment, on or below the roundabout.

9) The maximum height of shrubs, planting or objects on roundabouts shall be no more than 600mm from the surface of the roundabout, except in locations where road safety conditions may require a higher planting (please speak

with your local highway team for clarification, including where the roundabout is substantially raised above the road carriageway surface).

10) The county council reserves the right to veto sponsorship from certain organisations (for example, tobacco companies).

11) The county council cannot guarantee the availability of any or all of the roundabouts for sponsorship at particular times.

12) Existing highway signs should not be amended or obscured but may be cleaned.

Sponsorship sign design, manufacture and placement

13) All District/Borough Council planning authority approvals and/or Building Regulation consents must be obtained prior to the installation of the signs.

14) Signs shall be mounted on posts so that the top of the sign is a maximum of 750mm above ground level.

15) Sponsorship signing relating to a roundabout may only be placed on the roundabout island. Signs must be placed at least 1 metre away from the edge of the carriageway and clear of authorised road traffic signs.

16) A maximum of one sponsoring sign to each approach is permitted. These shall not be illuminated or constructed from reflective material.

17) The sponsorship of small diameter roundabouts (below 10 metre diameter) is not generally considered safe and approval must be sought from your local highway team. Any roundabouts that are already planted or have vegetation on them would be considered.

18) The maximum area of sponsored sign plates are outlined in table 1 below.

Speed limit (mph)	Maximum width (mm)	Maximum height (mm)
30	810	410
40	910	460
50	1010	510

Table 1:Maximum dimensions of the sponsored sign plate

19) The sign will be mounted on two 50 mm diameter posts, and where possible both the sign and post will be made from recycled materials.

20) Slogans or clear advertising is not permitted but signs may include sponsors name, logo, website address and/or telephone number (for example "We sell great food at Spark and Mencers" is not permitted, however "Sponsored by Spark and Mencers" is permitted). Every sign should display the name or logo of the partner council.

21) No other structure should be included within a sponsored roundabout without prior approval.

22) Normally roundabouts containing specific floral messages or related designs should be limited to the entrance to major attractions or commercial/supporting venues.

23) All landscaping and maintenance contractors engaged by the partner council must be competent to work on the highway and hold a minimum public liability cover of £10 million.

24) All traffic management required for the installation of sponsorship signs and maintenance of the sponsored roundabout must be notified (in advance) and approved by the county council's street works team at **streetworks@surreycc.gov.uk**.

25) Any partner council that has any doubts about whether traffic management is required or suspects that there may be an impact on traffic should also contact the council's street works team at the above email address **prior to the work** taking place.

26) The county council's road safety team (or area highways team) can instruct a partner council to make immediate amendments or immediate removal of any sign or plant if it is believed to cause or contribute to a road safety problem.

27) In order to ensure the sign is not distracting to motorists the sign must be legible from the give way road markings opposite the sign. Both the size of the lettering and the number of words on the sign must be designed to ensure that this is achieved.

Financial

28) The partner council should seek sponsorship deals with local companies. It is however the requirement that the most advantageous sponsoring arrangement for Surrey's residents and road users is obtained in all cases.

29) The partner council should ensure that any sponsorship arrangements meet the county council's standards of financial probity (further information is available at **www.surreycc.gov.uk/?a=196296**)

30) The partner council will manage an arrangement at no cost to the county council.

31) All surpluses must be used to maintain, enhance, protect or improve the local highway environment and amenity for residents and road users (contact your local highways team to discuss potential use of any surplus funding in excess of £1,000 per annum).

32) When requested the partner council must provide accounts and evidence of arrangements with sponsors to support auditing within 28 days.

33) The partner council is responsible[1] for replacing dead or damaged trees, shrubs, bedding plants, grassed areas and sponsorship signs. All of which must be replaced or made good as quickly as possible unless there is a danger to the highway user in such case they should be removed immediately. The minimum standard expected will be within one month of notification of damage.

[1] The partner council may engage a third party (for example a marketing company) and will be responsible for overseeing that this third party undertakes this activity.

34) The partner council is responsible[1] for dealing with accident damage to amenity areas and sponsorship signing. This will include recovery of costs from third parties and/or ensuring that replacement costs for unrecovered accident damage.

Entering and exiting the scheme

A partner council may enter the roundabout sponsorship scheme at any time, providing they agree to adhere to the terms and conditions outlined in this agreement.

The partner council may specify the term of this agreement but it must be for a minimum period of 1 year.

This agreement can be terminated by either party (the county council or partner council) with a standard **one year's** notice, but could be negotiable dependant on agreement from both parties. This notice must be made in writing to the other party.

In order to keep maintenance costs as low as possible for the council taxpayer, the county council may require the partner council to return the roundabout to its original state and condition[2] (for example, returning a roundabout to grass cover instead of flower beds).

If a roundabout is not maintained to an acceptable standard the County Council reserves the right to cut, mow or maintain and revoke this agreement.

Further information

For further information, please contact us using one of the following methods:

Phone: 0300 200 1003

Online: www.surreycc.gov.uk/contacthighways

Post: Surrey Highways, Hazel House, Merrow Lane, Guildford, GU4 7BQ

Modifications, alterations, or amendments

This guide may be modified, altered or amended at any time. In addition, nothing within this guide or any partner agreement entered into, limits the powers or duties of Surrey County Council (as Highway Authority) under the Highways Act 1980 and other legislation.

[2] The partner council is asked to provide a description and/or photographs of the original condition of the roundabout when applying for this agreement.

Agreement and declaration

This section is for the Partner Council to complete

a) I have read and agree to the conditions of the roundabout sponsorship scheme. I am applying for permission on behalf of:

Name of Borough, District, Parish or Town Council:

.....

Address:

.....

.....

.....

Post Code:

.....

b) We are entering this agreement for the term of .....years (enter years in words, for example "four" – see section 4 of this agreement for details).

c) We have negotiated the following changes to the agreement with the County Council (include full details – make reference to the section or point numbers affected. For example you may have negotiated a shorter or longer exit period under section 4).

.....

.....

.....

d) If you are not proposing to manage every roundabout in your administrative area – please specify what geographical area or what roundabouts are subject to this agreement.

.....

.....

.....

e) We have attached written descriptions and/or photographs of the original condition of the roundabout or roundabouts we plan to administer under this agreement.

.....

.....

f) Contact details

Name:

.....

Address (if different from address of partner council:

.....

.....

.....

Post Code

.....

Telephone:

.....

Mobile:

.....

Email:

.....

Fax:

.....

Declaration

Signed:

.....

Date:

..... / ..... /.....

Name (on behalf of Partner Council)

.....

Designation of person signing

.....

- *This document must be signed by the Parish/Town Clerk of the Council or such other person as has the authority of that Council to sign on their behalf. The County Council reserves the right to request details of such authority to sign if it feels it is necessary to do so.*
- *The completed application should be returned to: Local Highway Services, Surrey County Council, Hazel House, Merrow Lane, Guildford GU4 7BQ*

This section is for Surrey County Council to complete

On behalf of Surrey County Council I can confirm that we have entered a partnership

agreement with the partner council named above on the following date

..... / ..... /.....

We have entered the agreement as outlined above, subject to the following:-

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Signed: .....

Date..... / ..... /.....

Name (on behalf of Surrey County Council)

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Designation of person signing:

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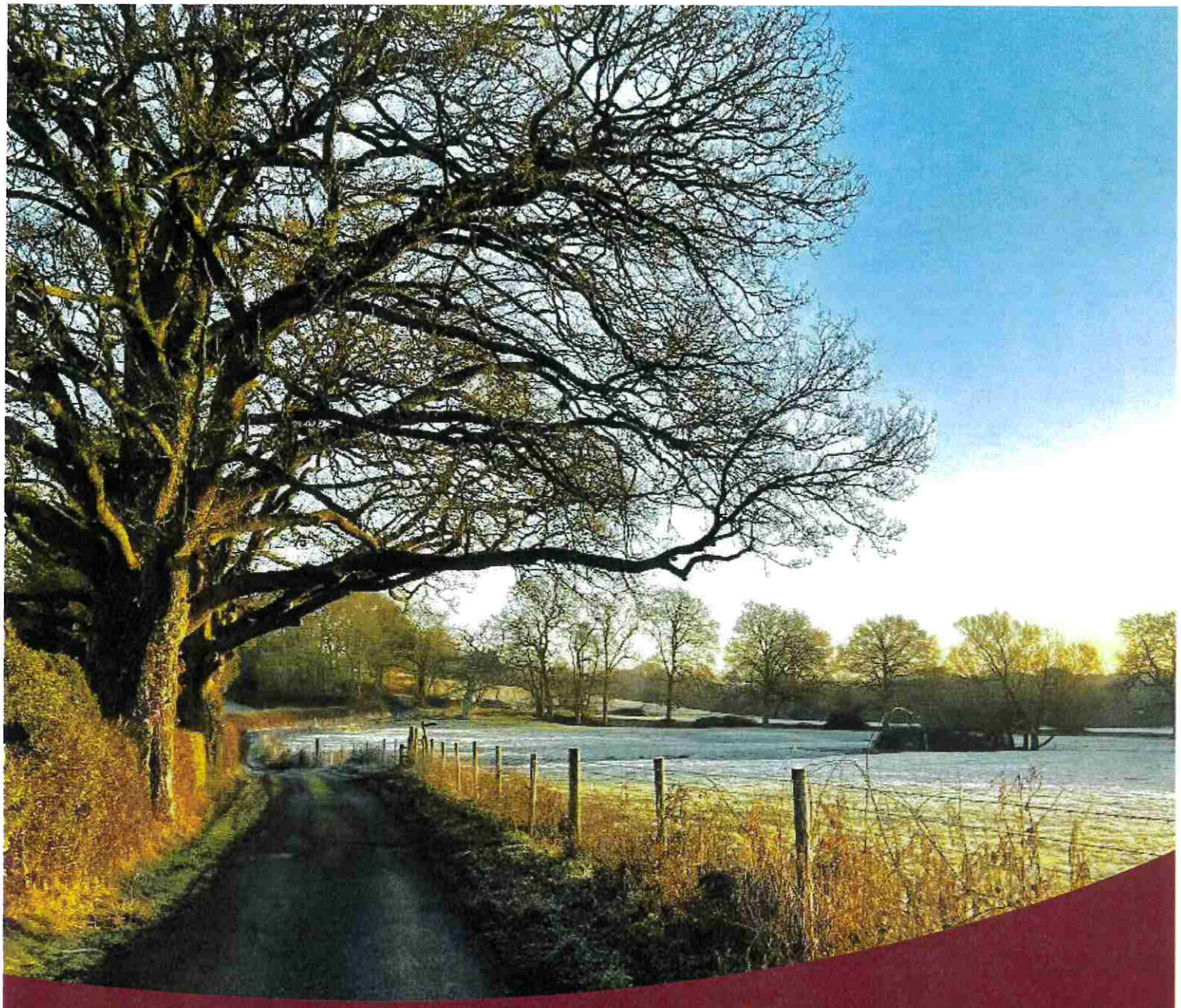


Surrey Hills Area of Outstanding Natural Beauty: Boundary Variation Project

Consultation Document

A proposal to extend the Surrey Hills Area of Outstanding Natural Beauty

NATURAL ENGLAND

www.gov.uk/natural-england

About Natural England

We are the government's adviser for the natural environment in England, helping to protect England's nature and landscapes for people to enjoy and for the services they provide.

Within England, we are responsible for:

- Promoting nature conservation and protecting biodiversity.
- Conserving and enhancing the landscape.
- Securing the provision and improvement of facilities for the study, understanding and enjoyment of the natural environment.
- Promoting access to the countryside and open spaces and encouraging open-air recreation.
- Contributing in other ways to social and economic wellbeing through management of the natural environment.

To find out more about our work visit:
https://www.gov.uk/government/organisations/natural-england

This document contains useful information that will help you to comment on a proposed extension to the Surrey Hills Area of Outstanding Natural Beauty.

We recommend that you read it before completing the response form.

Contents

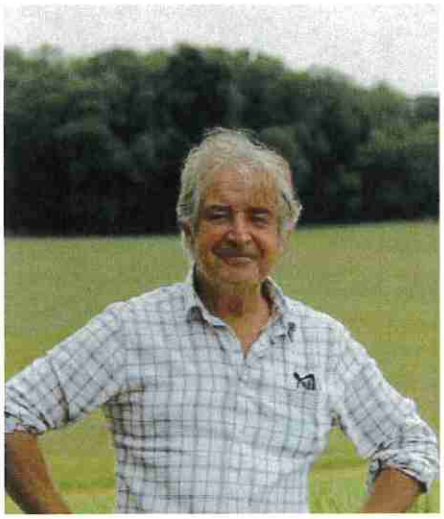
Looking northwest across Chipstead Bottom

Foreword

Landscape is how many people come to understand the scale and richness of the natural world around them, whether it is through the view from their window or the majesty of distant mountains. It helps them to appreciate nature's diverse habitats, distinctive species and a whole range of public benefits such as carbon storage, clean water and opportunities for recreation. But it is beauty in the landscape that draws and holds the eye. We are very fortunate to have some fantastic landscapes in the south east of England, many of which are already legally protected as National Parks and Areas of Outstanding Natural Beauty. For some years there has been discussion about whether the Surrey Hills, a chain of varied upland landscapes, should be reviewed in relation to their outstanding natural beauty. Natural England has now produced proposals for extending the existing Surrey Hills AONB and this consultation seeks your views about these proposals. I'd like to recognise the amount of work that has been undertaken via informal evidence gathering and I thank all who were involved for this.

We are keen to hear from everyone who has an interest in the area and cares about its future. If you would like to have your say, please spend some time reading this consultation document and send us your views by completing the enclosed response form. The consultation ends on 13 June and you can send us your comments any time before this date. If you would like to speak directly to the team working on this project then please drop in at one of the events we are holding locally in the area (see local press or visit the website for details): https://consult.defra.gov.uk/ne-landscape-heritage-and-geodiversity-team/surrey-hills-boundary-variation

We will keep everyone informed of progress by publishing the outcome of this consultation later next year. We look forward to receiving your responses to this important consultation.



Tony Juniper
Chairman of Natural England

Introduction

Natural England is the public body responsible for conserving and enhancing the natural environment in England. One of Natural England's responsibilities is to decide whether an area should be given special status and protection by designating it as a National Park or Area of Outstanding Natural Beauty (AONB). The purpose of AONB designation is to conserve and enhance an area's natural beauty. AONBs are designated by Natural England using statutory powers in the Countryside and Rights of Way Act 2000.

For many years there has been a local desire to extend the Surrey Hills Area of Outstanding Natural Beauty (SH AONB) to include locally valued landscape such as Areas of Great Landscape Value (AGLV) and wider countryside. These proposals have been supported by the AONB Board and local authorities and a formal request was put to Natural England by the AONB Board proposing a variation to the AONB boundary based on an early study by Hankinson Duckett Associates (HDA) in 2013.

In December 2013 Natural England's Board confirmed it would take forward a project to determine if the AONB boundary should be varied and to define a recommended boundary. In 2021 the Natural England Board committed to testing and trialing a new approach to designation work with a strong emphasis on collaboration and engagement. Subsequently Natural England Officers established a project Management Advisory Group (MAG) and Technical Advisory Group (TAG) in order to include partners in project governance and improve engagement. An Area of Search was defined collaboratively between Natural England and the MAG, and used as a starting point for assessment. A consortium of specialist consultants was appointed to undertake the assessment which began with an extensive phase of stakeholder engagement, including the general public as part of a 'Call for Evidence' which ran throughout December 2021 and January 2022.

Assessments to determine which landscapes meet the legal requirements for inclusion in an AONB have now been completed and proposals have been developed to designate specific areas. We would now like to give all those with an interest in the proposed extensions the opportunity to express their views on whether these areas should be designated.

The purpose of this consultation is to seek your views on whether these areas have the qualities required for inclusion within an AONB, whether they should be designated and whether the proposed boundaries are appropriate.

A response form is enclosed for you to express your views, but please read this Consultation Document first – it contains important information that you will find useful in making your comments.

Further information, expressing the detailed analysis which led to these recommendations, is also available as separate Supporting Documents. Copies of the Supporting Documents can be downloaded from **https://consult.defra.gov.uk/ne-landscape-heritage-and-geodiversity-team/surrey-hills-boundary-variation** or by emailing us at **SurreyHillsAONBboundaryreview@naturalengland.org.uk** or by writing to:

Meg Johannessen, Natural England, 5th Floor, Northgate House, 21 – 23 Valpy Street, Reading, Berkshire, RG1 1AF

The closing date for comments to arrive is 13th June 2023.

What are Areas of Outstanding Natural Beauty?

Areas of Outstanding Natural Beauty (AONB) are designated for the purpose of conserving and enhancing their natural beauty. There are 34 Areas of Outstanding Natural Beauty in England including the Surrey Hills AONB. Designation as AONB means giving an area special legal protection.

Once an area has been designated by Natural England, activities relating to the purpose of AONB designation are coordinated and led by local authorities, who also have a legal responsibility to produce a Management Plan for the area. In carrying out their duties they often form wider partnerships with other organisations. Any public body taking a decision or undertaking activity that affects land in an AONB has a duty to have regard to the purpose of the designation when carrying out its work.

AONBs are largely funded by a contribution from the local authorities in the area and a grant from Defra and may also seek additional funding from other sources.

Who looks after Areas of Outstanding Natural Beauty?

Most AONBs have a management team whose role encompasses the management of the staff team and its finances. The Surrey Hills AONB team is hosted by Surrey County Council. Individual posts on the team include the AONB Director, Marketing and Communications Officer and a Farming in Protected Landscapes (FiPL)Programme Manager. It is supported by a Finance and Officer Manager, Surrey Hills Working Group and Grants Administrator and Planning Advisor. The AONB management team is overseen by the Surrey Hills Board and wider AONB Partnership.

Section 89 (2) of the CRoW Act 2000, places a duty on relevant local authorities to prepare and publish a plan which formulates their policy for the management of an AONB and for the carrying out of their functions in relation to it and a further duty to review the plan at "intervals of not more than five years". An AONB Management Plan sets out the policy for the management of an AONB and includes an action plan for carrying out activity in support of the purpose of designation. The AONB Team co-ordinates, facilitates and delivers certain countryside management functions as set out in the Management Plan.

The local authorities whose area wholly or partly includes land currently designated as part of the Surrey Hills AONB and to which the statutory powers and duties relating to AONBs apply, are Surrey County Council (SCC), Waverley District Council (WDC), Guildford Borough Council (GBC), Mole Valley District Council (MVDC), Reigate and Banstead Borough Council (RBBC) and Tandridge District Council (TDC). Planning and development control in an AONB remain the responsibility of the local authorities.

How are Areas of Outstanding Natural Beauty designated?

Natural England is responsible for considering which areas in England meet the criterion, set down in law, for being included in an AONB, and also whether to proceed with their designation. To do this Natural England carries out assessments, consults local authorities and people and undertakes the legal process that results in an area being designated. The final decision, however, lies with the Secretary of State for Environment, Food and Rural Affairs. An area only becomes part of an AONB when the Secretary of State confirms a legal order made by Natural England.

What is the legal criterion for designating an Area of Outstanding Natural Beauty?
Natural England has a power under the Countryside and Rights of Way (CRoW) Act 2000 to designate land as AONB as set out in Section 82(1) of the Act. In summary this states that Natural England can designate an area in England as AONB if it is satisfied that it has such natural beauty that its

designation is desirable for the conservation and enhancement of its natural beauty. Section 83(7) of the same Act gives Natural England the power to vary the boundaries of existing AONBs.

Natural beauty is more than just "beautiful scenery." The Natural Environment and Rural Communities Act, 2006, clarified that the wildlife and cultural heritage of an area as well as its natural features can contribute to the natural beauty of landscapes. For example the presence of particular wildlife or visible archaeological remains can make an appreciable contribution to an area's sense of place and heighten perceptions of natural beauty. Natural beauty can also be found in landscapes that have been altered by humans through agriculture, forestry or in parkland.

How are landscapes assessed for designation?

The approach used for the Surrey Hills AONB partial boundary review follows Natural England's approved "Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England" (2021).

To designate an area as AONB, Natural England must answer the questions below:

- Does this landscape have outstanding natural beauty?
- Is it desirable to designate this landscape as an AONB for the conservation and enhancement of its natural beauty?
- Where should the boundary be drawn?

Only if it is considered that there is sufficient natural beauty, will an assessment of desirability be warranted and only if the conclusion of this is positive, will detailed boundary proposals be developed. Having reached this conclusion, the legislation also requires Natural England to consult the relevant county and district councils.

Each of these stages is described briefly below. The full assessments are available as Supporting Documents and accessible via **https://consult.defra.gov.uk/ne-landscape-heritage-and-geodiversity-team/surrey-hills-boundary-variation.**

Identifying a Study Area for assessment

Firstly, a decision must be taken on the extent of the area to be assessed for designation. This is in order to make the assessment manageable and to ensure that resources are concentrated on areas which are likely to have potential for designation. This process is guided by Natural England and the MAG and refined through the 'Call for Evidence' /public engagement, and initial assessments of an area.

Stakeholder Engagement

This involves participative evidence gathering utilising a 'Citizen Space' approach to enable stakeholders (including the general public) to contribute their 'local expertise'. This is facilitated through the creation of a website, development of a smart phone app enabling people to gather evidence (including photographs) in the field, an interactive Story Map within the website where people can review their evidence and that of others, and communication and support mechanisms including online webinars.

Describing the character of an area

The European Landscape Convention 2000 defines 'landscape' as: "An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors." The first step in understanding what makes any landscape special is to describe it in a relatively neutral way.

Landscape character is defined as a distinct, recognisable and consistent pattern of elements that makes one landscape different from another, rather than better or worse. Landscape character assessment is the tool used to define areas of differing landscape character and to describe them in a neutral way. The Surrey Landscape Character Assessment and other assessments are used by Natural England (along with other data sets and field assessment) to define 'Evaluation Areas' for assessment.

Evaluation stage

The **Evaluation Areas** identified are then tested against the single statutory criterion of 'outstanding natural beauty'. The outcome of this stage is the identification of areas which are considered likely to meet the natural beauty criterion and which can then be considered as a **Candidate Area** for further consideration in relation to the desirability of designation.

Making judgements about natural beauty

Once an Evaluation Area has been described, it is evaluated to establish whether it has sufficient natural beauty for it to be designated. Natural beauty is a subjective characteristic of a landscape and ultimately involves value judgments. In deciding whether an area has outstanding natural beauty, Natural England must consider the merits of an area in comparison with ordinary countryside.

In order to make this judgment in a transparent and consistent way, Natural England uses a set of factors which are considered to contribute to natural beauty. These are set out in Table 1. A more detailed version of this Table can be found in the Supporting Documents.

Table 1: Factors Related to Natural Beauty

Landscape Quality This is a measure of the physical state or condition of a landscape.
Scenic Quality The extent to which a landscape appeals to the senses (mainly, but not only, the visual senses).
Relative Wildness The degree to which relatively wild character can be perceived in a landscape and contributes to its sense of place. (NB all of England's landscapes have been influenced by human activity over time, which is why we use the term relative wildness).
Relative tranquillity The degree to which relative tranquillity can be perceived in a landscape (i.e. whether an area appears quiet, remote and relatively free from human influence or development).
Natural Heritage Features The influence of natural heritage on people's perception of the natural beauty of a landscape. Natural heritage includes features formed by natural processes, wildlife, wild flowers and geological features.
Cultural Heritage The influence of cultural heritage (such as buildings, archaeology and designed landscapes) on people's perception of the natural beauty of a landscape and the degree to which associations with particular people, artists, writers or events in history contribute to such perception.

Not every factor listed in Table 1 needs to be present in a landscape in order for it to have sufficient natural beauty. By considering all the factors together a judgement can be made as to whether an area meets the criterion for designation overall. Applying this analysis enables the extent of land likely to meet the statutory criterion to be more precisely defined. These refined areas are called Candidate Areas for designation.

Once an area has been identified as qualifying for inclusion in a Candidate Area, Natural England must determine whether designation of the area is desirable.

Deciding whether it is desirable to designate

An area of land that satisfies the natural beauty criterion is capable of being included in an AONB. However, designation does not follow automatically: it is for Natural England to exercise its judgment as to whether

a Candidate Area, which meets the natural beauty criterion should become part of an AONB in order to achieve the statutory purpose of the conservation and enhancement of natural beauty.

To establish whether it is desirable to designate an area as an AONB, Natural England asks the five questions set out in Table 2:

Table 2: Is it Desirable to Designate?

Is there an area which satisfies AONB technical criterion?
Is the area of such **significance** that the AONB **purpose** should apply to it?
What are the issues affecting the area's **special qualities** and understanding and enjoyment?
Can AONB purposes be best pursued through the **management mechanisms, powers and duties** which come with AONB designation?
Are there **other relevant factors** which tend to suggest whether it is or is not desirable to designate the area?

Having considered these questions and relevant evidence, it is for Natural England to decide whether or not, a particular area is of such national significance that it should be designated as AONB and managed to achieve the statutory purpose.

Identifying a suitable boundary

A detailed boundary is drawn for each proposed AONB extension area to show where it is desirable for a particular designation to begin and end. Natural England develops proposed boundaries using a suite of principles, including those in Table 3 below.

Table 3: Boundary Setting Considerations

Transition areas: Natural beauty often changes gradually over a sweep of country rather than suddenly from one field to another. In these 'areas of transition,' the boundary should be drawn towards the high quality end of the transition in a manner that includes areas of high quality land and excludes areas of lesser quality.
Types of boundary: Wherever possible, a clear physical feature should be chosen.
Other administrative boundaries: Administrative boundaries (such as county or parish boundaries) are often unsuitable because they are hard to see on the ground or do not correspond with the area of high natural beauty. Similarly, land ownership is not itself a reason for including or excluding land from designation – there will often be instances where part of a landholding sits within the designated area and part sits outside.
Inclusion of settlements: Towns and villages at the edge should only be included if they are within and part of a sweep of qualifying countryside.
Splitting of settlements: Towns or villages should not normally be cut in two by an AONB boundary where it can be avoided.
Incongruous development: Unsightly development on the edge of an AONB should generally be excluded unless it is of a temporary or transient nature.
Proposed Developments: Land at the edge of a proposed designation that is identified for development in development plans, or has existing planning permission should normally be excluded. Land should not be included merely to seek to protect it from specific development proposals.
Features of interest: Areas and features of wildlife, geological, geomorphological, historic, cultural or architectural value should be included where practicable.

Applying the approach to the review of the Surrey Hills AONB Boundary

This Consultation Document presents only outline information on the process undertaken for this project and about the proposed extension areas identified during the process. If you would like more detailed information about these areas or about the initial identification of the Area of Search (Study Area), Evaluation Areas or Candidate Areas, the assessment of the desirability of destination, development of the proposed boundaries, or wish to refer to any of the Figures mentioned in the text below, please refer to the Supporting Documents.

Defining the Study Area

The Study Area was initially defined by the Natural England and the MAG and was loosely based on the extent of the existing Area of Great Landscape Value (AGLV) as illustrated on Figure. 1. Two other factors were also relevant in defining the extent of land selected for evaluation:

- Firstly, the responses and evidence provided by stakeholders during the 'Call for Evidence.' This led to the extension of the Study Area.
- Secondly, preliminary assessment which determined areas at some distance from the AONB and separated by land which was unlikely to qualify. This led to the exclusion of areas from further study.

The 'Call for Evidence' on factors which support natural beauty, resulted in over 2000 representations from stakeholders, including local communities, and provided a wealth of information as illustrated on Figure 8. This information was used to inform and plan site work, supplement the collation of information in relation to natural beauty factors, and provided a valuable collection of images which have been used throughout this report. It therefore made a material difference to assessment and informed professional judgements.

Characterisation stage

The Surrey Hills Landscape Character Assessment provides information on landscape character for the majority of the Study Area and assisted in the definition of the Evaluation Areas for assessment. Character assessments for relevant adjoining areas were also consulted. Variations in character informed the subdivision of Evaluation Areas where necessary, in order to make assessment more manageable.

Evaluation stage

Fourteen discrete Evaluation Areas were defined to be taken forward to the detailed evaluation stage. They are illustrated on Figure 2.

Each Evaluation Area and subdivision was tested against the factors outlined in Table 1. The evaluation included in-depth assessment of published information and data on a wide range of relevant issues. The relevance and significance of this information was also further tested in the field.

In some places, the initial Study Area and 'Call for Evidence' highlighted boundary anomalies. These included small parcels of land between an urban area and the existing AONB boundary, or where the existing AONB boundary does not follow a feature on the ground. These minor boundary anomalies have also been reviewed.

Defining a Candidate Area

The evaluation process resulted in the identification of areas considered to meet the statutory natural beauty criterion (Figure 10). These areas include river valleys and Greensand hills, areas of chalk dip slope, chalk valleys in the North Downs, as well as areas of Low Weald, and have been used as a basis for defining a proposed boundary variation to the Surrey Hills AONB. The evaluation process also identified a number of minor boundary refinements.

The Proposed Extension Areas

The proposed boundary is illustrated on Figure 12 Index Map (found in the centre of this document). The detailed maps (Figures 13-29 referred to on Figure 12) can be found in the Supporting Documents. Taken together the land within the proposed boundary comprises the area for designation and includes land at:

- Wey Valley, Farnham
- Hog's Back
- Binscombe Hills
- Enton Hills
- Wey Valley, Farley Hill
- Cranleigh Waters
- Hatchlands and East Clandon
- Headley Hills
- Chipstead
- Happy Valley
- Caterham Woods
- Woldingham Valleys
- Limpsfield
- Godstone Hills
- Betchworth Hills and River Mole
- Ockley Low Weald
- Dunsfold Low Weald
- Dockenfield Hills

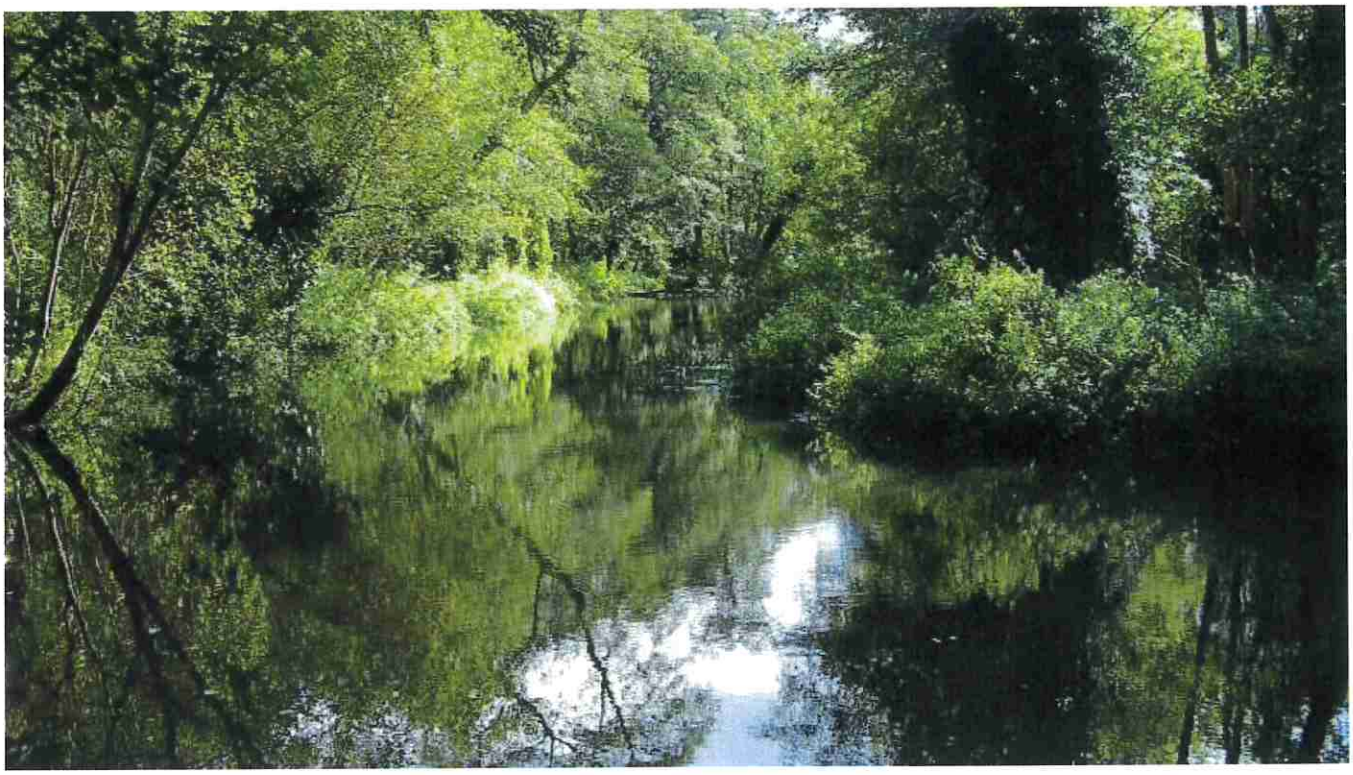
Each of these eighteen proposed extension areas is considered separately below. The text summarises the case for designation of each area. It sets out the extent to which the natural beauty criterion is met, the desirability of designation and the proposed boundary.

Beech tree at Banstead Woods

Proposed Wey Valley, Farnham extension

Context

This area comprises the Wey Valley between Waverley Abbey and Farnham. It is contiguous with the existing AONB and forms a continuation of the distinctive and visually contained pastoral valley, comprising both valley floor and wooded slopes. It is defined by the main break in slope on the upper valley sides and the edge of adjacent built-up areas.



Moor Park Nature Reserve

Extent to which the natural beauty criterion is met

The Wey Valley is considered suitable for inclusion within the proposed extension because of its:

- Distinctive and intact, rural pastoral character comprising traditional meadows, wetland habitats (rare in the context of Surrey) and mature wooded slopes.
- Narrow sinuous and sometimes incised lanes and tracks that impart time depth and continuity.
- Collection of historic buildings and features which contribute to scenic qualities/add interest including High Mill, Moor Park House, Mother Ludlam's Cave and WWII pill boxes.

Significance

Valley landscapes are an important component of the Surrey Hills AONB. The AONB as currently designated includes a significant section of the Wey Valley which weaves its way through Greensand Hills to the south. The existing AONB boundary follows roads including Waverley Lane and Camp Hill and as a result does not extend north of Waverley Abbey.

This proposed extension area, encapsulates typical qualities of the Wey Valley, bringing into the AONB the continuing valley (and its tributary - Bourne Stream) as far as the railway line on the edge of Farnham. Special qualities are derived from the meandering watercourse, traditional meadows and wetlands which combine with deciduous wooded slopes and pasture to create a landscape which is textured and colourful through the seasons, intimate in scale and is perceived as separate from adjoining areas of denser built development. Views across the valley floor to wooded slopes are framed and sometimes contain historic buildings which add to scenic qualities, while along rural tracks and lanes through the wooded slopes, there are historic features of interest and natural habitats which enhance perceptions of tranquillity and contact with nature.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Domestication of valley slopes where back gardens extend from low density housing either side of the valley.
- Suburbanisation of lanes as a result of residential development.
- Invasion of non-native vegetation affecting biodiversity interest.
- Decline of active management of meadows and pastures.

The area is closely linked (in visual, natural and cultural heritage terms) with the continuation of the valley to the south which lies within the existing AONB. Natural England considers that strategic management of the valley as a whole (given its natural beauty and special qualities), and extending it close to the settlement of Farnham, would be beneficial. This would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide through partnership work, in supporting land managers and others, will help to resolve issues affecting the Wey Valley as noted above.

Other relevant factors

Low Density Housing on Valley Slopes: Low density development associated with Compton and Moor Park occurs within the Wey Valley slopes. Given the wooded nature of these slopes, this development does not exert a strong influence on the valley landscape, despite the fact that some boundary curtilage treatment is having a domesticating influence in places. The Natural Beauty Assessment concluded that the wooded valley slopes met the natural beauty criterion forming part of the valley landscape. These slopes were therefore included in the Candidate Area. Natural England considers that since the area meets the natural beauty criterion overall, inclusion of the wooded slopes, even where they form part of low-density development, would encourage sensitive curtilage treatments and woodland management. Natural England has therefore concluded that it is desirable that this land, where it forms part of the valley slopes, is included in the proposed extension.

Transitional Areas: In the north of the area the valley floor is affected by infrastructure which physically severs the valley and which exerts noise and light intrusion. Consideration was given to defining a boundary within this transition and also to the inclusion of features of interest on the edge such as Sites of Nature Conservation Interest (SNCI). On balance the railway line was considered a suitable boundary within the transition. The SNCIs to the north of the railway were not included as they do not lie within a tract of qualifying land.

The proposed boundary

The proposed boundary has been drawn to include the valley unit as a whole following roads, lanes, railway and hedgerows/woodland. The boundary includes the valley slopes, even where they contain some low density development. As a result, the proposed boundary splits the Built Up Area Boundary and the South Farnham Arcadian Area as defined in the Farnham Neighbourhood Plan. Natural England Boundary Considerations state that settlement should not normally be split in two, however, in this instance the importance of the wooded undulating slopes which define the Wey Valley, the loose character of development and the dominance of landscape qualities, have collectively weighed in favour of including these areas within the proposed extension. This did not extend to include non-qualifying areas which lie beyond the valley, including low density development on more elevated and flatter land to the northeast (part of the Moor Park Arcadian Area), or the inclusion of denser urban development to the west.

Proposed Hog's Back extension

Context

This area broadly includes the northern slopes to the Hog's Back. It extends from the existing AONB boundary (which cuts across the mid slopes) northwards to the fringes of Ash Green and Flexford. It includes a number of extensive areas of ancient woodland, natural springs, settlement and farmland which collectively, and together with close proximity views of the Hog's Back ridge, express high landscape and scenic qualities.

View looking northwards towards the Hog's Back

Extent to which the natural beauty criterion is met

The area includes:

- The sweep of agricultural landscape which forms the lower slope and immediate context to the Hog's Back - an iconic and distinctive feature of the existing AONB.
- The historic spring line village of Wanborough, extensive blocks of ancient woodland with carpets of spring flowers, and broad open arable fields defined by hedgerows with veteran oaks.
- Historic lanes and tracks.

Significance

This proposed extension includes the broad sweep of landscape which forms the immediate context to the Hog's Back and comprises open arable slopes, extensive areas of ancient woodland and the spring line village of Wanborough. The gentle undulations of landform and blocky nature of woodland give rise to a visual simplicity within which mature oaks in woods, hedgerows and fields (reflecting former parkland) and historic lanes and tracks add time depth and visual interest. The area retains a rural tranquil character despite close proximity to the A31 and development to the north. Compositions created by its landscape elements, combined with close proximity views of the Hog's Back, give rise to scenic qualities and local distinctiveness.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Establishment of leisure plots/recreation activity and ad hoc development which is visually intrusive or fragments landscape pattern.
- Neglect of woodland and loss of structure and diversity.
- Visual intrusion from adjacent future allocated development.
- Loss of visual simplicity of open slopes, and unity of the Hog's Back as a distinctive topographic feature, due to land use change.

Statutory designation as AONB with the immediate application of relevant statutory powers and duties and its formal inclusion in the Surrey Hills AONB Management Plan would strengthen the future

conservation and enhancement of the area's natural beauty and would place a statutory duty on all public bodies to have regard to the area's conservation and enhancement. Particular benefits may include greater support to Local Authority planning enforcement and also implementation of the Nature Recover Strategy to connect ancient woodlands.

Other relevant factors

Transitional Landscape: The assessment identified that the qualities of the landscape were transitional moving away from the Hog's Back, in part due to weaker visual links to this topographic feature, but also due to influences from adjacent urban areas and land uses which have caused visual and physical fragmentation. In the west, the assessment identified non-qualifying land around Tongham and Ash Green. Here the boundary was pulled back to White Lane - a clear feature within the transition. Between Ash Green and Flexford the boundary was drawn around the most intact areas of woodland/farmland that formed part of the sweep of lower slopes adjacent to the Hog's Back, excluding areas which had become fragmented by ad hoc development and urban fringe land uses. East of Flexford, the transitional nature of the landscape was given careful consideration, including the extension of the boundary as far as the railway line. However, the gently falling topography towards the railway and areas of secondary woodland associated with Backside Common, were not considered to be outstanding. Consideration was also given to the adoption of West Flexford Lane as the boundary, however this was judged to cut across the sweep of land, especially east of Homestead Farm, where the land rises slightly at Wildfield Copse. On balance the boundary was drawn within the transition, ensuring the inclusion of farmland which formed part of an uninterrupted sweep of land and areas of prominent woodland such as Wildfield Copse, whilst excluding land which was less visually or physically connected and of lesser quality.

Wanborough Manor, Wanborough - 16th century (Grade II Listed)

Allocated Development: Land at Blackwell Farm is allocated for development within the Guildford Borough Local Plan: strategy and sites (site allocation 26). It is also associated with a separate allocation for the proposed access route (site allocation 27) off the A31 to the south, which will cut across an area of existing AONB. Natural England Guidance on boundary considerations is clear that where land is allocated for development on the margins of an area of qualifying land it should be excluded. Whilst the land covered by the Blackwell Farm allocation/access was considered to meet the natural beauty criterion and is consistent with land further west, it nonetheless has been excluded due to the development allocation.

The proposed boundary

The proposed boundary provides an appropriate join with the existing Surrey Hills AONB boundary and includes the qualifying higher quality land and woodland to the north of the Hog's Back, whilst excluding land which is of lower quality due to fragmentation and transitions in landscape and scenic quality. A boundary line has been identified adopting clear features on the ground such as roads, the edge of woodland and tracks. At Down Place consideration was given to adopting the edge of the Blackwell Farm allocation. However, this was not marked by a clear feature on the ground. A decision was therefore made to take the boundary further west and along the track and public right of way west of Down Place and Wellington House. This enabled the boundary to follow a clear line on the ground while also excluding the allocated site in its entirety.

The proposed boundary addresses boundary anomalies associated with the existing AONB boundary where it cuts across open slopes and does not follow clear features on the ground.

Proposed Binscombe Hills extension

Looking north across The Grange and Compton Common to the Hog's Back on the skyline

Context

This area comprises the wooded scarp slopes that define Eastbury Park and farmed slopes surrounding The Grange and Compton Common on the edge of Binscombe, with views across to the Hog's Back to the north.

Extent to which the natural beauty criterion is met

The areas which are considered suitable for inclusion within the proposed extension include:

- Steep sandstone scarp clocked in ancient ash, oak, hazel and sweet chestnut woodland with carpets of bluebells, wild garlic and other woodland ground flora in spring.
- Open arable slopes which provide the context to Compton Conservation Area associated with Compton Common and The Grange.

Significance

The significance of this area relates to its association with Eastbury Park, the wooded scarp slopes comprising areas of ancient woodland namely Fox Hanger, Eastbury Copse and Kiln Copse) which define and enclose the parkland. These woodlands extend eastward along the steep slope including Glebe Wood SNCI beyond which are open arable slopes across the Glebe Conservation Area and Compton Common, both of which are split by the current AONB boundary. The open slopes afford uninterrupted views across the AONB to the Hog's Back and include the brick farmhouse and surrounding farmland associated with the artist and potter Mary Wondrausch.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Ash dieback within woodlands along the scarp slope.
- Recreational pressure on landscape due to proximity of adjacent conurbations.
- Inappropriate tree and woodland planting which can disrupt vegetation patterns.
- Suburbanisation of lanes including changes to hedgerows relating to property boundary treatment.

The area is closely linked (in visual, natural and cultural heritage terms) to land already within the existing AONB. Natural England considers that strategic management of this area as a whole would be

beneficial. Including these areas within the AONB would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide in supporting land managers and others will help to resolve issues affecting the area as noted above.

Other relevant factors

During the assessment process, issues associated with defining a boundary included the extent to which wooded and arable slopes between built development at Binscombe/Farncombe and north of Charterhouse should be included. Here the landscape extends as a narrow finger into the urban area and becomes increasing influenced by proximity to development. In addition, particular scrutiny was given to Binscombe village. This settlement was noted has having cultural heritage interest and local vernacular buildings but has also become conjoined with Farncombe along its southern edge. Although the settlement still relates to the wider landscape context, Natural England Guidance is clear that settlements on the edge of an area of qualifying land should normally be excluded and that settlements should not be split by a boundary. The Waverley Borough Local Plan includes Binscombe within the Farncombe settlement boundary. On this basis, and to avoid the splitting of a settlement, it was concluded that Binscombe should be excluded in its entirety, and the boundary drawn around its outer edge.

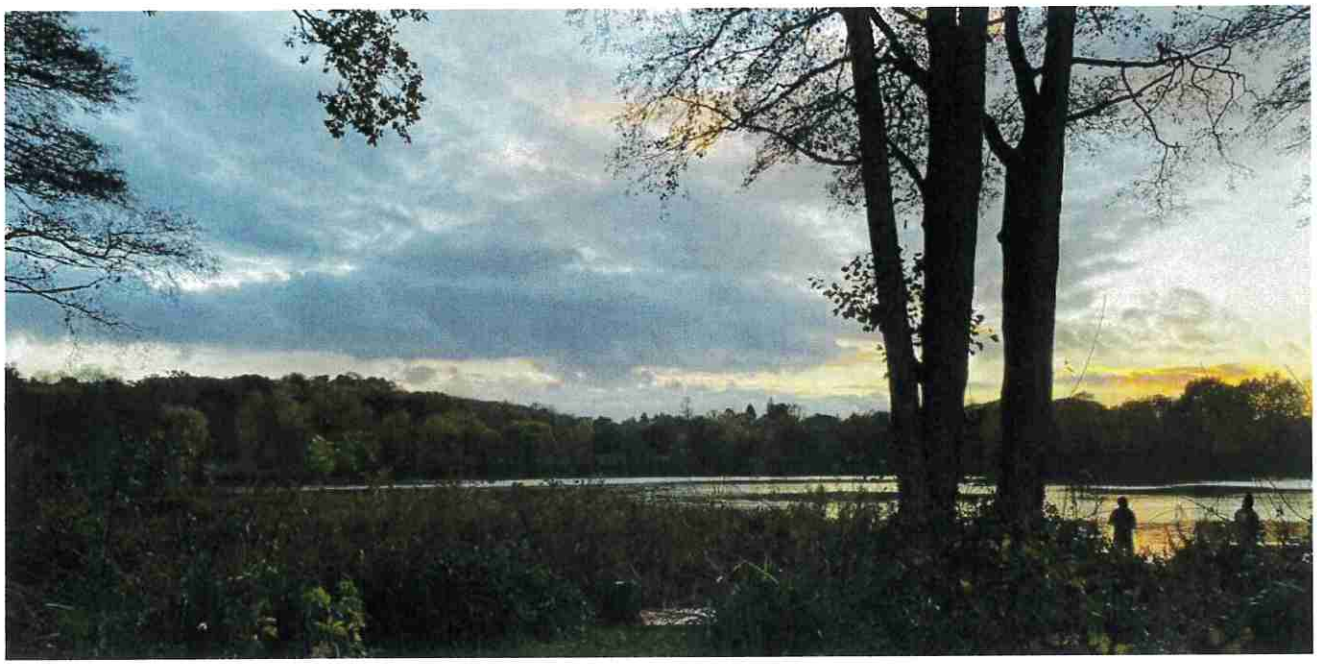
Bluebell woods on the steep slopes above Eastbury Park

The proposed boundary

The proposed boundary has been drawn to include higher quality land which forms an uninterrupted sweep of landscape with the wider AONB, and which is unaffected by adjoining housing development. The boundary follows the edge of roads, tracks and woodland. Between Binscombe and the property named Endsleigh, the boundary follows a mature hedgerow which also defines the boundary of the Waverley Borough administrative area.

Where the boundary skirts the edge of development it follows property boundaries. Many of these locations were not readily accessible and reliance has been placed on OS Mastermap to define the extent of property boundaries where they back onto woodland.

Proposed Enton Hills extension



Johnston's Lake looking south to the wooded hills west of Witley.

Context

This area includes the undulating wooded hills between Witley and the existing AONB and areas of contrasting open water. It also includes some small boundary changes in the Busbridge area to include the Registered Park and Garden associated with Gertrude Gykell and ancient woodland hangers.

Extent to which the natural beauty criterion is met

The area includes:

- The 17th century mill complex at Enton and associated mill ponds and hammer pond as well as the former designed parkland connected to Witley Manor.
- Intimate wooded hills around Enton Green and Great Enton including Potter's Hill and Parson's Hanger as well as Enton Hall and the narrow winding incised Water Lane.
- Contrasting open water of Johnston's Lake which nestles at the foot of rising land to the south.
- Registered Park and Garden at Munstead Wood associated with Gertrude Gykell and containing a collection of listed buildings which reflect local vernacular.

Significance

This proposed extension forms a continuation of the intimate, enclosed and secretive landscape typical of the greensand hills. This area has a high concentration of woodland, with notable linear hanging woodlands, and historic interest expressed in its vernacular listed buildings, registered parkland and incised winding lanes which, combined with complex and sometimes steep slopes and hills, give high landscape and scenic quality. This is an inward-facing, traditional pastoral and small-scale landscape which has local visual complexity, and a tranquil, remote character.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Intrusion of development beyond the area and urban fringe land uses such as pony paddocks which can create visual clutter.

- Pressure for recreation development including fishing activity, commercialisation and golf course development resulting in built infrastructure and changes in landscape patterns.
- Road and rail improvements such as widening, lighting and signage which can impact on tranquillity and rural character.
- Introduction of non-native hedgerows along lanes, and lack of woodland management.

Statutory designation as AONB with the immediate application of relevant statutory powers and duties and its formal inclusion in the Surrey Hills AONB Management Plan would strengthen the ability of the AONB team to ensure the future conservation and enhancement of the area's natural beauty and would place a statutory duty on all public bodies to have regard to the area's conservation and enhancement.

Other relevant factors

During the assessment process, issues were raised regarding the inclusion of Witley village, urban fringe land uses in the vicinity of the village and the impact of the railway line. South of the village the cricket pitch and play area sit within a wider sweep of high quality well wooded landscape. Similarly, the former parkland landscape associated with Witley Manor provides a high quality setting to Witley Ponds, connecting to the historic Enton Mill complex. The railway was not considered a dominate feature, being set down on lower lying land and passing through areas of woodland, such that high quality landscape to the west was possible to include. However to the west of Enton Mill the landscape is influenced by the urban edge of Witley and landscape patterns have become disrupted by pony paddocks and associated post and rail fencing. Further north, Upper and Lower Enton Lakes sit in a peripheral location in less undulating landscape and are separated from qualifying land by the railway. These areas have therefore been excluded along with the whole of the settlement of Witley.

In the area of Enton Green boundary options to exclude or include linear housing along the lanes were considered. Dwellings do not have a significant impact on the character and qualities of the wider area and therefore the simpler boundary along Station Road, which includes the settlement was judged to be most robust. Consideration was also given to features on the edge including Busbridge Lakes.

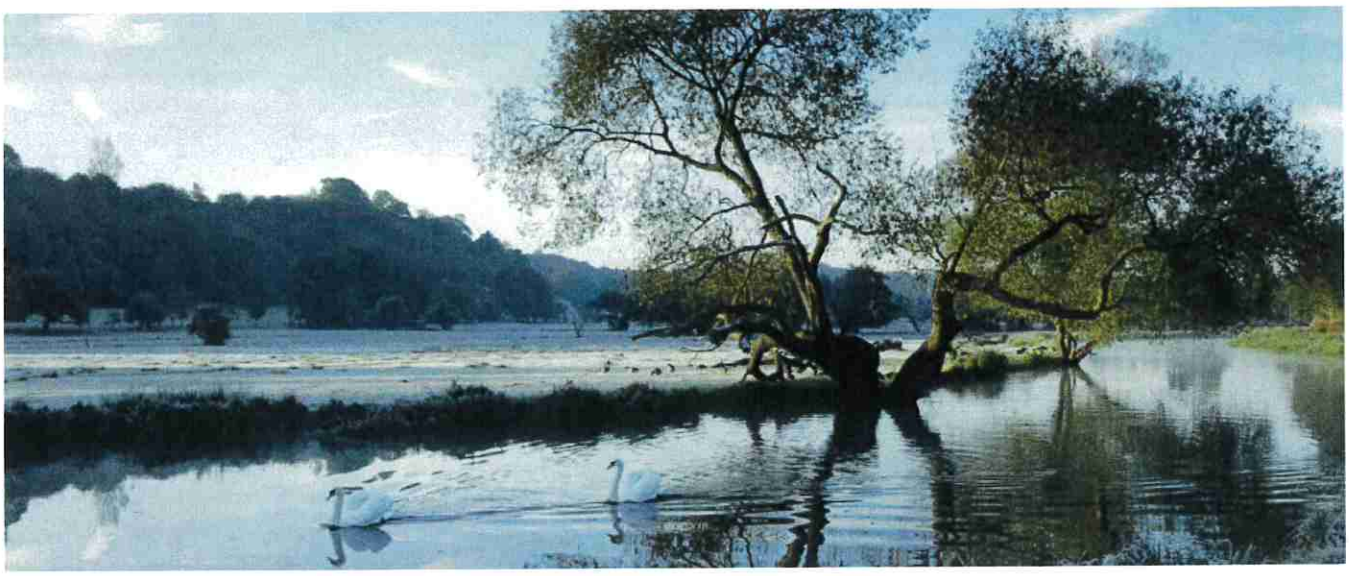
The proposed boundary

The proposed boundary provides an appropriate join with the existing Surrey Hills AONB boundary and includes the high quality undulating and wooded landscapes between the existing AONB and Witley. A boundary line has been identified along roads and rear of properties as well as the railway and tracks. The boundary does not split the settlement of Witley but does include land which forms a sweep of higher quality landscape to the east of the village.

After careful consideration Natural England has concluded that the boundary should not be taken west to include the Registered Park and Garden at Busbridge Lakes due to its mixed condition and quality and the potential for the boundary to become convoluted. The existing boundary along Hambledon Road was therefore preferred.

Seventeenth century mill complex at Enton Mill

Proposed Wey Valley, Farley Hill extension



View south from River Wey Navigation towards wooded slopes of Farley Hill

Context

This area comprises the Wey Valley meadows where they lie adjacent to Farley Hill. Here the juxtaposition of flat open meadow and meandering course of the River Wey, contrasts with the rising wooded backdrop of Farley Hill to create a landscape of high scenic quality. The textured valley floor appears seamless with the greensand hills beyond, forming a well-defined and visually contained traditional valley floor landscape.

Extent to which the natural beauty criterion is met

The extension includes:

- The valley floor meadows of the River Wey between Penny Bridge and Tilthams Corner Road.
- The wooded lower slopes of Farley Hill, west of Unsted Wood.

Significance

The area forms a small section of valley floor which is physically and visually connected to the wooded slopes of Farley Hill. Its special qualities are derived from the juxtaposition of flat open and textured meadow with the rising wooded greens and hills. The meandering course of the River Wey through this section retains its natural character and there is little visual intrusion from surrounding built up areas. As a result this section of the Wey Valley forms a seamless extension to the AONB enabling the inclusion of an area of unspoilt traditional valley floor meadows.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Visual and noise intrusion from adjacent development.
- Ad hoc development and urban fringe land uses along rural lanes.
- Establishment of non-native invasive species along the river course.
- Loss of wet pastures due to drainage and lack of appropriate grazing.
- Lack of active traditional woodland management such as coppicing.

The special qualities associated with this section of the Wey Valley include intact valley character defined by the valley meadows and strong wooded slopes to the south and east. Its wetland and woodland habitats, as well as natural meandering watercourse, could all benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

During the assessment process, the Wey Valley was identified as comprising areas of fragmented valley floor affected by adjacent infrastructure and development, which have impacted on the qualities of the valley as a whole and fragmented it from the wider AONB. Overall the Wey Valley was not considered to have sufficient natural beauty to warrant designation as part of the AONB. However, the assessment did highlight an area of floodplain meadow adjacent to the AONB at the foot of Farley Hill which remained contiguous with the AONB and benefited from strong visual links to Farley Hill.

This was considered in detail at the boundary assessment stage along with boundary anomalies relating to the existing AONB boundary west of Unsted Wood (here the boundary does not follow a feature on the ground). This area of valley floor was considered to be in good condition, to express high levels of scenic quality as well as areas and features of historic and natural interest.

Consideration was given to the effect of noise intrusion from traffic on the A3100 and of development which backs onto the towpath to the west. Whilst these issues undermine the natural beauty of parts of this area, the intact character of the valley floor and its seamless views towards the rising wooded slopes of Farley Hill were considered to outweigh these issues.

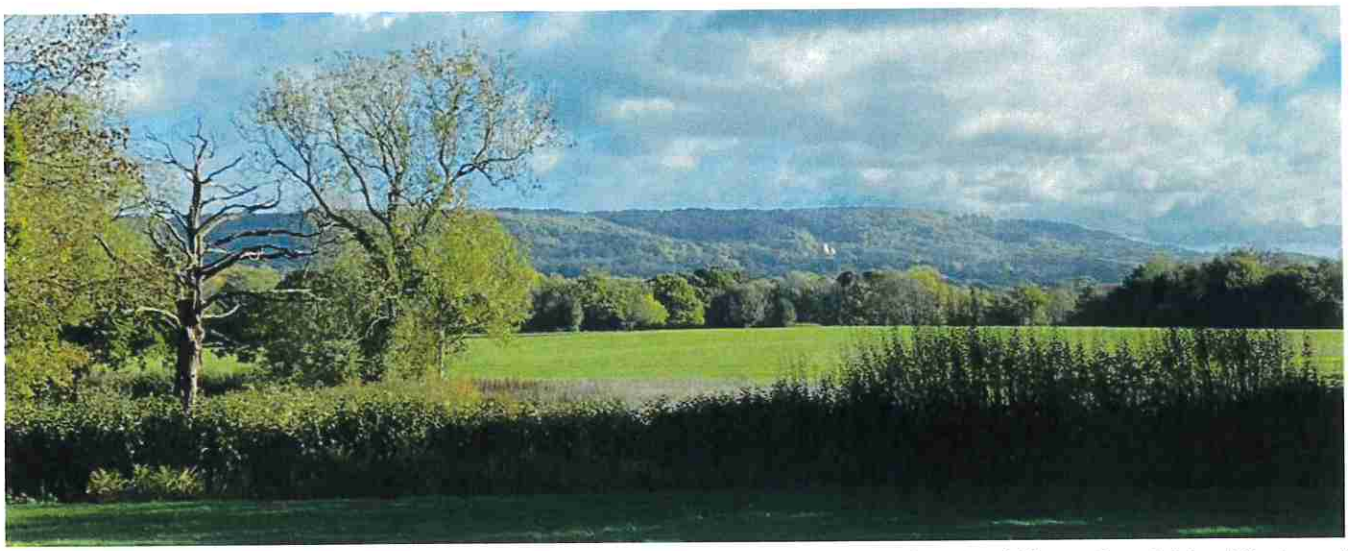
The proposed boundary

The proposed boundary enables the whole of the Unsted Wood and Bunker's Hill SNCI to be included in the AONB. This area of woodland sits on steep slopes and is currently split by the existing AONB boundary which does not follow a clear line on the ground.

The SNCI at Tilthams Rough sits on the northern edge of the proposed boundary extension. Consideration was given to including this area of woodland within the boundary. However, the woodland has a mixed character and condition and is influenced by adjacent development and road noise. On balance it was excluded from the extension and the boundary drawn along the towpath.

The proposed boundary extension includes part of the Wey Valley Meadows Site of Special Scientific Interest (SSSI), where it lies adjacent to the wooded slopes of Farley Hill, but excludes the remainder of the designation north of Tilthams Corner Road. This is not unusual where natural heritage designations cover significant areas. The natural beauty of the landscape for inclusion in the AONB designation is the primary consideration and in the valley to the north of Tilthams Corner Road the natural beauty is undermined by adjacent development and infrastructure.

Proposed Cranleigh Waters extension



View east from Whipley Manor Farm across the farmland of Cranleigh Waters towards the rising hills at Winterfold and Hurtwood

Context

This area comprises the undulating farmland between the existing AONB and extends across the valley of Cranleigh Waters from the A281 in the west to the B2128 in the east. It includes the settlements of Wonersh, Chilworth, Shamley Green and the hamlet of Burley Green as well as areas of former common including Run Common, Rushett Common, Lordshill Common, Norley Common, Wonersh Common and Shalford Common. In the north of the area are two distinctive greensand hill outliers namely Chinthurst and Bartlett Hills which share many of the qualities of the wider AONB greensand hills. In the central and southern areas there are long distance views to the wooded greensand hills of the wider AONB which visually contain the area and contribute to its scenic qualities.

Extent to which the natural beauty criterion is met

The extension includes:

- The mixed farmland landscape between the A281 and B2128.
- Greensand hill outliers of Chinthurst Hill and Bartlett Hill.
- Network of ancient woodland shaws and former commons.
- Linear historic features including Wey & Arun Canal and disused railway now used by the Downs Link long distance route.

Significance

The area forms undulating and richly wooded farmland through which the meandering course of Cranleigh Waters weaves, past former commons on gravel terraces and between greensand hill outliers such as Chinthurst and Bartlett Hills. Ericaceous vegetation in road verges and woodlands, along with mixed arable and pasture farming, gives rise to a mosaic of land uses, colour and texture through the seasons that delight the senses. Historic settlement including that of Wonersh, Birtley Green and Shamley Green nestle in this landscape surrounded by the rising greensand hills. The intact historic buildings on the high street in Wonersh or the historic buildings that cluster around the green at Shamley Green contribute strongly to natural beauty and are accompanied by the ever- present backdrop of wooded greensand hills. This is a settled and sometimes busy landscape, but areas of tranquillity can be found on the elevated hills and within the ancient woodlands that impart a timeless and established feel.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Pressure for housing development that does not respond to local vernacular styles, settlement form or visually intrudes into the landscape.

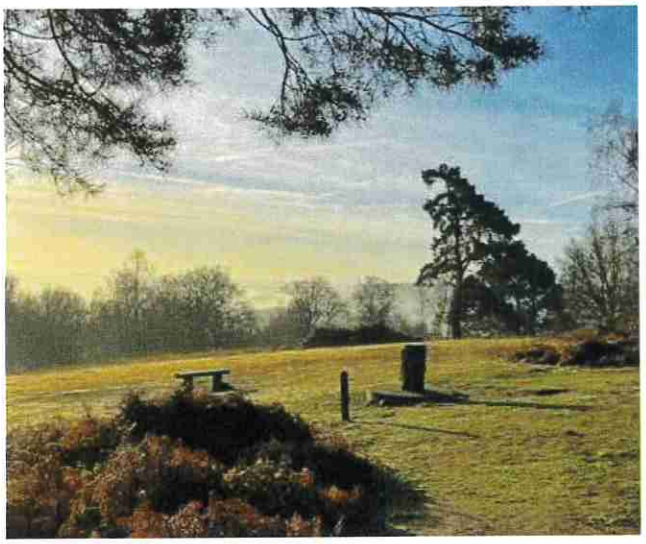
- Urbanisation of road routes through kerbing, signage, new junction arrangement and commercial development.
- Lack of management of field boundaries, ancient and veteran trees, coppiced woodland and sunken routes and former commons.

The special qualities associated with this landscape including the network of ancient woodland and former commons as well as watercourses and historic features could all benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

A particular issue in this area has been the inclusion/exclusion of settlement (Bramley and Chilworth) and the avoidance of a convoluted boundary. Given the size, extent and location of Bramley, it was judged preferable to exclude the settlement utilising the settlement boundary as defined in the Waverley Borough Local Plan. Where the settlement boundary did not follow a clear feature on the ground in the east of the village, the boundary was drawn out to the watercourse. In the case of Chilworth, consideration was also given to a boundary which excluded the settlement. However, the narrowness of the village, its relatively small scale and the strong visual connection to the wider landscape (even from the sports grounds and allotments to the west), meant that on balance the settlement was considered to form part of a wider sweep of qualifying land. Here a boundary was drawn further west to enable the qualifying land to extend up to the existing AONB boundary – this was judged to be preferable to a more convoluted boundary which created a very narrow corridor between two qualifying areas.

Wonersh High Street



View south from Chinthurst Hill

The transitional nature of the landscape to the south was highlighted in the natural beauty assessment. Care was taken to draw the boundary conservatively within this transition. The boundary includes land which is of high quality and where the surrounding greensand hills within the existing AONB contribute to the scenic qualities of the area. Where the greensand hills recede, the landscape is less undulating and the urban fringes of Little Mead, Cranleigh and Rowly exert an influence, land has been excluded. The boundary has adopted lanes, hedgerows and tracks through this area.

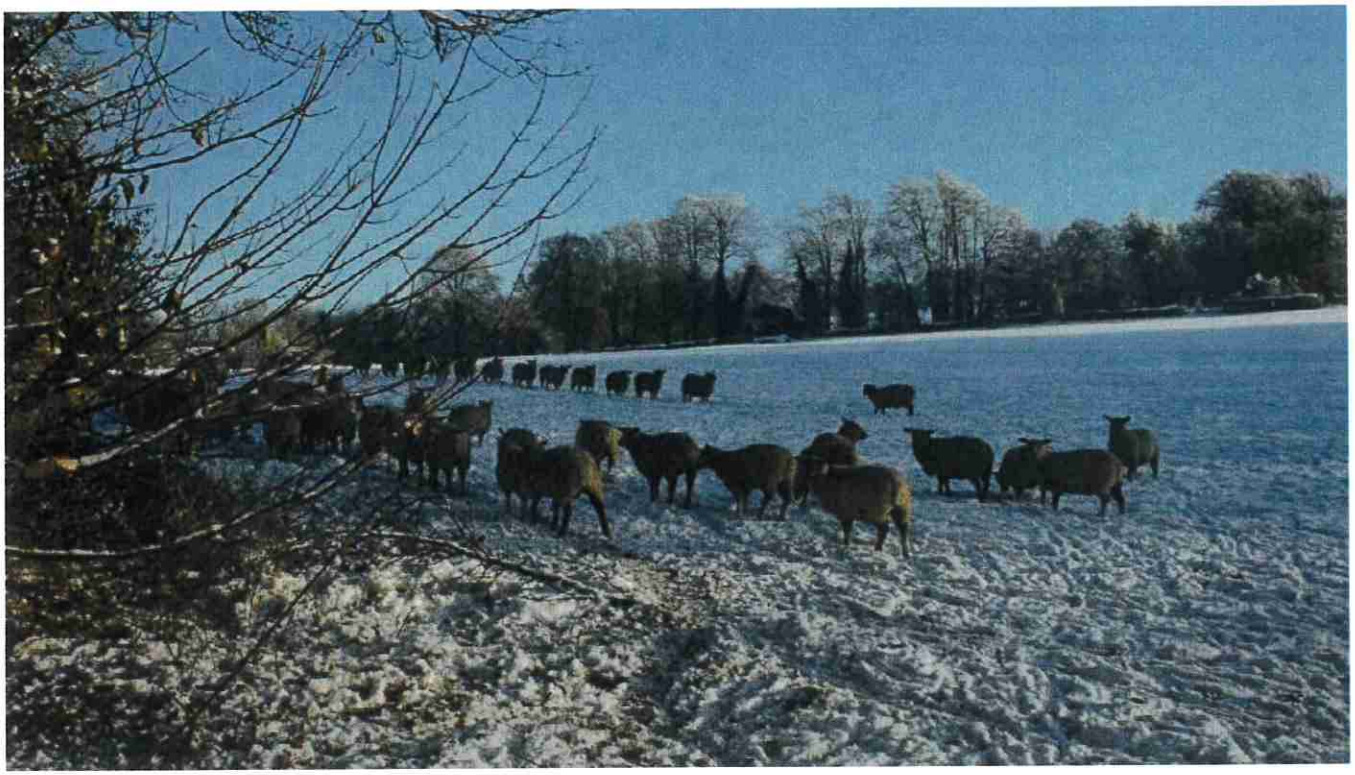
The proposed boundary

Two sections of proposed boundary has been drawn (in the northwest and in the south) to include the higher quality land between the existing AONB where strong visual links to the rising greensand hills contribute to the scenic quality. The boundary follows the meandering course of Cranleigh Waters in some locations. No boundary change has been made at Smithwood Common, despite the common extending both sides of the road. This is because the current boundary along the road is regarded as most robust and clear.

Proposed Hatchlands and East Clandon extension

Context

This area comprises the lower slopes of the chalk dip slope extending to the designed parkland of Hatchlands and associated estate village of East Clandon. It is contiguous with the existing AONB, the Boundary of which does not follow a clear line on the ground and cuts across the farmed mid slopes.



View across pastures towards tree lined route of Blake's Lane

Extent to which the natural beauty criterion is met

The areas considered suitable for inclusion within the proposed extension include:

- The farmed slopes of the dip slope and historic route of Blake's Lane and small scale pastures.
- The estate village of East Clandon and its farmed setting.
- The Registered Park and Garden at Hatchlands.

Significance

This section of the dip slope and associated lower-lying clay landscapes which contain features of interest is significant for its rural character, historic buildings and designed landscape, which make a strong contribution to the natural beauty of the area. This area encapsulates an excellent example of a spring line village with an associated parkland both of which connect to the chalk dip slope historically and visually. From the parkland landscape there are views south beyond the park towards the wooded chalk ridge within the AONB. To the north and east the parkland is contained by ancient woodland while to the west is the estate village with its collection of knapped flint vernacular buildings and landmark church.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Urbanisation of the A286 corridor including duelling, signage and traffic management infrastructure.
- Ad hoc development and introduction of new individual dwellings in the countryside off Blake's Lane which are having a suburbanising influence.

- Loss of field boundaries due to hedge removal, and subdivision of fields for equestrian uses.
- Introduction of new incongruous elements such as large-scale barns or uncharacteristic planting which can disrupt patterns and create eyesores.

Including these areas within the AONB would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide in supporting land managers and others will help to resolve issues affecting the area as noted above.

Other relevant factors

The key issue affecting this section of boundary has been the existing AONB boundary which cuts across the open farmed mid slopes and does not follow a clear feature on the ground. In addressing this boundary anomaly consideration was given to the use of Blake's Lane and the A246 as a proposed boundary. A number of properties including some new development was noted along Blake's Lane. Consideration was given to the exclusion of this development but the rear boundaries to properties were often poorly defined. Furthermore, the small pasture fields and woodland between Blake's Lane and the A246 were considered to be of high quality and part of the sweep of landscape from the edge of the existing AONB. It was concluded therefore that the boundary should be extended as far as the A246. However, it was noted that the natural beauty assessment identified land within Hatchlands Park and East Clandon village as meeting the natural beauty criterion. In defining a boundary to include these features of interest on the edge, attention was given to the effect of the A246 corridor in fragmenting the landscape and the extent to which land north of the road qualified in terms of natural beauty. It was concluded that the extent of qualifying land north of the road was greater than the immediate features of interest and was of considerable extent. Furthermore, the A246 corridor in this section was noted as being single carriageway and less influenced by urbanising elements such as duelling, lighting, signage and junctions which are seen further west and east. Taking all factors into account Natural England concluded that the land north of the A246 is of sufficient scale and quality to extend the AONB designation across the A246 corridor, and that the corridor itself has minimal impact on the sweep of landscape as whole. The boundary has therefore been drawn to include the lower dip slopes, East Clandon village, Hatchlands parkland and ancient woodland north of the park.

View towards mansion house at Hatchlands

The proposed boundary

The proposed boundary has been drawn to include the immediate setting of East Clandon village and rural landscape and ancient woodland north of Hatchlands. It follows the A246 and security fencing of the railway for significant sections through this area and also field boundaries, woodland, rural lanes and tracks. Land which slopes away from the parkland towards West Horsley and which is affected by development and land uses on the edge of the settlement is excluded. Similarly the Clandon Regis Golf Course to the west of East Clandon has been excluded due to changes to land use and landscape patterns which reduce natural beauty.

Proposed Headley Hills extension

Context

This proposed extension includes the undulating pastoral and wooded landscape which surrounds the village of Headley. Located immediately north of Headley Heath and the existing AONB, this landscape shares many of the same characteristics and qualities including the ancient woodlands of Cherkley Wood, Nower Wood, Oyster Hill, Hook Wood and Costal Wood.

View east along Mill Way looking towards Headley village and Headley Heath

Extent to which the natural beauty criterion is met

The area includes:

- The historic village of Headley comprising knapped flint/brick buildings and landmark church.
- Significant areas of ancient woodland which combine with undulating topography to create unfolding views and vistas.
- An intimate landscape traversed by narrow, rural, winding lanes and tracks, lined with mature beech trees.

Significance

This area comprises undulating pastoral farmland with areas of ancient woodland and narrow lanes that impart an established feel and express many of the special qualities of the adjacent AONB. Its special qualities relate to its vegetation patterns and enclosed character which frame and reveal wider views across the folds in landform to wooded horizons. Vernacular buildings unified by the use of red brick and knapped flint, along with the landmark spire of Headley Church, combine with the sometimes steep topography to give high landscape and scenic quality. This is a small-scale landscape which has local visual complexity, and a tranquil character.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

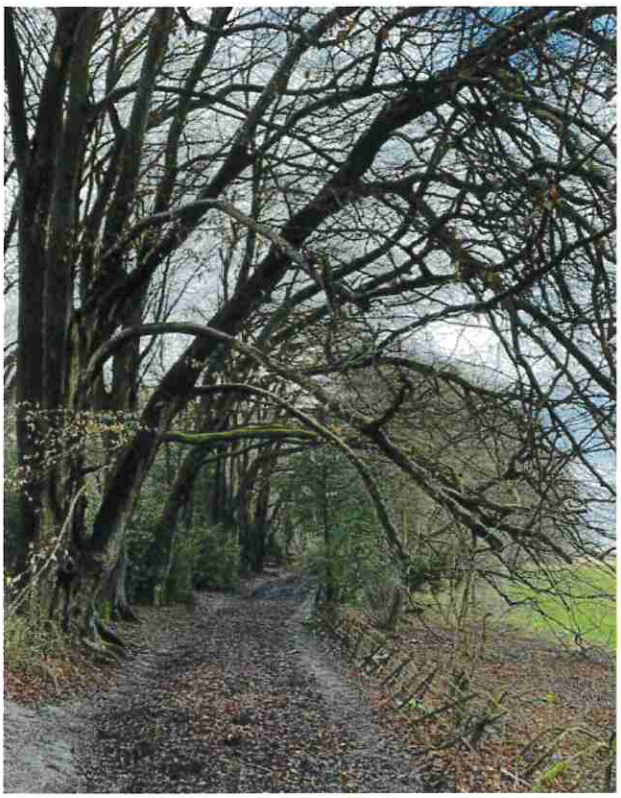
- New housing development in the Headley Court area which may have a visual influence and impact on rural lanes.
- Coordination of woodland and access management across different conservation organisations.
- Scrub encroachment and non-native planting within woodland.
- Pressure for recreational use of the area including extension of golf courses and equestrian uses.

Statutory designation as AONB with the immediate application of relevant statutory powers and duties and its formal inclusion in the Surrey Hills AONB Management Plan would strengthen the ability of the AONB team to ensure the future conservation and enhancement of the area's natural beauty and would place a statutory duty on all public bodies to have regard to the area's conservation and enhancement.

Other relevant factors

The key issues which influenced the boundary in this area included those raised in the natural beauty and desirability assessment in relation to land north of the M25.

The natural beauty of Langley Vale to the north of the M25 was considered to be borderline, in part due to lack of strongly defined scenic qualities, and the significant noise intrusion from the M25 which reverberates within the vale due to prevailing wind and topography. In the south, land uses such as motor racing, subdivision of fields for equestrian use, signage, lighting, masts and pylons, result in cumulative effects of incongruous features. Further north the landscape is transitional as it extends towards Walton on the Hill and Epsom Racecourse. The definition of a boundary within this transitional landscape raised concerns regarding a boundary which was overly complex and convoluted. Furthermore, those areas of greatest quality fall under active management by the Woodland Trust as part of the establishment of a Commemorative Woodland. The qualities are likely to be conserved and enhanced through this initiative.



View along bridleway north of Cherkley Wood

In relation to Banstead Heath the natural beauty was considered to be marginal in part due to the homogenous character of the area and lack of strongly defined scenic qualities. In addition, detailed assessment confirmed that traffic noise impacted on perceived tranquillity and relative wildness, as well as perceptions of scenic quality. Close to the M25, around Mogador, these effects were found to be particularly pronounced and coupled with adjoining land uses such as the Walton Heath golf course and open farmland towards Lower Kingston (areas not considered to meet the natural beauty criterion), gave rise to a more tenuous link to the existing AONB. Application of the 'wash-over' principle was considered for Walton Heath/ Lower Kingswood farmland but discounted on the basis that Walton Heath/Lower Kingswood farmland, are not surrounded by qualifying land. Furthermore, the qualities of Banstead Common are under active management by the Banstead Common Conservators and likely to be conserved and enhanced through this active management.

On balance it was concluded that a pragmatic boundary along the southern edge of the M25 would enable the inclusion of areas of high quality around Headley, whilst excluding areas of lower quality to the north.

The proposed boundary

The proposed boundary provides an appropriate join with the existing Surrey Hills AONB boundary enabling all of the Mole Gap and Reigate Escarpment SSSI to be included within the designation.

In defining a boundary south of the M25 consideration was given to the current planning position at Headley Court which has outline planning permission for 70 homes. The emerging Mole Valley Local Plan also identifies this site and wider area, as a housing allocation (Policy DS40) for up to 120 homes, and the listed building of Headley Court is proposed for redevelopment as Senior Living Homes (currently at appeal). The former Ministry Of Defence (MOD) site is therefore likely to experience change and development in future. Taking these factors together a judgment was made to exclude the whole of the area from the proposed boundary. The boundary therefore follows rural lanes and property boundaries excluding Headley Manor House and associated grounds and setting. East of Headley village the boundary has been drawn along the top of the M25 embankments.

Proposed Chipstead extension

View southwest across Chipstead Bottom towards Banstead Wood

Context

This area comprises the chalk valleys of Hogden Bottom and Chipstead Bottom including the undulating tributary valleys around Mugswell, Shabden Estate and Banstead Wood. This area extends northwards from the existing AONB towards the urban fringes of Kingswood and Chipstead.

Extent to which the natural beauty criterion is met

The extension includes:

- Distinctive steep sided, sinuous chalk valley landscapes of Hogden and Chipstead Bottoms.
- Extensive areas of ancient semi-natural woodland and open downland including Banstead Wood, Fames Rough, Chipstead Bottom and Shabden Park.
- Narrow sinuous rural lanes connecting rural cottages and estate buildings especially east of Mugswell and High Road/Elmore Road.

Significance

The area forms a series of steep sided chalk valleys and extensive areas of ancient semi-natural woodland and open downland valued for its grass swards and rare orchids, which collectively give rise to scenic landscape compositions. Here elevated open views contrast with the intimate enclosure of the ancient woods, carpeted in bluebells and wild garlic in spring. The scale of the valleys, matrix of open and wooded slopes and integrity of this area, exudes a deeply rural character where the dispersed pattern of historic rural buildings and narrow, tree lined lanes add interest.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Loss of hedgerows and woodland through the expansion of golf courses which intrude on to steep valley slopes.
- Ad hoc development along rural lanes which is visually intrusive in the wider landscape and has an urbanising effect on the character of rural lanes.
- Recreation pressure on areas of open downland including the impact of dogs on sheep grazing and ground nesting birds.

- Loss of chalk grassland to scrub invasion or over grazing through equestrian use.
- Fly tipping along rural lanes.
- Loss of woodlands which forms wooded skylines and prevents visual intrusion of areas of adjacent development.

The special qualities associated with this area could all benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

During the assessment process concerns were raised regarding the transitional landscape to the south and west where it abuts Lower Kingswood and the A217 and M25 junction. Here the combination of gentler topography, built development along lanes, urban fringe land uses such as pony paddocks, fly tipping and noise intrusion from the road corridors, results in a decline in natural beauty. The proposed boundary has therefore been drawn within this transition including areas of land where topographic variation is more pronounced and combined with rural lanes, vernacular buildings and patchwork of pasture fields and woodland, gives rise to higher levels of natural beauty. Consideration was given to drawing the boundary back as far as Rectory Road where the landform is clearly dropping into Hogden Bottom and where the network of narrow lanes and vernacular buildings is most concentrated. However, this would have resulted in the exclusion of significant blocks of ancient woodland to the south (Grub Wood, Gatwick Wood and Colts Bushes). The boundary was therefore extended further south to include these features of interest on the edge which contribute to the natural beauty of the area, whilst still ensuring the boundary falls within the area of transition. A further area of transition occurs between High Road and Hogcross Lane. Consideration was given to defining the boundary along High Road, but this would have resulted in the exclusion of a number of important listed buildings which form part of the Elmore Road and High Road Conservation Areas and which contribute to natural beauty of the area. On balance the boundary was drawn further to the east in order to include historic buildings of interest and a small valley between High Road, Elmore Road and Hogcross Lane.


Grub Wood

At Chipstead Bottom particular scrutiny was given to the relatively recent suburban housing which has occurred along Outwood Lane south of the railway, noted in the natural beauty assessment as not contributing to natural beauty. A boundary excluding this development would have resulted in a narrow corridor of excluded land and a convoluted boundary. The housing is relatively limited in extent, lies on lower land within the valley and is dominated by surrounding rolling landform. It was concluded that the housing sits within a sweep of qualifying land and has only a localised impact. A boundary was therefore drawn to the west, thereby including the housing within the proposed extension.

The proposed boundary

The boundary follows lanes, tracks, hedgerows and the edges of woodland for much of its length through this area. It does not follow any feature on the ground in two locations - on the margins of the Kingswood Golf and Country Club and northeast of Surrey Downs Golf Club. In these locations the boundary cuts across the break in slope in a straight line between areas of woodland.

Proposed Happy Valley extension

Context

This area comprises the deeply incised Happy Valley, a chalk valley system which extends into the fringes of south London, to the east of the A23. It is contiguous with the existing AONB and is defined by the main break in slope between the valley sides and wider built-up areas.

View across the downland slopes and wooded ridgelines of Happy Valley

Extent to which the natural beauty criterion is met

The area considered suitable for inclusion within the proposed extension includes:

- The dramatic chalk valley system of Happy Valley and surrounding farmland.
- Network of ancient woodland and wooded shaws that create a patchwork across areas of downland and arable farmland.
- Extensive areas of nationally significant calcareous grassland habitat.
- Narrow rural lanes and tracts of land only accessible on foot.

Significance

Chalk grassland landscapes are an important component of the Surrey Hills AONB. The AONB as currently designated includes significant areas of chalk grassland on the steep scarp slopes but little land within the incised valleys of the North Downs.

This area, along with Marden Park and Stoney Hill to the east, encapsulates some of the best chalk grasslands north of the existing AONB. Special qualities are derived from the scale and drama of the valley and its areas of chalk grassland and ancient woodland which create scenic compositions and unfolding views. This landscape has smooth, rounded convex slopes emphasised by linear woodland shaws and expresses a range of colours and textures throughout the seasons. The water tower of Netherne-on-the-Hill and Chaldon church punctuate the skyline and add interest reflecting the history of the area. This landscape abuts areas of significant population, but retains a high degree of tranquillity, especially in the heart of area which can only be accessed on foot.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- High public usage of this area resulting in compaction of chalk grassland and conflict between livestock grazing and dogs.
- Loss of field boundaries due to hedge removal, lack of management or over-trimming and limited take up of environmental stewardship in some areas.

- Introduction of incongruous elements such as large-scale agricultural buildings or masts which can disrupt patterns and create eyesores.
- Suburbanisation of lanes due to high traffic volumes and verge erosion.
- Expansion of urban fringe land uses including golf courses and playing fields.

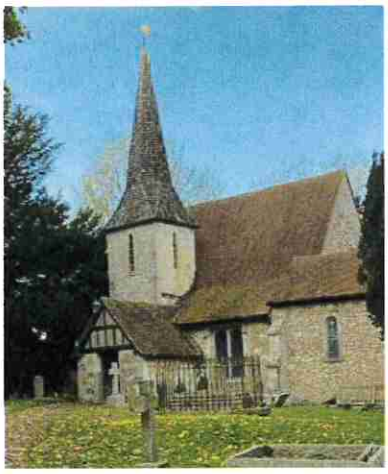
Including this area within the AONB would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide in supporting land managers and others will help to resolve issues affecting the area as noted above.

Other relevant factors

During the natural beauty assessment, concerns were raised regarding the transitional nature of the landscape to the south, where it abuts the AONB. Between Lord's Wood, Court Farm and Rook Lane, a less undulating and intensive arable landscape, with evidence of boundary loss and caravan development within Furzefield Wood, was considered to be of lower landscape quality. However, in the context of the wider extension area, these lower quality areas fall between qualifying land within the AONB to the south and the Happy Valley to the north and were considered to be localised. On balance these areas were regarded as sufficiently small in extent to be considered as part of a wider tract of qualifying land.

The extent of urban fringe land uses such as playing fields, visual influence of urban areas on the qualities of the landscape, and the extent to which incongruous features such as masts fragment the area, were also key considerations. The strong topography and high levels of vegetation on the fringes of Happy Valley and along urban edges has enabled the boundary to be defined close to the built edge and as a result it often follows fence lines along the perimeter of properties and is subsequently convoluted in some places. At Farthing Down consideration was given to the drawing back of the boundary to exclude transitional landscape influenced by the surrounding urban development. This would have resulted in almost all of the

Upper reaches of the Happy Valley east of Furzefield Wood



Chaldon Church

down being excluded due to a lack of clear features to follow on the ground. Given the ridge of downland is valued for its scenic views into Happy Valley, natural heritage (part of the Site of Special Scientific Interest and National Nature Reserve) and cultural heritage (Scheduled Monument), a pragmatic decision was taken to extend the boundary to the urban edge. This enabled the feature to be included in its entirety.

The proposed boundary

The county boundary across the southern section of Happy Valley has been used as the proposed boundary, in the absence of a clear feature to follow and the need to exclude land to the south which is increasingly influenced by urban context and includes the Surrey National Golf Course. The proposed boundary does not include the whole of the Farthing Downs and Happy Valley SSSI nor the South London Downs NNR - this is not unusual where natural heritage designations cover significant areas. The natural beauty of the landscape for inclusion in the AONB designation is the primary consideration.

Proposed Caterham Woods extension

Context

This boundary extension includes the steep folded wooded chalk slopes which lie between the chalk scarp at Gravelly Hill (within the existing AONB) and the settlement of Caterham. It also includes ancient woodland and historic defence sites on the edge of the chalk scarp south of Chaldon.

Carpets of wild garlic in Old Park Wood

Extent to which the natural beauty criterion is met

The area includes:

- Dramatic, steep and folded chalk slopes.
- Extensive areas of woodland including ancient woodland sites (e.g. Old Park Wood) and woodland which frames and defines the chalk scarp to the south.
- Arts and Crafts housing and historic sites which contribute to natural beauty.

Significance

This proposed extension is unique within the context of the chalk valleys to the north of the Surrey Hills AONB forming some of the steepest and most dramatic chalk slopes and extensive areas of woodland. Special qualities relate to the drama and scale of the topography, elevated and glimpsed views across wooded slopes, extensive areas of intact semi-natural habitat close to built-up areas and historic features which add interest and contribute to the natural beauty of the area. This is an inward-looking landscape but one which seamlessly connects to the existing AONB to the south.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Loss of chalk grassland sites due to establishment of secondary woodland and scrub.
- Lack of woodland management resulting in a loss of structural diversity and biodiversity.
- Potential loss of heritage including Whitehill Tower and the integrity of Arts and Crafts housing.
- Extension of garden curtilage and domestic clutter into woodland resulting in loss of semi natural character through gradual urbanisation.

The inclusion of the Caterham Woods provides an important connection between existing communities to the north and the chalk scarp to the south. This area is integral to the wider North Downs Way and

acts as a green corridor maintaining strong east-west continuity. The inclusion of this area helps to widen the AONB landscape at one of its narrowest points. Designation would support continuity in the active management of woodland enhancing biodiversity along with calcareous grassland restoration supporting Biodiversity Opportunity Area initiatives including connecting existing SSSI and SNCI sites e.g. Quarry Hangers, currently managed by Surrey Wildlife Trust.

Other relevant factors

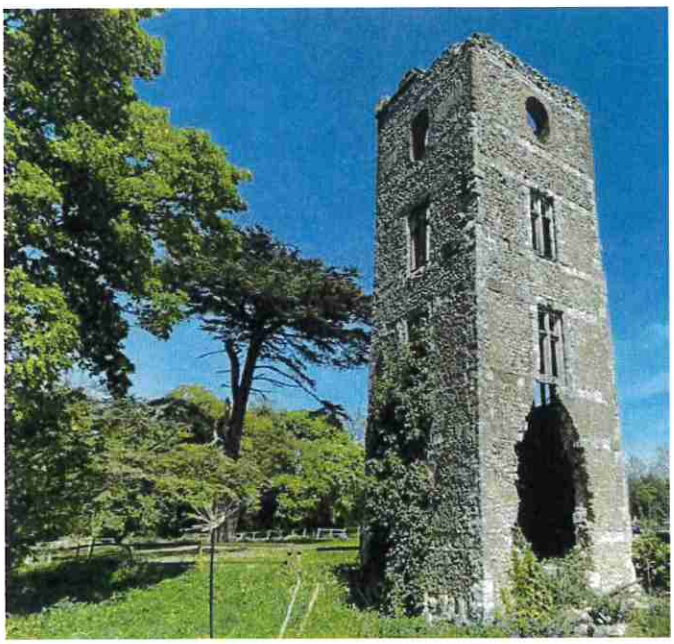
The definition of a boundary to include the steep wooded slopes to the south of Caterham has been particularly challenging due to the nature of the wooded/urban interface and the risk of the boundary becoming overly convoluted. Where the landscape drops northwards towards the settlement of Caterham, care has been taken to include the steepest wooded or open slopes where the folded nature of the topography is strongly expressed and there are features of interest including ancient woodland, whilst avoiding the splitting of settlement. Tandridge Local Plan was consulted to determine the extent of urban areas and Caterham Conservation Area. The proposed boundary does not include any of these built-up areas. Nevertheless, the proposed boundary extension does include some areas of built development associated with the Arts and Crafts housing along Weald Way and Woodland Way (part of the War Coppice Garden Village). These areas have been included due to their low density and local distinctiveness with contributes to the area's natural beauty. It also includes the Mottrams/ Caterham Preparatory School and loose development along Harestone Hill as this built form is set within established grounds and wooded hillsides and is subservient to the surrounding landscape.

In terms of the boundary at Chaldon the landscape was considered to be in transition, becoming influenced by the presence of the urban edge and pony paddocks south of the village. Whilst the pattern of development is relatively low density, the urbanising effects of built form, property boundaries combined with post and rail fencing, horse shelters and storage, has created a degree of visual clutter. On balance Natural England has concluded that this area does not meet the natural beauty criterion and the location of the existing AONB is judged to be correct (save for a number of boundary anomalies). Only minor changes were made to the boundary here.

The proposed boundary

The proposed boundary provides an appropriate join with the existing Surrey Hills AONB boundary and includes the qualifying higher quality wooded slopes above Caterham whilst excluding the lesser quality equestrian land uses on the south side of Chaldon.

The boundary follows lanes, tracks and the edge of properties and woodland. Given the heavily wooded and settled fringes of this area, not all sections of the boundary have been possible to verify in the field. Where access has not been possible aerial photographs and OS MasterMap have been used to assist with identifying a suitable boundary feature to follow. The use of property boundaries in many instances means that the boundary is complex in some locations. This is judged to be acceptable in order to bring in qualifying areas of extensive dramatic chalk topography and areas of ancient woodland.



Whitehill Tower - a non-designated heritage asset at Tower Farm

The boundary includes areas of ancient woodland and Sites of Nature Conservation Importance (including Foxburrow Fields and The Valley) on the margins of the area. It also enables the inclusion of Whitehill Tower, a local landmark and the whole of the large multivalent hillfort at War Coppice Camp (scheduled monument) to be included within the AONB in its entirety.

Proposed Woldingham Valleys extension

Smooth dramatic slopes of the North Downs east of Woldingham

Context

This area comprises the dramatic, smooth and flowing slopes of the North Downs which extend seamlessly from the existing AONB located to the south and west. It includes the ridge top settlement of Woldingham, Nore Hill and the Halliloo Valley.

Extent to which the natural beauty criterion is met

The extension includes:

- Smooth, flowing dramatic chalk topography creating a series of sinuous valley systems.
- Mosaic of ancient woodland and shaws emphasise topography and combine with areas of chalk grassland and arable farmland create scenic compositions.
- Garden village settlement of Woldingham sits on a ridge top and extends down valley sides set within mature woodland and leafy grounds.

Significance

This area contains some of the most intact and dramatic North Downs chalk valley landscapes. Views across valley slopes and along the sinuous valleys, combined with woodland and contrasting open slopes creates a range of scenic compositions and visual interest which exude drama. The scale of the landscape means that land uses such as golf courses remain subservient set within a high quality and visually dominant landscape. Similarly the village of Woldingham reads as part of this wider valley system having little influence on views from the wider landscape due to high tree cover and its loose arrangement of dwellings enabling many views out from the settlement to the surrounding hillsides. This area offers tranquil rural countryside with noise intrusion from roads increasing at its fringes to the north and east.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Visual intrusion of masts which break the skyline and sinuous flow of landform.
- Impact of road noise and loss of tranquillity on the margins of the area due to traffic noise.
- Introduction of non-native woodland and poplar plantations disrupting traditional landscape patterns.
- Loss of chalk downland and grassland diversity due to lack of management and scrub encroachment.
- Land use change such as intensive arable farming and expansion of golf courses resulting in disruption to landscape patterns.
- Loss of woodlands/trees which frame views and integrate existing development.

The semi-natural woodlands and chalk grassland habitats, within this proposed extension could benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

The definition of the boundary in relation to Woldingham has been a key issue. Initially consideration was given to defining a boundary which excluded the settlement. The Tandridge Local Plan was referenced to determine the extent of the settlement however this was found to exclude built-up areas along The Ridge and on the edges of the Halliloo Valley. If a boundary was to be defined which excluded development within Woldingham then it would also need to exclude development in these locations too. Defining a boundary to achieve this was found to be problematic given the leafy character of the area and permeable edges to development. It was also likely to become convoluted if Halliloo Valley was to be included. The merits of including Woldingham within the extension was therefore considered further. The natural beauty assessment highlighted that the settlement does not detract from the surrounding landscape as a result of its mature wooded context – this means that only glimpses of individual housing can be seen from the wider valley sides. Furthermore, within the village the individual rural character of the narrow privately maintained and unlit streets, loose arrangement of dwellings (many of which are of architectural merit) set within generous leafy grounds and the Conservation Area all contribute to its distinctive sense of place. From within the village there are frequent elevated views out towards the surrounding high-quality landscape such that the surrounding landscape is perceived to extend into and through the settlement. These qualities are reflected in the village design guide and Conservation Area Appraisal.

Sinuous Halliloo Valley looking east across the Woldingham Golf Course within valley bottom

On balance, and for the reasons given above, Natural England has concluded that the settlement of Woldingham should be included within the proposed boundary. This enables a less convoluted boundary to be defined which includes the Halliloo Valley, Nore Hill and Woldingham Valley up to Botley Hill Farm. On the southern and eastern sides of the village it enables the inclusion of the north downs undulating chalk landscape which extends seamlessly from the existing AONB.

Within the Halliloo valley particular attention has been given to the transitional nature of the valley and influence of equestrian uses and fragmentation as a result of roads and railway in its western reaches. A boundary has been drawn within this transition, including the higher quality areas.

The proposed boundary

The proposed boundary follows a long section of road (Limpsfield Road) on the eastern side of this area which forms a robust and easily identifiable boundary. To the north the boundary follows the edge of woodland and property boundaries, lanes and tracks. The boundary includes the Woldingham and Oxted Downs SSSI in its entirety.

Proposed Limpsfield extension

Stockenden Farm with the rising land of the greensand hills behind

Context

This area comprises a mosaic of woodland, acid grassland and remnant heath habitat south of Limpsfield and is associated with former commons of Limpsfield and Itchingwood. It connects the greensand hills where they extend west from the Kent Downs AONB with the former commons south of Limpsfield. This area lies immediately to the east of Oxted.

Extent to which the natural beauty criterion is met

The area includes:

- Undulating and steep slopes of the greensand hills where they extend from the Kent Downs supporting a high concentration of ancient woodland shaws and historic settlement.
- Mosaic of woodland, acid grassland and remnant heath habitat displaying colour and textural variation throughout the seasons and high biodiversity value.

Significance

This proposed extension is a relatively small scale and intimate landscape, with a richly textured and colourful mosaic of small-scale medieval field patterns, woodland shaws, former common and remnant heath. The sometimes steep and complex topography of the greensand hills afford occasional longer distance views southwards which add to scenic quality, along with historic farmsteads and manor houses which form local focal points. Whilst this is a settled landscape, it is one in which tranquillity and connection to nature can easily be found.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Urbanisation of rural lanes due to ad hoc development and intensification of areas of existing development.
- Pressure for recreation development including golf courses and playing fields.
- Road and rail improvements such as widening, lighting and signage which can impact on tranquillity and rural character.
- Ash dieback in woodlands and loss of heath habitat due to fragmentation.
- Recreational pressures due to the proximity of conurbations.

Statutory designation as AONB with the immediate application of relevant statutory powers and duties and its formal inclusion in the Surrey Hills AONB Management Plan would strengthen the ability of theAONB team to ensure the future conservation and enhancement of the area's natural beauty and would place a statutory duty on all public bodies to have regard to the area's conservation and enhancement.

Other relevant factors

The fragmentation of the landscape in the north of the area as a result of development and land use such as the Limpsfield Chart golf course was noted in the natural beauty assessment. As a result, the Limpsfield Common area was not included in the Candidate Area although highlighted for particular scrutiny when defining the boundary. This was revisited and initially a boundary was defined along Kent Hatch Road and rural tracks including Pastens Road to exclude this area. However, after careful consideration this boundary was considered to make little sense on the ground, including development set within woodland in some areas whilst excluding it in others. The quality and character of woodland and heathland associated with Limpsfield Common and The Chart was also considered to be similar to that within the existing AONB and whilst containing areas of development, areas of semi-natural habitat were nonetheless perceived as dominant. In particular Limpsfield Chart golf course was considered to be limited in extent and influence and built development was either relatively loose in arrangement (Ballards Lane), nestled within woodland (Pains Hill), and/or limited in extent (The Chart). Given the mosaic of semi-natural habitats and their contribution to the special qualities of the area as a whole, Natural England has on balance concluded that the area of Limpsfield Common warrants inclusion within the proposed extension. Areas of small-scale development were considered to form part of a wider tract of qualifying land.

In terms of defining the southern boundary, consideration was given to the transitional nature of the landscape where the steep and convoluted slopes of the greensand hills gradually reduce and flow into the Low Weald. A boundary was identified within the transition enabling the steepest slopes and historic settlement to be included, along with wooded shaws and Itchingwood Common. The boundary adopts rural lanes within the transition wherever possible.

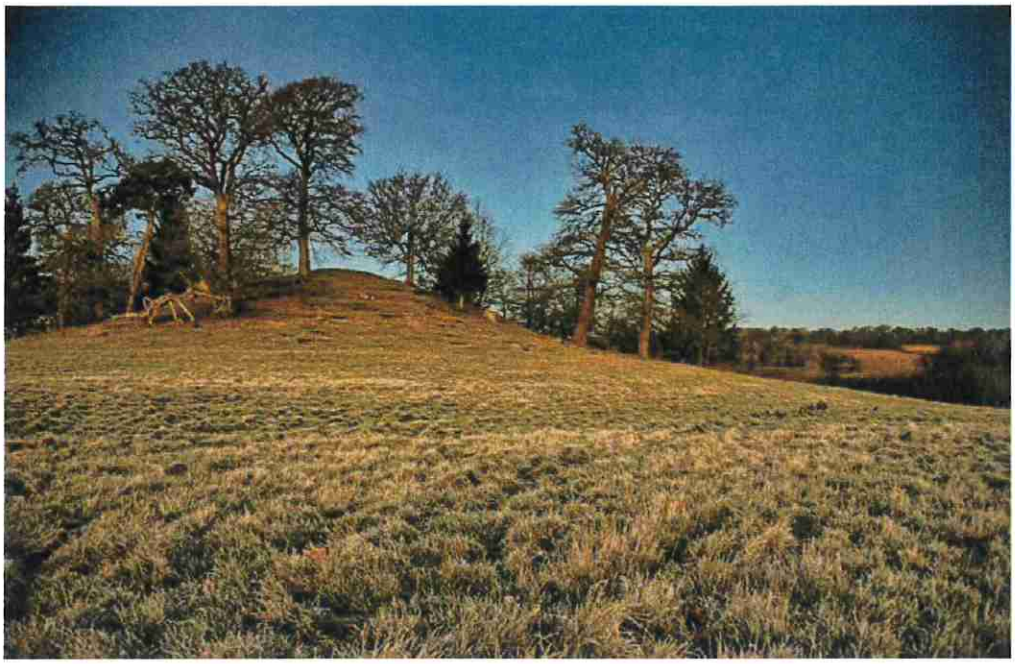
Mature beech trees

Remnant heath habitat

The proposed boundary

The proposed boundary provides an appropriate join with the existing Surrey Hills and Kent Downs AONB boundaries and includes the qualifying higher quality land and woodland associated with the greensand hills and areas of former common and woodland/remnant heath. A boundary line has been identified at the higher end of the transition and follows continuous clear ground features. After careful consideration Natural England has concluded that the boundary should not be taken further south into the Low Weald farmland. Whilst the Low Weald has many positive attributes and forms attractive countryside it was not considered to express the outstanding qualities required for recognition as a nationally important landscape.

Proposed Godstone Hills extension



The Mount - motte and bailey castle earthwork north of Old Oxted

Context

This area comprises the Greensand Hills to the east and south of Godstone and stretches from South Park in the southwest to Oxted in the northeast. It comprises an area of undulating wooded landscape which affords close proximity views to the chalk scarp and elevated views south across the Low Weald. These greensand hills share many of the characteristics of the Surrey Hills AONB but on a smaller scale.

Extent to which the natural beauty criterion is met

The extension includes:

- The upper greensand vale northwest of Oxted.
- Main spine of greensand hills between Tandridge and South Park including important areas of ancient woodland, historic defensive sites and incised rural lanes.
- Fringes of Low Weald landscape which lie adjacent to the hills.
- Areas of remnant parkland including Tandridge Park and South Park.
- Minor watercourses such as Gibbs Brook and water bodies such as Townland Pond/Godstone Ponds support valued wetland habitats and form important wildlife corridors.

Significance

The significance of this area derives from its distinctive undulating topography across which is a diverse, interconnected mosaic of deciduous woodlands including shaws, fields, farmsteads and parklands. These hills comprise a sequence of low summits which are visually connected to the dramatic chalk scarp to the north and afford views southwards across the Low Weald farmland.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- The fragmentation of the landscape due to transport infrastructure and land use change.
- Heritage at risk due to lack of management and maintenance.
- Restoration of former minerals sites in keeping with the special qualities of the area.
- Land use change in areas beyond the proposed boundary extension which can affect the special qualities of the area and valued views between the chalk escarpment and greensand hills.

- Lack of active traditional woodland management.
- Loss of woodlands, ancient and veteran trees and parkland boundary features which perform an important role in framing views and reinforcing parkland character.

The extensive ancient semi-natural woodlands and habitats, streams and narrow incised lanes within this proposed extension could all benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

The natural beauty assessment identified a number of issues affecting land to the northeast of Godstone. Natural beauty was met at the upper end of the vale, but declines towards Godstone due to noise impact from traffic (M25, A25 and A22), road junctions, lighting and signage, current land uses including Godstone golf club, Highways England compound and, garden centre (Nags Hall), Rooks Nest business park and oil well site, and disused workings at Coney Hill Sandpit. A boundary has therefore been sought to include the qualifying land at the head of the vale connecting it across to the chalk scarp to the north, whilst excluding land between the existing AONB boundary and the A25, and between the edge of Tyler's Green and Tandridgehill Lane. Although change is anticipated in the excluded area which may bring future enhancement (restoration of Palmers Wood oil field to woodland by 2025 and restoration of the Highways England compound site, albeit for possible use within the Godstone golf course), this area will nonetheless continue to be fragmented.

The natural beauty assessment identified land to the south of the greensand hills as transitional and the boundary assessment work noted significant noise intrusion to the east of the M23 due to topography and prevailing winds. In accordance with Natural England guidance the boundary has been defined conservatively within these areas of transition. The boundary is therefore drawn to the east away from the M23 and is located north of the railway, except in the area around South Park, where it is extended to include the more undulating and well wooded landscape associated with former parkland and built heritage features, which contribute to natural beauty. Care was taken to exclude the planning allocation at Lambs Business Park – this site is a former brick clay quarry allocated for waste development in the Surrey Waste Local Plan.

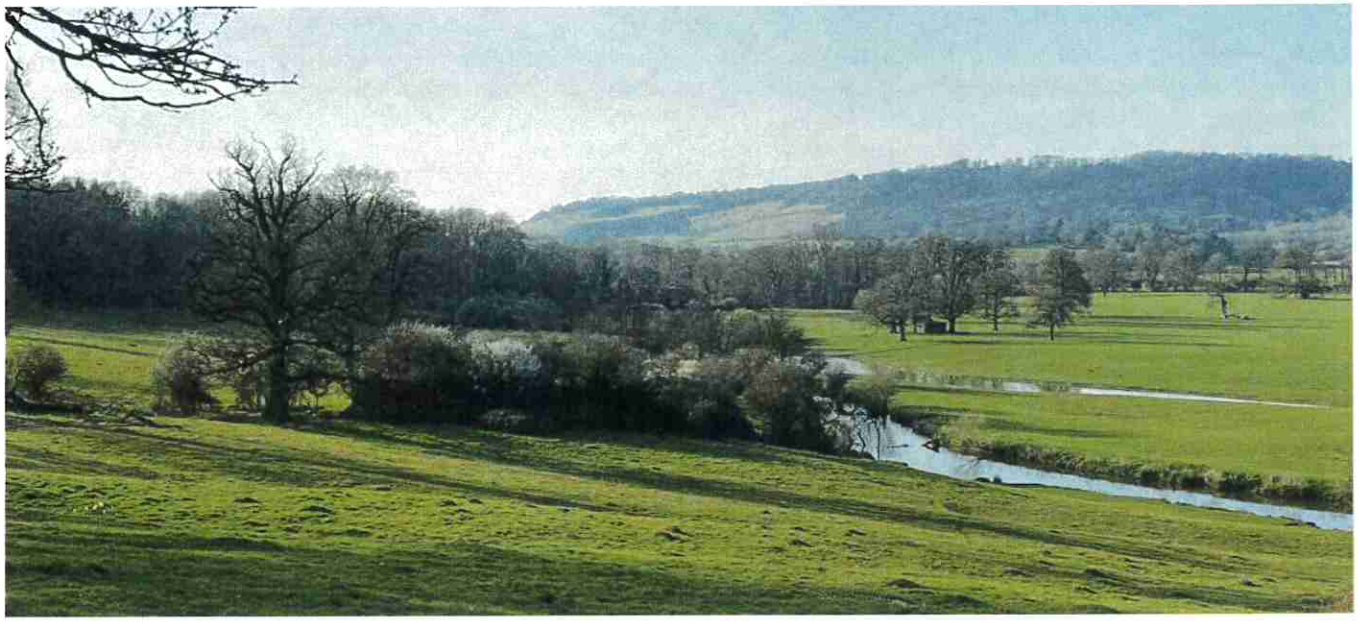
View south along the incised route of Coldharbour Lane

Church at South Park

The proposed boundary

The boundary follows roads, lanes, hedgerows and the edge of woodland and excludes the settlements of Old Oxted, Oxted, Tandridge, Tyler's Green and Godstone, White Post and Bletchingley. It does include the village of Church Town which is small in scale and sits within a sweep of qualifying land. In defining a boundary around settlement edges consideration was given to the influence exerted by the urban edge, urban fringe land uses and current allocations and planning permissions. Where potential development sites have been identified as part of the emerging Local Plan they have been noted but have not been afforded significant weight.

Proposed Betchworth Hills and Mole Valley extension



Views north across the former parkland along the River Mole floodplain with the rising chalk scarp in the distance

Context

This area comprises the greensand hills to the west of Reigate and the Mole Valley where it flows between the hills and the chalk scarp within the existing AONB to the north. It stretches from the fringes of Brockham in the west to the fringes of Reigate in the East.

Extent to which the natural beauty criterion is met

The areas considered suitable for inclusion within the proposed extension include:

- Reigate Heath with its acidic vegetation, valued semi-natural habitat and elevated views.
- The Mole Valley floodplain and adjacent parkland landscapes associated with Betchworth, Wonham and Broom Park.
- Historic settlements of Betchworth and Buckland.

Significance

The special quality of this area derives from the combination of undulating hills, River Mole valley floor and superb views towards the dramatic chalk scarp to the north and west. These qualities have supported the establishment of parklands which have taken advantage of the scenic qualities, and historic settlements and key landmark buildings which add a rich layer of cultural significance. The underlying sandstone geology is reflected in the topography, heath habitat and incised lanes. Reigate Heath contains extensive areas of lowland dry acid grassland and lowland heathland which are rare within the context of the Surrey Hills AONB as well as extensive areas of good quality semi-improved grassland along the River Mole and marshy meadows which are rare in Surrey.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Land use change in areas beyond the proposed boundary extension which may affect the special qualities of the area and valued views between the chalk escarpment and greensand hills.
- Linear development along the A25 corridor resulting in cumulative urbanising effects and fragmentation of the landscape
- Loss of woodlands, ancient and veteran trees and parkland features which perform an important role in framing views and reinforcing parkland character.

- Introduction of new incongruous elements such as large-scale buildings or inappropriate planting which can disrupt patterns and create eyesores.
- Potential for future minerals extraction.

The area is closely linked (in visual, natural and cultural heritage terms) with the adjacent chalk scarp which already lies within the AONB. Natural England considers that strategic management of this area as a whole would be beneficial. Including these areas within the AONB would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide in supporting land managers and others will help to resolve issues affecting the area as noted above.

Other relevant factors

Particular scrutiny has been given to the transitional nature of the landscape to the south and west. Here the greensand hills are declining in elevation giving way to an open and flatter agricultural landscape which lacks the scenic qualities of the parkland landscapes along the River Mole and close proximity views to the chalk scarp to the north. The boundary was extended to the south to include the rising slopes of the greensand hills where they define the River Mole corridor around Ricebridge Farm and where there are strong signs of former parkland and intact enclosure patterns. The boundary includes qualifying land at the higher end of the transition, excluding areas of flatter open farmland to the south and west.

Detailed assessment at the boundary stage revealed that the elevated woodland of Reigate Park was separated from the wider area of qualifying land by a lower lying area. Here the landscape has been influenced by urban fringe land uses (including allotments and sports pitches), as well equestrian uses around Littleton Lane. This has resulted in a decline in landscape quality and condition such that the elevated woodland of Reigate Park has become isolated. Furthermore, its northern boundary was difficult to define - woodland extending as a feathered edge into the Reigate Priory Playing Fields and around Reigate Pond. On balance a judgment was made to exclude this area and a boundary was defined further to the west.

Elevated views northeast across parkland and pastoral slopes from Oldpark Wood

Detailed consideration was also given to the inclusion of Buckland Park Lake. The natural beauty assessment concluded this area did not meet the natural beauty criterion but was finely balanced. This was reviewed. There is a clear distinction between the qualities of Buckland Park Lake and other former mineral sites to the north of the A25. This, coupled with the location of the site adjacent to qualifying land to the north, west and south, has led to the conclusion that a less convoluted boundary could be defined to the east along the Shag Brook, resulting in the inclusion of the lake as part of a tract of qualifying land.

The proposed boundary

The boundary follows roads, tracks, hedgerows and the edge of fields as well as a section of the River Mole and its tributary Gad Brook. It has excluded areas of development along the A25 corridor including the waste recovery facility at Reigate Road Quarry whilst including the settlements of Betchworth and Buckland.

Proposed Ockley Low Weald extension

Historic farmhouse at Plough Farm

Context

This area comprises land between the railway and the fringes of Ewhurst and a smaller area west of Ewhurst. The former stretches to the south to include Vann Lake, Ockley village and Jayes Park and the small-scale pastoral landscape to the southwest of Forest Green. It includes the historic settlements of Ockley (including Ockley Court) and Forest Green as well as a large number of traditional farmhouses.

Extent to which the natural beauty criterion is met

The area includes:

- A mosaic of mixed farmland and woodland which extends from the existing AONB forming a rich tapestry of small fields backdropped by Leith Hills and Holmbury Hill.
- Nature Reserves at Vann Lake and Sayers Croft including areas of steep wooded ghylls and open water.
- Historic settlements of Ockley, Ockley Court and Forest Green as well as a high concentration of vernacular farmsteads connected by rural lanes and tracks.

Significance

This proposed extension is a gently undulating pastoral landscape comprising small scale fields, species rich meadows, ancient woodlands (including linear shaws) where close proximity views to the rising greensand hills to the north lift scenic quality. It is a settled landscape with a high concentration of traditional rural farm buildings connected by a series of minor lanes and tracks which form a grid of greenways. Water is an important component of this landscape including incised ghyll valleys cloaked in woodland and numerous water bodies including those at Forest Green and Vann Lake. This landscape has a tranquil and long-established feel and reflects the important land management connections between the Low Weald and Greensand Hills.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Decline in coppiced woodland due to lack of management.
- Suburban development along lanes altering settlement pattern and rural routes.
- Equestrian land uses and intensive arable cultivation both of which cause the loss of landscape patterns and a decline in landscape condition.

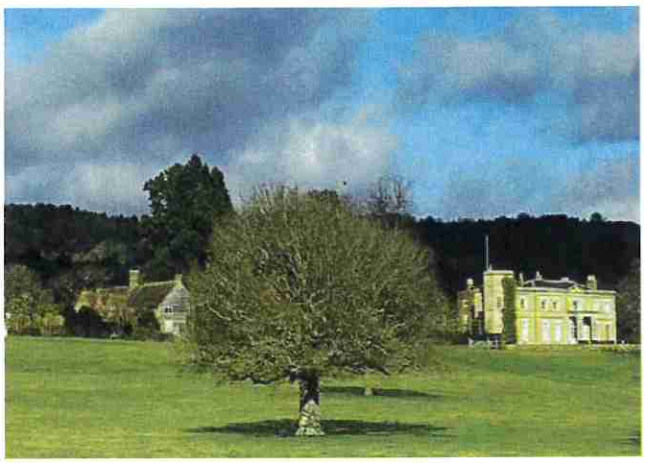
- Loss of species rich meadows due to lack of management.
- Introduction of non-native and invasive species along watercourse and in ancient woodlands.

Statutory designation as AONB with the immediate application of relevant statutory powers and duties and its formal inclusion in the Surrey Hills AONB Management Plan would strengthen the ability of the AONB team to ensure the future conservation and enhancement of the area's natural beauty and would place a statutory duty on all public bodies to have regard to the area's conservation and enhancement.

Other relevant factors

A key issue in defining the extent of this area has been the transitional nature of the landscape as it moves away from the greensand hills. Careful consideration has been given to those factors which are judged to lift the qualities of this landscape above ordinary or attractive countryside. Land close to the AONB is most influenced by the presence of the rising hills at Leith Hill and Holmbury Hill which are seen as a backdrop in views. Small knolls of higher land create topographic variation and interest and steep wooded ravines also add variety and texture. The intact pattern of small-scale pastures, defined by thick hedgerows and

Vann Lake Nature Reserve



View across Jayes Park to Leith Hill

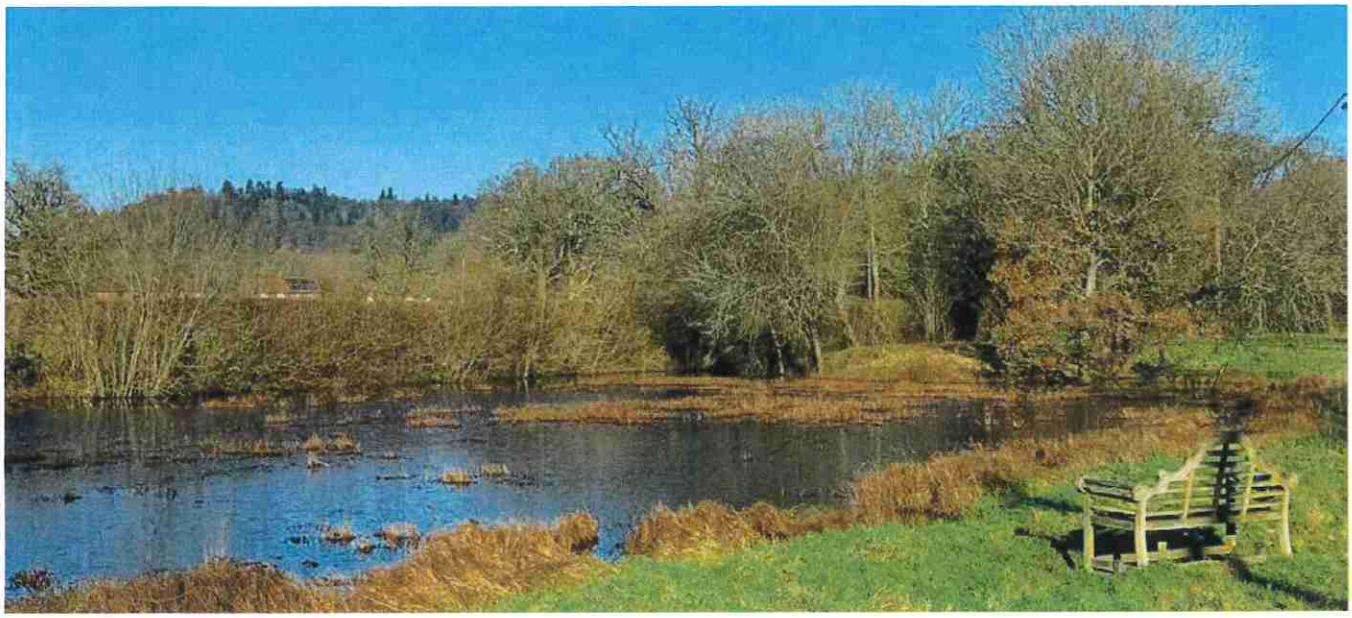
linear woodlands, adds a sense of longevity, along with vernacular farm buildings. Where these factors come together, the natural beauty of the landscape is considered to be high. On this basis the boundary has been defined conservatively within this transitional landscape and extends south to include: distinctive small knolls from which there are elevated views e.g. Mayes Court; areas of intact meadow southwest of Forest Green; parkland landscape at Jayes Park ; and historic settlements which contribute to the scenic qualities. Where the land flattens out, becoming less topographically interesting and lacks wider views, or has undergone change as a result of management which affects landscape condition (e.g. intensive farming, equestrian uses or golf course), it has been excluded. The east west historic lanes and tracks which traverse this landscape have frequently been used as suitable boundary features.

In accordance with Natural England Guidance, features of interest on the edge have been included where they form part of a wider area of qualifying land. However, some features of interest such as Vann Lake Site of Special Scientific Interest (SSSI), cover a significant area - in this case woodland extends south into land on the margins of the transition. After careful consideration Natural England has concluded that the proposed boundary includes the SSSI where it is also a nature reserve and where the landscape is most scenic due to varied topography, steep wooded ravines and ghylls as well as the open water of the lake. The boundary therefore excludes some of the SSSI woodland to the south. Similarly ancient woodland to the south of Sayers Croft Nature Reserve has not been included within the proposed boundary -including only the nature reserve and associated meadows. This is not unusual where natural heritage designations cover significant areas. The natural beauty of the landscape for inclusion in the AONB designation is the primary consideration.

The proposed boundary

The proposed boundary follows roads, lanes and tracks, and occasional hedgerows and the edge of woodland. In the west it follows Coneyhurst Gill. The boundary around Sayers Croft was particularly difficult to define and is therefore complex. Natural England has concluded this is acceptable in order to bring the nature reserve and adjacent meadows into the AONB.

Proposed Dunsfold Low Weald extension



View north across Dunsfold Pond to the greensand hills

Context

This area comprises the Low Weald landscape which surrounds the village of Dunsfold to the south of Hascombe Hill and Breakneck Hill and to the east of Vann Lane. It includes the small incised tributary streams of the River Lox which weave through this small scale pastoral farmland in the shadow of the greensand hills.

Extent to which the natural beauty criterion is met

The extension includes:

- The historic common edge settlement of Dunsfold.
- Undulating pastoral farmland comprising small, incised streams, extensive blocks of woodland, and small scale pastoral fields with strong visual links to the greensand hills.
- Narrow rural lanes flanked by hedgerows and mature trees and occasional traditional farm buildings with sequential framed views to the hills.

Significance

The area forms a small scale, undulating, pastoral landscape which has a settled and established character, cloaked in ancient woodland and traversed by narrow lanes flanked by hedges and mature trees. This part of the Low Weald affords close proximity framed views to the rising hills to the north, across the undulating landform. These scenic qualities are complemented by the intimacy of the incised wooded ghylls which support significant populations of mosses and liverwort. There is a strong local vernacular of red brick, hanging tiles and pantile roofs which provide visual unity and interest, and the area has a high tranquillity with a rural backwater quality.

Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Erosion of rural lanes due to increased traffic and curtilage treatment associated with new and existing development including the loss of hedgerows and grass verges, close board fencing and gated access.
- Loss of tranquillity due to increased levels of activity and development in adjacent areas including increased night lighting.
- Lack of woodland management, including traditional coppicing and historical replanting of ancient woodland with mixed or conifer plantation.

- Loss of unimproved or semi-improved pastures due to conversion to arable or grazing regimes.
- Introduction of non-native and invasive species along ghyll streams.
- Erosion of vernacular styles and integrity due to expansion/redevelopment of farms and farmhouses including large scale modern barns.

The special qualities associated with this proposed extension could all benefit from the broader integrated management and protection that AONB designation would bring. This integrated management and the planning status of AONB designation could also address many of the issues noted above.

Other relevant factors

During the assessment process concerns were raised regarding the transition in landscape quality away from the rising greensand hills and existing AONB boundary, and also the effects of fragmentation related to linear development along Plaistow Road and Chiddingfold Road and expansion of farm or commercial activity resulting in close board fencing and larger scale buildings considered to be incongruous. Careful consideration was given to the need to define a clear boundary such as the northern side of Chiddingfold Lane (which would include some areas of development), with the need to exclude incongruous development on the edge, adopting a more complex boundary to the north, which follows the edge of woodland and a stream course. On balance, Natural England has concluded that the boundary exclude incongruous development on the edge and that a more

Traditional vernacular buildings on edge of Dunsfold

Incised ghylls lined with ferns and woodland

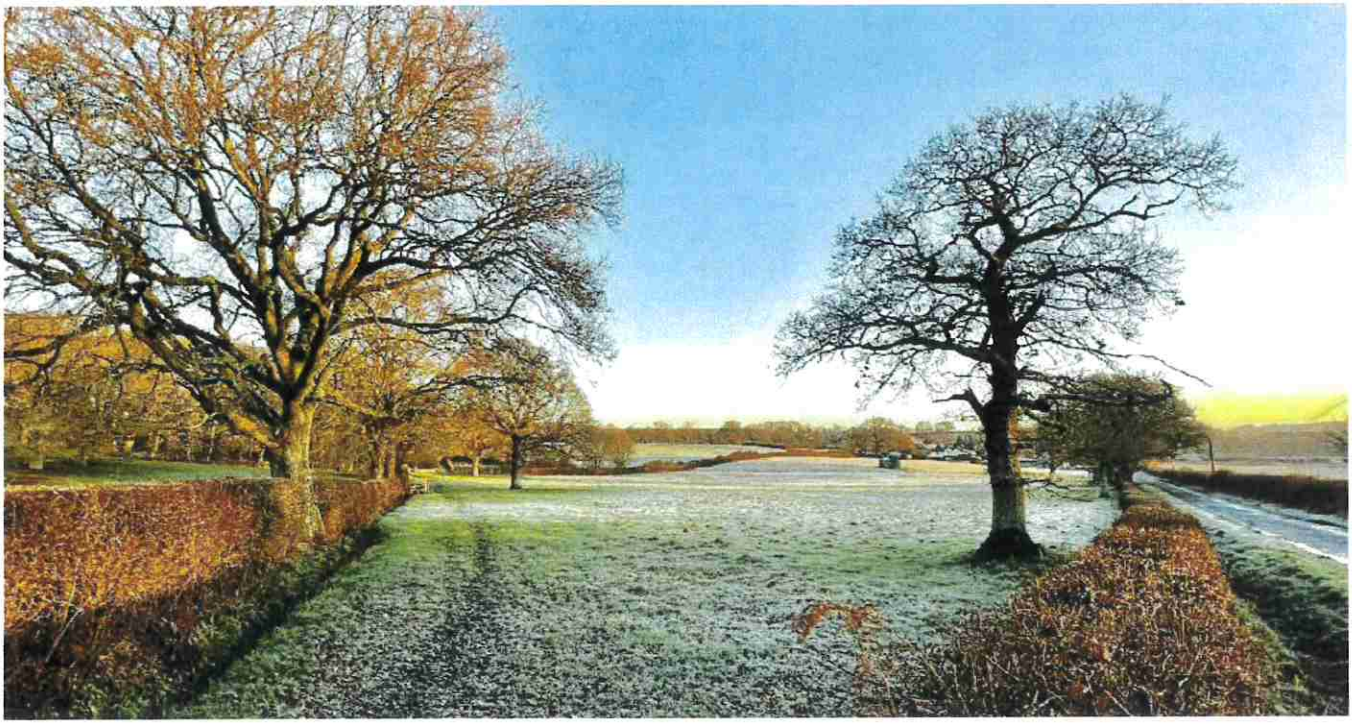
complex boundary, but nonetheless one which can be defined on the ground, is preferable. This ensures that land to be included in the proposed extension comprises high quality landscape with strong visual association to the wider greensand hills.

Consideration was also given to recent planning permission for an exploration into a hydrocarbon exploration site, off High Loxley Lane, and also the proposed Garden Village development at Dunsford Aerodrome, both of which lie close to the qualifying area. The boundary was drawn to the west of these developments but also west of New Pond Farm, excluding the large barns and development as well as areas of equestrian use. These areas were considered to be of lesser quality as a result of fragmentation and management, but also due to less distinctive typography and few wider views.

The proposed boundary

Care was given to the boundary along High Loxley Road in light of the access proposals for the approved hydrocarbon exploration site to the east. The boundary was located to the west of the lane, excluding it from the proposed extension where it is likely to be affected by the development. However south of the proposed access the boundary crosses to the east of the lane, including it within the proposed extension.

Proposed Dockenfield Hills extension



View across pastoral landscape at Old Lane

Context

This area includes an area of undulating pastoral farmland between the existing Surrey Hills AONB and theSouth Downs National Park, south of Rowledge.

Extent to which the natural beauty criterion is met

The proposed extension includes:

- Areas of ancient woodland and high concentration of mature hedgerow and trees and veteran trees associated with former parkland at Frensham Heights.
- The rural villages of Dockenfield and Spreakley and a dispersed pattern of vernacular farmhouses and oast houses connected by a network of small rural lanes.
- The east west tributaries of the River Wey which flow through defined valleys and contribute to the varied topography.

Significance

The special qualities of this landscape relate to its tranquil and rural backwater ambience. This is reinforced by the established character of ancient woods, the pattern of well managed hedgerows and majestic oaks, and rural winding lanes which impart an established character. In this landscape settlements nestle in the gentle folds of the landscape and higher ridges afford long distance views.

Key Issues affecting the area's special qualities

The following issues are currently experienced in this area and are relevant to considering the difference AONB designation may make:

- Loss of woodland through lack of management and loss of historic management techniques such as coppicing leading to a loss of hazel coppice stools along lanes.
- Establishment of recreational land uses which can impact on landscape quality such as glamping.
- Loss of field boundaries due to hedge removal, lack of management or over-trimming and limited take up of environmental stewardship in some areas.
- Large scale individual dwellings which may be visually prominent or alter lane character through curtilage treatment and introduction of gated access.

- Suburbanisation of lanes including changes to hedgerows relating to property boundary treatment.

Including this area within the AONB would ensure more consistent forward planning and decision making through the focus provided by the statutory duties and powers which would apply. The dedicated purpose of the Surrey Hills AONB Management Plan and the assistance that the AONB team can provide in supporting land managers and others will help to resolve issues affecting the area as noted above.

Other relevant factors

During the natural beauty assessment, concerns were raised regarding the peri-urban influences associated with the edge of Rowledge, and schools in extensive grounds, where the landscape is considered to be transitional. This especially affected land north of West End Lane where there is also evidence of equestrian uses, which have visually disrupted landscape patterns. These issues were revisited at the boundary setting stage. Frensham Heights School (whilst containing significant built form) sits within an area of woodland and steep slopes which form the valley sides of the River Wey tributary. The school is also located within the former grounds of Frensham Hill, and signs of former parkland, including park railing and veteran trees set within pasture, are still evident. On this basis it was concluded that the boundary should be drawn further to the north, along The Long Road, including the school, its grounds and woodland, within the proposed extension. Further east, the landscape was considered to be more significantly influenced by development along lanes and equestrian uses. This area was excluded, along with the settlement of Shortfield Common, and the boundary was again defined using local lanes.

View southeast across oast house at Pitt Farm

The proposed boundary

In defining the boundary to the south consideration was given to the inclusion of land south of Old Lane. Whilst land beyond the County boundary and into Hampshire has many similar qualities, there are also influences from Frith End Quarry and equestrian uses at Gum Hill. It was therefore concluded reasonable to pull the boundary northwards. Consideration was given to the use of the County boundary as the proposed boundary to the extension area, however this was found to not follow a clear feature on the ground, in part because it followed the River Wey, the course of which had changed over time and due to field boundary loss. The proposed boundary was therefore pulled northwards to Old Road, which forms a clear line on the ground within the transition.

The boundary excludes the settlement of Rowledge and Shortfield Common on the margins of the qualifying area, where the landscape shows signs of fragmentation and is transitional.

Shortheath Common is a Site of Nature Conservation Importance (SNCI) on the margins of the proposed extension area. Consideration was given to including it in its entirety, as a feature on the edge. However, the common is fragmented by roads and the northern section, north of West End Lane, is more closely associated with the settlement edge. On balance a simple boundary was defined along West End Lane, excluding a small part of the SNCI, but including the majority of the common within the proposed extension.

Proposed Minor Boundary Refinements

Minor boundary changes are also proposed where there are known anomalies with the existing AONB boundary. These anomalies were highlighted in the Areas of Search around Haslemere, through the call for evidence and during the natural beauty assessment. Minor changes have been made where the existing AONB boundary does not follow a clear feature on the ground, where the land in question relates strongly to the wider AONB forming part of a sweep of qualifying land, and where a suitable alternative boundary can be defined.

Minor changes have been made in the following locations:

Guildford
The Mount
Land South of Woodcote

Milford
Land Southwest of Sandy Lane

Catteshall
Land at Munstead Heath
Land at Scizdons and Squirrels' Hill

Bookham
Land South of the A246

Oxted
Land North of Park Road

Dorking
Land north of Punchbowl Lane
Land Northwest of Dorking

Haslemere
Land East of Strut Road
Land South of Grayswood Common
Woodland along Railway
Land Between Bunch Lane and Weydown Road
Land West of Farnham Lane
Land South of Polecat
Land North of Critchmere Hill

Grayshott
Land at Tyndalls Wood
Land North of Linkside North and Eight Acres

Bluebell woods fringing Eastbury Park, Binscombe Hills area

The area proposed for designation as part of the Surrey Hills AONB

The ultimate decision to extend the Surrey Hills AONB is not taken on the basis of the individual Extension Areas set out above in their own right, but rather on the total area of the proposed designation. Natural England must stand back and consider the area as a whole to satisfy itself whether it is desirable to designate the qualifying areas as part of the Surrey Hills AONB.

Together, the proposed extension areas are closely related to the existing Surrey Hills AONB, forming largely contiguous land which shares the same geology as the wider AONB, comprising greensand hills and sinuous rolling chalk valleys as well as lower lying wooded wealden clays. These extension areas reflect qualities found elsewhere within the AONB and are thus representative of the existing designated landscape.

Remnant Wey & Arun Canal at Run Common, Cranleigh Waters area

Collectively the Extension Areas, in association with the existing AONB, comprises outstanding wooded hills, valleys and lowland farmland. The area has special qualities which are rare in the national context and for which a local consensus regarding the value of much of this landscape has existed for many years. In addition, the relative national rarity of the area's heath, chalk and ancient woodland habitats adds further weight to this conclusion.

The special qualities of the area proposed for designation as a whole, its national significance and the pressures impacting on the specific qualities of each Extension Area, are such that the legislative provisions provided by the Countryside and Rights of Way Act 2000, combined with the particular focus given to these qualities in planning management, the application of specific integrated management initiatives and increased access to a broader range of specialist skills and

other resources, make the inclusion of these areas within the Surrey Hills AONB desirable. This is particularly important with regard to the issues noted above in relation to each of the areas and particularly threats of loss of habitats including chalk grassland and woodland, visual intrusion from major development and heavy recreational use.

Designation would provide a more robust and defensible recognition of the special qualities of qualifying areas of the Area of Great Landscape Value (AGLV). Conservation and enhancement of the natural beauty would be possible via direct engagement in management activity and through influencing the work of other organisations with responsibility for activities relevant to the area. This would be particularly important should the AGLV designation be removed in future.

In addition the area would benefit from the specific additional planning protection in the National Planning Policy Framework relating to AONBs. Designation would also extend the duty to have regard to the statutory purpose of the AONB to the many authorities whose responsibilities encompass the Extension Areas such as the local authorities, the Environment Agency, Natural England and the utilities companies.

Including the proposed extension within the Surrey Hills AONB would ensure a more consistent approach to this nationally important landscape in accessing resources, forward planning and decision making and through the focus provided by the statutory duties and powers which would apply, and in particular through the delivery of the statutory AONB Management Plan and its associated action plans.

Natural England has concluded that the area proposed for designation as indicated on maps accompanying this consultation document has outstanding natural beauty and that it is desirable that it should form part of the AONB and that the proposed new boundary should be subject to statutory and public consultation.

What happens next?

Natural England is required by the Countryside and Rights of Way (CRoW) Act, 2000, to consult the County and District Councils affected by the proposed boundary variations. In addition, this consultation is being extended to allow everyone with an interest in the proposed extensions to comment on the proposals. At the end of the consultation, we will analyse all the responses and review the proposals and if necessary, amend them to take account of any further relevant evidence provided. Depending on the number of responses received this is likely to take around six months. If no fundamental objections arise which cannot be overcome, and assuming no additional land needs to be included as a result of the consultation, the next stage will be to draw up a draft Order and to publish Notice of the Order in the London Gazette and other papers as required by Section 83(2) of the CRoW Act.

The Notice period allows anyone who wishes to do so to make representations to Natural England, objecting to, supportive of, or proposing amendments to the Order, and stating the grounds on which they are made.

If however, as a result of the statutory and public consultation, additional land needs to be included within the proposed boundary variation, an additional statutory consultation will be required in relation to this additional land only.

Following the Notice period, a further period of response analysis will be required, and any further consequent changes made to the draft legal Order. It is worth noting that during the last landscape designation project over 3,500 responses were received, so it is difficult to provide a time estimate for this at this stage. Natural England Board approval will then be sought to allow the Order to be 'made' and submitted to the Secretary of State for confirmation. If there are any unresolved objections, these will be submitted to the Secretary of State with the Order, who has discretion to call a Public Inquiry to consider such objections further, before deciding whether or not to confirm the Order.

The Secretary of State may or may not confirm the Order, with or without amendment. This decision is not made to any specific timescale.

Implications of designation

Designation as AONB would provide formal statutory recognition of the national importance of the natural beauty of the area concerned, and as a consequence, would provide the basis for a more coordinated and integrated approach to management which would give specific focus and priority to the natural beauty of the area. The proposed area, if designated, would then formally come within the ambit of the statutory AONB Management Plan and benefit from the incentives, powers, duties, responsibilities and resources that designation brings.

The benefits can be summarised as follows:

- Statutory application of the Surrey Hills AONB Management Plan across the proposed area including much of the Area of Great Landscape Value (AGLV) and other areas of wider countryside regarded as meeting the natural beauty criterion.

- Full access to the AONB Team and the specialist skills and advice they can offer, providing an integrated focus on conserving and enhancing the area's special qualities through partnership working.

- Formal inclusion of Croydon Borough Council/Greater London Authority on the AONB Board through the inclusion of land at Happy Valley, such that the powers and duty 'to have regard' to the AONB purpose would extend to Croydon Borough Council/Greater London Authority in this area.

- All public bodies, statutory undertakers and holders of public office would have a statutory duty to have regard to the conservation and enhancement of the area brought within AONB.

Woodland and deep ravines in Dunsfold Low Weald area

Front cover image:
Looking west along Old Road, Dockenfield

All images: © Natural England

NATURAL ENGLAND

Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

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Clerk

From:	Holly Appleton <Holly.Appleton@waverley.gov.uk>
Sent:	08 March 2023 16:09
To:	info@surrey-chambers.co.uk; Catherine Knight; highways@surreycc.gov.uk; Adrian Selby; sfrs.firesafety@surreycc.gov.uk; parking@guildford.gov.uk; waverley@surrey.police.uk; Jeanette Guy; Richard Homewood; Suzanne Robinson; Nick Palmer; Robert Knowles; Michael Goodridge; Clerk; Patricia Ellis; Liz Townsend
Cc:	Environmental Health
Subject:	Street Trading Renewal - mobile food business consent application for Cranleigh
Attachments:	Moooh! image.JPG; Moooh! location.JPG; Moooh! Redacted appn.pdf

Dear All,

Waverley Borough Council is currently in receipt of an application for the renewal of a Street Trading Consent. The application is for a mobile food operator called '**Moooh! ice cream'** to continue to trade from Fountain Square, High Street, Cranleigh daily between the hours of 12:00 and 19:00, from April to October. Please find attached details of the application (redacted where appropriate), including:

- Application form
- Map of proposed trading location
- Photo

Our Street Trading policy requires that you are informed of any relevant applications, but you do not have to do anything unless you wish to object to the application.

The details are on our website M3 Licensing Online (waverley.gov.uk) where you can make representations (objections) using the link or you can email any objections or comments to environmentalhealth@waverley.gov.uk.

Details of the matters that can be considered for valid objections are contained within Waverley Borough Council's Street Trading Policy on the Waverley website Street Trading

If you are not the person to deal with this query within your organisation, please pass this on to the correct person and advise me accordingly.

The last date for relevant objections is 5th April 2023.

If you have any queries with regards to this matter, please do not hesitate to contact me.

Regards,

Holly Appleton
Environmental Health Officer
Waverley Borough Council
Direct Line - 01483 523283
www.waverley.gov.uk

If I am not available and you need assistance before my return, please contact our Customer and Technical Services Team on 01483 523393 or email environmentalhealth@waverley.gov.uk

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whom it is addressed.
The opinions expressed in this email are not necessarily those of Waverley Borough Council.
The Council is not responsible for any changes made to the message after it has been sent. If you are not the intended recipient of this email or the person responsible for delivering it to them you may not copy it, forward it or otherwise use it for any purpose or disclose its contents to any other person. To do so may be unlawful.
Please visit our website at https://www.waverley.gov.uk

Waverley
BOROUGH COUNCIL

If you find the text in this form difficult to read we can supply it in a format better suited to your needs

LOCAL GOVERNMENT (MISCELLANEOUS PROVISIONS) ACT 1982

APPLICATION FOR STREET TRADING CONSENT

To: Head of Environmental Health and Community Safety, Waverley Borough Council, The Burys, Godalming, Surrey, GU7 1HR

I hereby make application under the provisions of section 3 and schedule 4 of the above Act for consent to sell or offer or expose for sale the articles stated below, in the open air within the area of Waverley Borough Council.

This application is for (please tick)	New Application		Renewal	✓
If a renewal application please provide the number on the current consent	LN/000007515			
The type of consent being applied for (please tick)	Sole Trader	✓	Special/ Community Events	
If special/community events please state the number of stalls/traders to be present				

I submit the following particulars for consideration:

1.	Applicant Full name	MICHAEL BC CARTER	Date of Birth	[redacted]
2.	Trading as	MOOOH! ICE CREAM LTD		
3.	Home Address (inc. postcode) (for sole traders)	[redacted]		
4.	Address of organiser (if a community/ special event)			
5.	Daytime telephone number	[redacted]		
6.	E-mail	[redacted]		
7.	Address where articles are stored (if applicable)			
8.	Proposed trading location/address*	FOUNTAIN SQUARE HIGH STREET CRANLEIGH		

* *For special/community event applications please provide the details of all of the traders separately as part of your application.*		
9.	Type of vehicle(s) to be used. If a sole trader please also give accurate dimensions of each vehicle (in metres)	VINTAGE ICE CREAM BIKE 220CM x 100CM x 116CM
10.	Registration no. or identification mark	N/A
11.	Full details of articles to be sold. Also include size of any receptacles to be used, e.g. baskets, kiosk, tables, etc.	LOCALLY MADE ICE CREAMS + SORBETS SCOOPED AND SERVED FROM FREEZER FITTED ON BIKE USING, WAFFLE CONES, TUBS OR HAND HELD OPTIONS (LOLLYS)
12.	Proposed times of trading (please include frequency, times of day, days per week, months of the year)	SUNDAY — SATURDAY (7 DAYS WEEK) 12.00 - 19.00 HRS APRIL — OCTOBER. 2023
13.	Insurance Company and Policy No.	[redacted]
14.	If a food business please provide the name of the local authority you are registered with	WAVERLEY

I enclose:

1. A passport style photograph of myself (sole traders only)
2. Photographs showing the sides, back and front of each vehicle (sole traders only). If you are an existing trader please provide a photo of the vehicle(s) in the trading location.
3. A plan/map image showing all locations that I have applied to trade in, which shows sufficient details to identify the location of the proposed site.
4. A copy of valid public liability insurance for trading/the event providing cover to a minimum amount of 5 million pounds. The person applying for street trading consent

is responsible for providing this insurance, individual applicants (sole traders), or the organiser (special/community events).

5. If a food trader(s) - a copy of correspondence showing that I am/they are registered with a local authority as a food business and/or have achieved a minimum FSA food hygiene rating score of level 3 or above.

6. An event management plan(s) (special/community events only) detailing how the event(s) will be run safely and without causing nuisance to the area. Please note:

   The Government has published its plan for living with COVID

   COVID is still present in the community. As the organiser of an event(s) you must take all reasonable steps to protect the safety of those working or attending the event. As such you are required to include COVID in your risk assessment under general Health & Safety requirements. HSE Guidance is available on how to assess COVID related risks and there is also a risk assessment template .

   You should continue to follow the guidance to keep yourself and others safe. Working safely during coronavirus (COVID-19) - Guidance - GOV.UK (www.gov.uk)

   If you require any COVID advice, please do not hesitate to get in contact with Environmental Health on 01483 523393 or send an email to Environmentalhealth@waverley.gov.uk

7. Confirmation that if trading from privately owned land that the land owner has given permission for me to trade/the event to go ahead there.

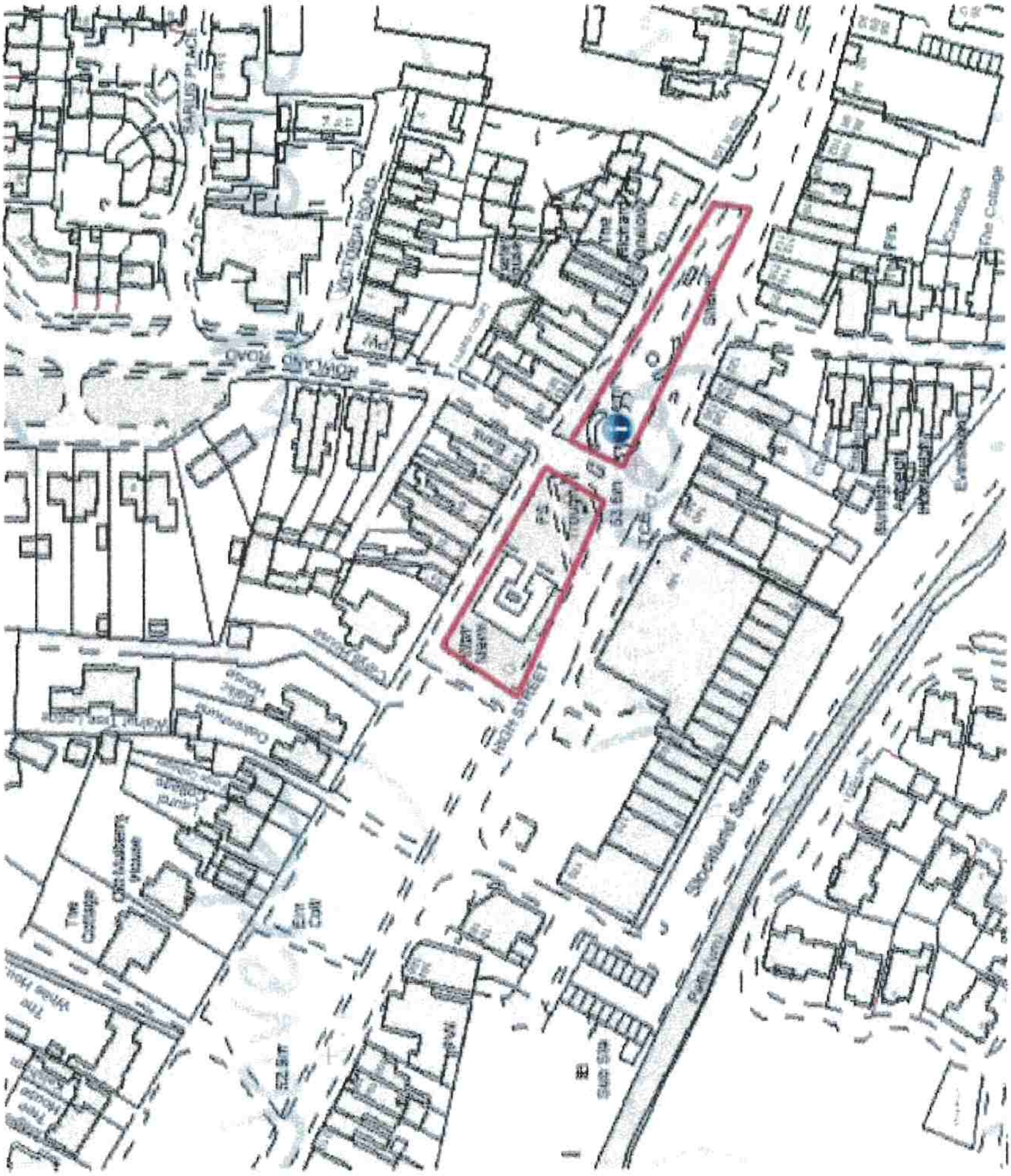
I confirm that:

- I will pay the required fee within 48hours of submitting this application. I am aware that failure to provide the required fee will result in my application not being processed.
- I am aware that the required fee is payable per trading site.
- I will display a notice at the proposed trading location(s) notifying local residents and businesses of my intention to trade there if a consent if granted. I will provide a photo of this being displayed at the location within 48hrs of submitting this application to environmentalhealth@waverley.gov.uk. (not required for itinerant street traders such as ice cream vans who do not trade from any specific locations)
- I am aware that if valid objections are received to my application, the application will need to considered and determined by Waverley Borough Council's Licensing Sub-[redacted]reet trading consent being granted.

Signe[redacted] .....

Print N[redacted] ..... Date ...8/3/2023.....

Notes:
Fees are reviewed annually. They are published on the Council's website, or please contact Environmental Health
Making a deliberately false statement in connection with any application is an offence punishable on summary conviction by fine of up to £400.



HIGH STREET
Stortford Square
VICTORIA ROAD
The Cottage

CRANLEIGH PARISH COUNCIL

THIS AGREEMENT is made the **1st** day of **October 2023**

BETWEEN

(1) **Cranleigh Parish Council**

of Council Offices, Village Way, Cranleigh, Surrey, GU6 8AF

("the Council") and

(2)

of

("the Tenant")

NOW IT IS AGREED as follows

1. Interpretation

1.1. Words referring to one gender will be read as referring to any other gender and words referring to the singular will be read as referring to the plural and vice versa.

1.2. Where the Tenant is more than one person the obligations and liabilities will be joint and several obligations and liabilities of those persons.

1.3. The clause headings do not form part of this Agreement and will not be taken into account in its interpretation.

2. Allotment

2.1. The Council agrees to let and the Tenant agrees to take all that piece of land situated at **Amlets Lane** ("the Allotment Site") numbered on the Council's allotment plan and containing approximately square metres ("the Allotment Garden").

3. Tenancy and Rent

3.1. The Allotment Garden shall be held on a yearly tenancy from **01 October 2023** at an annual rent of £ which is payable to the Council by the Tenant on the first day of October each year ("the Rent Day"). A deposit of £100 is payable with the first rent payment.

3.2. The deposit is non-refundable on breach of any of the terms of this agreement or conditions of use.

3.3. 12 months notice of any rent increase will be given by the Council to the Tenant in October of the preceding year to take effect the following year.

3.4. Water supply shall be included in the rental charge.

3.5. Where additional amenities are provided on the Allotment Site these will be taken into account when setting the following year's rent.

3.6. Allotment liability insurance is included in the rental charge.

4. Rates and Taxes

4.1. The Council will pay all rates and taxes

5. Cultivation and Use

5.1. The Tenant shall use the plot as an allotment garden only as defined by the Allotments Act 1922 (that is to say wholly or mainly for the production of vegetable, fruit and flower crops for consumption or enjoyment by the Tenant and his family) and for no other purpose and keep it free of hazards, e.g. broken glass or scrap metal etc., and reasonably free from weeds and noxious plants and in a good state of cultivation and fertility and in good condition.

5.2. The Tenant may not carry on any trade or business from the Allotment Site (A small amount of surplus produce may be sold as ancillary to the provision of crops for the family.)

5.3. The Tenant shall have at least ¼ of the Allotment Garden tended of crops after 3 months and at least ¾ of the Allotment Garden tended of crops after 12 months and thereafter.

5.4. The maximum amount of the Allotment Garden allowed to be hard landscaped e.g. patio, internal paths etc is 20%.

6. Prohibition on Under letting

6.1. The Tenant shall not underlet, assign or part with possession of the Allotment Garden or any part thereof. (This shall not prohibit another person, authorised by the Tenant, from cultivation of the plot for short periods of time when the Tenant is incapacitated by illness or is on holiday, the Council to be informed of the other person's name.)

7. Conduct

7.1. The Tenant must at all times during the tenancy observe and comply fully with all enactments, statutory instruments, local, parochial or other byelaws, orders or regulations affecting the Allotment Site.

7.2. The Tenant must comply with the conditions of use attached as Schedule 1.

7.3. The Tenant must not cause, permit or suffer any nuisance or annoyance to any other plot holder or neighbouring resident of the Allotment Site and must conduct himself appropriately at all times.

7.4. The Allotment Garden may not be used for any illegal or immoral purposes and the Tenant must observe all relevant legislation or codes of practice relating to activities they carry out on the Allotment Garden.

7.5. The Tenant shall not enter onto any other plot at any time without the express permission of the relevant plot holder.

7.6. Any person who accompanies the Tenant to cultivate or harvest may not at any time enter onto another plot without the express permission of the relevant plot holder. The Tenant is responsible for the actions of children and others entering the Allotment Site with his permission.

7.7. The Tenant must not remove produce from any other plot without the express permission of the relevant plot holder.

8. Lease Terms

8.1. The Tenant must observe and perform all conditions and covenants that apply to the Allotment Site contained in any lease under which the Council hold the Allotment Site.

9. Termination of Tenancy

9.1. The tenancy of the Allotment Garden shall terminate

9.1.1. automatically on the Rent Day next after the death of the Tenant, or

9.1.2. by either the Council or the Tenant giving to the other at least twelve months notice (shorter notice can be given following agreement of both the Council and Tenant) in writing expiring on or before 6 April or on or after 29 September in any year, or

9.1.3. by re-entry by the Council after 3 months previous notice in writing to the Tenant on account of the Allotment Garden being required:

9.1.3.1. for building, mining, or any other industrial purpose or for roads or sewers necessary in connection with any of those purposes, or

9.1.3.2. for any purpose (not being the use of the Allotment Garden for agriculture) for which it was acquired by the Council, or has been appropriated under any statutory provision, or

9.1.4. by re-entry if the rent is in arrears for not less than 40 days, or

9.1.5. by re-entry if the Tenant is not duly observing the conditions of this tenancy, or

9.1.6. by re-entry if the Tenant becomes bankrupt or compounds with his creditors, or

9.1.7. by the Council giving the Tenant at least one months notice in writing if, not less than 3 months after the commencement of this Agreement, it appears to the Council that the Tenant is resident more than one mile out of the borough, district or parish.

9.1.8. If the signed allotment agreement is not returned to the Council within one month of the commencement date in clause 3.1

10. In the event of the termination of the tenancy the Tenant shall return to the Council any property (keys, etc.) made available to him during the Tenancy and shall leave the plot in a clean and tidy condition. If in the opinion of the Council the plot has not been left in a satisfactory condition, any work carried out by the Council to return the plot to a satisfactory condition shall be charged to the Tenant (section 4 Allotments Act 1950).

11. **Change of Address**

11.1. The Tenant must immediately inform the Council of any change of address.

12. **Notices**

12.1. Any notice given under this agreement must be in writing and to ensure safe receipt should be delivered by hand or sent by registered post or recorded delivery. A notice may be sent by fax or email if a confirmatory copy is delivered by hand or sent by registered post or recorded delivery on the same day.

12.2. Any notice served on the Tenant should be delivered at or sent to his last known home address. Any address served on the Council should be sent to the address given in this agreement or any address specified in a notice given by the Council to the Tenant.

12.3. A notice sent by registered post or recorded delivery is to be treated as having been served on the third working day after posting whether it is received or not.

12.4. A notice sent by email is to be treated as served on the day on which it is sent or the next working day where the email is sent after 1600 hours or on a non working day, whether it is received or not, unless the confirmatory copy is returned to the sender undelivered.

Executed by the Council by

In the presence of

Signed by the Tenant

In the presence of

SCHEDULE 1

Conditions of Use

1. Trees

1.1. The Tenant shall not without the written consent of the Council cut or prune any trees, apart from carrying out the recognised pruning practices of fruit trees.

1.2. The Tenant shall not plant any trees other than dwarf fruiting trees and or fruiting bushes without the prior consent of the Council.

2. Hedges and Paths

2.1. The Tenant shall keep every hedge that forms part of the boundary of his Allotment Garden properly cut and trimmed, all pathways between plots trimmed and well maintained up to the nearest half with by each adjoining tenant, keep all ditches properly cleansed and maintained and keep in repair any other fences and any other gates or sheds on his Allotment Garden.

2.2. The Tenant shall not use any barbed or razor wire (or similar) for a fence adjoining any path on the Allotment Site.

2.3. Public paths and haulage ways (roads) must be kept clear at all times.

2.4. All paths must be kept a minimum of 45 centimetres wide.

3. Security

3.1. The Tenant shall be issued with a key if required to access the Allotment Site either by car or on foot. No replicas are to be made.

3.2. If required, the key is to be used by the Tenant only or by an authorised person under paragraph 5 of the Agreement.

3.3. The main access gate shall be closed and locked at all times. Please ensure that the gate is locked at all times after you enter and after you leave the Allotment Site.

4. Inspection

4.1. An officer of the Council if so directed may enter allotment gardens for inspection of the state of cultivation and general condition of the plot, sheds, greenhouses, polytunnels and any livestock and full access must be given by the Tenant to the officer at a mutually agreed, mutually convenient time. Inspections will take place on a quarterly basis.

5. Water/Hoses /Fires

5.1. The Tenant shall practice sensible water conservation, utilise covered water butts on sheds and other buildings and consider mulching as a water conservation practice.

5.2. The Tenant shall have consideration at all times for other tenants when extracting water from water points. No hoses are to be used at any time, if there is a drought order in place.

5.3 Fires are not permitted on the Allotment Site.

5.4 Where the Tenant uses and stores hoses they shall be responsible for their own Legionella prevention for hoses that have not been in use for a long period of time.

6. Dogs

6.1. The Tenant shall not bring or cause to be brought onto the Allotment Site a dog unless it is held at all times on a leash, and remains on the Tenant's Allotment Garden only. Any faeces to be removed and disposed of off site by the Tenant.

7. Livestock

7.1. Except with the prior written consent of the Council the Tenant shall not keep any animals or livestock on the Allotment Garden save rabbits and hens (no Cockerels) to the extent permitted by section 12 Allotments Act 1950. (Such animals are not to be kept for trade or business purposes and accordingly to be limited in number as the Council may provide in writing.)

7.2. Livestock must be kept so that they are not prejudicial to health or a nuisance.

8. Buildings and Structures

8.1. The Tenant shall not without the written consent of the Council erect any building or pond on the Allotment Garden, provided that consent shall not be refused under this clause for the erection of any building reasonably necessary for the purpose of keeping rabbits or hens or be unreasonably withheld for the erection of either a garden shed or polytunnel, but not both and a greenhouse the maximum size and positioning of which shall be determined by the Council. The Tenant may also require permission from the relevant planning authority.

8.2. Only glass substitutes such as polycarbonate, perspex or other alternatives may be used in any permitted structures.

8.3. The Tenant shall keep all sheds, greenhouses, polytunnels and other structures in good repair to the satisfaction of the Council.

8.4. Oil, fuel, lubricants or other inflammable liquids shall not be stored in any shed except in an approved container with a maximum capacity of 5 litres for use with garden equipment only.

8.5. The Council will not be held responsible for loss by accident, fire, theft or damage from Allotment Garden.

9. General

9.1. The Tenant shall not deposit or allow other persons to deposit on the Allotment Garden any rubbish, refuse or any decaying matter (except manure and compost in such quantities as may reasonably be required for use in cultivation) or place any matter in the hedges, ditches or dykes in or surrounding the Allotment Site.

9.2. The Tenant must cover any manure on the Allotment Garden which has not been dug in.

9.3. All non compostable waste shall be removed from the Allotment Site by the Tenant.

9.4. The Tenant shall not utilise carpets or underlay on the Allotment Garden.

10. Chemicals, Pests, Diseases and Vermin

10.1. Only commercially available products from garden or horticultural suppliers shall be used for the control of pests, diseases or vegetation.

10.2. When using any sprays or fertilisers the Tenant must

10.2.1. take all reasonable care to ensure that adjoining hedges, trees and crops are not adversely affected and must make good or replant as necessary should any damage occur, and

10.2.2. so far as possible select and use chemicals, whether for spraying, seed dressing or for any other purpose whatsoever, that will cause the least harm to members of the public, game birds and other wildlife, other than vermin or pests, and

10.2.3. comply at all times with current regulations on the use of such sprays and fertiliser.

10.3. The use and storage of chemicals must be in compliance with all the relevant legislation.

10.4. Any incidence of vermin (rats) on the Allotment Site must be reported to the Council.

11. Notices

11.1. The Tenant will endeavour to maintain the plot number provided by the Council in good order and ensure it is visible at all times.

11.2. The Tenant shall not erect any notice or advertisement on the Allotment Site without prior consent of the Council.

12. Car Parking

12.1. No cars are permitted within the allotment site. Only the Tenant or persons acting for them shall be permitted to bring cars into the car park. The Council accepts no liability for loss of or damage to vehicles parked on the site.

13. Waiting List

13.1 Open to residents of the parish only.

13.2 New plot holders to be allocated smaller starter plots.

13.3 Existing plot holders on reserve waiting list to be given first refusal on adjacent plot.

13.4 Existing plot holders on reserve waiting list to be offered full size plot on relinquishment of a smaller starter plot.

13.5 No more than one full size plot per allotment holder unless there is no waiting list.

Starter Plot Numbers:
There are currently no starter plots.

CRANLEIGH PARISH COUNCIL
ALLOTMENT FOWL KEEPING AGREEMENT

1. REVIEW OF AGREEMENT
The council reserves the right to review this agreement as required. Before making any changes the council will give you notice of such changes.

2. TENANCY
Any person keeping fowl on allotment land must be an allotment tenant and is bound by the allotment tenancy agreement in addition to this agreement. The tenant must obtain permission from the Council to keep fowl. The Council will consider the suitability, location and size of the plot.

3. THE BIRDS
You may keep fowl (hens but not cockerels) and ducks under this agreement. If you wish to keep any other type of bird you must first receive written permission from the council. You must maintain a list of all birds with a full medication history and record any deaths.

4. THE FIVE FREEDOMS
The Animal Welfare Act 2006 requires that you:

- Provide a suitable environment for the fowl
- Provide a suitable diet and fresh water
- Allow the fowl to exhibit normal behaviour
- Provide companion fowl as they are social animals
- protect them from pain, injury, suffering and disease

5. TERMS AND CONDITIONS

- The birds must have daily access to an outdoor area and a suitable shelter, with fresh water and food.
- There may be no more than one bird per square metre of the space outdoors and no more than three per square metre of the shelter.
- The birds must be provided with a fully roofed shed giving shelter from cold, direct sunshine and extremes of weather, with clean bedding of straw or wood shavings and adequate ventilation and warmth.
- Hens require roosting perches and a dry place to dust bathe.
- The area given over to the birds must be protected from predators such as foxes by suitable fencing around the shed and pasture area.
- A suitable balanced feed must be available at all times; laying hens require a calcium supplement and chickens must have access to insoluble grit to aid digestion.
- If the birds have access to grass, keep this short to prevent long strands inhibiting digestion. Fresh water must be provided and changed daily.
- Young chicks must be provided with suitable drinkers which prevent them climbing in and drowning and ducklings must be provided with shallow troughs to avoid getting immature feathers wet.
- The area around ducks' water troughs is likely to get muddy, so these should be moved frequently.

I hereby AGREE to abide by this Fowl Keeping Agreement:

PLOT NUMBER	NAME	SIGNED	DATE

Council Offices, Village Way, Cranleigh, Surrey, GU6 8AF
Telephone 01483 272311
Website: www.cranleigh-pc.gov.uk E-mail clerk@cranleigh-pc.gov.uk

CRANLEIGH PARISH COUNCIL

ALLOTMENT RABBIT KEEPING AGREEMENT

1. REVIEW OF AGREEMENT

The council reserves the right to review this agreement as required. Before making any changes the council will give you notice of such changes.

2. TENANCY

Any person keeping rabbits on allotment land must be an allotment tenant and is bound by the allotment tenancy agreement in addition to this agreement. The tenant must obtain permission from the Council to keep rabbits.

3. THE FIVE FREEDOMS

The Animal Welfare Act 2006 requires that you:

- Provide a suitable environment for the rabbits
- Provide a suitable diet and fresh water
- Allow the rabbits to exhibit normal behaviour
- Provide companion rabbits as they are social animals
- protect them from pain, injury, suffering and disease

4. TERMS AND CONDITIONS

- The rabbits must be provided with a grassed enclosure surrounded by fencing sunk at least 50cm into the ground and designed to keep out predators and prevent the rabbits from burrowing out.
- In order to maintain healthy teeth and claws the rabbits must have daily access to the enclosure and must be provided with a gnawing block.
- Within this enclosure, the rabbits require a large weatherproof and predator-proof home. This must be raised off the ground, out of direct sunlight and protected against strong winds. Within the home, each rabbit requires a separate, covered sleeping area and a clean layer of wood shavings and plenty of hay or shredded paper for bedding.
- The home must be cleaned every day and the bedding replaced weekly.
- During the winter months additional protection is required against the cold; this may be insulating material wrapped around the home or a shed around the shed.
- The rabbits must be provided with a mixed diet of grass, rabbit pellets, apples, carrots, dandelions, a good quantity of hay and a constant supply of fresh, clean drinking water in a drip feed bottle with metal spout.
- Food must be stored in airtight containers in a vermin proof location.
- There may be no more than one rabbit per square metre of outdoor space and no more than three per square metre of the shelter.
- A register of rabbits must be maintained on site, giving full medication history.
- The council may seek veterinary advice regarding any animals that appear to be suffering or neglected.

I hereby AGREE to abide by this Rabbit Keeping Agreement:

PLOT NUMBER	NAME	SIGNED	DATE

Council Offices, Village Way, Cranleigh, Surrey, GU6 8AF
Telephone 01483 272311
Website: www.cranleigh-pc.gov.uk E-mail clerk@cranleigh-pc.gov.uk

Cranleigh Parish Council

Cranleigh Cemetery
Rules and Regulations

Please take time to read through the Cranleigh Cemetery Rules and Regulations carefully.

- Please show respect for those who are buried in the cemetery.
- Please be aware that monuments may become unstable over time. Take care in the cemetery and do not lean on any monument.
- Cars are only permitted to tend graves. Please drive very slowly with care. Cars must not be parked on grass verges.
- No dogs are allowed (except guide or hearing dogs).
- No unaccompanied children under the age of sixteen are allowed in the cemetery.
- Adults must supervise children in their charge.
- Please use the litter bins provided to dispose of rubbish.
- Wreaths and floral tributes that have deteriorated will be removed by the Sexton.
- Monuments, kerb sets and inscriptions may only be installed with a memorial permit.
- The New Section of the cemetery is consecrated for burials according to the rites of the Church of England.

We are here to help, please do not hesitate to contact us if you have any queries by telephone on 01483 272311 or email clerk@cranleigh-pc.gov.uk

Interpretation of Terms

"Council" means the Cranleigh Parish Council.
"Cemetery" means the Cranleigh Burial Ground.
"Clerk" means to the Cranleigh Parish Council.
"Resident" means a person residing in Cranleigh at the time of death.
"Monument" means any memorial or gravestone which is placed or erected on a grave.
"Responsible Person" means an adult over 18 years of age.
"Scattered" means loose and not within a casket

1. Burials

1.1 Notice of interment is to be given on the prescribed form to the Clerk between the hours of 9.00 am and 4.00 pm three whole days previous to the interment, which days shall be exclusive of Sundays, Bank Holidays, Christmas Day, Good Friday and Saturdays and no notice will be accepted on these aforesaid days provided that this regulation shall not apply to cases of death from epidemic disease or other interments required to take place immediately upon the certificate of the appropriate Medical Officer or Authority.

1.2 The Notice of interment must be signed by the owner of the Exclusive Rights of Burial for the grave, in order to confirm their permission, no other signature will be accepted. The only exceptions being new Exclusive Rights of Burial, owner's interment and cases of death from epidemic disease.

1.3 Coffins only of wood or other bio-degradable material shall be used in earthen graves and all coffins shall have a non-corroding plate bearing the deceased's name securely fixed.

1.4 The Council does not undertake the digging of full size graves. Provision for such work is the responsibility of the person requiring the same and must be carried out by an approved gravedigger and must be carried out to the satisfaction of the Council acting through the Clerk. Graves can only be dug at times agreed with the Sexton and only between the hours of 9.00 am and 4.00pm, Monday to Thursday. All graves must be left in a safe condition and must be inspected by the Sexton (or nominated member of staff) on completion.

1.5 No body shall be buried in a grave in such a manner that any part of the coffin is at a depth exceeding 8 feet nor a depth less than 3 feet below the level of the ground of the adjoining grave. Undersize (children's) coffins shall be buried at a depth not less than 4 feet below the level of the ground of an adjoining grave.

1.6 No body shall be buried in a grave unless the coffin is effectually separated from any other coffin already in the grave by means of a layer of earth not less than six inches in thickness.

1.7 Where, in the cemetery, any grave is re-opened for the purpose of making another interment therein, no person shall disturb any human remains interred therein nor remove there from any soil which is offensive.

1.8 All fees and charges, as prescribed from time to time by the Parish Council, are to be paid at the offices of the Clerk. Fees and charges relating to interments shall be paid before the interment takes place. Fees relating to monuments shall be paid when application is made for permission to place or erect a monument.

1.9 No interment may take place on Sundays, Bank Holidays, Christmas Day, Good Friday, and Saturdays, nor before 10.00 am in the morning or after 3.30 pm in the afternoon on the remaining days provided. This regulation shall not apply to interments required to take place immediately upon the certificate of the appropriate Medical Officer or Authority or in the case of exceptional circumstances, in which case the day and time of interment is subject to the approval of the Council.

1.10 No burial shall take place until the Registrar's Certificate of Disposal (Green or White as appropriate), the Coroner's Order for Burial where an inquest has been held, or a certificate from the Registrar in the case of a still-born child, is lodged with the Council.

1.11 Cremated remains shall not be scattered in the cemetery.

1.12 The grave space for the burial of persons over 12 years shall be 7 feet (2130 mm) x 3 feet (920 mm).

2. Exclusive Right of Burial

2.1 Applications for Exclusive Right of Burial will only be accepted from Cranleigh residents, their close relatives (i.e. parents, siblings) or those with a close Cranleigh connection.

2.2 The Exclusive Right of Burial for a grave may only be purchased at the time of the interment on payment of the appropriate fee.

2.3 A family may purchase Exclusive Right of Burial for two graves but only at the time of the first interment.

2.4 Exclusive Rights of Burial for a grave are granted for a period of 100 years and include the right to place a memorial in accordance with the memorial regulations in section 4.

2.5 New graves will be allocated in strict rotation, unless there are exceptional circumstances in which case a grave will be allocated in another part of the Cemetery.

2.6 It is recommended where possible that there are two Grantees for each Exclusive Right of Burial, who are over 18 years of age.

3. Walled Graves and Vaults

3.1 Only earthen graves will be permitted in the cemetery. No walled or vaulted graves will be allowed.

4. Memorials

4.1 Monuments will only be allowed in accordance with the table of fees.

4.2 Application for new monuments and of alterations to existing monuments and copies of all inscriptions proposed to be placed thereon, must be delivered to the Clerk on the appropriate Memorial Application Form, for the approval of the Council. A certificate of such approval must be obtained before they can be admitted within the cemetery.

4.3 The Memorial Application Form must be signed by the owner(s) of the Exclusive Rights of Burial for the grave, in order to confirm their permission. No other signature will be accepted.

4.4 The Council reserve the right to remove any unauthorised memorials following a period of 28 days notice to the person(s) responsible for the installation, at a cost to the person(s) responsible for the installation and also have a statutory right to sue persons placing an unauthorised memorial for the cost of the removal.

4.5 As a Local Authority registered with BRAMM any monument admitted to the cemetery must be installed by a stone mason who is a registered member of BRAMM with a current fixers licence in full accordance with BS8415 and any relevant industry codes that comply fully with BS8415. Stone masons who are registered members of NAMM are permitted to install monuments that are in full accordance with BS8415 and any relevant industry codes that comply fully with BS8415 on proof of registration. All monuments installed in the cemetery shall remain the sole risk of the owner.

4.6 All monuments shall be constructed of good durable material and if constructed of more than one block of material shall be securely clamped together with non rusting clamps.

4.7 No fixed monument shall be laid or erected without a base of stone or concrete of sufficient thickness and size to prevent settling

4.8 No trade inscription will be allowed upon any monument.

4.9 All monuments shall have the number of the grave space cut thereon in letters not exceeding one inch in height, and not more than six inches above the ground level and the cost of such work shall be at the expense of the owner of the monument.

4.10 No hewing or dressing will be permitted within the cemetery, and all materials for monuments and all tackle and material shall be conveyed into the cemetery in such a manner as will avoid annoyance to persons or injury to the ground or walks; and all refuse, soil and rubbish, shall be removed in like manner; any damage caused to paths, ground and road to be repaired by and at the expense of the contractor.

4.11 Two clear working days notice must be given to the Council before any monument may be fixed.

4.12 As a burial authority and landowner, the Council has a responsibility under the Local Authorities Cemeteries Order 1977 and the Health and Safety at Work Act 1974 to ensure that risks within our cemetery are properly managed. To fulfil the Councils responsibilities memorial safety testing will be carried out by the Council or a qualified contractor of the Councils choosing.

4.132 Each monument shall be kept in good repair by the owner, and if not kept in good repair may be repaired or laid flat by the Council at its discretion and at the expense of the owner.

4.143 The size of a memorial on a single grave may not exceed 915mm (3') in height from ground level, 915mm (3') in width and 102mm (4") in depth and a kerbstone may not exceed 2430mm x 915mm (8'x 3').

4.154 The size of a memorial on a children's grave may not exceed 610 mm (2') in height from ground level, 508 mm (20") in width and 51 mm (2") in depth.

4.165 A plaque on an Ashes grave may not exceed 300mm x 460mm x 51mm (12" x 18" x 2").

4.176 A plaque on a children's Ashes grave may not exceed 559mm x 457mm x 51mm (22" x 18"x 2")

4.187 Excluding a headstone and vases it is not permitted to have additional raised memorials on a full grave.

4.198 No kerbing or chippings will be permitted around ashes graves.

4.219 Monuments shall not be painted.

4.201 Temporary memorials in the set form of a wooden cross can be erected providing they do not exceed 914mm (3') in height above ground. These shall be allowed for twelve months after a burial until a permanent memorial can be installed.

4.221 Memorial plaques for the Garden of Remembrance wall may be applied for with a plaques purchase enquiry form, to be approved by the Council and then installed by the Council following a signed form of Agreement. Memorial plaques may only include text, be constructed of stainless streel with text engraving, have only three lines of text with a maximum of 75 characters and must not exceed 150m x 150mm (5.9"x5.9").

4.232 Memorial items may not be placed, secured or hung on any trees, hedges, shrubs or structures within the Cemetery.

4.243 A copy of the certificate of compliance that has been issued to the memorial owner must be supplied to the Council, prior to the erection of the memorial.

5. Memorial Benches

5.1 Memorial benches may be placed within the cemetery subject to the approval of a memorial bench purchase enquiry form and signed form of Agreement, their style and location is subject to the approval of the Property and Asset Committee. The location of the bench will be agreed as near to the requested location as possible, the Council's decision on the location will be final.

5.2 The owner of an approved memorial bench is responsible for the maintenance of their bench. Benches that are not maintained or fall into disrepair may be removed by the Council and plaques kept for return to the owners.

5.3 Approved memorial benches will be installed by Council staff using appropriate fixings for the location. All benches installed in the Cemetery are done so at the owner's risk.

5.4 The Council reserves the right to re-locate or remove any bench from the Cemetery without prior notification to allow maintenance and refurbishment works to be carried out.

5.5 All benches must remain natural wood in colour, therefore it is not permitted to paint benches in any colour other than natural wood colouring, stain or vanish.

6. Grave Maintenance

6.1 The Council reserves the right to level and turf or sow with grass seed any mounded grave after one year from the date of the interment.

6.2 No more than two items are allowed on an ashes grave. The items must have a base not exceeding 6" x 6" or 6" in diameter and must be no more than 9" in height. The Council reserves the right to remove any items that do not comply with this regulation.

6.3 Glass vases, jars, bottles and artificial turf shall not be permitted on graves as they pose a Health and Safety risk, this includes all types of fencing or edging around graves. The Council reserves the right to remove these items.

6.4 Shrubs, plants or flowers may, subject to the prior approval of the Council be planted on any purchased grave. Upon the completion of such work all refuse must be conveyed to the nearest receptacle for litter. The Council reserves the right to prune, cut down or dig up and remove any of the shrubs, plants or flowers at any time, when in its opinion, the same have become unsightly, neglected or overgrown.

6.5 The Council reserves the right to remove any neglected, damaged or decayed tributes.

6.6 All tributes must remain within the boundary of the grave space and must not cause an obstruction, disturbance to neighbouring graves or distress to visitors of the Cemetery.

6.7 Receptacles of alcohol may not be placed on grave spaces in order to not cause offence or distress to visitors of the Cemetery, and for the health and safety of employees and cemetery visitors.

7. General

7.1 The Cemetery will be open every day of the year from 9.00 am until dusk, except from November to April when the gates will be closed from 4.00pm – 9.00am.

7.2 No vehicle except those accompanying funerals or used in connection with the work of the cemetery or the attendance to graves will be permitted in the cemetery provided that this regulation shall not apply to any wheeled chair. No vehicles are permitted to drive on grassed areas in the cemetery.

7.3 No child under the age of sixteen years is allowed into the cemetery unless under the care of a responsible person.

7.4 Dogs shall not be brought in nor allowed in the cemetery other than guide or assistance dogs and such dogs must be kept on a lead at all times.

7.5 Pets may not be buried in the cemetery.

7.6 No work of any kind which is undertaken for the purpose of profit shall be executed in the cemetery on Sundays, Bank Holidays, Christmas Day, Good Friday or Saturdays, except work in connection with burials carried out in accordance with the proviso to Regulation number 1.1.

7.7 No person shall disfigure, injure, maim, or destroy wilfully or otherwise any building, wall, fence or other structure or any tree, plant or other item being in or part of the cemetery whether the same belongs to the Council or any other body or person. Nor shall any bill, placard, poster or structure or other item at any time be placed or erected in the cemetery or on any item therein.
Furthermore, no games, sport or recreation shall be practised in the cemetery nor shall (save at Military Funerals) any firearm be discharged. No person shall at any time disturb or annoy by action, words or otherwise any person in the cemetery or create any nuisance thereon.

7.8 Without prejudice to any other remedy available to the Council or other body or person, any person contravening these rules shall be liable to a fine of up to £100 or such other fine as shall from time to time be lawfully demanded by the Council.

7.9 The Council reserves the right to make from time to time any alterations and additions to these regulations.

7.10 Anyone who fails to comply with these Regulations may be refused access to the cemetery or where this is a breech of legislation, legal action may be taken.

The foregoing Rules and Regulations were adopted by Cranleigh Parish Council on 7th October 2010 and last amended by the Council on 26 May 2022. The Rules and Regulations previously in force in respect of Cranleigh Cemetery are hereby superseded.

These regulations are in addition to the Local Cemeteries Order 1977.

CRANLEIGH PARISH COUNCIL

Please return to: Council Office
Village Way
Cranleigh
Surrey
GU6 8AF
Tel: 01483 272311

NOTICE OF INTERMENT

THE CEMETERY, DEWLANDS LANE, CRANLEIGH, GU6 7AD

Please return this Notice, together with all supporting documentation, to Cranleigh Parish Council at least **three clear working days before the day of the burial.** "Working days" exclude Saturdays, Sundays and Public Holidays; no Notice can be accepted on these days except in cases which apply to cause of death from epidemic disease or other interments required to take place immediately upon the certificate of the appropriate Medical Officer or Authority.

Please note that:

- Burial times may be subject to alteration by the Council.
- The Council does not undertake to inform any Minister, Gravedigger or Funeral Director of a Burial; the Applicant should therefore arrange all of these matters before this Notice is returned.
- All fees and charges must be paid at the time of submitting this Notice.
- Please ensure that all information is completed carefully and accurately, otherwise the Notice cannot be processed.

1	~~Surname of~~ Name(s) in full of Person to be Buried ~~First Name(s) in full~~	~~First~~Christian name: Middle Name(s): Surname:		
2	Description of person to be buried (e.g. profession, trade etc.). If a minor, give full names and residence of parents *NB: information entered in Historical Public Records.*			
3	Age of deceased (in years as at last birthday)			
4	Date of Death (day, month and year)			
5	Address where death occurred			
6	Address at which deceased resided			
7	Day, date and month on which the burial is to take place. With prior agreement by the office.			
8	Time of day that the funeral will arrive at the Cemetery. With prior agreement with the office.			
9	Name of Minister intending to officiate			
10	Grave Space to be occupied	Section:	Number:	
11	Type of burial	Full Burial	Ashes	~~Garden of Remembrance~~
12	State whether in Consecrated or Unconsecrated Ground			
13	If any other person has been buried in the same grave space, state name and date of burial			
14	Length and width of coffin/casket/ashes casket			

15	Proposed depth of Grave	
16	I agree to abide by the Parish Councils Rules and Regulations~~Rules and Regulations have been received and read by the owner.~~	

AUTHORITY TO BURY IN GRAVE SPACE Section : ..... No: .....

I / We as owner(s) of the Exclusive Rights of Burial in the above Grave Space, do hereby authorise its opening for the interment of the

late .....

Signed	**Date**
Names (s)	
Address	
Please note that if this is not a new purchase (see below) a copy of the Deed of Grant must be enclosed with this application.	

OWNERS INTERMENT
When the owner of the Exclusive Right of Burial is being interred, please give details of the next of kin organising the owners interment.

Full name (including any middle names)	
Address	

NEW EXCLUSIVE RIGHTS OF BURIAL PURCHASE
Please give the address to which the Deed of Grant should be registered.

Full name (including any middle names) Incorrect or incomplete details will require a Statutory Declaration for future permissions.	
Address	

FOR UNDERTAKERS:

Please return this Notice to Cranleigh Parish Council together with the Green or White Certificate, a copy of the Deed of Grant if appropriate and bacs ora cheque payment for the correct fee.

Name and Address of Undertakers:	

FOR OFFICE USE:

				REGISTER OF						
Date Received				Graves			Grants of Right			
BACS/Cheque Received				Burials			Memorial Permit			
Grants of Right Checked				Index of Burials			Cemetery Plan			
Invoice No.				Purchases						

Cranleigh Parish Council cares to ensure the security of personal data. This is done through appropriate technical measures and relevant policies. Data is kept for the purpose it was collected for and only for as long as is necessary. (See our Privacy Notice & Retention Policy online at: www.cranleigh-pc.gov.uk for further information)

CRANLEIGH PARISH COUNCIL

Please return to: Council Office
Village Way
Cranleigh
Surrey
GU6 8AF
Tel: 01483 272311

MEMORIAL APPLICATION
THE CEMETERY, DEWLANDS LANE, CRANLEIGH, GU6 7AD

Particulars of Grave: Section ..... No .....

Name of Deceased: (in full) .....

Date of interment: .....

Name of Applicant: (in full) .....

Address: .....

I / We authorise this application and the execution of the work being the ~~only~~ registered Owner (s) ~~person (s) entitled~~ to the Exclusive Right of Burial (E R of B) ~~in~~ for the grave space indicated above and agree to abide by the Parish Councils Rules and Regulations:

Signature of Registered
Owner (s) of the E R of B

.....

Full name(s) and address(s): .....

I / We hereby make application for permission to:

	Fee	√ as appropriate
Place and maintain a memorial for an ashes grave*	£173.81	
Place and maintain a memorial for a full grave*	£231.75	
Place and maintain a kerb surround (full graves only)	£869.06	
Place and maintain an additional vase (maximum 3)	£115.88	
Place and maintain single vase	£115.88	
Place and maintain an additional inscription on a memorial (*above include the first inscription)	£86.91	
Replace and maintain an existing memorial to the exact specification of the original memorial permit	£86.91	
Other work (Health & Safety)		

PLEASE NOTE THAT MONUMENTS ARE ONLY ALLOWED IN ACCORDANCE WITH OUR TABLE OF FEES

Fee of £..... is enclosed herewith (all cheques to be made payable to Cranleigh Parish Council).

As a BRAMM registered Cemetery all memorials are required to be erected to British Standard 8415.

I confirm that the Company below is BRAMM and/or NAMM registered with a current fixer licence and the above works will be carried out in full accordance with the BRAMM Scheme, BS8415 and NAMM Code of Working Practice.

Signed: .....

Name of Stonemasons: .....

Address: .....

.....

Date: .....

NO MEMORIALS CAN BE PLACED IN THE CEMETERY WITHOUT PRIOR AGREEMENT WITH CRANLEIGH PARISH COUNCIL

DETAILS OF MEMORIAL

Headstone	Materials to be used:		
	Height	Width	Depth
Kerb Surround	Materials to be used:		
	Height	Width	Depth
Stone for Ashes Grave	Materials to be used:		
	Height	Width	Depth
Free Standing Vase	Materials to be used:		
	Height	Width	Depth

Design of Memorial – Photograph or Drawing (with measurements) of the Proposed Memorial

Type of Ground anchor system to be used: .....

.....

Please note that the grave number must be engraved on the back of all memorials.

COPY OF PROPOSED INSCRIPTION / ADDITIONAL INSCRIPTION

.....

.....

.....

.....

.....

SIZE / TYPE / COLOUR OF LETTERING

.....

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