Rossendale BOROUGH COUNCIL

ITEM NO. D2

Subject:	Climate Change SPD		**Status:**	For Publication	
Report to:	O&S Cabinet		**Date:**	11 July 2022 TBC - Post the consultation	
Report of:	Head of Planning		**Portfolio Holder:**	Deputy Leader and Housing, Planning, Licensing and Enforcement	
Key Decision:	☐ Forward Plan ☒		General Exception ☐	Special Urgency ☐	
Equality Impact Assessment:	Required:		Yes/**No**	Attached:	Yes/**No**
Biodiversity Impact Assessment:	Required:		Yes/**No**	Attached:	Yes/**No**
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1. RECOMMENDATION(S)

1.1 Overview & Scrutiny Committee to review the Draft Climate Change SPD and recommend that it can go out for consultation for at least 4 weeks over summer 2022.

1.2 Overview & Scrutiny Committee to recommend that any amendments to the Draft Climate Change SPD prior to this consultation be delegated to the Head of Planning and Portfolio Holders.

2. EXECUTIVE SUMMARY

- Rossendale Borough Council declared a Climate Change Emergency in September 2019
- The Local Plan commits the Council to preparing a Supplementary Planning Document (SPD) to provide developers with further advice on how to implement the Local Plan policies that relate to climate change.
- This SPD will be consulted on with all stakeholders, including residents and developers, prior to adoption.
- Following this consultation, the final version of the SPD will be prepared, having considered the comments received, and taken to Cabinet for adoption
- On adoption the SPD will form a material consideration in determining planning applications

3. BACKGROUND

3.1 The Council acknowledges that climate change is a key issue and declared a Climate Change Emergency in 2019, and published a Climate Change Strategy in 2020.

3.2 Government guidance on planning refers to climate change, and the National Planning Policy Framework states that the planning system can support "*the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical changes in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure*[1]"

[1] National Planning Policy Framework - 14. Meeting the challenge of climate change, flooding and coastal change - Guidance - GOV.UK (www.gov.uk)

3.3 The Local Plan contains a number of policies relating to Climate Change and also sets out the Council's intention to provide further guidance to planning applicants and their agents in the form of a Supplementary Planning Document. Given the Climate Change emergency that has been declared this is the first of the SPDs to be prepared

3.4 SPDs are produced to give more detailed guidance on policies contained in the adopted Local Plan. They are not essential documents to be prepared and because they do not form part of the Local Plan they cannot introduce new planning policies. They are however a material planning consideration in the determination of planning applications. SPDs should be used where they can help applicants make successful applications or aid infrastructure delivery, and should not be used to add unnecessarily to the financial burdens on development.

3.5 Regulations 11 to 16 of the Town and Country Planning (Local Planning) (England) Regulations 2012 set out the requirements for producing SPDs. Before the Local Planning Authority can adopt the SPD it must seek representations on the document, for a period of at least 4 weeks, and set out a summary of the main issues raised and explain how these issues have been addressed in the final adopted SPD.

3.6 This is the first of the SPDs to be produced. The other SPDs that will be issued in due course are listed below:

- Affordable Housing
- Open Space and Playing Pitches
- Gypsy and Traveller - Negotiated Stopping Places Policy and GTAA
- More detail on Green Belt Compensation Measures
- Design Guide
- Ecological Networks and Biodiversity
- Criteria for the Re-use of Employment Land
- Update on House Extensions
- Hot food takeaways *
- Viability and Vitality of Town Centres
- Update SPD on Shopfront Design
- Update on Conversion and Re-Use of Rural Buildings in the Countryside

* An update has been published with respect to obesity rates in primary school age children

4. DETAILS

4.1 The Climate Change SPD focuses on the following four themes:

- Reducing the dominance of fossil-fuelled vehicles via encouraging sustainable and more active transport.
- Improving energy efficiency and promoting renewables in the Borough
- Water interventions
- Biodiversity and Green Infrastructure

4.2 The document also provides a checklist to help applicants focus on measures that would make their development more sustainable. Applicants of major schemes will be expected to demonstrate how such measures have been incorporated into their schemes.

4.3 The document links to projects being undertaken not just by Rossendale but by partners, such as Lancashire County Council, e.g. cycleways, sustainable drainage systems, and Groundwork etc. It also highlights good practice elsewhere.

4.4 It should be noted that there is likely to be some overlap with the other SPDs that are intended to be produced, for example, the Design Guide, or the Ecological networks and biodiversity SPD. In addition, further guidance may be issued by other organisations that may have a bearing on this document which could require further changes, for example, through the enactment of the Levelling Up and Regeneration Bill, or further changes to the National Planning Policy Framework (NPPF), or VIA Lancashire County Council.

4.5 This document has been produced by the Climate Change officer in collaboration with the Forward Planning team. Consultation has been undertaken with the Portfolio Holders and a member of the Green Party. Contact has been made with other bodies such as Lancashire County Council and the Environment Agency. More formal consultation will be undertaken over the summer with statutory consultees and other stakeholders, including those listed on the Local Plan Consultation database, such as local residents, promoters of sites, planning agents etc. These comments may necessitate further changes. All comments will be made public and available to view on the Council's website or after prior notification at the Council's One Stop Shop in Bacup. Having considered the comments received the SPD will be updated and be taken to Cabinet later this year for formal adoption to be considered as a material consideration in the determination of planning applications.

5. RISK

5.1 This document is intended to help developers take on board issues relating to climate change and the need to prepare for net zero carbon emissions, a key Government objective. Although the Local Plan contains policies relating to climate change issues, this SPD provides additional detail and guidance. Not having the SPD in place may result in developments not addressing climate change issues as effectively as they could.

5.2 This SPD is open to challenge, both in the period immediately post adoption by the Council. Planning decisions that are made using this policy as a reason for refusal can be appealed and so this SPD could be scrutinized by Planning Inspectors. Nevertheless the risk associated is minimal and outweighed by the need to issue further guidance.

6. FINANCE

6.1 The Council could be subject to appeal costs and barrister fees defending planning refusal decisions. However, the SPD is based on policies set out in the adopted Local Plan and so the additional risk is considered minimal.

7. LEGAL

7.1 In preparing this SPD for adoption by the Council, the Forward Planning team will have to comply with the legislation set out in Town and Country Planning (Local Planning) (England) Regulations 2012.

8. POLICY AND EQUALITIES IMPLICATIONS

8.1 There are no specific policy or equalities implications; this is a guidance document based upon the recently adopted Local Plan.

9. REASON FOR DECISION

9.1 Adoption of the Climate Change SPD will enable the Council to ensure developments that require planning permission will take climate change issues into account.

Background Papers	
Document	Place of Inspection
Climate Change SPD Draft (June 2022)	Attached

Climate Change

Supplementary Planning Document

Draft – June 2022

Rossendale
BOROUGH COUNCIL

Contents

1. Introduction

Climate change is a significant issue that requires urgent action. The global climate crisis will lead to more frequent and extreme weather events, including flooding, wildfires, extreme heat, and droughts. As such, it is important that new developments are designed and built to mitigate emissions, be adaptable for the impacts of climate change, and support communities.

The Government has introduced changes to the Building Regulations, which set standards for the design, construction and alteration of buildings, as of June 2022, to help deliver net zero, with new homes built after June 2023 to produce 30% less CO^2. This is in readiness ahead of the Future Homes and Buildings Standard expected in 2025. Rossendale Borough Council declared a Climate Change Emergency in September 2019 and published a Climate Change Strategy in 2020[1]. The Council is committed to:

- Reaching a carbon-zero position for the Council's activities by 2030;
- Reducing the Council's overall energy consumption by 50 percent by 2030;
- Obtaining our energy needs from renewable sources;
- Increasing the number of businesses and households who source their utilities from renewable sources

The Local Plan was adopted in December 2021 and recognises the need to address the climate change emergency. Planning and Building Control have an important role in ensuring buildings minimise carbon emissions and adapt to increasing temperatures. Other types of development can also help, for example, renewable energy projects.

The Local Plan commits the Council to preparing a number of additional guides known as Supplementary Planning Documents (SPDs) to support the Local Plan policies. This SPD on Climate Change is the first of these to be published and it should be noted that the other SPDs will relate to climate change matters for example the Design Guide SPD, and the Ecological Networks SPD.

This document discusses actions relating to the following four principles:

- Reducing the dominance of fossil-fuelled vehicles via encouraging sustainable and more active transport.
- Improving energy efficiency and promoting renewables in the Borough
- Water interventions
- Biodiversity and Green Infrastructure

[1] Rossendale Borough Council. (2020). Rossendale Council Climate Change Strategy | Rossendale Borough Council

2. Planning Status and links to the Local Plan

This Supplementary Planning Document is a material consideration in the determination of planning applications in Rossendale. The adopted Local Plan makes several references to Climate Change and the need to prepare a Supplementary Planning Document (SPD). It is expected that this SPD will be a live document, to be updated and expanded as appropriate. It is expected that further Government guidance will be issued and this may result in changes to this SPD. For example, the new Building Regulations may necessitate changes to this guidance. The Local Plan and the supporting SPDs should be read as a whole.

The National Planning Policy Framework

This provides guidance from Government on the preparation of Local Planning policies and the determination of planning applications. Most recently amended in 2021 (with further changes anticipated soon), this explains the role of the planning system in responding to the climate emergency by supporting:

> *the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical changes in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure*[2].

This high level Government aspiration has been translated into the Local Plan and into this SPD.

The Local Plan Vision (para 11)

Rossendale's distinctive landscapes and natural assets will continue to be protected and enhanced for their intrinsic value to biodiversity and tackling climate change as well as their recreational and economic value to local people and visitors alike (p7)

Local Plan Objectives: Environment theme (para 12 p8)

- *Reducing the carbon footprint through suitable design and ensuring sustainable development in appropriate locations*
- *Reducing the impact of and adapting to climate change, including suitable flood prevention measures, the promotion and protection of Green Infrastructure, green energy projects, and encouraging travel by modes other than the car*
- *Protecting and enhancing natural assets, and improving biodiversity*

[2] National Planning Policy Framework - 14. Meeting the challenge of climate change, flooding and coastal change - Guidance - GOV.UK (www.gov.uk)

Strategic Priorities (para 13):

Addressing the Climate Change emergency through the enhancement of Green Infrastructure, provision of electric charging points and renewable energy projects

ENV1: High Quality Development in the Borough

All proposals for new development in the Borough will be expected to take account of the character and appearance of the local area, including, as appropriate…… (q) Designs that will be adaptable to climate change, incorporate energy efficiency principles and adopting principles of sustainable construction including Sustainable Drainage Systems (SuDS);

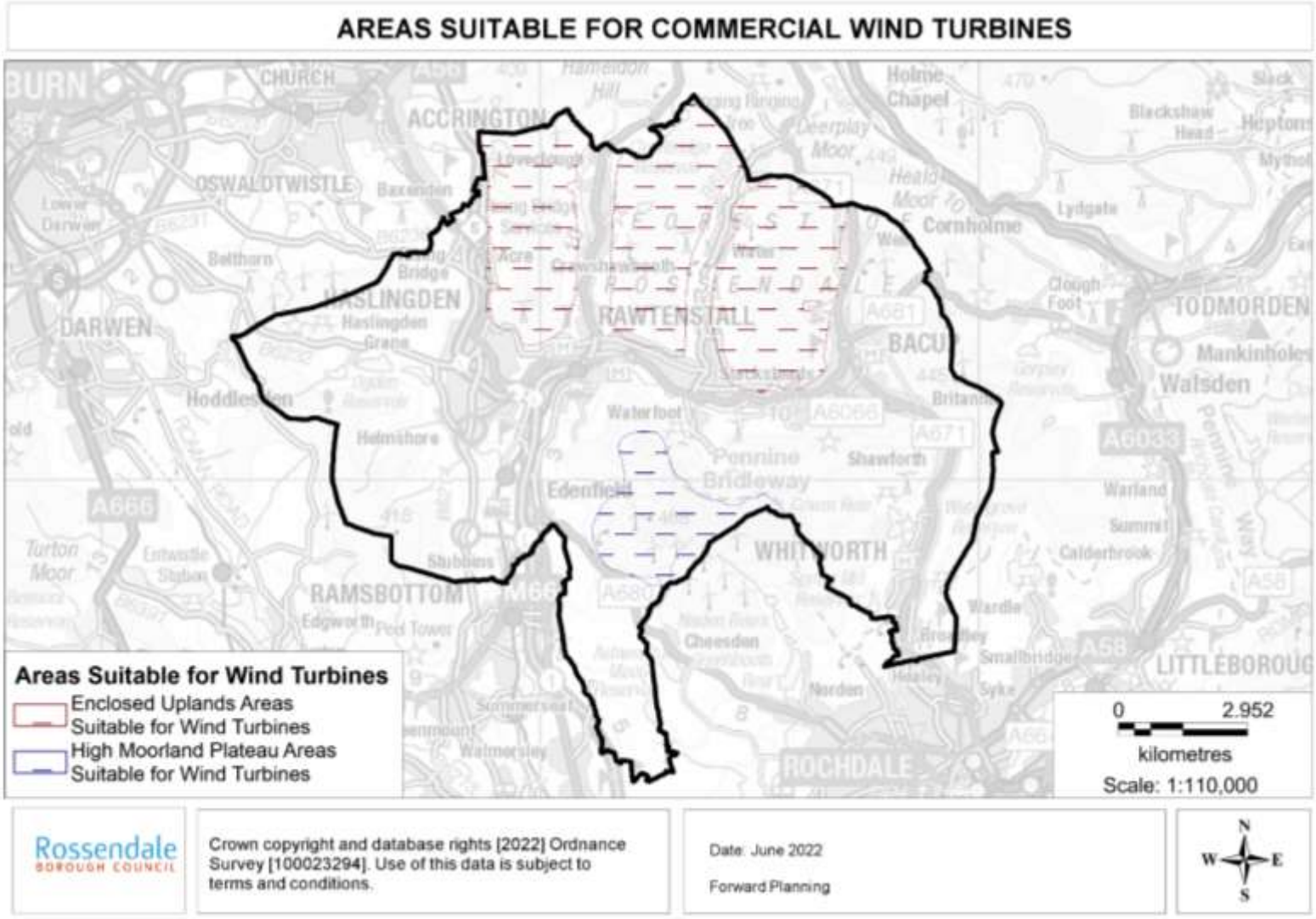
Design briefs or design codes will be required for major development and other sites as appropriate to help deliver high quality proposals. The Council will work with developers to address the nature and scope of these documents. The Council will prepare a Design Guide SPD to provide specific advice to developers. An SPD addressing climate change will also be produced. (para 234)

ENV7: Wind Turbines

The policy explains their importance for the reduction of greenhouse gases and thus for slow down climate change. The Local Plan Policies Map identifies areas of search for wind turbines, where wind turbines may potentially be suitable depending on the height of the turbine, compliance with Policy ENV7, and where any planning impacts identified by the affected community have been addressed.

- *All areas of the Borough* are potentially suitable for single turbines of up to 25m.
- *Enclosed uplands areas suitable for wind turbines* – potentially for single and small groups of turbines, up to 59m in height
- *High moorland plateau areas suitable for wind turbines* – for new larger turbines or re-powering of existing, so long as areas of deep and blanket bog are avoided.
- In addition the installation, alteration and replacement of a smaller standalone wind turbine may sometimes be considered as permitted development. Please refer to the planning portal for details of this.

Illustration of these areas are shown below:



Policy ENV9: Surface Water Run-Off, Flood Risk, Sustainable Drainage and Water Quality

The proposed drainage measures should fully integrate with the design of the development and priority should be given to multi-functional sustainable drainage systems SuDS (as opposed to underground tanked storage systems), which contribute to amenity, biodiversity and water quality, as well as overall climate change mitigation.

This explains that the impacts of climate change and more intense rainfall events also need to be taken into account when considering new development. High surface water runoff also contributes to temporary poor water quality.

More detail on natural methods to manage surface water run-off will be encouraged as a priority. The use of permeable surfaces/areas of soft landscaping, the use of green infrastructure, and the use of natural flood management measures in upland areas will all be supported where appropriate, working together with relevant partners. More detail on this will be contained in the forthcoming Climate Change SPD.

SuDS can include a variety of natural surface water management and could include innovative approaches such as green roofs, grey water management and bio-retention tree pits. Further guidance on this will be contained in a future Climate Change SPD.

Policy ENV10: Trees and Hedgerows

Trees and hedges also have an important role in management of climate change including urban cooling effects.

Policy TR4: Parking

Incorporating charging points for electric vehicles in new parking areas can encourage the uptake of electric vehicles and help achieve a number of associated environmental benefits, including reduced contributions to climate change and improvements to air quality (para 316).

3. Reducing the dominance of fossil-fuelled vehicles via encouraging sustainable and more active transport.

It is vital for not only climate change, but also people's health, that we promote more sustainable transport modes. Transport in Rossendale accounts for 35% of the total carbon dioxide emissions in the Borough[3]. This is down by 10% since 2005[4]; however, this will need to accelerate if net zero targets are possible in both Rossendale and the wider U.K. contexts.

Within Rossendale, the rural nature of the Borough will likely lead to more people having to use a vehicle to get around. However, 60% of all journeys by car are between 1-2 miles in length[5] and there is, therefore, potential to reduce our emissions by incorporating sustainable transport options and making them more appealing to residents. Cycling rates are low in Rossendale, with 10% of the population cycling once per month and only 2% three times per week[6], so it is important that cycling is encouraged if the Council is to meet its net-zero target by 2030. Given the Net-Zero target and the fact that UK transport emissions have not decreased since the 1990s, developments must encourage greener and more active transport alternatives.

Following adoption of the Local Plan, Rossendale has committed to improving transport through a variety of mechanisms. These include improving transport links to reduce congestion, support for a commuter service on the East Lancashire Railway, and developing a strategic cycle network, which will aid in reducing harmful pollutants from fossil fuel burning as well as reducing the Borough's carbon footprint.

Credit: Sustrans

[3] Atkins (2021), Lancashire Net Zero Pathways

[4] BEIS. (2020). UK local authority and regional carbon dioxide emissions national statistics: 2005-2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894788/2005-18-uk-local-regional-co2-emissions.ods

[5] Lancashire County Council. (2022). Active Travel in Lancashire. https://www.lancashire.gov.uk/roads-parking-and-travel/active-travel/

[6] DfT. (2021). Walking and Cycling Statistics. https://www.gov.uk/government/collections/walking-and-cycling-statistics

Link to Local Plan

Chapter 6: Transport, Strategic Policy TR1: Strategic Transport

- Support for opportunities that enhance the borough's external and internal connectivity.
- Encouragement for the reduction of travel.
- Work with partners both inside and outside the borough.

Guidance on how to apply this policy

In order to achieve this reduction of road traffic, it will be vital to provide a mixture of walking and cycling options, whilst also providing developments where local amenities are accessible. This will include a variety of local services that support not just residential, but also community and leisure facilities and create a strong community environment. Encouraging 'liveable neighbourhoods' (see Figure 1), where services are close and the need to use the car is reduced, will bring a variety of benefits, including cleaner air, healthier communities, and better resilience to climate change.

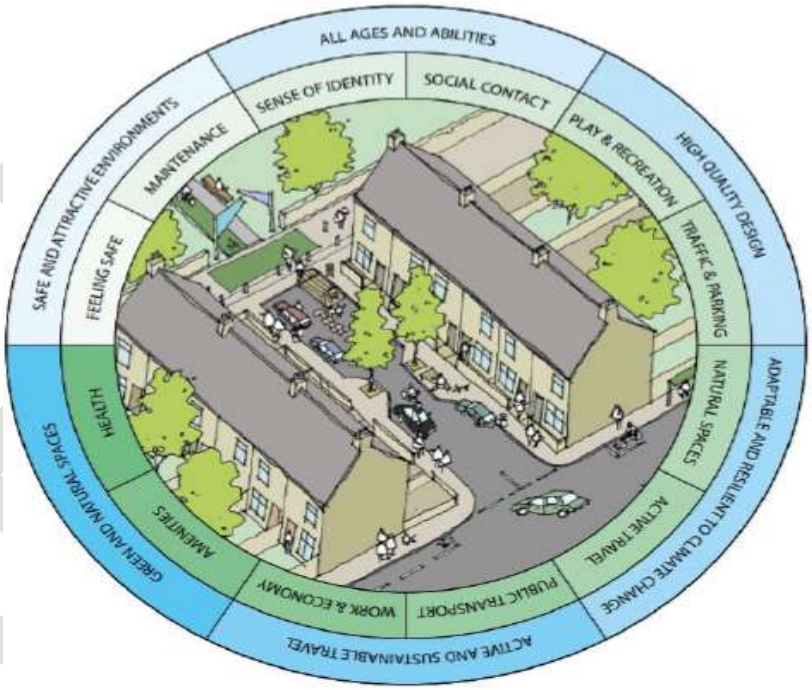


Figure 1: TCPA (2021), 20-minute neighbourhood

Increasing walking and cycling within neighbourhoods

Developments should provide permeable networks that encourage walking and cycling. This will not only lead to a reduction in carbon emissions but will see healthier communities through more active travel, and reduced air pollutants. Vehicle pollutants such as Nitrogen Oxides (NO_x) and

Particulate Matter are harmful to human health at low exposure[7] and contribute to a proportion of mortalities locally. In Rossendale, this proportion is 4% (and is above the Lancashire average of 3.9)[8], so it is vital to reduce these emissions to improve the health of the community.

To achieve this reduction, we will need developments that encourage movement; the National Design Guide[9] cites this as one of their ten characteristics for a well-designed place. It will be necessary to make Rossendale a place where cycle routes are easily accessible, safe to use, attractive and well maintained, as per Lancashire County Council (LCC)'s Local Cycling and Walking Infrastructure Plans (LCWIP) and central government's Cycling and Walking Investment Strategy[10]. Rossendale is part of LCC's Plan, which will identify cycling and walking infrastructure improvement for future investment, and will ensure that consideration is given to both cycling and walking within both local planning and transport policies.[11]

Credit: Lancashire Telegraph

It will be important that cycleways and walkways integrate with the pre-existing local routes, rather than the traditional cul-de-sacs and winding roads (see Figure 2). This will result in areas that would naturally calm traffic and create more visibility for residents. The latter is particularly important, given that 24% of people do not cycle due to road safety concerns[12]. Active travel needs to be an integral part of future neighbourhoods, with cycling made a more viable option. In Cambridge, the area with the highest proportion of cyclists (48% who cycle once a week[13]), found that convenient cycle routes are a key factor in how residents decide to travel.[14]

[7] WHO. (2021). Ambient (outdoor) air pollution. https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health

[8] Lancashire County Council. (2022). Monitoring of air quality and health impacts - Air quality monitoring in Lancashire. https://www.lancashire.gov.uk/lancashire-insight/environment/monitoring-of-air-quality-and-health-impacts/.

[9] Department for Levelling Up, Housing and Communities. (2021). National design guide - GOV.UK (www.gov.uk)

[10] DfT. (2017). Cycling and Walking Investment Strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918442/cycling-walking-investment-strategy.pdf

[11] LCC. (2022). Local Cycling and Walking Infrastructure Plans. https://www.lancashire.gov.uk/council/strategies-policies-plans/roads-parking-and-travel/cycling-and-walking-strategy/

[12] DfT. (2020). Walking and Cycling Statistics, England: 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906698/walking-and-cycling-statistics-england-2019.pdf

[13] Sustans. (2019). Bikelife 2019 – Greater Cambridge. https://www.sustrans.org.uk/media/5949/bikelife19_greater-cambridge_web.pdf

[14] Panter, J., Griffin, S., Jones, A. … Ogilvie, D. (2011). Correlates of time spent walking and cycling to and from work: baseline results from the commuting and health in Cambridge study. *Int J Behav Nutr Phys Act* **8,** 124. https://doi.org/10.1186/1479-5868-8-124.

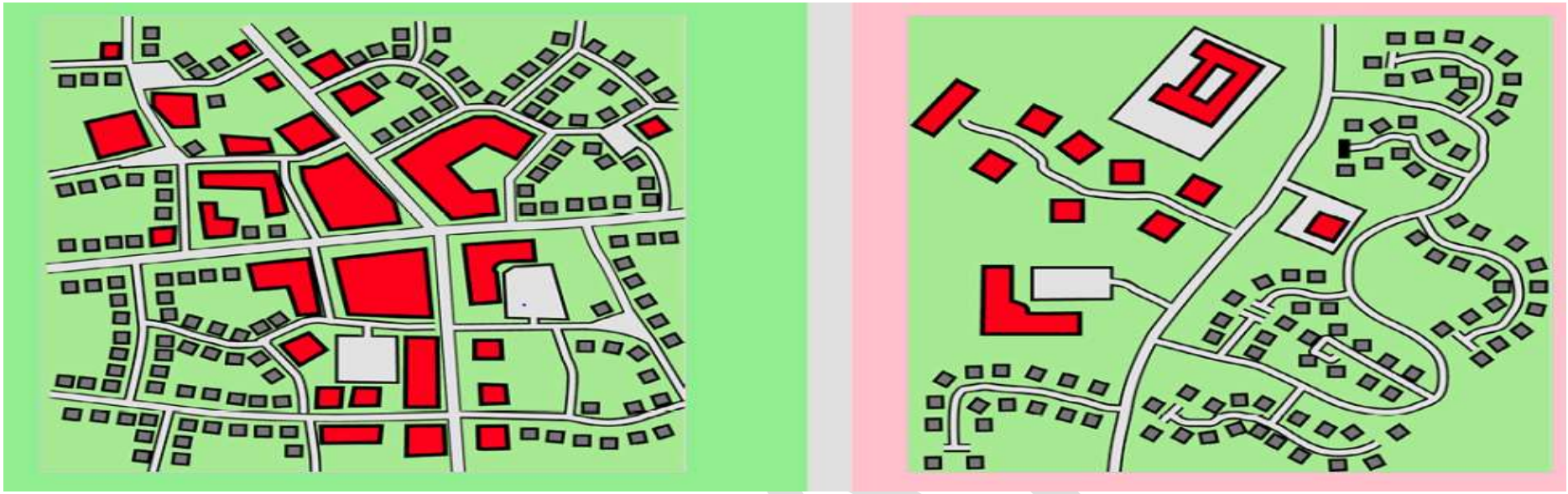


Figure 2: Interconnected streets vs. cul-de-sac (Make Space for Cycling, 2021).

Therefore, any new development in the area will need to create connections to pre-existing or future cycleways, walkways and public rights of way network in Rossendale. Appendix A shows two examples of active travel routes within Rossendale, so any developments along this area would be required to have connections to this network. This will encourage connected neighbourhoods with better cohesion, reduce dependency on the private cars for short journeys, and allow for easier access to employment, health, retail, leisure and education. By encouraging more cycling within communities, these interconnected roads will help the Council to cut carbon emissions by incorporating the following features:

- Low Traffic Neighbourhoods where temporary or permanent barriers – called 'modal filters' - reduce traffic (Figure 3). This will make residential streets more pleasant, inclusive and safer for active transport. We would expect design to take into the Government's Cycle Infrastructure

Design guidance (LTN 1/20), which requires a coherent, direct, safe, comfortable and attractive option for cyclists. As per the Government's advice, there must also be consideration given to the inclusion of cycle parking, particularly in areas where residents cannot store their bikes at home. This parking should consider the deterrence of cycle theft – particularly for e-bikes – so it will be required to provide safe, secure and convenient parking in all developments. LTN 1/20 also specifies that cycles should be treated as vehicles and separated from pedestrians wherever possible. The provision of segregated routes for cycling within new developments especially of a significant size should be a priority.

Figure 3: Low traffic interventions (Sustrans, 2021)

Electric Vehicle Charging

In alignment with the Local Plan (policy TR4) – alongside the U.K. ambition to ban the sale of new petrol and diesel cars by 2030[15] - new developments must consider Electric Vehicle (EV) charging points in order to facilitate this transition.

As per the policy, the council will expect the following as a minimum:

- One charger per every five apartment dwellings (minimum 7kW with universal charger[16]);
- One charger per every individual new house (minimum 7kW with universal charger);
- This applies to any dwelling created, including changes of use, sub-divisions of existing dwellings
- One charger per every ten parking spaces in non-residential car parks, such as supermarkets, shopping centres or public car parks. These should be rapid chargers (43kW or greater), so to help users fit charging into their daily routines as well as aiding with charger anxiety.

[15] DfT. (2021). Outcome and response to ending the sale of new petrol, diesel and hybrid cars and vans. https://www.gov.uk/government/consultations/consulting-on-ending-the-sale-of-new-petrol-diesel-and-hybrid-cars-and-vans/.

[16] HM Government. (2019). Electric Vehicle Charging in Residential and Non-Residential Buildings. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/818810/electric-vehicle-charging-in-residential-and-non-residential-buildings.pdf

4. Improving energy efficiency and promoting renewables in the Borough

In 2019, Rossendale's domestic properties emitted 119ktCO_2, which is 34% of the Borough's total emissions. This compares to the U.K. average of 27% for this sector[17], so we need to improve energy efficiency and lower dependency on fossil fuels just to bring our average more in line with the rest of the U.K.

In terms of domestic properties, energy efficiency presents a significant challenge in the Borough due to the age of the properties. Around 37% of the properties were built before 1900[18] - compared to 15% nationally – that will have poorer standards than modern buildings. Age is the most significant factor associated with energy efficiency, ahead of fuel and property type. Almost all homes built since 2012 have high-energy efficiency ratings compared with 12% of assessed homes built before 1900 in England.[19] This correlates to the poor EPC ratings across the borough, with around 60% of homes being D or E rated[20] and so are more inefficient. As Figure 4 demonstrates, older homes will use more energy for heating, as opposed to modern properties where the energy requirements are equal.

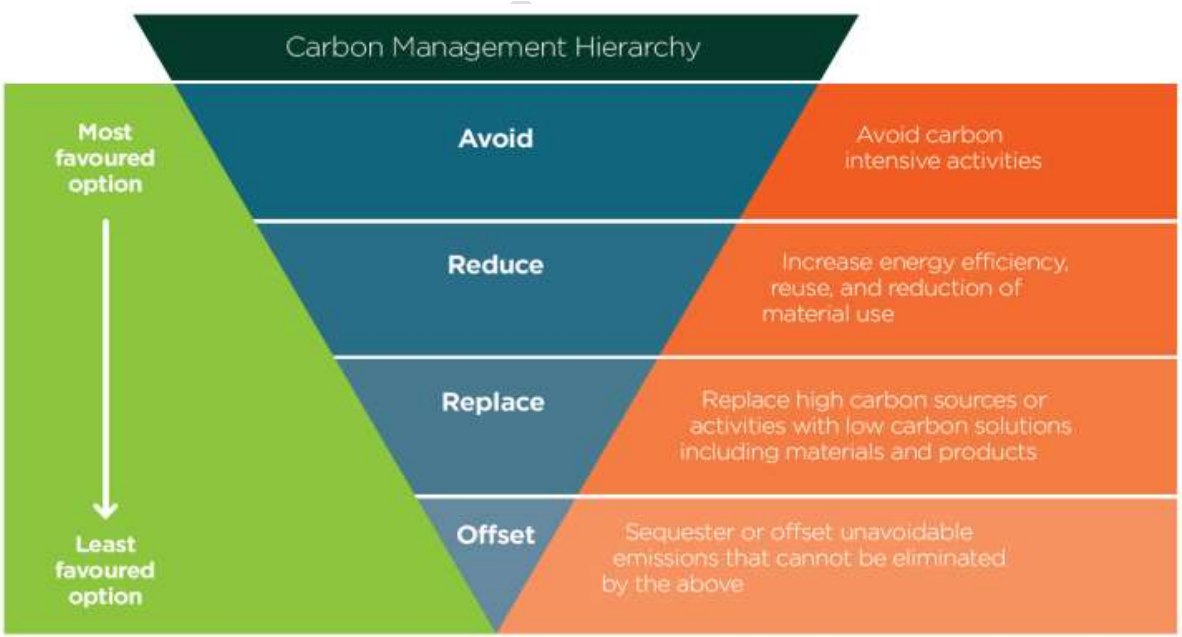
For both new and old dwellings, improvements to properties are necessary to lower our reliance on fossil-fuelled heating. For this,

Figure 4: Energy Hierarchy (North London Waste Authority, 2022)

[17] BEIS. (2021). UK local authority and regional carbon dioxide emissions national statistics: 2005-19. UK local authority and regional carbon dioxide emissions national statistics - GOV.UK (www.gov.uk)
[18] Local Government Association (2022), Understanding Local Housing Markets. http://resi-analysts.com/wp-content/uploads/LGA/Reports/Rossendale.pdf
[19] ONS (2022), Age of the property is the biggest single factor in energy efficiency of homes. https://www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/ageofthepropertyisthebiggestsinglefactorinenergyefficiencyofhomes/2021-11-01
[20] Local Government Association (2022), Understanding Local Housing Markets. http://resi-analysts.com/wp-content/uploads/LGA/Reports/Rossendale.pdf

we advise adoption of the carbon management hierarchy displayed in Figure 5; however, retrofit may be outside of planning, but information on this is available on the planning portal.

Figure 5: Energy Hierarchy (North London Waste Authority, 2022)



Link to Local Plan

Policies ENV1, 7 & 8:

- Developments need to maximise energy efficiency and be adaptable to climate change.
- Support the generation of energy from renewable or low-carbon sources.

Reducing Carbon Emissions

The U.K. government has set out in the Clean Growth Strategy, a commitment to consult on improving energy efficiency requirements for new homes when cost-effective and affordable opportunities present themselves. In 2019, the government announced the Future Homes Standard, with a target date of 2025, which aims to make all future homes "net zero ready". In the meantime the Building Regulations have been amended (June 2022), specifically to introduce an uplift in building regulations ahead of the Future Homes and Future Building Standards being introduced.

The Building Regulation changes introduced 15 June 2022

Although transitional arrangements are in place for any applications submitted prior to 15 June 2022, all applications submitted on or after this date are subject to the new Standards. The uplift to Part L (Conservation of Fuel and Power) and F (Ventilation) of the Building Regulations and the new Parts O (Overheating) and S (Infrastructure for charging electric vehicles) came into effect on 15 June 2022. The changes to Part L are a steppingstone to the introduction of the Future Homes Standard in 2025, which is an important contribution to the Government's target to meet net zero emissions by 2050. The Chief Planner has announced that these changes may result in changes to the design of buildings, some of which may result in amended planning applications being submitted and lists the following examples[21]:

- The new overheating requirement (Part O) will necessitate shading and change the amount of glazing in some building designs.

[21] Department for Levelling Up, Housing and Levelling Up. (2022). Chief Planners Newsletter 31 May 2022 (publishing.service.gov.uk)

- Part O also requires openable windows that pose a risk falling from height to have a minimum guarding height of 1100mm. This may introduce windows with higher sill heights that are wider, or guarding measures that will be visible externally.
- To pass the new Part L Target Emission Rate, most new homes will need either heat pumps or gas boilers paired with renewable energy generation such as solar panels.
- To pass the new Part L Target Fabric Energy Efficiency rate, some new homes will need to have more insulation in their walls, which will make them thicker. This may result in some re-planning of plots on sites and occasionally result in a reduction of the number of units. This target rate for fabric energy efficiency may also require a redesign of new homes with room-in-roofs.
- The new infrastructure for charging electric vehicles (Part S) standards will require electric vehicle charge points.

As heat pumps are a scalable solution to the decarbonisation of heat, it will be necessary to promote a fabric first approach to keep energy bills as low as possible, which can apply to both new and existing properties. The approach used to reduce demand and consumption will vary; however, we suggest these will come from the following[22]:

- The 'fabric first' approach (illustrated via Figure 6) – prioritising improvement of thermal properties of the building fabric via high levels of thermal insulation and air tightness. This follows the hierarchy above, where fabric comes first, then followed by subsequence increases of various energy systems (e.g. heating and hot water). If done in a retrofit context, then re-sizing of systems may be necessary, but this should come after the fabric stage (particularly prior to heat pump installation). Other examples of design could also include shading design, natural daylighting, natural ventilation and appropriate sizing of building systems.[23]
- Passivhaus strategies – this is considered to be a high-specification 'fabric first' and must fall within the set specification. This includes:
  - Calculation of the heating demand via the Passivhaus Planning Package, and must be no more than 15kWh/m^2 for heating and/or cooling, or be designed to peak heat load of 10 W/m^2.
  - Total primary energy consumption of no more than 120 kWh/m^2 per year.
  - Air Permeability of the building must not exceed 0.6 air changes per hour at 50 Pa.

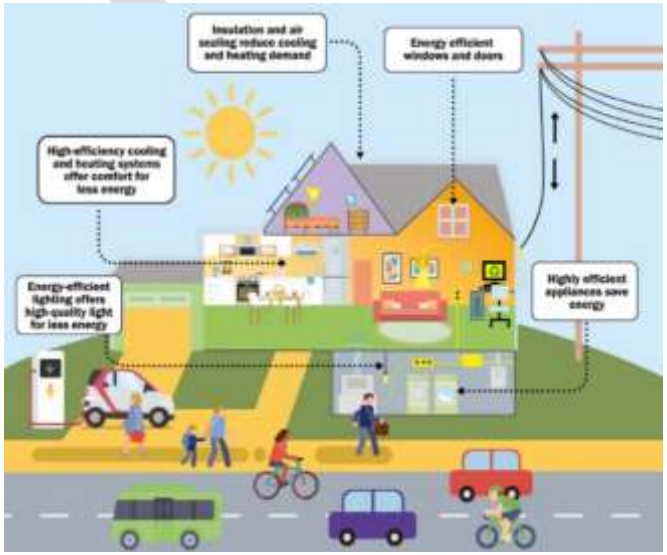


Figure 6: Department for Economy (2022)

[22] Institute for Sustainability. (2012). Retrofit strategies. Key Findings: Retrofit project team perspectives – Analysis of a selection of Retrofit for Future projects. https://www.instituteforsustainability.co.uk/uploads/File/2236_KeySummary03.pdf

[23] CIBSE (2012). Guide F – Energy Efficiency in Buildings. https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q20000008I7oTAAS

- BREEAM standards - Non-residential developments of 1000 square metres or more should as a minimum, meet carbon emissions reductions demanded by the BREEAM 'Very Good' standard.

Heating and Power

As per the energy hierarchy and the measures recommended above, the council will expect the use of appropriate measures and technologies that will enable homes to be efficient. There are parts of Rossendale that would be suitable for wind turbines or solar photovoltaics (PV), so consideration of these technologies will be required for larger developments. Some examples of potential technologies are discussed below:

Solar Technologies – these can include both photovoltaic (PV) and solar thermal panels. Installation is easy on both new and existing buildings, meaning they are versatile and scalable in both domestic and commercial buildings[24]. These could be 'permitted development' with no need to apply for planning permission; however, satisfying various limits and conditions are necessary before a site can benefit from these rights.[25] These will vary depending on whether the project is to a house or a freestanding array; guidance is available on the Government's Planning Portal. Consents will be required in Conservation Areas and for Listed Buildings.

Heat pumps – can work in a number of ways. They take available heat from either the ground, water or air surrounding a property and increase it to a useful temperature in the home. Which option is the most suitable will depend on the individual circumstances of the particular development or property. For example, as Ground Source Heat Pumps take heat from the ground (via boreholes) they will require significant space around the properties. Furthermore, the efficiency and cost of the heat pumps will vary dependent on the efficiency of the property itself[26]. The energy hierarchy and proper interventions (i.e. radiators and insulation) are therefore of key importance.

Hydropower – is an energy harnessed from falling or fast flowing water. This can be from rivers or manmade installations, where water flows from a high-level reservoir down through a tunnel and away from a dam. Turbines placed within the flow of water extract its kinetic energy and convert it to mechanical energy into electricity.[27] For example, Lancaster Co-Housing uses hydro that can generate up to 160 kW of electricity (enough for 200 homes)[28], with the excess sold to the grid through a Feed-in-Tariff and returns

Lancaster Co-Housing (Carbon Copy, 2022)

[24] BEIS. (2013). UK Solar PV Strategy Part 1: Roadmap to a brighter future. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249277/UK_Solar_PV_Strategy_Part_1_Roadmap_to_a_Brighter_Future_08.10.pdf

[25] Planning Portal. (2022). Solar Panels. https://www.planningportal.co.uk/permission/common-projects/solar-panels/planning-permission

[26] Renewable Energy Hub. (2021). https://www.renewableenergyhub.co.uk/main/heat-pumps-information/is-my-property-suitable-for-a-heat-pump/

[27] BEIS. (2013). Harnessing hydroelectric power. https://www.gov.uk/guidance/harnessing-hydroelectric-power

[28] 8-Lancaster Cohousing-V2 (vimeo.com)

made for those who invest within the cooperative. This, along with solar panels has helped reduced carbon from the site by an estimated 540t of CO_2 annually.

Biomass – via boilers or wood-fuelled heating systems, which use logs, woodchips and wood pellets. However, it is necessary to consider the potential disturbance on protected species, the impact of chimneys, storage of fuel and the impact of your chosen fuel. Furthermore, the wood sourced should be as local as possible, as transport has shown to contribute up to 60% of the total emissions[29].

Low carbon district heat network - Where possible, homes and buildings should connect to an existing or planned district heat network. District heating networks supply heat to multiple buildings from a central heat source or energy centre through a network of pipes and heat exchangers. District heating schemes are more viable in new developments due to the incorporation of civil works on site and provide a more carbon efficient means of energy supply than individual heating systems. The system should incorporate low-carbon technologies such as heat pumps.

Battery storage – this is used to overcome fluctuations in the generation of electricity from wind or solar energy, and planning applications are coming forward.

On-site renewables

New developments will be required to generate a minimum of 10% of energy needs from onsite renewables. This will apply to all developments of 10 homes or more and to non-residential developments in excess of 1000 square metres.

Solar technologies are a prime candidate for use in generating the required renewable energy threshold. However, wind turbines, hydropower or heat pumps – or a mix of technological solutions - might be appropriate to the development.

Greater in-built energy-efficiency will make the target of 10% easier to achieve.

Existing Homes

As stated previously in this document, the life-cycle approach is vital to understanding emissions, so there will be need for a 'whole building approach'. For historic buildings, this will require finding balanced solutions that save energy, maintain heritage significance, and maintain a comfortable environment[30]. For all buildings, there are varieties of low-cost measures that are compatible. The following are important considerations:

[29] Paletto, A., Bernardi, S., Pieratti, E., Teston, F., Romagnoli, M. (2019). Assessment of environmental impact of biomass power plants to increase the social acceptance of renewable energy technologies, Heliyon, 5 (7) https://doi.org/10.1016/j.heliyon.2019.e02070.

[30] Historic England. (2018). Energy Efficiency and Historic Buildings - How to Improve Energy Efficiency. https://historicengland.org.uk/images-books/publications/eehb-how-to-improve-energy-efficiency/heag094-how-to-improve-energy-efficiency/

- Understanding the building's original heat, cooling and ventilation before additional measures are included. This will aid in understanding what interventions are suitable and how they may affect your building's thermal performance. To understand this, you must consider the building's thermal envelope, which includes everything that shields your home from the outdoors[31].
- Addressing damp and draught problems, which may require Building Regulations, but not necessarily planning permission.
- In addition, having an understanding that any interventions that improves air tightness may increase moisture levels, so adequate ventilation will need managing to stop any extra damp.

The following measures would cut energy emissions in dwellings, and would not require planning permission:

- Reducing energy demand through cost-effective measures such as installation of curtains and carpets, with the latter reducing your energy needs by around 10%[32].
- Draught proofing, particularly around doors and windows, can also improve the thermal performance of your building.

[31] IECC. (2019). What is a buildings thermal envelope? https://www.ieccode.com/2019/08/22/what-is-a-buildings-thermal-envelope/
[32] Department of Energy. (2021). Energy efficient window coverings. https://www.energy.gov/energysaver/energy-efficient-window-coverings

5. Water interventions

The Rivers Irwell and Spodden run through Rossendale, so considerable areas lie within Flood Zones 2 & 3[33]. The towns in Rossendale have a long history of flooding from the river, urban drainage and from surface run-off from fields and moorlands. During the Boxing Day Floods (caused by Storm Eva), more than 350 properties in Rossendale flooded on 26 December 2015 due mainly to surface water flooding[34]. This will worsen with Climate Change[35]. Flood maps showed that around 650 properties were at risk of flooding in a report published in 2009, and this is to increase to 1,000 properties by 2100.[36]

Credit: Robert Wade

Link to Local Plan

Chapter 4: Environment

Policy ENV9: Surface Water Run-Off, Flood Risk, Sustainable Drainage and Water Quality. Developments should be aware:

- All development proposals will be required to address flood risk from all sources (including from rivers, surface water, infrastructure failure and groundwater).
- Planning permissions for proposals cannot include unacceptable flood risk, or materially increase risks elsewhere.
- Proposals should include the most up-to-date Flood Risk available from the Environment Agency, the Strategic Flood Risk Assessment, the Lead Local Flood Risk Authority and the sewage undertaker.
- Development proposals are required to manage surface water using the drainage hierarchy in Figure 7. Applicants wishing to discharge surface water into a public sewer will need to submit evidence demonstrating why alternative options are not possible.
- In early design phases, applicants will have to incorporate sustainable drainage systems and consider surface water management.

[33] UK Government. (2022). Flood map for planning. Find location - Flood map for planning - GOV.UK (flood-map-for-planning.service.gov.uk)
[34] Rossendale Borough Council. (2016). Strategic Flood Risk Assessment 2016 | Rossendale Borough Council para 3.6.3
[35] Environment Agency & DEFRA. Environment Agency sets out roadmap for more flood and climate-resilient nation - GOV.UK (www.gov.uk)
[36] Environment Agency. (2009). Irwell Catchment Flood Management Plan. https://assets.publishing.service.gov.uk/

New developments shall incorporate appropriate Sustainable Drainage Systems (SuDs) in accordance with National Standards for Sustainable Drainage Systems[37].

Guidance on how to comply with policies

As directed by local and national policy, the key aim should be to manage flood risk by developing in areas with low flood risk and to ensure that there is no risk of flooding elsewhere. The following additional guidance is below:

- Where site-specific flood risk assessments are required, developers should consider future sources of flooding, alongside the potential increase of flooding expected as a result of climate change. Allowances for climate change are available from the Environment Agency (EA)[38].
- Use should be made of the EA's pre-application planning service[39] and the Lancashire LLFA Planning Advice Service[40]. Future planning advice on surface water by the LLFA is also expected this summer and should be considered before the submission of a planning application.

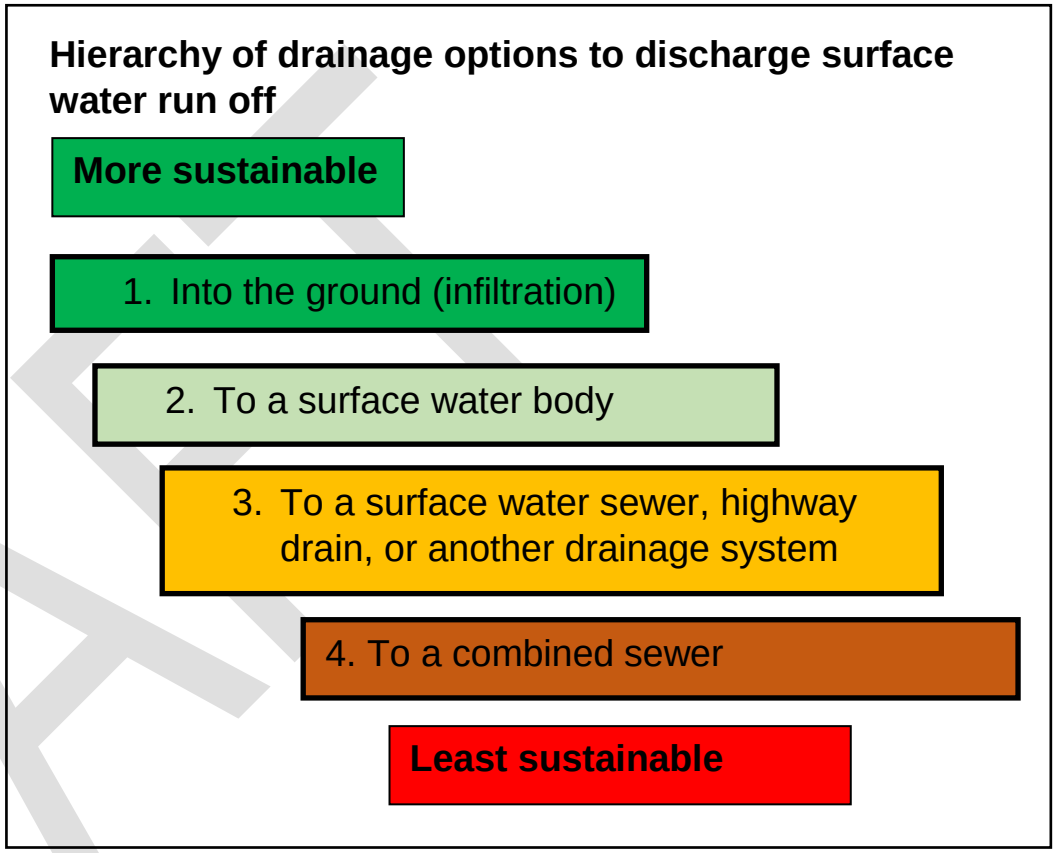


Figure 7: Hierarchy of drainage options to discharge surface water run off based on Planning Practice Guidance for flood risk and coastal change, Paragraph 080

[37] Department for Environment, Food and Rural Affairs. (2015). Non-statutory technical standards for sustainable drainage systems. Retrieved from: https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards

[38] Environment Agency. (2022). Flood risk assessments: climate change allowances. Retrieved from: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

[39] Natural England, Environment Agency. (2018). https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals.

[40] LLFA pre-application advice for surface water and sustainable drainage systems - Lancashire County Council

- As stated, preference should be to develop in lower risk areas (eg flood zone 1 and areas identified as at very low risk of surface water flooding[41]). Please note that risks may increase with climate change. Where unavoidable, development should be safe through its lifetime and not increase risk elsewhere. Furthermore, buildings should include measures to avoid flooding; however, these designs should not justify the development in high-risk areas (as per the Planning Practice Guidance[42]).
- To increase the resilience of the development, especially for vulnerable developments in flood zone 2, the following should be implemented [43]:
    - The finished floor levels should be a minimum of whichever is higher of 300mm above the average ground level of the site, adjacent road level to the building or estimated river flood level.
    - Doors, windows and other openings should be flood resistant.
    - Installation of flood resistant materials and electrical equipment.

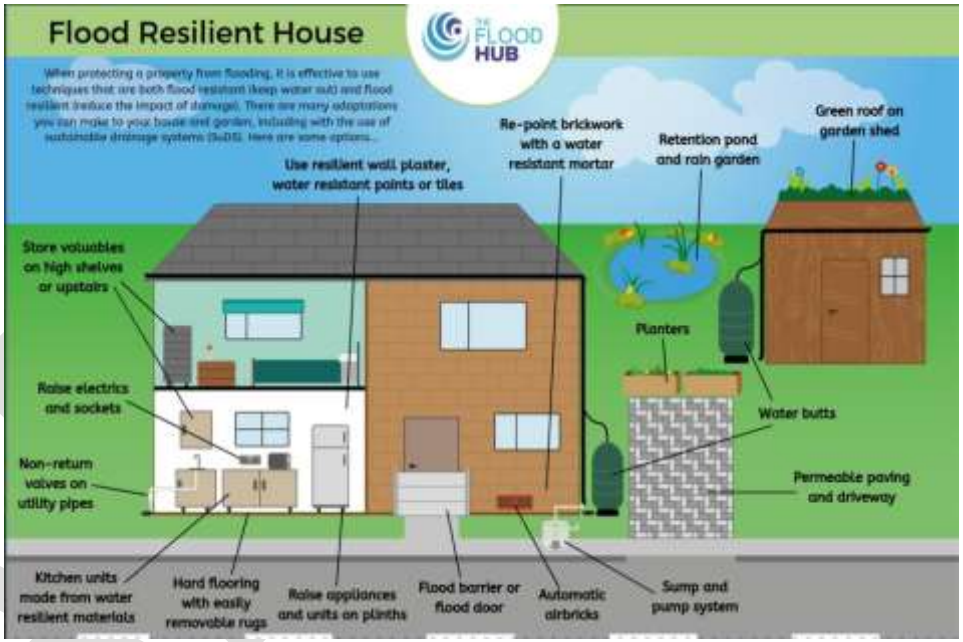


Figure8: Flood Resilient House (The Flood Hub, 2020)

- Flood-resistant construction can prevent entry of water or minimise the amount that water may enter where there is short duration flooding with depths of 600mm.[44]
- The Department for Communities and Local Government *Improving the Flood Performance of New Buildings: flood resilient construction (2007)* gives guidance to improve the resilience of new properties in low or residual flood risk areas. An option is to use flood durable materials that provide easy draining and drying[45]. Boundary walls and fencing should have flood resistant barriers.
- Impermeable surfacing can lead to significant accumulation of surface water, so developers should prioritise permeable surfaces alongside other interventions (see Figure 8). If you are planning to cover an area of your front garden by a hard surface of more than 5 sqm which is not made of porous materials than water run-off should be directed to a permeable area within the curtilage of the house, if not, you will need to apply for planning permission.

[41] Environment Agency (2022). https://check-long-term-flood-risk.service.gov.uk/map
[42] Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government. (2021). Flood risk and costal change https://www.gov.uk/guidance/flood-risk-and-coastal-change#making-development-safe-from-flood-risk. Paragraph 054 Reference ID:7-054-20150415
[43] Environment Agency and DEFRA. (2022). Preparing a flood risk assessment: standing advice https://www.gov.uk/guidance/flood-risk-assessment-standing-advice
[44] Planning Practice Guidance, Paragraph 059: Reference ID: 7-059-20140306.
[45] Ministry of Housing, Communities and Local Government. (2007). Improving the flood performance of new buildings: flood resilient construction. https://www.gov.uk/government/publications/flood-resilient-construction-of-new-buildings

- Historic England also provides some examples of what can be done in flood-risk areas to make older homes more resistant and resilient to flooding by[46]:
    - Adding brick covers to prevent water entering through ventilation holes.
    - Adding floorboards to doorways.
    - Installing temporary flood barriers, consisting of interlocking units.
    - Avoiding coatings, tanking and other 'waterproofing products that trap moisture and slow drying rates.

Sustainable Drainage Systems (SuDSs)

SuDS are designed to both manage the flood and pollution risks resulting from urban runoff, reducing pressure on the sewerage network, and to contribute wherever possible to environmental enhancement and place making. With this in mind, the multi-functionality and multiple benefits of SuDS must always be considered[47]. As per Policy ENV9 of the Local Plan, this is a vital part of the application process and alternatives are only acceptable where it is impractical or there are other exceptional circumstances. An example of this and other case studies are available via Figure 9 and 10. Appropriate allowances for climate change (in accordance with national EA guidance) and urban creep such as paving of front garden, extension to buildings (10% required by LLFA) must be included when designing SuDS

Guidance for SuDSs are available on the Flood Hub website[48] and Appendix D shows a draft Pro-Forma expected to be received for planning applications for major developments. Lastly, Lancashire County Council as the Lead Local Flood Authority offers a surface water planning advice service.

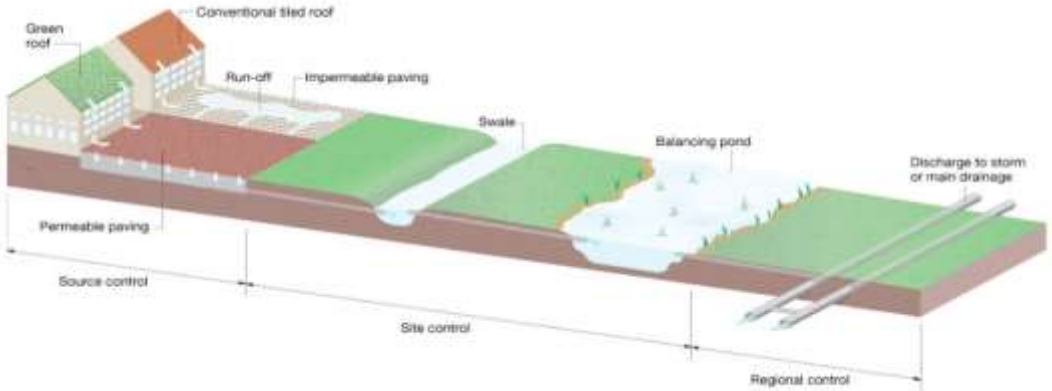


Figure 9: SuDS example (PermCalc, 2022)

[46] Historic England. (2022. Making your home flood resistant and resilient. https://historicengland.org.uk/advice/your-home/flooding-and-older-homes/making-your-home-flood-resistant-and-resilient/
[47] Local Government Association. (2022). Sustainable drainage systems | Local Government Association
[48] North West Regional Flood & Coast Committee. (2022). North West SuDS Pro-Forma Template for Supporting Guidance. Retrieved at: https://thefloodhub.co.uk/wp-content/uploads/2022/05/NW-SuDS-Pro-forma-Guidance-v5.-May-2022-002.pdf

East Ordsall Lane, Salford

This project (Figure 10) features an innovative use of interpretation to help explain the scheme, but also to help better inform and educate for other SuDSs schemes. The scheme includes the following:

- Seven retrofit SuDS trees – correctly chosen to maximise opportunities for air pollution.
- Two bioretention features. Water from the carriageway is conveyed from the kerb drainage collection system
- Geo-cellular system to provide better attenuation through suitable soil, which provides abundant source of water for trees.
- Permeable to all water to drain into root system through perforated pipes.
- An education system that allows residents to understand the completed work and its benefits.

This scheme has led to a reduction in water entering the sewers, whilst also preserving the rainwater for biodiversity growth instead of requiring fresh water. It also demonstrates how SuDSs are possible at the micro scale, as opposed to simply having large and complex schemes that may limit the viability of a development.

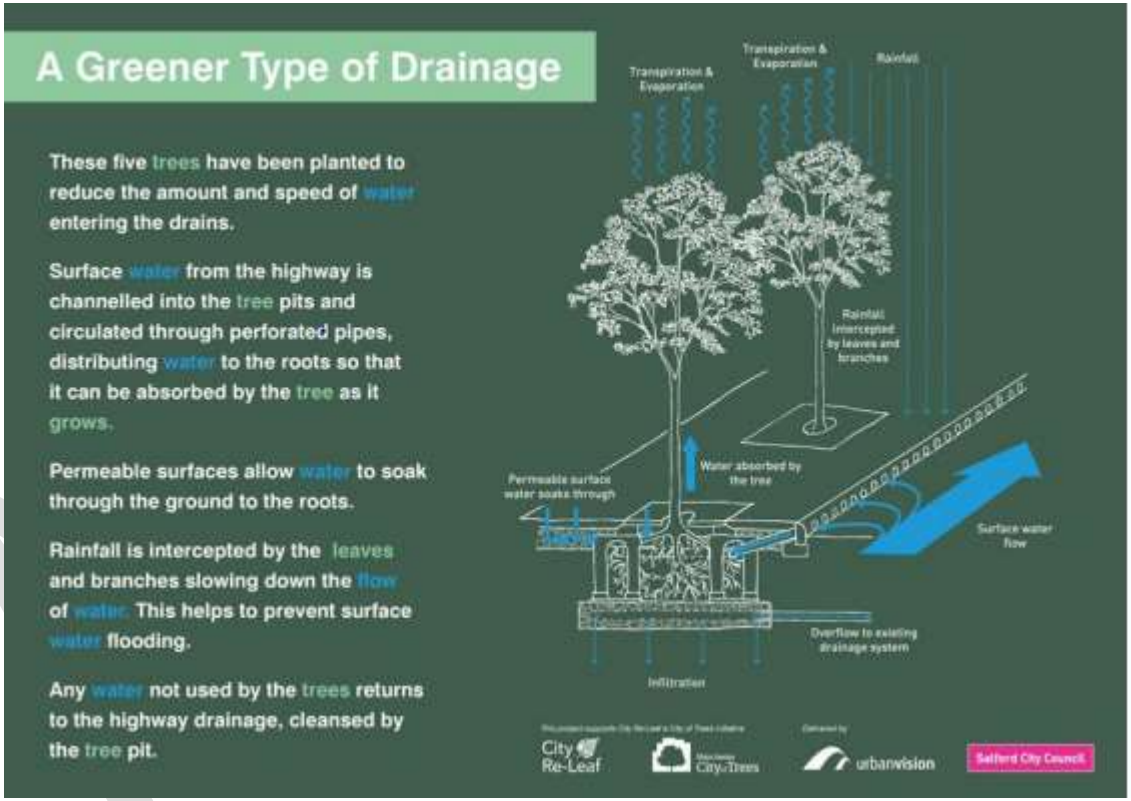


Figure 10: Salford SuDS example (Susdrain, 2022)

6. Biodiversity and Green Infrastructure

Green infrastructure is defined in the National Planning Policy Framework (NPPF) as "A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity".

The Borough has an extensive network of public rights of way covering 660 km and cycle routes extending to 64km with connections to neighbouring boroughs. Rossendale is also reasonable reach in biodiversity with 3 Sites of Special Scientific Interest, 7 Local Geodiversity Sites, 52 Biological Heritage Sites, one Local Nature Reserve as well as 3 ancient woodlands, river valleys and other priority habitats, known as s41 habitats. Section 41 of the Natural Environments and Rural Communities Act (2006) directs Local Authorities to have regard to the conservation of habitats of priority for the conservation of biodiversity. These include threatened, rare and sensitive habitats such as hedgerows, acidic grassland, native species broadleaved woodland, blanket bogs etc.[49]

Figure 11: Building with wildlife in mind (Wildlife Trust, 2018)

Links to the Local Plan:

The protection and enhancement of the Borough's green infrastructure and its crucial role in mitigating and adapting to climate change is set out in the vision, objectives and strategic priorities of the Local Plan. The Local Plan aims to protect and enhance the Borough's landscapes and natural assets for their ecological, recreational and economical values including their role in tackling climate change. This is further highlighted in one of

[49] Environmental Network Study available to download at https://www.rossendale.gov.uk/downloads/download/10821/environmental_network_study_2017

the objectives of the Plan to reduce the impact and adapt to climate change by promoting and protecting the Borough's green infrastructure alongside other measures (e.g. flood prevention measures, SuDS, renewable energy projects and sustainable travel). The enhancement of green infrastructure is also one of the strategic priorities of the Plan and so buildings must consider wildlife and biodiversity (as per Figure 11).

Policy ENV3: Landscape Character and Quality

- Rossendale has a distinctive landscape, so the Council expects development proposals to conserve and, where possible, enhance the natural and built environment.
- Developments should retain existing watercourses, trees and green infrastructure that make a positive contribution to the area.

Policy ENV5: Green Infrastructure Networks

- Development proposals should support the protection, management and enhancement of the Borough's green infrastructure
- Schemes that improve the integrity and connectivity of the green infrastructure network will be supported
- The principle to first avoid any negative impacts, then mitigate impacts and as a last resort compensate for them applies
- If a net loss of green infrastructure on the development site cannot be avoided, schemes could be permitted if:
    - the function and connectivity of the network should nonetheless be retained or replaced;
    - New or enhanced elements should be integrated in the development such as natural greenspaces and trees;
    - The proposals do not have any unacceptable impact on amenity, surface water or nature conservation.
- Wherever possible new green infrastructure provided should maximise the functions and benefits of the existing network

Policy ENV10: Trees and Hedgerows

- Development proposals must seek to avoid the loss of, and minimise the risk of harm to existing trees, woodland, and/or hedgerows of visual or nature conservation value.
- Where trees and/or woodlands are to be lost as a part of a development, this loss must be justified as part of an Arboriculture Implications Assessments (AIA) submitted with the application.
- Developments should, where appropriate:
    - Not result in loss of trees or woodland which are subject to a Tree Preservation Order or which are worthy of protection.
    - Not involve building within the canopy or root trees, woodlands or hedgerows, except when construction is in accordance with the most up-to-date British Standard.
    - Make a positive contribution to Green Infrastructure and/or biodiversity.
    - Ensure incorporation of trees into the design of new streets, or otherwise, to support the Rossendale Forest and community orchards.

The green and blue infrastructure are shown separately on the Policies Map 2021 (see Figure 12 for an extract of the Policies Map) however green infrastructure includes blue infrastructure as described in the NPPF definition.

The green infrastructure shown in Figure 12 comprises Rossendale Grassland and Woodland Ecological Network as defined by the Lancashire Ecological Network Maps and some former 'greenlands' sites from previous Local Plans. A Wetland and Heath Network is being progressed by LERN, which may come later. The Rossendale grassland and woodland networks comprise of Core Areas, which are sites designated for their ecological value at the national or county level and of corridors. The corridors fall into three categories: linear corridors (such as woodland strips, hedgerows, rivers and streams), stepping stones (habitats in good condition that provides shelter and enables feeding and resting) and landscape corridors (mosaic of habitats enabling species to move between areas). These categories are not on the Policies Map, but are available on the Rossendale Ecological Network maps[50]. The blue infrastructure in Figure 12 comprises lakes, reservoirs, rivers and streams.

Figure 13 represents the green infrastructure in the form of a diagram, which identifies a river, valley and rural network and Greenland sites. More information on this is available in the Environmental Network Study[51].

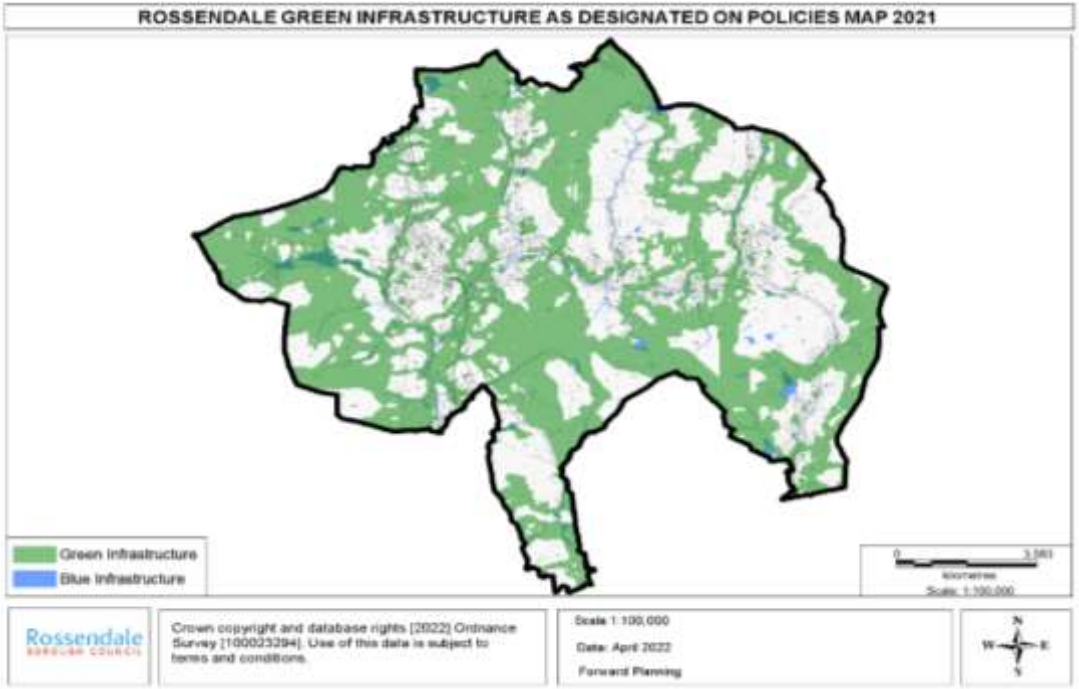


Figure 12: Rossendale Green and Blue Infrastructure Network

[50] Rossendale Borough Council. (2015). Rossendale Ecological Network. https://www.rossendale.gov.uk/downloads/download/11158/lancashire_ecological_network

[51] Rossendale Borough Council. (2017). Environmental Network Study. https://www.rossendale.gov.uk/downloads/download/10821/environmental_network_study_2017

A Landscape Management Plan is required on all large-scale developments as part of the planning application. This Plan will aim to provide information on managing landscape elements within a site for the purposes of enhancing amenity and biodiversity and strengthen its connectivity to the wider landscape. In terms of timescale, the Plan should identify achievable steps over a 30-year timescale so there can be confidence of long-term biodiversity monitoring. Further guidance on how to avoid the loss of biodiversity is available in Policy ENV10 of the Local Plan, which any new development must consider as part of the Planning process application. This long-term vision will provide consistent opportunities to reduce flood risk in the area. This is possible through the drainage hierarchy (Figure 8), alongside the layout of the property (Figure 7).

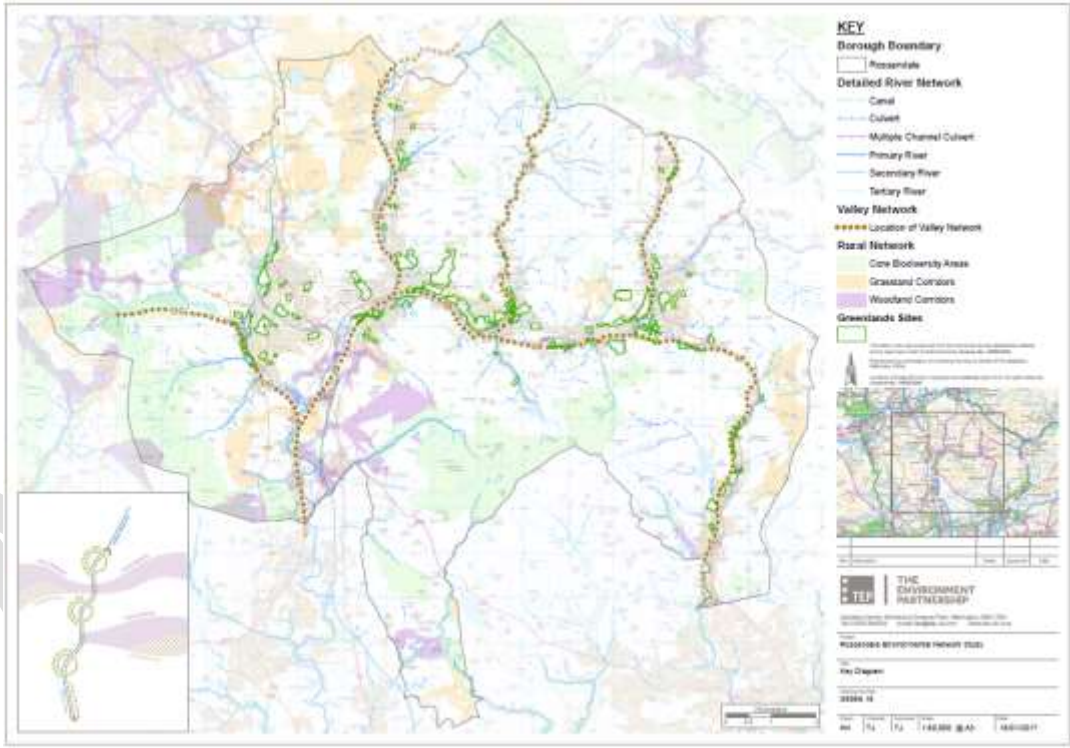


Figure 13: Environmental Network Study Diagram

Guidance on how to apply the policies

Green infrastructure is central to resilience to climate change, as trees, shrubs, grass and other plants can absorb greenhouse gases from the atmosphere, whilst providing habitats and reducing flood risk. The infrastructure itself can also deliver resident benefits by improving active travel choices. General measures on how to improve green infrastructure includes:

- Development proposals should focus on preserving and improving the functions of the rural and valley networks, which include biodiversity, landscape, heritage, carbon-storage, flood resilience and recreation.
- If conservation or improvements are not feasible on the development site, compensating measures including biodiversity net gain offsetting are possible to provide improvements elsewhere in the network.
- Measures to return rivers to a more natural state by de-culverting and re-naturalising riverbanks and flood plains are expected and provide significant opportunities for the creation of high quality blue-green infrastructure and biodiversity net gain. In addition, schemes proposed along waterways (considering a stand-off of 8m) should provide high quality frontages and flood risk management measures.
- Clough woodland should be enhanced and extended whenever possible;
- Development proposals should seek to enhance public footpaths and cycle ways. This is especially important where there are gaps in the existing infrastructure or if it is insecure or unavailable to people with disability. This could also help link urban areas to the countryside. It can

also provide alternative ways of transport by cycling and walking for short journeys. Key routes identified in the Local Plan include the “Valley of Stone Greenway”, the National Cycle Route 6, the Rawtenstall to Clow Bridge Reservoir route, the Pennine Bridleway, the Irwell Sculpture Trail and the Rossendale Way.

- Development proposals should retain and enhance the distinctive valley industrial heritage by providing adequate green infrastructure.
- The Council will encourage measures to manage land more effectively to increase biodiversity and new development proposals must deliver a biodiversity net gain, with demonstration possible via the latest Defra Biodiversity Metric tool.
- Green infrastructure projects that can slow the flow of water such as sustainable drainage systems will be expected. Well designated SuDS can help connect habitats to create green corridors (eg swales, SuDS trees alongside roads).
- Greening measures such as planting new trees and creating green roofs or green walls will also be supported as it can contribute to the storage of carbon, a reduction of the urban ‘heat island’ effect as well as reducing airborne pollutants.
- Measures that provide multi-benefits in terms of biodiversity gain, flood risk resilience, carbon storage, provision of shade will be encouraged. For example, actions to restore moorlands will also be supported in order to increase biodiversity, slow the flow of water downstream, improve water quality and reduce erosion.

Furthermore, measures to improve green infrastructure in developments should include:

- Consideration at the earliest stage. Applicants should liaise with suitable stakeholders dependent on what species are within a certain area.
- Part 6 Section 98 of the Environment Act requires Biodiversity Net Gain to be a consideration within the planning process. Therefore, any ecological consultants will need to ensure that data collected is suitable for Natural England’s Biodiversity Metric Calculator.
- As highly fragmented landscapes affect species decline, applicants should maintain existing habitat networks and integrate new developments into existing habitat networks. This will increase the habitat mosaics and would be preferable in the planning process.
- Proposals should ensure that any new green infrastructure enhance and are well connected to the existing network.
- Given the energy efficiency mentioned in previous sections, trees should provide shade for building, to reduce both solar gain and potential overheating of properties during the summer months. Likewise, this should be adopted in public open space areas and seating areas.

Appendix A: Cycle Routes within Rossendale

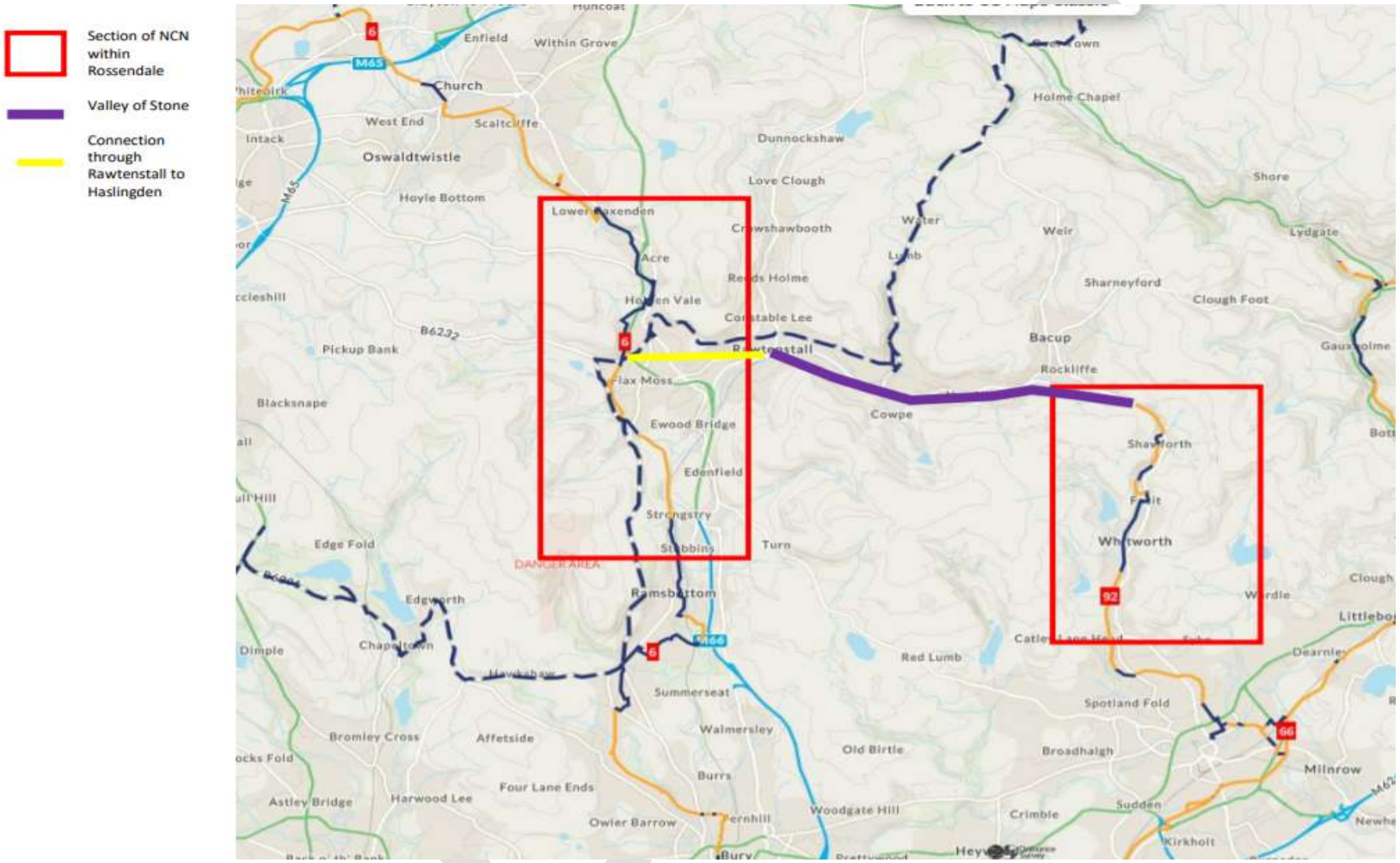


Figure 13: NCN and Valley of Stone routes (Sustrans, 2021)

Appendix B: Glossary

Climate Change Climate change is a large-scale, long-term shift in the planet's weather patterns or average temperatures. (MET office)

Climate change adaptation Adjustments to natural or human systems in response to actual or expected climatic factors or their effects, including from changes in rainfall and rising temperatures, which moderate harm or exploit beneficial opportunities.

Climate change mitigation Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions

Flood Risk Assessments (FRA) Site-specific assessments, which identify the risks to a site or premises from flooding from all sources, and any risk that may arise elsewhere because of development. These assessments are required for development proposals which are in areas of known flood risk (e.g. in flood zones 2 and 3) and for all proposals over 1 hectare in size

Green Infrastructure A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity."

Habitats of Principal Importance in England Fifty-six habitats, identified as requiring action under the UK Biodiversity Action Plan, continue to be conservation priorities. These habitats are included in the UK Biodiversity List published by the Secretary of State under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st Oct 2006.

Lead Local Flood Authority (LLFA) Local Authority (in Lancashire, the County Council) responsible for developing, maintaining and applying a strategy for local flood risk management in their areas and for maintaining a register of flood risk assets. They also have lead responsibility for managing the risk of flooding from surface water, groundwater and ordinary watercourses.

Low Carbon Energy Power produced from technologies, which produce a low amount of carbon dioxide compared to fossil fuels

Major Development For dwellings, a major development is one where the number of residential units to be constructed is 10 or more, or if the application does not state the number of units to be constructed, the site area is 0.5 hectares or more. For all other uses, a major development is one where the floor space to be built is 1,000 square metres or more, or where the site area is 1 hectare or more.

Sustainable Drainage Systems (SuDS) SuDS are an approach to managing rainwater falling on roofs and other surfaces through a sequence of actions. The key objectives are to manage the flow rate and volume of surface runoff to reduce the risk of flooding and water pollution. SuDS also P a g e | 205 reduce pressure on the sewerage network and can improve biodiversity and local amenity.

Sustainable Transport Modes Including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport

Appendix C - Checklist for Climate Change Statement

Applicants are to prepare a statement demonstrating how the development is designed to be adaptable to climate change, how it incorporates energy efficiency principles and adopts principles of sustainable construction including Sustainable Drainage Systems. This is to show how the proposal complies with Policy ENV1 criteria (q) of the Local Plan 2019 to 2036.

Topic	**Measures**	**Addressed in planning application?** (Yes or No)	**Brief Summary of Measures or Explanation of why not addressed**	**Signposting to relevant information in planning submission**
Chapter 3: Reducing the dominance of fossil-fuelled vehicles via encouraging sustainable and more active transport				
Local facilities accessible through walking/cycling (within 15 minute walk or cycle of new developments).	Traffic calming			
	Maximising the number of internal pedestrian routes through the site and avoiding cul-de-sacs			
	Appropriate crossings for pedestrians and cyclists.			
	Signposting to active travel routes and local facilities			
	Car Clubs			
	Prioritising Walking, Cycling and Public Transport			
Prioritising Walking, Cycling and Public	Incorporating 'no-through streets' for cars in all residential areas, with prioritised access for people walking and cycling			
	Dedicated traffic-free walk and cycle routes to local facilities			
	Segregated Cycle routes where possible linking to wider area including in new developments			
	Short cuts for cyclists.			

Prioritising Walking, Cycling and Public (contd)	Safe, secure and convenient cycle parking in accordance with secure storage of electric bikes			
	Shower facilities provided in non-residential developments.			
	Easy access to a range of transport modes.			
	Easy transition from cycling and walking to public transport.			
	Enhanced bus frequencies and off-site priority measures, such as priority at signals and bus lanes, from day one of occupation			
	Bus priority within sites, and work with bus operators to ensure the geometry of routes is suitable and stops are well located and designed			
	Education/promotion campaigns to residents.			
Facilitating Electric Vehicles	Electric vehicle (EV) charge points for 20% of all parking spaces within new residential development and passive provision (e.g. cable routeing) for the remaining spaces at key destinations and in communal parking areas.			
	EV charging points of at least 22kw and a universal socket for 10% of all parking spaces and passive provision (e.g. cable routeing) for the remaining spaces at key destinations and in communal parking areas.			
	Other (please state)			
Home Working	A room with a wall length of at least 1.8m, capable of accommodating a desk and shelving.			

	Good internal daylight, reducing the need for artificial lighting			
	Adequate ventilation, ideally natural through an openable window.			
	Other (please state)			
Chapter 4: Improving energy efficiency and promoting renewables in the Borough				
Energy Hierarchy	Adherence to the energy hierarchy			
Reducing Carbon Emissions	Residential developments to achieve as a minimum the equivalent of Code for Sustainable Homes level 4 – a 19% improvement on the Dwelling Emission Rate over the Target Emission Rate as defined in Part L1A of the Building Regulations.			
	Non-residential developments of 1,000 square metres or more should, as a minimum, meet carbon emissions reductions demanded by the BREEAM 'Very Good' standard, as required by Policy PD7.			
	Plot and block orientation to maximise solar gain.			
	Window positioning to maximise solar gain			
	Clothes drying space			
	Use of local sustainable material			
Reducing Carbon Emissions (Contd)	Natural ventilation and easy to regulate ventilation (airtight when needed).			
	Solar/low energy internal and external lighting (e.g. LED lightbulbs).			
	Using a higher level of roof and wall insulation than required by Building Regulations.			

	High R-value glazing.			
	Use of heavy curtains, blinds and/or carpets.			
	Draft proofing.			
	Heating system & controls.			
	Heat recovery systems.			
	Connection to existing low carbon heat network.			
	Use of low carbon and renewable energy			
	Inclusion of community investment			
	Other (please state):			
Density and Mixed Use	Higher densities and mixed uses in sustainable locations and at key transport nodes.			
	Horizontal and vertical mix of uses within blocks where appropriate.			
	Active frontages/edges with opportunities for natural surveillance.			
	Other (please state)			
Optimising Development Orientation	Buildings orientated to maximise solar gain			
	Natural shading, such as through building overhangs, balconies, grouping and trees.			
	Other (please state)			
Managing Waste and Using Sustainable Materials	Retention and re-use of existing building			
	Use of locally sourced and sustainable building materials.			
	Use of climate resilient building materials			
	Use of materials that can be recycled at the end of their lifetime.			

	Use of modular construction techniques			
	Incorporate the necessary space to facilitate recycling, including glass, cans, cardboard, paper, plastics, aerosols, cartons and batteries, in accordance with Derbyshire Dales waste collection service.			
	Adopting community composting schemes.			
	Providing in-built compost heaps within the gardens of individual properties or shared amenity space			
	Disposing food waste via an on-site small-scale anaerobic digestion facility			
	Other (please state)			
Adaptable Buildings and External Space	Design to allow for changes in the health, lifestyle and mobility of the user, and technologies, such as use of electric vehicles.			
	External spaces to be flexible and adaptable over time; for example, to provide for recreation or local food growing.			
	Other (please state)			
Chapter 5: Water interventions				
Managing Flood Risk	Direct development to areas with the lowest risk			
	Development does not increase the risk of flooding elsewhere			
	Use the latest climate change allowance for the time period in Flood Risk Assessments			
	Where development is appropriate in flood risk areas, incorporation of flood			

	resilience and resistance measures within new buildings.			
	Adoption of land management practices to improve water infiltration into the soil			
	Use of permeable surfaces for roads, car parking areas, hard surfacing and pavements.			
	Other (please state):			
Sustainable Drainage Systems (SuDS)	Achieve greenfield run-off rates and manage surface water run-off as close to its source as possible, in line with the drainage hierarchy.			
	Use of blue roofs and rainwater harvesting including private and communal rainwater collection and reuse points/water butts.			
Sustainable Drainage Systems (SuDS)	Use of soakaways.			
	Use of landscape features - swales, wetlands, raingardens			
	Use of natural water courses (unless not appropriate).			
	Other (please state):			
Water Efficiency	Rainwater collection facilities such as communal rainwater tanks and water butts			
	Use of water efficiency measures in new developments to exceed Building Regulations (Part G) requirements			
	Meeting or exceeding the water consumption standards in BREEAM 'Very Good'.			
	Other (please state):			

Chapter 6: Biodiversity and Green Infrastructure				
Trees, Landscaping and Green Infrastructure	Integrate existing and new natural features			
	Green infrastructure in private outdoor space – e.g. trees, hedges, green/brown roofs, vertical climbers and landscaping.			
	Tree planting to provide shade to buildings in the summer.			
	Green/brown roofs and climbers			
	Provide food growing space within private gardens and communal growing spaces, such as community managed raised beds (See typical growing space areas in Table 1, Appendix B)			
Trees, Landscaping and Green Infrastructure	Green spaces within blocks, green verges and pocket parks			
	Restore old hedgerows and plant new formal hedgerows instead of fencing or walls			
	Sustainable management and maintenance of the green infrastructure			
	Provide a net gain in biodiversity, where possible			
	At least one of the following: bird/bat boxes/ amphibian kerbs/ hibernacula/hedgehog holes/ hedgehog homes/garden ponds.			
	Other (please state)			

Appendix D - North West SuDS Pro-forma Template

Document Change Log		
Version	**Date Agreed**	**Changes made**
Version 1	April 2020	Initial version issued
Version 2	July 2020	• Page 1 – 'Guidance to support you' section – word 'approved' changed to 'appropriate' • Section 5 – Box 4 'Evidence Required' - word 'approved' changed to 'appropriate' • Section 5 – Box 9 'Summarise how storage will be provided for 1 in 100 year (plus climate change) event on site' - word 'approved' changed to 'appropriate'
Version 3	August 2020	• Front sheet and Document Change Log added • Page 1 – Para 1 Footnote – words 'of 0.5 hectares' removed
Version 4	July 2021	• Front page amended and branding removed. • Section 1 - Previously Developed/ Brownfield Site – words *'then one of the approaches outlined in Section 24.5 of The SuDS Manual (C753) should be adopted'* removed. • Section 7b – Hierarchy Level 2 – Note wording amended from '*Where third party land is cited as a barrier, you should provide visibility of discussions held to date with the riparian landowner of the waterbody*' to '*Where discharge of any element in the hierarchy is discounted, an applicant should provide justification. If the reasoning for discounting a discharge of surface water to watercourse relates to issues associated with third party land or the securing of any other required consent, it may be necessary for the applicant to provide evidence to the local planning authority to support their proposed approach'*
Version 5	May 2022	• Pro-forma guidance updated to take account of the new climate change allowances published on 10 May 2022. There is no change to the pro-forma itself.

Website: [The Flood Hub]

This website is an online resource which has been funded by the North West Regional Flood and Coastal Committee as a one stop shop for flood advice and information across the North West.

Rossendale
BOROUGH COUNCIL

ROSSENDALE BOROUGH COUNCIL
SuDS PRO-FORMA

This Pro-forma is endorsed by the North West Regional Flood and Coastal Committee, including representatives from Lead Local Flood Authorities, Highway Authorities, United Utilities and the Environment Agency

NORTH WEST SuDS PRO-FORMA

This pro-forma is a requirement for any planning application for major development[52].

It supports applicants in summarising and confirming how surface water from a development will be managed sustainably under current and future conditions.

Your sustainable drainage system should be designed in accordance with **CIRIA The SuDS Manual C753** and any necessary adoption standards.

HOW TO COMPLETE

Blue Box	Instruction/ Question
Orange Box	Evidence Required
White Box	To be completed by Developer / Consultant

1. Complete ALL white boxes
2. Submit this pro-forma to the Local Planning Authority, along with:

- Sustainable Drainage Strategy
- Site Specific Flood Risk Assessment (if required)
- Minimum supporting evidence, as indicated in orange boxes of this pro-forma.

[52] *as defined in Section 2 of **Statutory Instrument 2015 No. 595** or on sites in Critical Drainage Areas.*

GUIDANCE TO SUPPORT YOU

The pro-forma should be completed in conjunction with 'Completing your SuDS Pro Forma Guide.'

The pro-forma can be completed using freely available tools such as **Tools for Sustainable Drainage Systems** or appropriate industry standard surface water management design software.

SECTION 1. APPLICATION & DEVELOPMENT DETAILS

Planning Application Reference *(if available)*	
State type of planning application *i.e. Pre-application, Outline, Full, Hybrid, Reserved Matters** **Information only required if drainage is to be considered as part of reserved matters application*	
Developer(s) Name:	
Consultant(s) Name:	
Development Address *(including postcode)*	
Development Grid Reference *(Eastings/Northings)*	
Total Development Site Area (Ha)	
Drained Area (Ha)* of Development	
Please indicate the flood zone that your development is in. Tick all that apply. *Based on the Environment Agency Flood Map for Planning and the relevant Local Authority Strategic Flood Risk Assessment (to identify Flood Zones 3a/3b).*	Flood Zone 1 ☐ Flood Zone 2 ☐ Flood Zone 3a ☐ Flood Zone 3b ☐
What is the surface water risk of the site? Tick all that apply. *Based on the Environment Agency Surface Water Flood Map.*	High ☐ Medium ☐ Low ☐
Have you submitted a Site Specific Flood Risk Assessment (FRA)? *See separate guidance notes for clarification on when a FRA is required*	Yes ☐ No ☐

Have you submitted a Sustainable Drainage Strategy?	Yes ☐ No ☐	
Does your drainage proposal provide multi-functional benefits via SuDS?	Yes ☐ No ☐	
Expected Lifetime of Development *(years)* *Refer to Planning Practice Guidance "Flood Risk and Coastal Change" Paragraph 026*		
Development Type:		**State Proposed Number of Units**
Greenfield Site • *Site is wholly undeveloped, and a new drainage system will be installed*	☐	
Previously Developed/ Brownfield Site • *Site is already developed, and the entirety of the existing surface water drainage system will be used to serve the new development (evidence must be provided to prove existing surface water drainage system is reusable);* ***OR*** • *Where records of the previously developed system are not available so that the hydraulic characteristics of the system cannot be determined or where the drainage system is not in reasonable working order i.e. broken, blocked or no longer operational for other reasons.*	☐	
Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 1.		

SECTION 2: IMPERMEABLE AREA AND EXISTING DRAINAGE

	Existing (E)	Proposed (P)	Change (P – E)
State Impermeable Area (Ha)			
Evidence Required: Plans showing development layout of site with existing and proposed impermeable areas.			☐

Are there existing sewers, watercourses, water bodies, highway drains, soakaways or filter drains on the site?	Yes ☐ No ☐ Don't Know ☐
Evidence Required: Plan(s) showing existing layout to include all: • Watercourses, open and culverted • Water bodies – ponds, swales etc. • Sewers, including manholes • Highway drains, include manholes, gullies etc. • Infiltration features - soakaways, filter drains etc.	☐

Drainage Design *Outline planning applications should be able to demonstrate that a suitable drainage system is achievable.* *All other type of planning application should provide full details or reference to previous planning application where drainage details have been submitted or approved.*	
Select which design approach you are taking to manage water quantity *(refer to Section 3.3 SuDS Manual)* **Approach 1 – Volume control / Long Term Storage (Technical Standards S2/3, S4/5)** • *The attenuated runoff volume for the 1 in 100 year 6 hour event (plus climate change allowance) is limited to the greenfield runoff volume for the 1 in 100 year 6 hour event, with any additional runoff volume utilising long term storage and either infiltrated or released at 2 l/s/ha* • *The discharge rate for the critical duration 1 in 1 year event is restricted to the 1 in 1 year greenfield runoff rate*	☐

• *The discharge rate for the critical duration 1 in 100 year event (plus climate change allowance) is restricted to the 1 in 100 year greenfield runoff rate* **Approach 2 – Qbar (Technical Standards S6)** • *Justification has been provided that the provision of volume control/long term storage is not appropriate and an attenuation only approach is proposed. All events up to the critical duration 1 in 100 year event (plus climate change allowance) are limited to Qbar (1 in 2 year greenfield rate) or 2 l/s/ha, whichever is greater.*	☐
Evidence Required: Plans showing: • Existing flow routes and flood risks • Modified flow routes • Contributing and impermeable areas • Current (if any) and proposed 'source control' and 'management train' locations of sustainable drainage components (C753 Chapter 7) • Details of drainage ownership • Details of exceedance routes (Technical Standards S9) • Topographic survey • Locations and number of existing and proposed discharge points *Note consideration should be given to manage surface water from both impermeable and permeable surfaces (including gardens and verges) likely to enter the drainage system.*	☐

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 2.	

SECTION 3: PEAK RUNOFF RATES – TECHNICAL STANDARDS S2, S3 AND S6 (UNLESS S1 APPLIES)

Rainfall Event	Existing Rate (l/s)	Greenfield Rate (l/s)	Proposed Rate (l/s) *Previously developed sites - In line with S3 should be equivalent to Greenfield runoff rates – discuss with LLFA if this is not achievable pre-application*
Qbar *(Approach 2)*			
1 in 1 Year Event *(Approach 1)*			
1 in 30 Year Event			
1 in 100 Year Event* *(Approach 1)*			
** Total discharge at the 1 in 100 year rate should be restricted to the greenfield runoff volume for the 1 in 100 Year 6 hour event with additional volumes (long-term storage volume) released at a rate no greater than 2 l/s/ha where infiltration is not possible.* *The climate change allowance should only be applied to the proposed rate and not the existing or greenfield rate.*			
Evidence Required: Methodology used to calculate peak runoff rate clearly stated and justified. Impermeable areas plan, supported by topographical survey confirming positive drainage. Hydraulic calculations and details of software used.			☐ ☐ ☐

State the hydraulic method used in your calculations *(Refer to Table 24.1 of The SuDS Manual)*	

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 3.	

SECTION 4: DISCHARGE VOLUME – TECHNICAL STANDARDS S4, S5 AND S6 (UNLESS S1 APPLIES)

Rainfall Event	Existing Volume (m^3)	Greenfield Volume (m^3)	Proposed Volume (m^3)
1 in 100 Year 6 Hour Event *(Approach 1)*			
Does the below statement apply to your development proposal? Long term storage is not achievable on this site and, in accordance with S6 of the Non Statutory Technical Standards for SuDS, the surface water discharge rates for events up to and including the 1 in 100 year critical event are limited to Qbar (Approach 2)			Yes ☐ No ☐
Evidence Required: Approach to managing the quantity of surface water leaving the site clearly stated and justified Methodology used to calculate discharge volume clearly stated and justified. Hydraulic calculations and details of software used.			☐ ☐ ☐

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 4.	

SECTION 5: STORAGE – TECHNICAL STANDARDS S7 AND S8

State climate change allowance used (%)	
State housing density (houses per ha)	
State urban creep allowance used (%)	
Evidence Required: State / used in appropriate industry standard surface water management design software.	☐

State storage volume required (m^3) *(excluding non-void spaces)* *Must include an allowance for climate change and urban creep*	
Have you incorporated interception into your design? *(Refer to Chapter 24 of The SuDS Manual C753)* *Where possible, infiltration or other techniques are to be used to try and achieve zero discharge to receiving waters for rainfall depths up to 5mm.*	Yes ☐ No ☐
Evidence Required: Drainage plans showing location of attenuation and all flow control devices and supporting calculations.	☐

Summarise how storage will be provided for 1 in 30 year event on site. *Storage must be designed to ensure that at no flooding occurs onsite in a 1 in 30 year event except in designed areas **and** no flooding occurs offsite in a 1 in 100 year (plus climate change allowance) event.*	

Summarise how storage will be provided for 1 in 100 year (plus climate change) event on site. *Where storage above the 1 in 30 year rainfall event is provided in designated areas designed to accommodate excess surface water volumes, plans showing storage locations and surface water depths and supported by calculations used in appropriate industry standard surface water management design software. It is important to run a range of duration events to ensure the worst case condition is found for each drainage element on the site*	
Evidence Required: Plans showing size and location of storage and supporting calculations. Where there is controlled flooding, extents and depths must be indicated.	☐

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 5.	

SECTION 6: WATER QUALITY PROTECTION

Contaminated surface water run-off can have negative impacts on the quality of receiving water bodies. The potential level of contamination will influence final the design of an appropriate treatment train as part of your sustainable drainage system.

Is the proposal site known to be or potentially contaminated?	Yes ☐ No ☐
• *If the site is contaminated, it should be demonstrated that the sustainable drainage system will not increase the risk of pollution to controlled waters though the mobilisation of contaminants and/or creation of new pollution pathways.*	

Confirm the *Pollution Hazard Level* of the proposed development - Tick ALL that apply *Refer to Pollution Hazard Indices for different Land Use Classifications in Table 26.2 of The SuDS Manual C753 for further guidance.*		
Pollution Hazard Level *Tick ALL that apply*		**Surface water run-off from the proposed development will drain from:**
VERY LOW	☐	• Residential roofs
LOW	☐	• Other roofs (typically commercial/industrial roofs) • Individual property driveways, residential car parks, low traffic roads (e.g. cul de sacs, home-zones and general access roads) • Non-residential car parking with infrequent change (e.g. schools, offices) i.e. < 300 traffic movements/day
MEDIUM	☐	• Commercial yard and delivery areas • Non-residential car parking with frequent change (e.g. hospitals, retail) • All roads except low traffic roads and trunk roads/motorways[53]
HIGH	☐	• Sites with heavy pollution (e.g. haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites) • Sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured • Industrial sites • Trunk roads and motorways[1]

[53] Motorways and trunk roads should follow the guidance and risk assessment process set out in Highways Agency (2009).

If the development's Pollution Hazard Level is 'Very Low' or 'Low', has the sustainable drainage design been risk assessed and appropriate mitigation measures included?	Yes ☐ No☐
• *If the proposed development has a very low or low polluting potential, you should design your sustainable drainage system to include an appropriate treatment train in accordance with The SuDS Manual (C753).*	

If the development's Pollution Hazard Level is 'Medium' or 'High', is the application supported by a detailed water quality risk assessment?	Yes ☐ No☐
• *If the proposed development has a high polluting potential, a detailed risk assessment <u>will</u> be required to identify an appropriate SuDS treatment train and ensure compliance with Paragraph 170 of the National Planning Policy Framework.* • *If the proposed development has a medium polluting potential, a detailed risk assessment <u>may</u> be required depending on the nature, scale and location of the development.*	

Has pre-application advice on water quality been obtained from the Environment Agency?	Yes ☐ No☐
If YES, provide details:	

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 6.	

SECTION 7: DETAILS OF YOUR SUSTAINABLE DRAINAGE SYSTEM

a) Function of your Sustainable Drainage System

Do your proposals store rainwater for later use (as a resource)?	Yes ☐ No ☐
Evidence Required: Please provide a brief sentence in the adjacent white box to describe how this function has been achieved.	

Do your proposals promote source control to manage rainfall close to where it falls? (e.g. promoting natural losses through soakage, infiltration and evapotranspiration)	Yes ☐ No ☐
Evidence Required: Please provide a brief sentence in the adjacent white box to describe how this function has been achieved.	

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 7a.	

b) Hierarchy of Drainage Options – Planning Practice Guidance

The proposed method of discharge are set out within order of priority. Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable.

Proposed method of surface water discharge			**Is this proposed?**
Hierarchy Level 1: Into the ground (via infiltration)			Yes ☐ No ☐
If YES - Evidence Required		**If NO – Evidence Required** **Tick ALL that apply**	
☐	**A.** Completed Infiltration Checklist from The SuDS Manual (C753) Appendix B *An editable version of this form is available on SusDrain website.*	☐	A. Site investigation to demonstrate that the ground is not free draining. Test results to be provided in accordance with: • The methodology within BRE 365 (2016), ***OR*** • Falling head permeability tests BS EN ISO 22282-2: 2012
☐	**B.** British Geological Survey (BGS) Infiltration SuDS Map	☐	B. NOTE: where an applicant is unable to access a site to undertake testing, e.g. where unable to access a site for an outline application, they can submit a *SuDS GeoReport or similar.*
☐	**C.** Infiltration testing to BRE 365 (2016) or falling head permeability tests to BS EN ISO 2228-2: 2012 ***(optional for outline)***	☐	C. Evidence to confirm that infiltration to ground would result in a risk of deterioration to ground water quality.
☐	'Plan B' sustainable drainage plan and statement of approach with an alternative discharge method, in case infiltration proposals are proven not feasible upon further site specific ground investigation e.g. to consider seasonal variations to groundwater.	☐	D. Geotechnical advice from a competent person* which determines that infiltration of water to ground would pose an unacceptable risk of geohazards to the site and/or local area. **Note: Competent person may include a Chartered Engineer, Chartered Geologists, Registered Ground Engineering Professionals (RoGEP).*

Proposed method of surface water discharge			**Is this proposed?**
Hierarchy Level 2: To a surface water body *(select type)* ***NOTE:*** *Consent from LLFA or Permit from Environment Agency may be required – refer to guidance*			Yes ☐ No ☐ N/A ☐ ☐ Main river ☐ Canal ☐ Ordinary watercourse ☐ Other water body
If YES - Evidence Required		**If NO – Evidence Required** **Tick ALL that apply**	
☐	Surface water body / watercourse survey and report	☐ ☐	Plan showing nearby watercourses and waterbodies **AND** Statement providing justification in your Sustainable Drainage Strategy ***Note:*** *Where discharge of any element in the hierarchy is discounted, an applicant should provide justification. If the reasoning for discounting a discharge of surface water to watercourse relates to issues associated with third party land or the securing of any other required consent, it may be*

			necessary for the applicant to provide evidence to the local planning authority to support their proposed approach.

Proposed method of surface water discharge		**Is this proposed?**	
Hierarchy Level 3: To a surface water sewer or highway drain *(select type)*		Yes ☐ No ☐ N/A ☐	
		☐ Surface water sewer ☐ Highway drain	
If YES - Evidence Required		**If NO – Evidence Required** **Tick ALL that apply**	
☐	Written correspondence from Water and Sewerage Company/ Highway Authority regarding proposed connection.	☐ ☐	Plan showing nearby sewers and highway drains **AND** Statement providing justification in your Sustainable Drainage Strategy

Proposed method of surface water discharge		**Is this proposed?**
Hierarchy Level 4: To combined sewer		Yes ☐ No ☐ N/A ☐
If YES - Evidence Required		**If NO – Evidence Required**
☐	Written correspondence from Water and Sewerage Company	N/A

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 7b.	

c) Proposed SuDS Component Types

	Tick ALL that apply				
Within property boundary	☐ Rainwater harvesting	☐ Green/ blue roofs	☐ Pervious pavements *[**Type:** A ☐ B ☐ C ☐]*	☐ Soakaway	☐ Bio retention systems

	Tick ALL that apply				
Within development site boundary *(not property)*	☐ Infiltration system *[**Type:** ☐ Surface level ☐ Below ground]*		☐ Filter strips	☐ Filter drains	☐ Swales
	☐ Bio retention system	☐ Detention basins	☐ Ponds and wetlands	☐ Attenuation tanks/ Oversized pipes	☐ Other (state below)
	If 'Other' please state:				

Off site *(not within the boundary of the proposed development)*	***Please state:***

I confirm that the above selected components have been designed in accordance with The SuDS Manual (C753).	I confirm ☐
I confirm that the management of flows resulting from rainfall in excess of a 1 in 100 year plus climate change rainfall event, and their exceedance route(s), has been fully considered in order to minimise the risks to people, property (new and existing) and infrastructure.	I confirm ☐

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 7c.	

SECTION 8: OPERATION AND MAINTENANCE – TECHNICAL STANDARD S12 AND NATIONAL PLANNING POLICY FRAMEWORK

The applicant is responsible to ensure that ALL components selected in Section 7 can be maintained for the design life of the development. This information is required so the Local Planning Authority can ensure the maintenance and management of the sustainable drainage system. The Local Planning Authority will discuss how this will be secured (e.g. via planning condition or planning obligation).

	Information Provided?
Management Plan	Yes ☐ No ☐
Evidence Required: **Plan/ drawing provided to show the position of the different SuDS components with:** • Key included to identify any of the adopting bodies that you will be offering your sustainable drainage components for adoption *(relates to maintenance and management arrangements below).* • Plan/ drawing to identify any areas where certain activities are prohibited, detailing reasons why. **Action plan for accidental pollutant spillages.**	☐ ☐

	Information Provided?
Maintenance Schedule	Yes ☐ No ☐
Evidence Required: A copy of the maintenance schedule including: 1. **Proactive and preventative maintenance** Detailing regular, occasional and remedial maintenance activities including recommendations for inspection and monitoring. This should include recommended frequencies, advice on plant/ machinery required and an explanation of the objectives for the maintenance proposed and potential implications of not meeting them. 2. **Reactive and corrective maintenance** (e.g. product repair and replacement). Including advice on excavations, or similar works, in locations that could affect the SuDS components/ adjacent structures.	☐

	Information Provided?
Maintenance and Management Arrangements	Yes ☐ No ☐
Evidence Required: Evidence of formal agreement with the party responsible for undertaking maintenance. Please select any of the adopting bodies that you will be offering your sustainable drainage components for adoption. Tick all that apply. ☐ **Water and Sewerage Company** *Section 104 agreement (Water Industry Act 1991)* ☐ **Highway Authority** *Section 278/38 agreement (Highways Act 1980)* ☐ **Local Authority Public Open Space** *[Refer to Local Authority Policy]* Please select the arrangement(s) for all non-adopted sustainable drainage components. Tick all that apply. ☐ **Management Company** ☐ **Property Owner** *(for SuDS components within property boundary only)* ☐ **Other** (please state)	☐

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 8.	

DECLARATION AND SUBMISSION

This pro-forma has been completed using evidence from information which has been submitted with the planning application.

The information submitted in the Sustainable Drainage Strategy and site-specific Flood Risk Assessment (FRA), where submitted, is proportionate to the site conditions, flood risks and magnitude of development and I agree that this information can be used as evidence to this sustainable drainage approach.

Submitter Details			
Completed by		**Email Address**	
		Telephone Number(s)	
Signed off by		**Accreditation(s) and/or Qualification(s) of Signatory**	
Date *(dd/mm/yyyy)*		**Company**	

Client Details			
Name		**Company**	