

# Hertfordshire Green Infrastructure Strategy

Part 2b: Green Infrastructure Priority Actions and Delivery

Hertfordshire Infrastructure and Planning Partnership in partnership with Hertfordshire County Council

Final report
Prepared by LUC
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The Hertfordshire Infrastructure and Planning Partnership (HIPP) provides a forum to discuss and, where appropriate, develop a shared view and agree joint work programmes on infrastructure and planning issues of common concern. A key objective is to work co-operatively within Hertfordshire and across the county borders according to the principles of localism and the duty to co-operate. The Partnership works together with Hertfordshire Forward, Hertfordshire Local Enterprise Partnership, the Local Transport Body for Hertfordshire, the Local Nature Partnership and other appropriate organisations in areas of shared interest to develop and where possible and necessary agree joint approaches to common issues. The Chairman, or his or her deputy, represents the Partnership as appropriate on external bodies, including the Board of the Local Transport Body for Hertfordshire.











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Hertfordshire Green Infrastructure Strategy

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# **Chapter 1**

# Delivery of Green Infrastructure Priority Actions

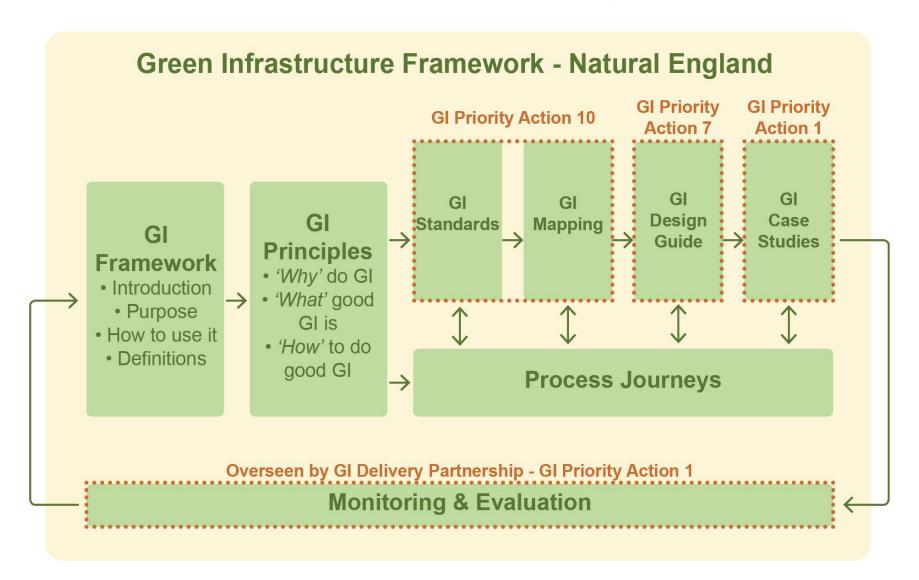
- 1.1 The justification for the development of 10 Green Infrastructure (GI) Priority Actions is provided in Hertfordshire GI Strategy Part 2a: GI Baseline, Analysis and Priorities. This detail is not repeated here for succinctness. The future delivery of the GI Priority Actions aims to repair, reconnect and restore GI across Hertfordshire. Each GI Priority Action is guided by its own overview which would be realised through project specific objectives. This chapter provides a breakdown of each GI Priority Action, with further detail outlined regarding delivery and implementation. For each GI Priority Action, the following information is presented:
  - An overview of the GI Priority Action;
  - Details of the proposed intervention;
  - Key delivery risks;
  - Potential delivery mechanisms;
  - Potential key delivery partners; and
  - Potential funding mechanisms.
- **1.2** This chapter aims to provide and support a framework for the delivery of each identified GI Priority Action. The list of GI Priority Actions is outlined below:
  - GI Priority Action 1: Create a GI Champions Programme and wider GI Delivery Partnership;
  - GI Priority Action 2: Ensure greenspace is meeting local needs for people and wildlife:
  - GI Priority Action 3: Increase health, connectivity and accessibility of Hertfordshire's water environment;

- GI Priority Action 4: Deliver landscape scale recovery through woodland planting, management and the development of the Woodland Arc;
- GI Priority Action 5: Restore and reconnect distinctive chalk landscapes;
- GI Priority Action 6: Promote community action for nature recovery;
- GI Priority Action 7: Produce an overarching county-wide GI Design Code for development;
- GI Priority Action 8: Deliver and manage GI as a mechanism to improve air quality and public health;
- GI Priority Action 9: Reconnect and create multi-functional links to facilitate the movement of people and wildlife; and
- GI Priority Action 10: Improve understanding of existing GI baseline and projects.
- 1.3 The development of the GI Priority Actions has cross referenced the emerging outputs from the Natural England GI Framework, including the Beta GI Mapping Tool (see Figure 1.1). The use of this data, in conjunction with other up to date data sources, should help provide the evidence base for the development of specific projects linked to each GI Priority Action. This will aim to maximise the creation or improvement of GI to ensure the delivery of a wide range of multi-functional benefits. The application of the Natural England GI Framework would also assist Local Planning Authorities (LPA) and developers in meeting the requirements of the National Planning Policy Framework [See reference 1] relating to the consideration of GI in Local Plans and new development.
- **1.4** Figure 1.1 is based on an existing diagram published on the Natural England GI Framework's website [See reference 2]. The diagram indicates how a number of GI Priority Actions identified within this Strategy relate to and will help to achieve various elements of Natural England's GI Framework. At present, a number of these elements of the framework are unpublished, including the GI Standards, GI Design Guide and GI Case Studies. The Process Journeys element of the Framework is intended to be published in Autumn 2022 and is aimed to assist LPAs in the embedding of GI within decision making and

policy development. The guidance will set out the recommended steps for developing GI policy, including visioning, building partnerships, gathering evidence, planning strategically, designing interventions and adopting policies for ongoing management and monitoring.

1.5 The creation of a GI Champion Programme and wider GI Delivery Partnership are proposed to form the foundation of future GI project delivery in the county, as outlined within GI Priority Action 1. The GI Delivery Partnership, responsible for monitoring and evaluation of the GI network at the county-scale, would be accountable to the HIPP. The overarching county GI Champion would be responsible for oversight of the Strategy, with the aim of delivering good quality networks of multi-functional GI at the strategic scale. Each GI Priority Action highlights the role of the GI Champions and the LPA in the delivery of the specific GI intervention.

Figure 1.1: Summary of how the GI Priority Actions relate to the Natural England Green Infrastructure Framework



# GI Priority Action 1: Create a GI Champions Programme and wider GI Delivery Partnership

Action overview: Establish an overarching GI Champion for the county to provide oversight of the Strategy. The role would complement individual GI Champions at the district or borough level to promote delivery within the planning context. Each role would review the governance of GI assets (management and maintenance of existing assets and delivery of new GI) across Hertfordshire. If considered necessary, job specifications for existing posts would be revised to create the GI Champion role at the county as well as at each district or borough level. Each GI Champion would also become a member of a newly created GI Delivery Partnership responsible for the monitoring and evaluation of the GI network across Hertfordshire. This would become a network where progress on GI delivery is shared, where existing and new partnerships are co-ordinated and collaboration across the county is promoted.

Action area of focus: County-wide

#### The details

**1.6** It will be essential to ensure 'buy-in' to the Strategy at both the county and district or borough contexts. In order to achieve this, it is recommended that GI Champions should be introduced at both administrative contexts. This could be achieved either by amending existing job descriptions to add new roles and responsibilities as required or by seeking volunteers to become a GI Champion

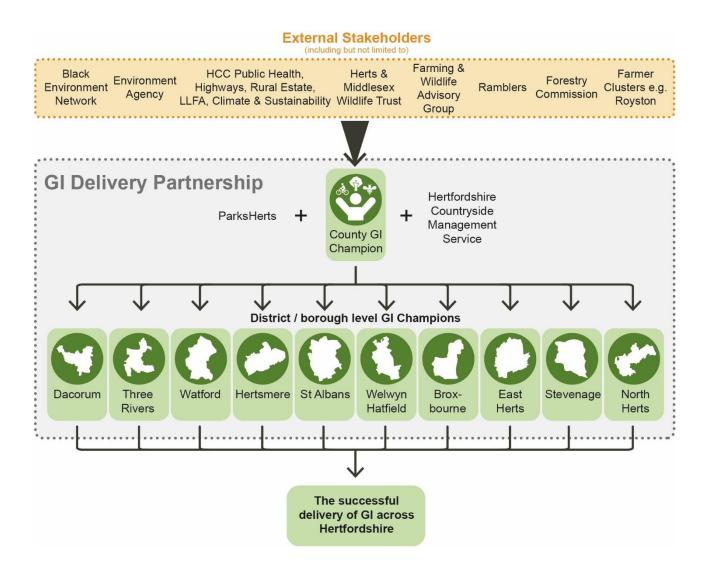
from members of staff who are interested in assuming this role. Additionally, and in time, it may be necessary to create dedicated GI Champion job posts. However, this would be dependent on funding availability at the county and district or borough contexts.

- **1.7** The county GI champion would work alongside district or borough GI Champions to oversee and co-ordinate cross boundary GI projects or initiatives, such as the Colne Valley and Lee Valley Regional Parks. Reflecting the scope of Hertfordshire County Council (HCC), the role would also oversee the delivery of GI projects relating to minerals and waste restoration, highways green estate management and Public Rights of Ways (PRoWs) within Hertfordshire. A key responsibility of the county GI champion would be to coordinate and consult with various stakeholder groups, as highlighted in Figure 1.2. Acting as the primary port of call for stakeholders concerned about GI, the role would help to create an efficient two-way channel for advice to be communicated. This information would then be disseminated to the relevant district/borough GI champions. It would also encourage collaboration at both the county and district or borough scale with statutory agencies, charities, community groups and tenants of the rural estate. The County GI Champion would help to assign responsibility of particular projects to district or borough GI Champions and aim to deliver GI training to local authority policy staff and elected members. The role would also be responsible for sharing best practice and successful case studies in order to promote GI delivery within the county.
- 1.8 The exact relationship between the forthcoming Local Nature Recovery Strategy (LNRS) and GI Strategy is yet to be defined. However, complementary overlap will inevitably exist as LNRS operationalises the nature conservation, biodiversity and ecology objectives of the GI Strategy. As a consequence, it is recommended that the county GI champion oversees the implementation of both the landscape recovery and nature recovery agenda to ensure the achievement of one is not detrimental to the goals of the other. The organisation of the county GI champion within HCC's internal structure should also aim to promote strong links with HCC's Sustainable Growth Directorate.
- **1.9** The district or borough GI Champion would oversee delivery of GI projects or initiatives in their administrative area, in conjunction with HCC Service Heads

(as appropriate). The district or borough GI Champion would work with other district or borough council policy staff to ensure that GI principles are woven into Local Plans (as well as other plans or strategies as necessary). To secure 'buy in' across district or borough departments, the district or borough GI Champion would deliver training to relevant staff and elected members regarding the importance of GI and the need to consider GI principles in their day-to-day work or decision making.

**1.10** It is recommended that each GI Champion liaises with district or borough LPAs over the wording of proposed Local Plan GI policies and priority projects that could be added to charging schedules (Community Infrastructure Levy (CIL) and Infrastructure Development Plans (IDP) etc). All GI Champions, in collaboration with representatives from the Hertfordshire Land Management team within the Countryside and Rights of Way (CRoW) service and ParksHerts, would form the GI Delivery Partnership (see Figure 1.2) where they would collaborate to report on progress, agree Priority GI Actions, objectives and reflect on the results of monitoring and evaluation. The GI Delivery Partnership would ensure that there is a strong connection between planning and delivery functions within the borough and district LPAs – understanding and strengthening these connections to ensure the effective delivery of GI aspirations and investment in identified projects and wider initiatives. A diversity of backgrounds and interests between the district or borough GI champions would be beneficial for delivering a multifunctional GI network across Hertfordshire (e.g. representatives from landscape, ecology, planning, transport, and health and wellbeing).

Figure 1.2: Structure of the proposed GI Delivery Partnership across Hertfordshire



# **Key responsibilities of the GI Champions**

- Co-ordinate training in GI for district, borough or county staff and elected members. This would include promoting greater understanding of GI, its role and function and how it can be delivered through the planning system. Training should be provided to assist planners (policy and development managers) and inform them of how they should use this Strategy to guide the process of Local Plan GI policy formation and the review of planning applications. The GI Champions should also highlight the importance of GI to elected members, with the aim of securing 'buy in' to the Strategy. Yearly progress reports and refresher sessions could also be provided to staff to keep the Strategy relevant.
- Work with district or borough policy planners to demonstrate how the principles of multi-functional GI can be embedded both within specific GI policies and woven as a golden thread into a range of 'traditional' policies (e.g. housing, transport etc) to support wider delivery of GI. This includes over-seeing the implementation of a number of different agendas and ensuring the delivery of one planning goal is not detrimental to the achievement of another, for example the fulfilment of a nature recovery goal should not be damaging to landscape character and amenity priorities. The effectiveness of future Local Plan policies could be tested through the 'Mainstreaming GI' tool kit developed by the Natural Environment Research Council (NERC). This tool kit also provides a set of 'exemplar GI policies' that could be utilised.
- Working together to co-ordinate the creation of a county-level Design Guide (see GI Priority Action 7) for GI enhancements to inform GI delivery and ensure a coherent and consistent approach across districts or boroughs. This could include guidance on the design of strategic scale GI, the design of small-scale GI within new development and guidance on retrofitting GI into existing built areas. The opportunity also exists for the county GI Champion to work alongside the Hertfordshire Design Review Panel to promote the delivery of GI interventions.
- Through training of county and district or borough level staff, demonstrate how GI can be delivered 'on the ground' when an effective policy

framework is followed. Promote the importance of existing delivery partnerships (such as Hertfordshire Climate Change and Sustainability Partnership (HCCSP), ParksHerts, HCC Highways and Tree Officer group), engagement with local communities in the management of GI (learning from existing approaches and best practice) and local promotion of the GI network. It would be vital for the GI Champion positions to provide understanding of delivery partners and organisations that LPA officers or local action groups can consult with to help in the delivery of GI.

- Co-ordinate the development and delivery of a GI Communication Strategy which promotes the benefits of GI to the wider community or landowners to secure buy-in. The document should accommodate different approaches to landscape management across districts and boroughs whilst seeking to provide information to people about what is going on around them and why this is happening. Examples include leaving grass uncut in places or sowing wildflower meadows which may make areas look unkept but provide vital spaces for wildlife. The approach should also convey to landowners how to engage with these processes and include references to examples of existing landowner initiatives within the county.
- Working in conjunction and embedded within the Building with Nature Awards, pursue the creation of a yearly awards process for best GI project or wildlife enhancement initiative within Hertfordshire. This would help to reward best practice, allow for promotion of successful schemes for people to learn from and keep the Strategy current and visible.

# **Key delivery risks**

- Achieving corporate buy-in across district and borough local authorities to ensure the GI Champions programme is supported and resourced;
- Local authority funding and staff capacity;
- Establishment of effective public and private partnerships; and
- Co-ordination of, and buy-in across, multiple county, district or borough local authority department staff and existing or new partnerships.

# Potential delivery mechanisms

- Amendment to existing job specifications for appropriately selected posts across county and district or borough contexts or delivered by interested staff volunteering to take on each role; and
- Creation of dedicated GI champion posts where funding is available.

# Potential key delivery partners

- County and district or borough local authorities (including but not limited to Hertfordshire County Council Public Health, Highways, Rural Estate, Local Lead Flood Authority, Climate and Sustainability Partnership);
- Non-governmental organisations (NGOs), including Herts and Middlesex Wildlife Trust, Black Environment Network, Ramblers and Farming and Wildlife Advisory Group;
- Farming clusters;
- Supportive capacity offered by charities, Community Interest Companies (CICs) and other community organisations; and
- Statutory and non-statutory authorities, including Environment Agency,
   Natural England, Forestry Commission and Historic England.

# Potential funding mechanisms

- County and district or borough local authority staffing budgets (where possible); and
- Sponsorship of yearly awards by local businesses, land owners or charities with the aim of raising the profile of the GI Delivery Partnership.

# GI Priority Action 2: Ensure greenspace is meeting local needs for people and wildlife

Action overview: Through the implementation of a Parks Delivery
Framework and the development of further strategic documents, build a
comprehensive and coordinated understanding of greenspaces across the
county. The approach should complement robust open space assessments
and gap analysis or deficiency mapping undertaken at the district or
borough level, providing a greater understanding of greenspace pressures
across Hertfordshire. The aim would be to develop a county-wide
framework for the identification of projects which would protect, create and
enhance greenspace assets. In addition to implementation, the scheme
would provide a mechanism for overarching county-wide monitoring of
greenspace delivery.

Action area of focus: County-wide

## The details

1.11 The need for equitable access to quality open space and nature has been highlighted in response to the COVID-19 pandemic. In areas where the provision is limited, it is also important that open space is well designed and managed to a high quality. The review of planning policies across the 10 districts or boroughs (see Hertfordshire GI Strategy Part 1: Setting the Scene – A Strategic Review of GI in Hertfordshire) found that whilst all have adequate or strong policy coverage in terms of using GI to meet open space standards, 30% of district or boroughs did not have strong policies that make provision for recreational facilities to meet local user and community needs. This presents an

important opportunity to ensure that communities' needs are met with robust policies in place. This must be informed by a sound evidence base to ensure barriers to use are fully understood and addressed.

1.12 Currently, adequate analysis of existing open space provision to meet present and future population growth is inconsistent across the districts or boroughs of Hertfordshire. Although open space assessments have been developed at the district or borough level, wider pressure points require consideration at the county level. This issue, in addition to gaps in the evidence baseline, should be addressed in order to ensure adequate strategic investment and provision for current and future needs are met across Hertfordshire. The opportunity exists to adopt a county-wide approach to addressing the challenge of long-term management and sustainable funding which can be implemented across individual districts or boroughs.

#### **1.13** This Parks Delivery Framework (see Figure 1.3) should:

- Assess whether local needs are being achieved and where investment is required – in the improvement of existing greenspace, creation of new greenspace at local scales or strategic scales as well as the alleviation of pressures or shortfalls in key growth areas. The approach would develop a county-wide alliance to help identify funding opportunities and investment for the long-term management of greenspaces.
- Evaluate the impact of recreational pressure on semi-natural greenspaces and identify solutions to address existing and future pressures, informing the delivery of a new Hertfordshire Recreational Access and Mitigation Strategy. The document would function as a tool for evaluating the current and future recreational impact on greenspaces as well as existing sensitive sites, including woodland, heathland and grassland habitats. Potential sites and strategic options which offer the potential to re-direct pressure way from 'honey pot' sites of biodiversity importance. The document would also explore other strategic options such as Suitable Alternative Natural Greenspace (SANGs) where impacts from development affect European designated sites and the potential development of country parks. The aim would be to address issues such

as ownership and management which fall beyond the remit of the Strategy.

- Utilise the findings of district or borough level visitor surveys at selected sites to understand the demographic of visitors, drivers for usage and gauge people's experience of the space they are visiting.
- Review, recognise and publicise successes of existing greenspace management to highlight and share best practice. The approach would explore the potential for alternative modes of greenspace management, including the delivery of a strategic approach to help provide sustainable funding solutions for greenspaces within the county.
- Identify alternative uses and functions for parks such as flood management, for example Verulamium Park and Sopwell, as well as other ecosystem service such as carbon sequestration, habitat provisions, local food growth and income generation.
- Identify challenges impeding the delivery of GI through greenspace management and develop solutions to address these challenges (learning from best practice).
- Provide a link to the future LNRS to recognise the key role that managing greenspace for ecology can aid in nature recovery, whilst recognising the need to limit disturbance to sensitive sites or habitats. Opportunities to connect parks with other types of GI should also be explored.
- Within new development, ensure that greenspace provision is aligned with the Strategy (i.e. delivery of GI interventions within a particular location or proximity to key GI network). There are clear opportunities to deliver improvements for nature by linking with Biodiversity Net Gain (BNG) requirements (either through on site or offsite credits).
- Seek opportunities for external expertise to feed into the Parks Delivery Framework, for example from Tidy Britain Group, a Parks Accelerator representative, Parks Alliance or Natural England.
- Provide a framework for the future monitoring and evaluation of greenspace delivery.

..... District / Borough-wide ........ .----County-wide -----Evidence base Evidence base Identify areas experiencing... Pressure for **Imbalances Population** and housing recreation or in equality growth resources + Ongoing stewardship 1. Open space assessment, including quality and value 2. Gap analysis and deficiency mapping, inclusing over provisions 3. Footfall and visitor surveys 4. Socio-economic analysis **Funding** Monitoring Management 5. Stakeholder communication e.g. exploring alterative modes of e.g sustainable e.g. examining the benefits of Green 6. Identify the successes of existing solutions management Flag uptake green spaces **PARKS** Incorporate external expertise e.g. Tidy Britain **DELIVERY** Group, Parks Accelerator **Links to Local Nature FRAMEWORK** represenative, Parks **Recovery Strategies Alliance and Natural** (LNRS) England

Figure 1.3: Formation of the Parks Delivery Framework

## **Key delivery risks**

Reliant on the supply of up to date data, including open space assessments, supplied by district or borough local authorities.

# Potential delivery mechanisms

 ParksHerts Group, Hertfordshire Health and Wellbeing Strategy 2022-2026, Hertfordshire Land Management team within the CRoW service, development of the Hertfordshire Recreational Access and Mitigation Strategy and BNG.

# Potential key delivery partners

- County and district or borough local authorities; and
- External expertise (as required) Tidy Britain Group, a Parks Accelerator representative, Parks Alliance or Natural England.

# **Potential funding mechanisms**

- Natural Investment Readiness Fund:
- Neighbourhood CIL;
- Levelling Up Parks Funds; and
- BNG onsite or offsite credit scheme.

# Role of the county GI Champion

- Actively champion GI projects across the county, operating strategically and decisively;
- Engage with national initiatives as well as prepare bids for significant funding. The role should also promote land assembly, Compulsory Purchase Orders (CPOs) as well as actively engage as part of negotiations with developers and water companies;
- Develop the county-wide framework for the identification of projects which would protect, create and enhance greenspace assets; and
- Collate and disseminate information regarding funding opportunities and investments promoting the long-term management of greenspaces.

# Role of the district or borough GI Champion

- Ensure that GI is effectively policy is encompassed within Local Plan practice and operational management;
- Responsible for developing public/private partnerships, seeking funding opportunities and influencing regeneration/housing proposals;
- Ensure that gap analysis or greenspace deficiency mapping undertaken at the district or borough level is up to date in order to inform the delivery of future proposals;
- Highlight and share best practice relating to existing greenspace initiatives as well as challenges impeding the delivery of GI at the district/borough scale; and
- Coordinate the implementation of BNG contributions as part of natural and semi-natural greenspace improvements to ensure areas of socioeconomic, health and greenspace deprivation are prioritised.

# Role of the Local Planning Authority

Provide the GI Champions with evidence base information relating to the analysis of existing open space provision as well as growth and development pressures in order to inform where GI investment is required. This information should be informed by up to date population projections and demography data as well as an in-depth knowledge of existing and future requirements for greenspace provision within the county.

Hertfordshire's water environment

Action overview: Deliver environmental enhancement in vulnerable river valleys and catchments. The aim should be to deliver benefits such as flood alleviation, landscape resilience, climate change adaptation and nature recovery to restore wetland habitat and conserve nationally important chalk rivers. Adding to the multi-functionality of river corridors, recreational access should also be improved where it is feasible and appropriate to do so at specific sites.

Action area of focus: County-wide, with specific focus on east and south Hertfordshire

# The details

1.14 Hertfordshire's river valleys form an important anchor for wider GI across the county. However, concerns regarding future flood risk and ongoing river quality issues are driving the need to transform the way that these 'blue corridors' are managed. Many of Hertfordshire's rivers are not meeting obligations for good ecological and chemical status under the Water Framework Directive. The opportunity exists to provide multiple benefits for people and nature – especially as large-scale development is brought forward in identified growth areas. The chalk rivers in Hertfordshire form an important freshwater habitat with approximately 85% of the global habitat occurring in the UK, located predominantly in the south of England. However, increased water abstraction for new residential and agricultural development continues to threaten this habitat and significantly reduce water flows.

- 1.15 Landscape-scale river corridor restoration, regeneration of the canal network and the creation of links between these features and the wider water environment can help to ensure landscapes are both more resilient to climate change and richer in biodiversity. Opportunities exist to shape 're-wilded' multifunctional blue corridors so that they provide access to the natural environment on the doorsteps of communities located along these routes. By creating space for water and the construction of greenspaces and wetlands within these corridors, it is possible to break up heavily modified watercourses and initiate the process of re-naturalisation. If strategically located, this would help to alleviate surface water flooding during large rainfall events, a key issue for Hertfordshire. River restoration must be carried out on a catchment-scale, including upper catchment schemes (which slow the flow of water downstream) as well as re-wilding river channels and landscapes to de-intensify farming.
- **1.16** Future identified projects should align with, and take their steer from, the priorities, themes and objectives of relevant Environment Agency river basin management plans and Catchment Partnership websites. Effort should be focussed on delivery of interventions identified in existing plans and projects including:
  - The River Lea Catchment Partnership [See reference 3];
  - River Colne Catchment Action Network [See reference 4];
  - Thames River Basin Management Plan [See reference 5];
  - The Revitalising Chalk Rivers Partnership Project [See reference 6];
  - The Farming 4 Clean Water Project [See reference 7];
  - Catchment-based Approach Chalk Stream Restoration Strategy 2021
     [See reference 8]; and
  - Strategic Regional Water Resource Solutions: Standard Gate One Final Decision for Grand Union Canal Transfer [See reference 9].
- 1.17 Increasing connectivity and enhancing wetland habitat mosaics would help contribute to the objectives of the Thames River Basin Management Plan, River Catchment Management Plans and restore favourable Site of Special Scientific Interest (SSSI) and Water Framework Directive condition. Working in

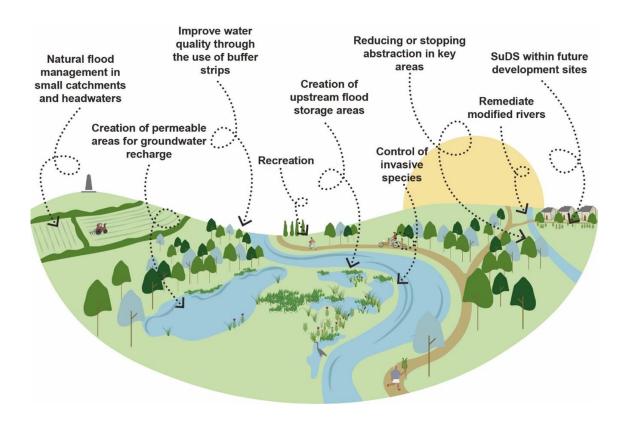
partnership with Hertfordshire Land Management team within the CRoW service, new recreational routes should be established where there is capacity to do so without exceeding biodiversity sensitivity thresholds. Inspiration for a multi-functional blue network can be taken from projects such as 'Rediscovering the River Colne' which seeks to bring the River Colne into the heart of Watford Town whilst improving the riparian environment along its route. Additionally, recreational access routes (such as Beane, Ver, (St Albans to Watford Abbey Flyer), Chess Valley Way, Pollards and Poplars (Stort Valley)) and riverside site based recreational routes (like Oughtonhead Common) should be introduced where appropriate.

- **1.18** As summarised in Figure 1.4, the key priorities should address the following:
- Natural flood management in small catchments and headwaters: Particularly
  in steeper areas, to reduce runoff rates and flood risk downstream. This can
  provide multiple benefits to channel biodiversity enhancement. This would
  require a partnership approach with future Environmental Land Management
  schemes (ELMs) potentially offering a funding route.
- 2. Sustainable Drainage Systems (SuDS) within future development sites: Settlement growth is likely to increase pressures during periods of heavy rain and could lead to flooding of developed land, particularly in already high-risk areas such as Hemel Hempstead and Watford. Proposals for additional natural flood storage should be coupled with biodiversity enhancement, for example wetland creation or SuDS. The requirement for well-designed SuDS should be reinforced in new development to reduce surface water impacts from hard standing areas and reduce nitrogen runoff in sensitive areas.
- 3. Creation of upstream flood storage areas: Areas located upstream and at the confluence of watercourses may be appropriate flood storage areas. This could help to filter run-off pollutants from local upstream agricultural landscapes and help to improve water quality further downstream. The opportunity exists to support this initiative through Section 106 (S106)

payments. Consideration should also be given to the restoration or potential creation of ponds on agricultural land.

- 4. Creation of permeable areas for groundwater recharge: Aquifer recharge should be promoted by using long term water sinks to capture and infiltrate water, slowing run-off rates across the landscape through sustainable cultivation techniques, and capturing and storing peak flows.
- 5. Reducing or stopping abstraction in key areas: Reducing or stopping abstraction in key areas for agriculture or for domestic use would help restore and sustain chalk streams, and the important habitats they support. Affinity Water are promoting a 'Save Our Streams' campaign in the south of England which could be supported and other similar schemes could be introduced.
- 6. Recreation: Multi-functional river corridors should be created by increasing recreational access routes and riverside site based recreational routes (such as Oughtonhead Common) where there is capacity to do so without exceeding biodiversity sensitivity thresholds.

Figure 1.4: Overview of recommended enhancements to Hertfordshire's water environment



# Key delivery risks

- Constrained floodplains due to development can restrict the scope of corridor restoration and some measures (such as 'daylighting' rivers) can incur significant costs; and
- Securing land owner support (e.g. for flood storage opportunities on a landscape scale).

# Potential delivery mechanisms

- Project inclusion in district or borough IDPs to support planned growth;
- ELMs (including Local Nature Recovery (LNR) scheme) and Landscape Recovery Scheme; and
- Strategic off-site BNG.

# Potential delivery partners

■ Environment Agency, Water companies, Internal Drainage Boards (IDB), Lead Local Flood Authority (LLFA), Rivers Trust, Royal Society for Protection of Birds (RSPB), Herts & Middlesex Wildlife Trust, Colne Valley Fisheries Consultative, Rediscovering the River Colne (Groundwork), Canal and Rivers Trust, River Catchment Partnerships, Hertfordshire Land Management team within the CRoW service and landowners.

# **Potential funding mechanisms**

- CIL contributions for development to pay into major or local river infrastructure enhancement projects;
- S106 payments if deemed to meet the test required to make development acceptable (if in immediate vicinity of a river corridor requiring improvement);
- Ecosystem development or payment for ecosystem services (including through green investment);
- Neighbourhood CIL;
- ELMs;
- BNG onsite or offsite credit scheme; and
- Water company grant funding (e.g. INNS Out).

# Role of the county GI Champion

Adopting a strategic and catchment-based approach, identify and promote GI projects that support flood management, river restoration and multifunctional river corridors.

# Role of the district or borough GI Champion

Working in partnership with relevant organisations and the local authority, identify potential environmental enhancement projects for each district or borough, with a specific focus on delivering multi-functionality.

# Role of the Local Planning Authority

- Ensure the requirement for SuDS as part of new development is integrated within local planning policy;
- Utilise planning obligations as a mechanism for delivering GI projects relating to the water environment; and
- Support the inclusion of GI projects in district or borough IDPs to support planned growth.

# GI Priority Action 4: Deliver landscape scale recovery through woodland planting, management and the development of the Woodland Arc

Action overview: Deliver landscape scale recovery for nature through woodland planting. This could include the creation of linkages and landscape buffers at strategic sites in order to provide alternative seminatural greenspace, habitat mosaics and enhanced resilience to climate change. The proposals should be informed by the principles established within the Hertfordshire County Council Tree and Woodland Strategy. Enhanced woodland management should also be promoted as a mechanism to support landscape scale woodland recovery, ensuring that existing woodland is rich in biodiversity and better able to withstand intense weather events.

Action area of focus: County-wide and focus on south Hertfordshire (e.g. Hertsmere, Welwyn Hatfield, Broxbourne, southern extent of East Hertfordshire)

## The details

**1.19** National targets to increase the UK's tree cover as part of net zero goals require all areas of the country to identify areas where woodland can be expanded or created. Woodlands provide multiple functions, including an effective carbon store, recreational benefits, health and wellbeing resource and

habitat linkages. Key opportunities for GI within the county involve the potential enhancement and reconnection of woodland sites through the introduction of additional broadleaf woodland planting schemes. Woodland creation in Hertfordshire should also aim to promote natural regeneration and the establishment of mixed, multi species and diverse canopy plantations. These interventions recognise the vulnerability of the county's oak, hornbeam and beech woodlands as well as Hertfordshire's significant ash populations. Community orchards are a historical habitat that bring together vital landscape, ecological and community benefits.

- **1.20** The creation of new woodland must be aligned with beneficial management of the existing woodland resource, whilst also promoting local distinctiveness and landscape character. Woodland creation and enhancement proposals should therefore consult the relevant information contained within the Hertfordshire Landscape Character Assessment to guide their design. The Hertfordshire County Council Tree and Woodland Strategy identifies lack of investment in landscape management as a significant issue affecting Hertfordshire's woodlands. As a consequence, it would be necessary to ensure that woodland creation delivered via the planning system is funded and maintained in perpetuity. A decline in the species associated with woodland habitat in the county is also partially attributed to human recreational disturbance. As a consequence, greater investment in wider greenspace management should be used to redirect visitor and recreation pressure away from key biodiversity sites such as Broxbourne Woods and Chiltern Beechwoods. The current moratorium on planning determinations in Dacorum Borough Council and adjacent LPAs is a reflection of the need under Habitats Regulation Assessments (HRA) to identify acceptable solutions to this issue.
- **1.21** The Woodland Arc forms an existing sub-regional initiative which could help provide a context for tree planting priority areas within Hertfordshire. This intervention continues to offer great potential for successful GI delivery. The opportunity also exists to enhance and connect woodland within the following locations:
  - Along major transport corridors (such as the M1, A1, A10 and A414);

- Developed land in the south of the county within the Watling Chase Community Forest area; and
- The Lee and Stort Valley (linking to the Green Arc see Hertfordshire GI Strategy Part 1: Setting the Scene A Strategic Review of GI in Hertfordshire).
- 1.22 The key challenge in delivering large-scale woodland creation or community woodlands lies in ensuring suitable sites are selected and adherence with the principle of the 'right tree in the right place' and the wider sustainability principles outlined within the UK Forestry Standard (UKFS) [See reference 10]. The potential also exists to compile comprehensive woodland opportunity mapping (see GI Priority Action 10) to help guide future woodland expansion. This would function as a mechanism to identify habitat gaps and potential sites through desktop review. The steps required to deliver successful woodland planting in Hertfordshire are detailed in the following section and summarised in Figure 1.5, including as part of the England Woodland Creation Offer. Working in partnership or collaboration with organisations, offers the opportunity to access specialist services or expertise as well as various funding sources. Additional mechanisms for securing woodland creation include the following:
  - Planting as part of wider site design (led by robust, GI-led design guidance) or through the BNG process;
  - Ecosystem development/payment for ecosystem services (e.g. carbon credits – buying and selling gas emission allowances to reduce an organisation's environmental impact); and
  - Alternative management structures (e.g. transfer of management responsibility of GI assets from a local authority to a charitable trust).

# Overview of the steps required to deliver successful woodland planting in Hertfordshire (see Figure 1.5)

#### Strategies for identifying location

- District/borough level GI strategies;
- Hertfordshire County Council Tree and Woodland Strategy;
- District/borough level woodland and tree strategies; and
- Emerging LNRS.

#### Datasets for identifying locations

- Working With Natural Processes (WWNP);
- Natural England Habitat Network and Priority Habitats;
- National Forestry and Ancient Woodland Inventories;
- Agricultural land classification; and
- Opportunities for nature-based solutions (e.g. flooding, amenity, carbon sequestration, air quality, nature recovery).

# Routes for delivery on public land

- **1.23** Engage with community groups and neighbourhoods who could be interested in hosting and helping to deliver new woodland.
  - Urban Tree Challenge Fund;
  - Local Authorities Treescapes Fund;
  - Woodland Carbon Code as a validation tool/carbon credits;

- BNG and developer contributions;
- Woodland Trust community tree packs;
- The Tree Council; and
- Charitable trusts.

#### Routes for delivery on private land

- **1.24** Engage with landowners through a 'woodland call for sites,' ensuring they are aware of the 100% capital and management grants available.
  - England Woodland Creation Offer;
  - Woodland Creation Planting Grant;
  - ELMs:
  - Farming in Protected Landscapes;
  - BNG, both on-site and off-site;
  - Woodland Trust MOREwoods and MOREhedges; and
  - Woodland Carbon Code as a validation tool/carbon credits.

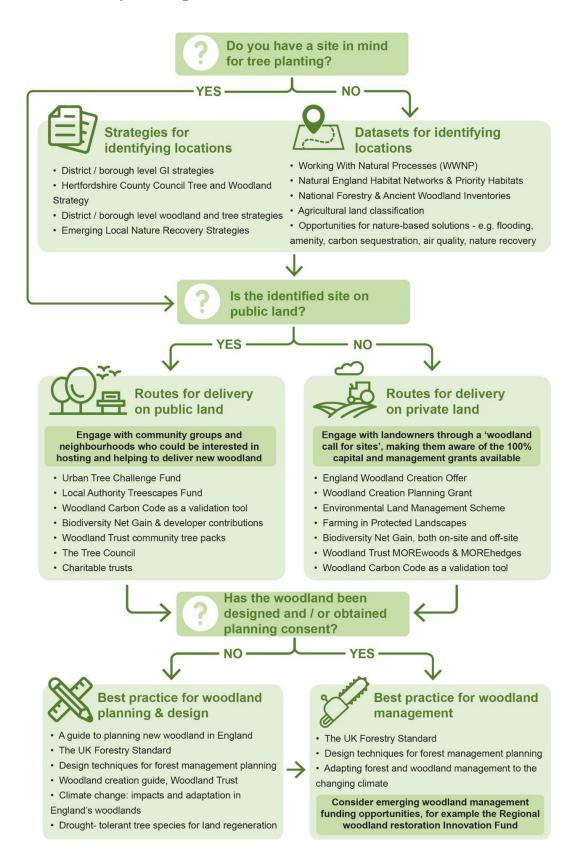
### Best Practice for woodland planning and design

- A guide to planting new woodland in England;
- The UK Forestry Standard;
- Design techniques for forest management planning;
- Woodland creation guide, Woodland Trust;
- Climate change: impacts and adaption in England's woodlands; and
- Drought-tolerant tree species for land regeneration.

# Best practice for woodland management

- The UK Forestry Standard;
- Design techniques for forest management planning;
- Adapting woodland and forest management to the changing climate; and
- Consider emerging woodland management funding opportunities, for example, the Regional woodland restoration Innovation Fund.

Figure 1.5: Overview of the steps required to deliver successful woodland planting in Hertfordshire



# Key delivery risks

■ The 'right tree in the right place' is vitally important in order to ensure that other valuable habitats such as species-rich grasslands and heathland reach establishment. Management and maintenance beyond the initial establishment phase must therefore be integrated into proposals.

# Potential delivery mechanisms

■ ELMs (including LNR scheme) and Landscape Recovery Scheme.

# Potential delivery partners

Land Management team within the CRoW service, Woodland Trust, Forestry Commission, major landowners (including large estates, not for profit orgs, public sector and water companies) and Herts & Middlesex Wildlife Trust.

# **Potential funding mechanisms**

- Planning and development opportunities (e.g. woodland creation delivered alongside new sites and BNG (onsite or offsite credit scheme);
- National tree planting grants (England Woodland Creation and Maintenance Grant, Woodland Tree Health Grant, Woodland Management Plan Grant, Woodland Creation Planning Grant, Urban Tree Challenge Fund and Local Authority Treescapes Fund);
- Woodland Trust MOREwoods and MOREhedges;
- ELMs;
- Natural Investment Readiness Fund;
- Evergreen Fund;
- Alternative management structures (e.g. community owned woodlands or trusts);

- Charitable giving (e.g. the 'Co-forest initiative'); and
- Ecosystem development/payment for ecosystem services (e.g. agrienvironment schemes, emerging payment system for landowners and farmers or carbon offsetting schemes such as the Woodland Carbon Code.

#### Role of the county GI Champion

- Consistent with the principles of the Hertfordshire County Council Tree and Woodland Strategy, identify and promote strategic initiatives for woodland creation, management and linkages (e.g. in pursuit of a Woodland Arc); and
- Collaborate with others to guide in-house woodland management to deliver an appropriate range of societal, environmental and economic objectives.

#### Role of the district or borough GI Champion

- Promote the role of residents, local businesses and communities in the establishment of trees and woodlands through the use of grant schemes and volunteering opportunities;
- Disseminate and recommend the use of guidance material to ensure adherence with the principle of the 'right tree in the right place;'
- Oversee the implementation of both the landscape recovery and nature recovery agenda to ensure the achievement of one is not detrimental to the goals of the other; and
- Collaborate with others to guide in-house woodland management to deliver an appropriate range of societal, environmental and economic objectives.

#### Role of the Local Planning Authority

- Ensure that woodland creation schemes delivered via the planning system allow for landscape management of the scheme as part of the establishment phase and beyond; and
- Continue to apply group Tree Preservation Orders (TPOs) where appropriate.

## GI Priority Action 5: Restore and reconnect distinctive chalk landscapes

Action overview: Restore, enhance and conserve chalk scarp and grassland landscape character, primarily to the north of the county. The intervention should promote landscape linkages across the county and within designated landscapes by promoting appropriate land management and habitat creation.

Action area of focus: North Hertfordshire, St Albans, Dacorum and Three Rivers

#### The details

1.25 Chalk grassland is a nationally important, specialised and fragile habitat, valuable for landscape and historical value as well as wildlife. Chalk grassland within Hertfordshire is largely restricted to the chalk escarpment in the north and west of the county. Strategic core areas include Tring, Luton-Hitchin and Royston-Baldock. The presence of nationally important chalk grassland also forms one of the 'special qualities' of the Chilterns Area of Outstanding Natural Beauty (AONB), located at the north-western extents of the county. The importance of the AONB in providing access to these natural environments has been recognised through recent proposals by Natural England to expand the AONB in response to the findings of the Landscapes Review ("the Glover Review"). Hertfordshire's remaining nationally rare and important chalk grassland sites are likely to provide a focal point for Hertfordshire's Local Nature Recovery Network. Biodiversity is influenced by the structure and management of the landscape, and it is this structure that gives an area a particular sense of place. The spatial patterns in the landscape and the resulting historic and

#### **Chapter 1** Delivery of Green Infrastructure Priority Actions

current land use, govern the habitats and species that can thrive. Better outcomes can therefore be achieved by planning for recovery of the whole landscape, rather than discrete habitats within it.

- 1.26 Hertfordshire's chalk grasslands are now one of the most vulnerable and poorly connected habitats in the county, primarily as a result of the conversion of land to arable farming. Restoration of grazing management is also considered essential on the remaining chalk grassland sites if their conservation value is to be enhanced and maintained. However, traditional grazing management of chalk grassland is often not profitable for farmers or landowners. Key to the success of this GI Priority Action would be collaborating with landowners to identify solutions to conserve farming traditions and reintroduce appropriate livestock grazing. The proposed extension of the Chilterns AONB designation also offers the opportunity to provide a framework for the delivery of area and habitat specific GI interventions within the county. Any proposals should be developed in consultation with the Hertfordshire Landscape Character Assessment to ensure the special qualities of these landscape features are protected and reinforced.
- 1.27 Options to enhance chalk grassland across the county are summarised in Figure 1.6. Potential interventions include working with existing farming enterprises to support conservation grazing, maintaining and using sheep in an arable rotation or fostering missing links with the local food economy including developing niche markets for products where possible. A demonstration farm or the establishment of a forum to share management resources; including equipment, advice and experience could also help promote the benefits of a low input livestock and mixed farm. In addition, road verges also have potential to provide links between fragmented grassland sites. The A505 corridor in particular is important, containing an almost continuous strip of chalk grassland road verge across North Hertfordshire. As such, it is a priority for management.

### Enhancing chalk grassland across Hertfordshire (see Figure 1.6)

- Better outcomes can be achieved by planning for recovery of the whole landscape, rather than individual habitats;
- Grazing is an important management tool for chalk grassland, therefore, options may include the use of sheep in an arable rotation; and
- Road verges have the potential to provide links between fragmented grassland sites.

Figure 1.6: Enhancing chalk grassland across Hertfordshire



#### Key delivery risks

- Few graziers exist in the area and appropriate management requires necessary knowledge and skills;
- Absence of local abattoirs;
- Need to demonstrate profitability or benefits to landowners;
- Perception that livestock farming (e.g. methane) is detrimental to the environment;
- Concern from dog owners regarding increased number of livestock and potential conflicts;
- Requires clear partnership working and liaison with many landowners and stakeholders; and
- The transition to ELMs represents a significant reduction in the overall agricultural funding budget.

#### Potential delivery mechanisms

- LNRS; and
- Private landowners.

#### **Potential delivery partners**

Private landowners, Hertfordshire Land Management team within the CRoW service, Chilterns AONB, HCC Highways, Farming & Wildlife Advisory Group East and Herts & Middlesex Wildlife Trust.

#### **Potential funding mechanisms**

- ELMs; and
- Offsite developer contributions.

#### Role of the county GI Champion

- Work with experts to identify and disseminate strategic and practical solutions to conservation grazing, including potential funding mechanisms;
- Promote and advocate for a change in landscape management to provide biodiversity benefits on land owned by the local authority; and
- Support the identification and promotion of approaches that lower verge/soil fertility to enhance biodiversity.

#### Role of the district or borough GI Champion

- Identify and engage with local private landowners who are interested in grazing their land for enhanced biodiversity benefits;
- Engage and consult with local residents with knowledge of opportunities for improved and ongoing verge management;
- Work with Herts & Middlesex Wildlife Trust as well as colleagues within HCC to identify road verges that could be cut less often;
- Oversee the implementation of both the landscape recovery and nature recovery agenda to ensure the achievement of one is not detrimental to the goals of the other; and
- Support the identification and promotion of approaches that lower verge/soil fertility to enhance biodiversity.

#### Role of the Local Planning Authority

Promote and advocate for a change in landscape management to provide biodiversity benefits or the creation of wildlife-rich areas (where appropriate).

## GI Priority Action 6: Promote community action for nature recovery

Action overview: Encouraging and facilitating local communities and school groups to take responsibility for large or small actions for wildlife in their area. This intervention recognises the tangible difference this approach can make to buffering and connecting priority habitats as well as enhancing people's perception and engagement with nature.

Action area of focus: County-wide

#### The details

1.28 Nature networks offer a multitude of benefits to people. However, these are only sustained in the long-term if people are engaged in their design, planning and delivery. To understand how local communities can be best empowered to deliver nature recovery at a local scale, a survey should be conducted of local authorities as well as local friends groups, environmental volunteer networks and the Herts & Middlesex Wildlife Trust. The survey would seek to understand what existing initiatives exist by local authorities and community groups, how effective projects have been and what barriers prevent community action. The survey would also function as a mechanism to evaluate the output and effectiveness of community engagement initiatives. Findings from the survey would be used to direct investment in local level nature-based project and create a new web-based plan, with the aim for this to be a live record of action and proposals.

**1.29** People can often be at a loss about what they can practically do to support nature. Quarterly Community Action for Nature workshops or webinars would provide an opportunity to learn from experts and access advice on complex

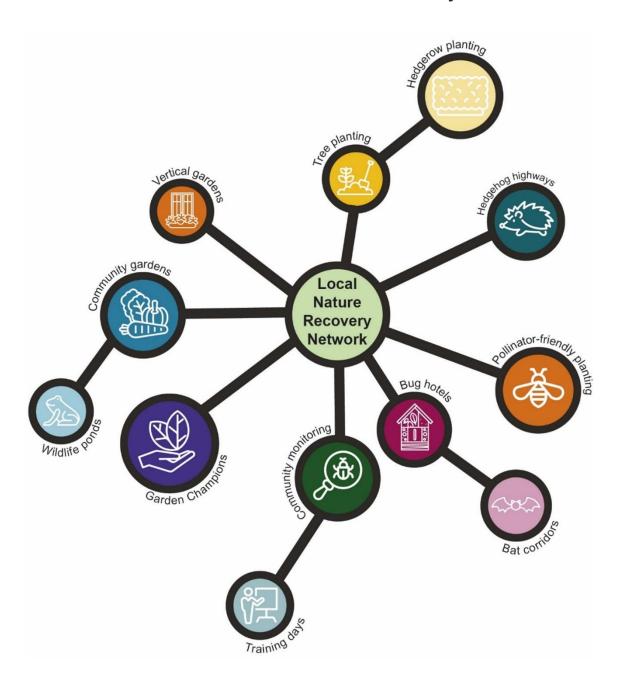
issues, such as tree-planting. This intervention would also bring together people across the county who are already taking action on nature-related topics, forming a mechanism to share best practice and lessons learnt. This would help to maintain enthusiasm and generate new projects and ideas. The outputs would also recognise and celebrate the work of existing groups who are actively engaged in improving and caring for local GI, including friends groups and volunteers. These groups should be the starting point, helping to empower and build on their work done to-date. Skills and knowledge needs would be identified through the results of the survey. Outputs from this action would then be used to inform the design and implementation of the Hertfordshire Nature Recovery Network, as detailed in the following section and in Figure 1.7. Providing a voice and sense of empowerment in the community offers people a stronger commitment to their local area. As a consequence, the community would be more likely to contribute to local activities and participate in the longer-term care and investment in a place.

## Community-based actions which could help to enhance and connect the Local Nature Recovery Network

- Hedgerow planting;
- Tree planting;
- Community orchards;
- Hedgehog highways;
- Pollinator-friendly planting;
- Vertical gardens;
- Community gardens and market gardens (subject to an assessment of need, desire and space);
- Wildlife ponds;
- Garden Champions;
- Community monitoring;

- Training days;
- Bug hotels; and
- Bat corridors.

Figure 1.7: Community-based actions which could help to enhance and connect the Local Nature Recovery Network



#### **Key delivery risks**

- The survey requires central co-ordination and usefulness of output depends on response uptake;
- Relies on continued good will of volunteer networks to implement nature recovery projects;
- Dependent on effective collaboration with communities and local business;
- Lack of smaller scale local grants to deliver community nature recovery projects; and
- Acknowledgement that community-based action is sometimes not guided by expert advice and therefore fails to achieve objectives.

#### Potential delivery mechanisms

- LNRS;
- CIL contributions to deliver community-based nature recovery projects;
   and
- Promote and expand the use of ParksHerts website to communicate key accessible GI assets to the public.

#### Potential delivery partners

District and borough local authorities, Hertfordshire Land Management team within the CRoW service, ParksHerts, HCC Highways, Local environmental action groups, schools, volunteer networks, local businesses and Hertfordshire & Middlesex Wildlife Trust.

#### **Potential funding mechanisms**

- Natural Investment Readiness Fund:
- National Lottery Heritage Fund; and

Corporate Social Responsibility (CSR) contributions.

#### Role of the county GI Champion

- Design, collate results and share findings of community action for nature survey;
- Organise Community Action for Nature workshops; and
- Coordinate with future LNRS leads to ensure Hertfordshire's nature network delivers for people as well as wildlife.

#### Role of the district or borough GI Champion

- Disseminate community action for nature survey and gather ideas for workshops;
- Signpost volunteers to the relevant guidance/best practice; and
- Provide a conduit for local environmental and community groups to feedback to the GI Delivery Partnership on barriers and opportunities for grassroots level action. This includes where Environmental Forums are already established at the district or borough level.

#### Role of the Local Planning Authority

- Provide the GI Champion with access to evidence regarding development of the LNRS so that community events are tailored and targeted to delivering on LNRS priorities; and
- Provide financial and logistical support for holding Community Action for Nature workshops.

# GI Priority Action 7: Produce an overarching county-wide GI Design Code for development

Action overview: Overseen by the county GI Champion, produce a county-level GI Design Code in accordance with best practice set out in the National Model Design Code [See reference 11] and the Building with Nature standard, a GI-led design process tool. The document would be accessible to all and complement resources provided by Building Futures, specifically the Sustainable Design Toolkit, to promote a GI-led design approach for new development. The aim would be to deliver improvements to the design of new developments across the county in relation in GI provision. The outputs should provide consideration of local character and the integration of GI Standards to inform the development of well-designed GI in design coding. This approach is highlighted as a recommended step for developing GI policy as part of the 'process journey,' developed as a component of the Natural England GI Framework.

Action area of focus: County-wide

#### The details

**1.30** Sensitive and good quality design is required throughout the county to tackle cross-cutting issues identified in this Strategy. Projected population growth and increased development has the potential to change the character of settlements and the wider landscape. However, this presents an opportunity to incorporate GI as an integral component of new development. This should be achieved through the production of a county-wide GI Design Code to produce high level principles which can be utilised by districts or boroughs in the first

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instance. These principles can then be adapted into more detailed guidance at a masterplan or site-specific scale.

- 1.31 Principles embedded as part of a GI Design Code would be expected to include details on the design of GI assets, urban greenspace, play spaces, and SuDS to inform a consistent approach to development across the districts or boroughs. The GI Design Code should also incorporate measures of protection and enhancement for biodiversity and the historic environment. By "designing in" GI earlier in the planning process, and through landscape-led design practices, costs can be better managed and GI form a key element of the county's wider placemaking strategy. Clear design parameters would also reinforce distinctiveness of place and help communities decide which GI interventions are incorporated in future developments in their area. This work should also complement the design codes emerging in Gilston as part of the Strategic Landscape Masterplan and Village 1 Masterplan work being led by East Herts District Council (EHDC).
- 1.32 The information required to deliver a successful GI Design Code in Hertfordshire is summarised in further details below and illustrated in Figure 1.8. The GI Design Code would be required to build on the existing 'Sustainable Design Toolkit' developed by Building Futures, culminating in a simple to use 'Developer Checklist' that clearly conveys the types of onsite GI developers should provide as part of development proposals. Working with Building Futures, the opportunity exists to either update the existing toolkit to reflect this information or prepare the checklist as an addendum to the existing resource. The Hertfordshire Landscape Character Assessment should also be consulted when providing design recommendations for more rural locations to ensure the appropriate landscape context is delivered.
- 1.33 District or borough GI Champions should liaise with the Hertfordshire Design Review Panel to promote the delivery of impartial design advice and guidance relating to the integration of GI features into future development proposals. Representation on the Hertfordshire Design Review Panel should also potentially be sought from the county GI Champion. Building with Nature Standards should also be incorporated into the GI Design Code and the existing resources developed as part of Building Futures. This would provide a valuable

mechanism to facilitate these measures, ensuring GI is incorporated effectively into development. The toolkit would help to deliver good practice, providing a framework for designers to ensure they consider a wide range of GI elements.

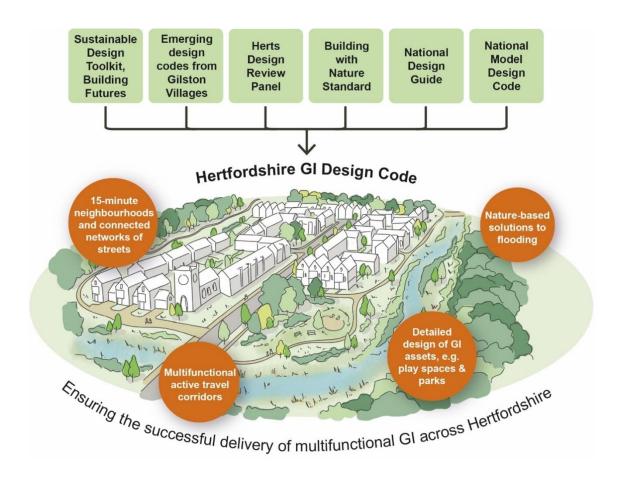
1.34 Key principles of a GI Design Code should also include a connected network of streets, good public transport and the promotion of walking and cycling routes. These can serve as multi-functional GI networks with active travel playing a key role in the delivery of sustainable 15-minute neighbourhoods (see Hertfordshire GI Strategy Part 2a: GI Baseline, Analysis and Priorities). A county-wide GI Design Code should establish these principles and identify strategic corridors in which improvements can be made. Strong placemaking leadership is required at the district or borough level, which the GI Champion should seek to ensure through strategic engagement. The county GI Champion would support the development of the GI Design Code to help prioritise GI in achieving well-designed places at various scales of development. The Parks Delivery Framework (see GI Priority Action 2), the Recreational Access and Mitigation Strategy (see GI Priority Action 2) and consultation with historic environment specialists should also inform the development of the GI Design Code to ensure that the recreational needs of the local communities, protection of semi-natural spaces and protection of heritage assets are all considered as part of the process.

## Delivering a successful GI Design Code in Hertfordshire (see Figure 1.8)

- **1.35** To ensure the successful delivery of multifunctional GI across the Hertfordshire, the Hertfordshire GI design code should be facilitated by the following mechanisms:
  - Sustainable Design Toolkit, Building Future;
  - Emerging design codes from Gilston Villages;
  - Herts Design Review Panel;
  - Building with Nature Standard;

- National Design Guide; and
- National Model Design Code.
- **1.36** These mechanisms will facilitate the delivery of the key principles of the Hertfordshire GI design code, which include:
  - 15-minute neighbourhoods and connected network of streets;
  - Multifunctional active travel corridors;
  - Detailed design of GI assets, examples include play spaces and parks;
     and
  - Nature-based solutions to flooding.

Figure 1.8: Delivering a successful GI Design Code in Hertfordshire



#### Key delivery risks

- Identifying or allocating funding to produce the GI Design Code;
- Although newly supported by central government, future changes in policy could potentially reduce the relevance of design codes; and
- Complexity of adopting a GI Design Code due in part to extensive consultation and stakeholder engagement.

#### Potential delivery mechanisms

- Adherence with national guidance;
- Achieving adopted status the GI Design Code should be adopted by all district and borough local authorities;
- Supplementary planning documents on the subject of design to signpost and highlight the use of a GI-led design process;
- Building with Nature assessment of new development;
- Development Checklist; and
- Strategic Development Masterplans; and Hertfordshire Design Review Panel.

#### Potential delivery partners

Districts or boroughs local authorities, Building Futures (including the Hertfordshire Design Review Panel), Hertfordshire Development Management Group, Building with Nature, Building Futures and Hertfordshire Environmental Resource specialists.

#### Potential funding mechanisms

Potential future allocations of government funding; and

 County and district or borough local authority staffing budgets (where possible).

#### Role of the county GI Champion

- Responsible for providing strategic oversight relating to delivery of the GI
   Design Code and the county's wider placemaking strategy; and
- Consider providing representation on the Hertfordshire Design Review
   Panel to promote the successful delivery of GI across the county.

#### Role of the district or borough GI Champion

- Promote the use of the county-wide GI Design Code and Developer Checklist as a mechanism to inform a consistent approach to development across each district or borough; and
- Consult with Hertfordshire Design Review Panel to promote the integration of GI features into future development proposals.

#### Role of the Local Planning Authority

- Develop Local Plan policies and supplementary planning documents (where appropriate) to promote a GI-led design process;
- Consult with the county and district or borough GI Champions in the preparation of a 'Developer Checklist' which conveys the types of onsite GI developers should provide as part of development proposals;
- Utilise the GI-led design approach to complement other policy planning policy initiatives, such as BNG, by providing a framework by which to appraise a site and identify opportunities; and
- Use the Building with Nature Standards to structure or inform future supplementary planning documents to promote the delivery of GI.

# GI Priority Action 8: Deliver and manage GI as a mechanism to improve air quality and public health

Action overview: Focus on creating tangible and measurable improvements (working alongside air quality programme managers) to air quality in locations that are within or around areas of deprivation. This should be achieved by identifying and promoting urban greening opportunities within the county.

Action area of focus: County-wide

#### The details

1.37 The potential exists for the Strategy to support the delivery of the Hertfordshire Air Quality Strategy and Implementation Plan [See reference 12] to investigate opportunities to reduce urban traffic impacts, whilst linking to Hertfordshire's Local Transport Plan [See reference 13]. Further connections to GI and urban greening should also be established as part of the Hertfordshire Health and Wellbeing Strategy and Public Health Strategy. Interventions focusing on projects in areas of deprivation would help secure the most benefits to people and their wellbeing. This not only applies to ensuring communities have accessible local greenspace but would also require that areas subject to high pollution are more effectively mitigated.

**1.38** Improvements to air quality and public health through GI should therefore be incorporated into local planning policies and formally recognised by districts or boroughs to enable improved delivery from the outset. Public health and indices of deprivation data such as the Joint Strategic Needs Assessment [See

**reference** 14] should be used as a basis in policies to identify areas to prioritise for urban greening interventions (see Figure 1.9). This process would assist in reducing disparities in deprivation, ensuring GI is retrofitted into communities with existing pollution issues and not solely built into new developments. This process should be supported and monitored by the county and district or borough GI Champions.

- 1.39 Urban greening opportunities should be identified in town centres, including street tree planting, segregated bike lanes (i.e. located adjacent to roads and separated by greening) and pocket parks. The installation of green walls, screens and roofs as part of development (including retro-fitting on existing built form) may be more suitable interventions where there is a lack of available space for vegetation. The choice of greening would therefore depend on built form, climatic conditions and existing vegetation, as well as specific pollution issues in specific geographical areas. SMART monitoring of interventions should be established from the outset of any intervention or opportunity, in line with wider approaches to monitoring GI assets and their ecosystem services.
- **1.40** Consideration should also be given to expanding the network of urban greening initiatives throughout the county as a key component of community-focused GI. This is particularly relevant to higher density settlements within Hertfordshire and in areas where Air Quality Management Areas (AQMAs) have been established. Developer contributions such as CIL and S106 would play a key role for allocating funding for urban greening when new development is approved. However, investment in greening projects and accessible local greenspaces can also be sourced through alternative financing routes (see Chapter 2) or via initiatives such as The Sustainable Hertfordshire Central Fund. Once investment has been established, communities of interest to particular assets should be identified and integrated into the management of GI in their area.

## Policies and strategies for identifying urban greening locations and their benefits (see Figure 1.9)

### Policies and strategies to guide the identification of locations for urban greening

- Hertfordshire Air Quality Strategy;
- Local Transport Plan (LTP4);
- Hertfordshire Health and Wellbeing Strategy 2022-2026;
- Hertfordshire Public Health Strategy; and
- Joint Strategic Needs Assessment.

#### Areas to assess urban greening

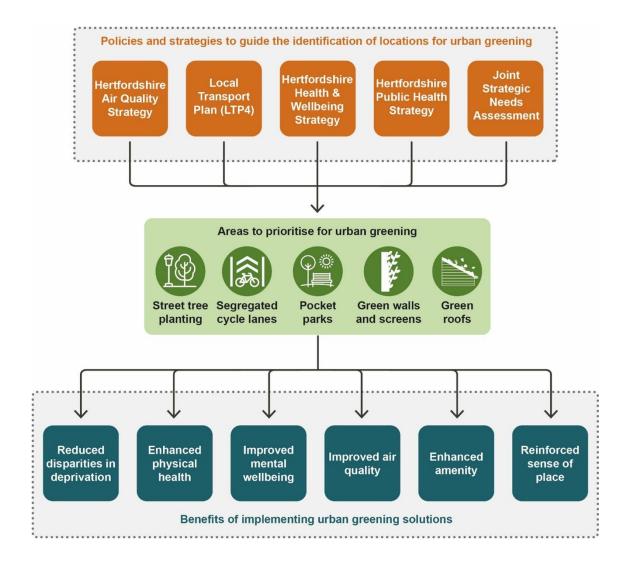
- Street tree planting;
- Segregated cycle lanes;
- Pocket parks;
- Green walls and screens; and
- Green roofs.

#### Benefits of implementing urban greening solutions

- Reduced disparities in deprivation;
- Enhanced physical health;
- Improved mental wellbeing;
- Improved air quality;

- Enhanced amenity; and
- Reinforced sense of place.

Figure 1.9: Policies and strategies for identifying urban greening locations and their benefits



#### Key delivery risks

- Increasing lack of traditional public funding resources to deliver GI;
- The process and delay of adopting effective GI local planning policies across the 10 district or boroughs;

- Resources required for ongoing maintenance and monitoring; and
- Ensuring long term retention of interventions beyond the scope of planning conditions.

#### Potential delivery mechanisms

- Hertfordshire Air Quality Strategy and Implementation Plan;
- Hertfordshire Public Health Strategy;
- GIS mapping and software;
- District or borough implemented Local Cycling and Walking Infrastructure Plans (LCWIPs); and
- Working in partnership with LPA Air Quality Programme managers.

#### Potential delivery partners

HCC Air Quality and Public Health staff, Local Access Forum, Hertfordshire Tree Officer Group, HCC Highways, HCC Transport and Active Travel staff, NHS, Public Health England, and National Highways.

#### **Potential funding mechanisms**

- CIL contributions for development to pay into greening projects;
- S106 payments if deemed to meet the test required to make development acceptable;
- Alternative funding mechanisms such as charitable trusts or the Sustainable Hertfordshire Central Fund;
- Incorporated within wider urban public realm improvements; and
- Local community volunteers and action groups.

#### Role of the county GI Champion

Monitor and provide strategic oversight, establishing linkages to GI as part of the Hertfordshire Health and Wellbeing Strategy and Public Health Strategy.

#### Role of the district or borough GI Champion

- Review existing evidence relating to public health and indices of deprivation to identify priority locations for the delivery of urban greening interventions within each district or borough;
- GI Champions should be aware of existing and emerging best practice guidance in relation to urban greening, including tree planting in urban areas, species selection, SuDS placement and design, green roof and green wall specifications and incorporating active travel into streets; and
- Support the SMART monitoring of GI interventions and share lessons learnt and best practice with the county GI Champion.

#### Role of the Local Planning Authority

- Embed the requirement for air quality and public health into local planning policy; and
- Utilise planning obligations as a mechanism for allocating funding for urban greening initiatives.

# GI Priority Action 9: Reconnect and create multi-functional links to facilitate the movement of people and wildlife

Action overview: Focus on improving the connectivity of active travel infrastructure across the county. This should seek to deliver an increase in the coverage and quality of the PRoW network, other walking and cycling routes and use of redundant features – such as former railway lines for active travel routes and green corridor links.

Action area of focus: County-wide

#### The details

#### For people

**1.41** This intervention should be aligned with the Strategic Transport and Rail Team to deliver Hertfordshire's Local Transport Plan and net zero aspirations across the county to improve active travel infrastructure. This includes increased use and improved quality of the PRoW network, redundant railway lines that can be re-commissioned to walking and cycling routes, or the introduction of wider cycle infrastructure.

**1.42** Consideration should be given to ensuring PRoW connections in Hertfordshire are sustainable, equitable and accessible. This should involve tackling the issue of severance to ensure that PRoW do not terminate once they meet a primary road. This issue is pertinent within large areas of Hertfordshire, alongside other barriers to use of the network including route obstructions and

wayfinding. The opportunity also exists to promote wider strategic linkages across the network, whilst also exploring the potential introduction of circular recreational routes which complement the network of active travel routes within the county. However, all proposals should ensure alignment with the action plan for strategic solutions included within Hertfordshire's Rights of Way Improvement Plan (ROWIP) [See reference 15].

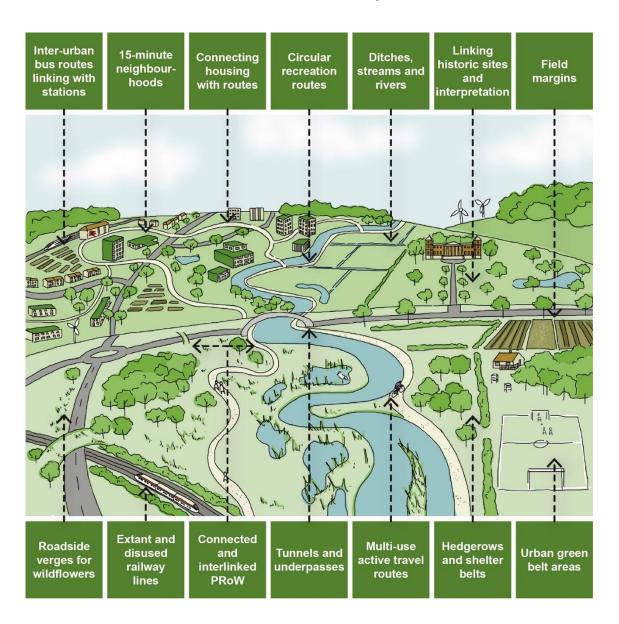
- **1.43** Input into the strategic objectives identified through district or borough Local Plans should include GI provision within relevant housing allocation policies. This includes where these come forward in areas where opportunities exist to link to and strengthen existing GI assets and corridors. Districts or boroughs should also seek to utilise LCWIPs to implement corridor improvements.
- **1.44** In existing urban areas and town centres, the county and district or borough GI Champions should promote the possibilities of GI. This could include links to the 15-minute neighbourhood concept, optimising urban greening, providing segregated pedestrian and cycle routes, improved walking and cycling routes in general, inter-urban bus routes and the provision of connections to rail and bus stations. Opportunities to link historic sites as part of promoted routes should also be pursued.

#### For nature

**1.45** Infrastructure such as roads, railways and canals can often result in habitat severance and fragmentation. However, if managed sensitively, the linearity of these routes offer the opportunity for the provision of vital wildlife corridors that link habitats and reduce the isolation of populations (see Figure 1.10). For example, a change in the landscape management approach aimed at delivering roadside verges for wildflowers offers the potential for enhanced floristic diversity. Other vital green links include, hedgerows, railway tracks, tunnels and underpasses, rivers, streams, ditches, field margins and urban green belt areas. Many of these features provide multi-functional benefits for people and can be strategically planned to maximise the benefits of their ecosystem services. Green bridges create a safe crossing point for wildlife movement across busy

traffic routes such as roads and railways. These are usually planted with a variety of local trees or shrubs and other vegetation and provide wider benefits such as landscape integration. These features are largely absent in the county, other than examples such as the cut and cover tunnel at the A505 Baldock Bypass, which was created to preserve the skyline. Consideration of how GI networks and wildlife corridors apply to Hertfordshire should be understood and applied by the county or district/borough GI Champions.

Figure 1.10: Summary of how linear GI features, green links and connections relate to the wider landscape



#### Key delivery risks

- Reliant on a broad and strategic planning approach with buy-in from multiple stakeholders;
- Dependency on CIL and S106 developer contributions;
- Significant legal challenges associated in making alterations to the existing PRoW network which would need to be overcome; and
- Management and maintenance costs of infrastructure and the PRoW network.

#### Potential delivery mechanisms

- LCWIPs;
- Masterplanning exercises (e.g. through strategic developments);
- Highways Integrated Transport Projects (ITP); and
- Updates to the Hertfordshire Rights of Way Improvement Plan.

#### **Potential delivery partners**

Hertfordshire Strategic Transport and Rail Team, HCC Highways, National Highways, Department for Transport and Local Access Forum.

#### Potential funding mechanisms

- CIL contributions for development to pay into enhancement projects;
- S106 payments if deemed to meet the test required to make development acceptable;
- BNG onsite or offsite credit schemes; and
- Allocations of Levelling Up funding, specifically in urban areas.

#### Role of the county GI Champion

- Promote the multi-functional benefits of utilising GI interventions within active travel initiatives. The role should support the general principles of Hertfordshire's ROWIP, whilst also promoting modifications (where appropriate) to enable enhanced GI connectivity;
- Encourage Elected Members to lobby where proposals would lead to increased severance of the network;
- Liaise with colleagues in HCC Highways to promote and advocate for a change in landscape management to provide biodiversity benefits (where appropriate); and
- Coordinate a wildlife corridor response from borough or district GI Champions to help form a strategic map of Hertfordshire's wildlife corridors.

#### Role of the district or borough GI Champion

- Working with the Land Management team within the CRoW service, identify localised interventions at the district/borough to restore fragmented sections of the PRoW network as well as opportunities to introduce urban greening initiatives;
- Act as an advocate for inclusion of wildlife-sensitive management in grounds maintenance contracts or with in-house teams; and
- Identify existing and potential future wildlife corridors across each district or borough which can be fed back to the county GI Champion to form a strategic wildlife corridor map.

#### Role of the Local Planning Authority

 Commission LCWIPs as a mechanism to implement corridor improvements; and

#### **Chapter 1** Delivery of Green Infrastructure Priority Actions

Consult with colleagues in HCC Highways to promote and advocate for a change in landscape management to provide biodiversity benefits (where appropriate).

# GI Priority Action 10: Improve understanding of existing GI baseline and projects

Action overview: Create an interactive GI map (including ecological designations, park management, open space usage, existing and proposed projects and environmental pressures) with the aim of providing a comprehensive evidence base on county-wide GI delivery, needs and priorities. This mapping resource would be used to support districts and boroughs to inform Local Plan making and by the third sector when coordinating project delivery. In addition, the interactive outputs would aim to assist local authority planners in applying the Natural England GI Framework when developing GI policy.

Action area of focus: County-wide

#### The details

- **1.46** The aim of this intervention would be to deliver a comprehensive interactive mapping resource of functional GI, providing a consistent baseline across Hertfordshire. The evidence gathering exercise should place specific emphasis on understanding how well the GI in the county functions. An assessment of assets against identified needs and local priorities would therefore form a component of the GI evidence analysis.
- **1.47** The Beta GI Mapping Tool, the emerging evidence base provided by the Natural England's GI Framework, would form the basis of the digital outputs.

This data would be supplemented with locally specific information, current projects and initiatives as well as emerging core GI standards relating to accessible greenspace or urban greening, as detailed in the following section and illustrated in Figure 1.11. Woodland opportunity mapping (see GI Priority Action 4) should also be integrated as a mechanism to help guide future woodland expansion. The biodiversity baseline mapping commissioned by HCC should also be included. The addition of this local data would aim to enhance local understanding and locally relevant issues. The outputs would support the GI Design Guide (see GI Priority Action 7), best practice case studies and 'process journeys', with the intention of embedding GI informed decision making across local authority departments and facilitating the sharing of information with external stakeholders.

- **1.48** Key assets, designations and GI projects would be mapped to enable districts or boroughs to use the GIS datasets to inform their own policy mapping and wider evidence base. This would allow for a clear link to be made between the Strategy (and the assets identified within it) and Local Plans. In addition, the mapping resource should be supplemented with informed studies and assessments to understand the sensitivity of the county's landscape to potential land use change. Consideration should also be given to the delivery of an update to the existing county-wide Landscape Character Assessment [See reference 16] to help define the landscape baseline and help shape future development, providing a foundation for the delivery of GI within the county. The outputs of these two studies could be utilised as an evidence base, alongside stakeholder and community engagement, to adopt a series of local landscape designations across Hertfordshire which will to help protect landscapes of particular local value. These non-statutory designations can be especially useful for LPAs seeking to manage growth, implement GI, protect valued landscapes, and guide positive landscape change.
- **1.49** The development of the comprehensive mapping evidence base would help LPAs in assessing quality, quantity and connectivity of current GI assets. Gaps in provision, inequalities in distribution and opportunities for enhanced GI would also be identified in order to inform the 'process journey' and develop GI policy. The recommended steps for developing GI policy, as detailed within the Natural England GI Framework, are detailed in below. Once the evidence base

is compiled, the next step in developing GI policy would require LPAs to plan strategically by setting benchmarks and standards through local policy and guidance.

1.50 The digital outputs would allow for improved county-wide understanding of ecology, parks management, visitor usage of open space and environmental pressures. The deliverables would enable users to plan for the creation and enhancement of GI at a strategic scale, whilst providing a key tool in aiding implementation, reporting and monitoring of identified GI Priority Actions. Furthermore, this information would be used as a tool for development managers, spatial planners and other local authority departments to use as a means of assessing development impacts or determining suitable locations of housing or employment allocations in Local Plans (and help to inform on or offsite GI delivery requirements). The data would be inputted as part of Authority Monitoring Reports (AMR) to inform indicators and a means to record or measure loss and gain across the GI network. Appropriate levels of data would also be provided to key local organisations or charities and delivery partners to support engagement, co-ordination and delivery of identified GI projects.

### Steps involved in the compilation of the data forming the evidence base

#### Hertfordshire's Interactive GI Map Inputs

- ParksHerts and existing Hertfordshire County Council held data:
  - As a baseline for existing knowledge.
- Natural England GI Mapping:
  - To build on what is already known.
- Local knowledge:
  - Compiled and monitored by the borough/district GI Champion.

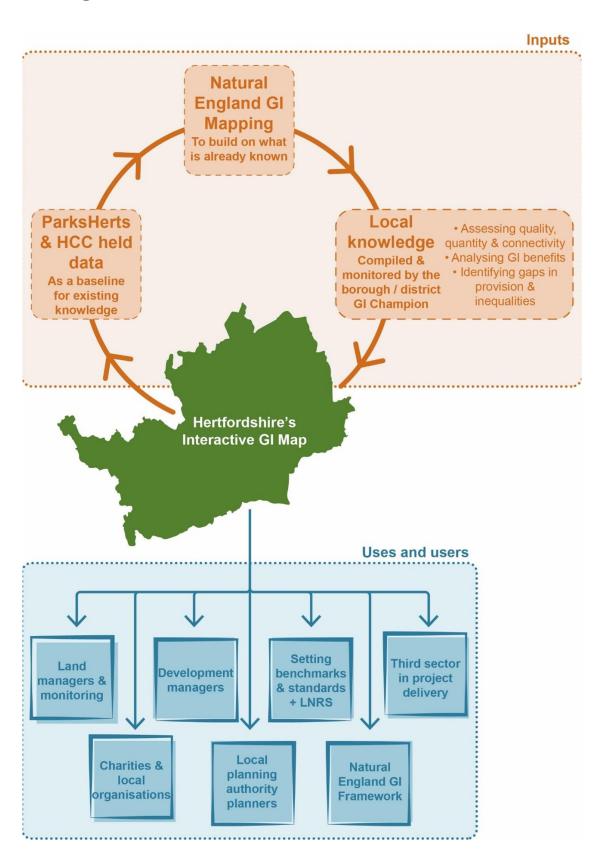
#### **Chapter 1** Delivery of Green Infrastructure Priority Actions

- Assessing quality, quantity and connectivity.
- Analysing GI benefits.
- Identifying gaps in provision and inequalities.

#### Hertfordshire's Interactive GI Map Uses and Users

- Land managers and monitoring;
- Charities and local organisation;
- Development managers;
- LPA planners;
- Setting benchmarks and LNRS;
- Natural England GI Framework; and
- Third sector in project delivery.

Figure 1.11: Steps involved in the compilation of the data forming the evidence base

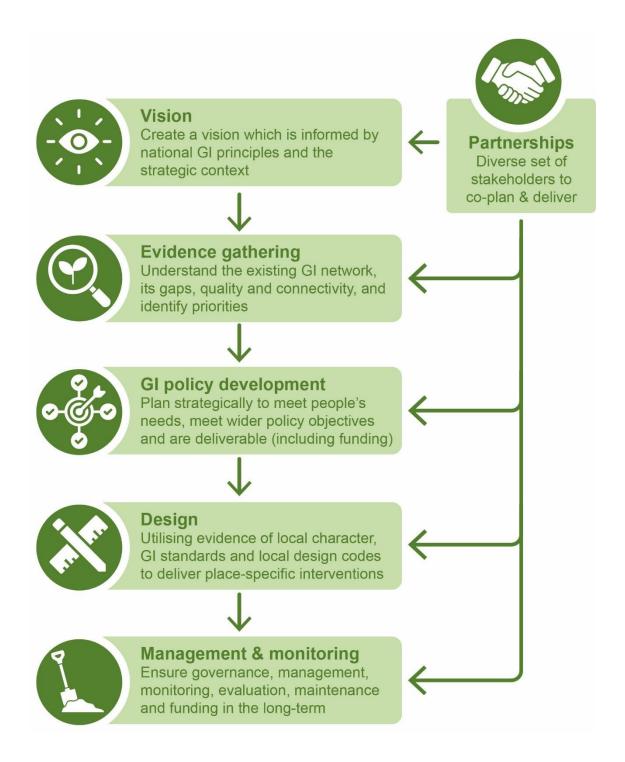


## Recommended steps for developing GI policy, as outlined within the 'Process Journey' forming a component of the Natural England GI Framework

Partnerships – Diverse set of stakeholders to co-plan and deliver the following:

- Vision Create a vision which is informed by GI principles and the and the strategic context.
- Evidence gathering Understand the existing GI network, its gaps, quality and connectivity, and identify priorities.
- GI policy development Plans to strategically meet people's needs, meet wider policy objectives and are deliverable (including funding).
- Design Utilising evidence of local character, GI standards and local design codes to deliver place-specific interventions.
- Management and monitoring Ensure governance, management, monitoring, evaluation, maintenance and funding in the long-term.

Figure 1.12: Recommended steps for developing GI policy, as outlined within the 'Process Journey' forming a component of the Natural England GI Framework



# Key delivery risks

Requires a dedicated GIS resource within HCC to ensure the mapping resource is kept up to date.

# Potential delivery mechanisms

- Promote and expand the use of ParksHerts website to communicate key accessible GI assets to the public; and
- Amendment to existing job specifications for appropriately selected posts at HCC.

# **Potential delivery partners**

ParksHerts Group, Hertfordshire Land Management team within the CRoW service and district or borough local authorities.

# Potential funding mechanisms

 County and district or borough local authority staffing budgets (where possible).

# Role of the county GI Champion

- Responsible for oversight of the mapping resource, ensuring its effective use is promoted and data remains up to date; and
- Commission informed studies and assessments, including a county-wide landscape sensitivity study and update to the Hertfordshire Landscape Character Assessment.

# Role of the district or borough GI Champion

Responsible for collating data regarding current projects and initiatives in relation to their specific district or borough.

# Role of the Local Planning Authority

- Utilise the mapping resource to help meet the requirements in the National Planning Policy Framework to consider GI in the development of Local Plans, policies and GI strategies; and
- Apply the mapping outputs as a mechanism to assess development impacts or determine suitable locations of housing or employment allocations in Local Plans (helping to inform on or offsite GI delivery requirements).

# **Chapter 2**

# Mechanisms for GI delivery and funding

- **2.1** In recent years, there have been far fewer public resources available for funding the delivery, management and maintenance of GI. It is now rare to find local authorities relying on the traditional models of the past whereby local government funded and maintained the GI network. This is leading to a visible disconnect between the needs of the GI network to address climate change and support nature recovery on the one hand, and the financing mechanisms available to do so on the other. One solution is to piece together a number of alternative mechanisms in order to deliver and maintain GI in Hertfordshire. Not all mechanisms would be appropriate for all types of GI interventions. However, the categories set out below outline how some of these tools might be used in the local context.
- **2.2** This chapter provides an overview of the following delivery routes and how they might apply to Hertfordshire's GI network:
  - Delivering GI through the planning process;
  - Strengthening GI through ELMs; and
  - Alternative financing routes for GI in Hertfordshire.
- **2.3** The potential delivery mechanisms are summarised in Figure 2.1 and explained in the following section.

GBI-led Design coding scheme design & guidance Via the planning system Infrastructure Delivery Plan Environmental Sustainable farming incentive Land **Management** Green Scheme Local nature Infrastructure recovery Via Landowner **Grant funding Initiative** buy-in for capital Landscape works & = recovery management (E) (1) **Taxation and** Payment for Via alternative levies ecosystem services financial mechanisms **Alternative** Income-generating management structures opportunities Multi-agency & Charitable giving, opportunities community delivery & voluntary sector

Figure 2.1: Summary of potential delivery mechanisms

# Delivering GI through the planning process in Hertfordshire

**2.4** Significant new development is planned for the county in the coming years (see Hertfordshire GI Strategy Part 1: Setting the Scene – A Strategic Review of GI in Hertfordshire). It is therefore vital that high-quality, tailored GI is delivered alongside these developments – both as an integral component of the masterplanning process for new housing or employment land, as well as

through contributions to the surrounding GI network. This would boost the ability of the county to accommodate change, provide a high quality of life and environmental resilience. New development can fund GI either directly through levies or planning obligations. Two important mechanisms for delivering this are outlined below:

- Design guidance and coding: The principles set out in this Strategy should be fully integrated into any emerging design guidance and design coding work. By "designing in" GI earlier within the planning process, and through landscape-led design practices, costs can be better managed and GI can sit at the heart of a wider placemaking strategy.
- Delivery of GI through planning gain or levies: S106 agreements and CIL offer the opportunity to contribute towards the funding of infrastructure associated with new developments. This might include the creation of greenspace. The opportunity also exists to deliver improvements for nature by linking with BNG requirements (either through on site or offsite credits).

# Strengthening GI through Environmental Land Management Schemes (ELMs)

- **2.5** As highlighted in Hertfordshire GI Strategy Part 2a: GI Baseline, Analysis and Priorities, over half of Hertfordshire's landscape is characterised by arable farmland. The move towards sustainable, environmentally friendly farming in the county would be vital in strengthening the GI network resulting in farming practices which work with nature and help to deliver a range of environmental services beyond food production. However, the management of agricultural land lies beyond the remit of the planning process. As a consequence, GI could be delivered through the following interventions:
  - Effective long-term management of carbon-rich soils and wetland habitats;

#### **Chapter 2** Mechanisms for GI delivery and funding

- Implementing landscape scale natural flood management and reconnecting floodplains;
- Promoting woodland creation, natural regeneration and hedgerow planting and management; and
- Encouraging greater uptake of ELMs by HCC and partner organisations, albeit the transition to ELMs represents a significant reduction in the overall agricultural funding budget.
- **2.6** Now is a time of great change in the agriculture sector, but one which provides huge opportunity to enhance the environment. ELMs is currently in the process of being rolled out in England. The scheme is based upon a public money for public goods model which provides an opportunity to move away from an intensive production-only approach and a subsidy system that rewards farmers based on the size of their landholding to one which recognises and rewards farmers for maximising the range of public goods delivered by farmland. This includes:
  - Clean water;
  - Sequestering carbon; and
  - Providing access for people to enjoy the countryside.
- **2.7** There are three tiers in ELMs, as listed below:
- Sustainable Farming Incentive Intended to be accessible by all land holders to ensure good environmental practices are conducted as a baseline standard.
- 2. Local Nature Recovery Encouraging land managers to work collaboratively for local nature recovery and deliver local environmental benefits.
- 3. Landscape Recovery Long-term, land use change projects (e.g. woodland, peatland and wetland restoration).

**2.8** Private investment would also supplement public money to deliver environmental enhancements. This might include through the voluntary carbon market, water quality, nitrate neutrality and habitat provision (e.g. through offsite BNG). It is important to explore and promote these opportunities to enable Hertfordshire's farming community to tap into available markets, alongside public money from the emerging ELMs. Appropriate support for the farming community is required to ensure the successful delivery of these interventions.

# Alternative financing routes for GI in Hertfordshire

2.9 In 2021, a coalition of public and private partners called the South West Partnership for Environment & Economic Prosperity (SWEEP) produced a report named Alternative Funding Mechanisms for Green Space [See reference 17]. The document is designed to assist individuals, organisations and authorities in delivering and managing greenspaces. The contents of the report informs the categories set out below. Importantly, the approach outlined in the report looks beyond public sector funding and planning mechanisms for the financing and funding of GI. It outlines a number of innovative mechanisms which require collaboration with the private sector, local communities and local business. The alternative funding mechanisms include:

- 1. Income-generated opportunities and loans and taxation:
  - Sponsorship/naming rights;
  - Events of special uses;
  - Tax Increment Financing (TIF);
  - Business Improvement Districts;
  - Location specific tax;
  - Concessions; and
  - Rental charges.

#### Chapter 2 Mechanisms for GI delivery and funding

- 2. Alternative management structures:
  - Endowments;
  - Community asset transfers; and
  - Non-profit distributing organisations (NDPOs).
- 3. Planning and development opportunities:
  - Property assets/investment portfolios;
  - Private sector;
  - Land sales; and
  - Planning obligations.
- 4. Charitable giving and voluntary sector involvement:
  - Subscription schemes;
  - Investment crowd-funding;
  - Donations/philanthropic partnerships;
  - Community/volunteer groups; and
  - Corporate volunteering.
- 5. Ecosystem development/payment for ecosystem services:
  - Renewable energy tariffs;
  - Utility and rights-of-way leasing;
  - Offsetting; and
  - Water management.
- 6. Multi-agency opportunities:
  - Grant funding;

#### **Chapter 2** Mechanisms for GI delivery and funding

- Innovative use of public budgets;
- Shared-use agreements; and
- Special designations.

# Income generating opportunities

#### How does this work?

**2.10** Under this mechanism, GI can be used for commercial purposes to generate income. For example, through the provision of services, including sports events, nature recreation/tourism or settings for cafés. Local food festivals or farmers markets can help support local people and demonstrate the relationship between land management, biodiversity and people. This can include sponsorship opportunities, such as sponsoring an activity in a space. It can also provide one-off events, such as weddings or natural burials. It can involve charging the public for using facilities such as parking, tennis or pools, or by selling products (e.g. firewood). This model can offer substantial, long-term funding. However events should be limited at ecologically sensitive sites (e.g. ancient and semi-natural woodland sites or areas with ground nesting birds) to reduce disturbance and degradation. It also requires skill and expertise to develop a business model. It also risks excluding certain groups from using the GI network if not managed carefully.

## **Case studies**

**2.11** The Heart of the Forest cooperative [See reference 18] within the National Forest (Leicestershire) was formed through the collaboration three companies with a passion for trees. Seed funding was provided by the National Forest Company the company which runs an annual music and arts festival within the forest. Three partners produce high quality, sustainable charcoal. All proceeds

from sales help support the group to meet running costs and to provide sustainable income for charities within the forest.

#### Loans and taxation

# How does this work?

2.12 This mechanism uses local and national taxation to allocate funding to GI interventions. This might include location-specific taxes or business levies. Service charges on new developments — which pay for the management and maintenance of the on-site GI network — are one increasingly common example of this approach. Business Improvement Districts (BIDs) and Park Improvement Districts are another. In the US, the use of tax-increment financing (TIF) [See reference 19] is a more ambitious approach but there has been little experimentation of this approach in the UK. This model can help businesses to see GI improvements as an investment — for example if improvements lead to increased footfall in town centres. However these businesses must be persuaded of the benefits. There is also a risk of excluding those who would benefit most from living near greenspace if not managed carefully.

# **Case studies**

- **2.13** The Land Trust **[See reference** 20**]** is a non-profit entity that manages residential service charges at several sites across England. This management is driven by five key charitable objectives which focus on long term benefits to the community and the environment, as well as providing great spaces to visit and enjoy. In 2019-20 the Trust estimated the social value created at these sites to be nearly £2.5 million, rising to over £16 million when the uplift in property prices is taken into consideration.
- **2.14** The Greening the BIDs [See reference 21] initiative across London supported 15 GI audits and part-funded demonstration projects with the aim of

catalysing urban greening in central London. Key objectives included reducing the Urban Heat Island effect and tackling flood risk.

# Alternative management structures

#### How does this work?

2.15 This mechanism allows a local authority to transfer control for the management of specific GI features to structures such as charitable trusts. This approach opens access to new sources of funding and can allow for a more strategic approach to finance to achieve stable annual funding. The benefits of this mechanism are that land ownership can remain with the local authority but that wider management boards can bring together skills and expertise. This can help to provide access to new funding sources and provide opportunities for more long term, strategic thinking. However, this may result in limited oversight by local authorities in how the space is managed. It may also make it harder to work in partnership with the delivery of other local authority services.

## **Case studies**

- **2.16** As a response to budget cuts of 90% over seven years, Newcastle Council worked with the National Trust to research this possibility of transferring the operation, delivery and maintenance of a large proportion of the city's parks and allotments to a new Charitable Trust. In November 2017, the Newcastle Parks Trust [See reference 22] was created to develop and car for the parks for future generations.
- 2.17 This model also builds on the earlier example of the Milton Keynes ParkTrust [See reference 23]. This was established by the Milton KeynesDevelopment Corporation as part of the establishment of the post-war NewTown to own and manage the strategic open space in the town in perpetuity.

It took a 999 year lease of 4,500 acres and was given an endowment at the time of £20 million – mainly in the form of commercial property.

# Charitable giving and voluntary sector

#### How does this work?

**2.18** This mechanism harnesses the work of local communities and volunteers in greenspace, including seeking out corporate or philanthropic investment. This model can be powerful in supporting regeneration initiatives and creating a sense of community ownership – contributing to the long term sustainability of GI. However, it can be unpredictable, requests for donations can be off-putting if not managed correctly, and it relies on highly motivated individuals or groups.

#### **Case studies**

**2.19** Heeley People's Park **[See reference** 24**]** in Sheffield is the largest community run park in the country. Instead of being paid for or managed by Sheffield City Council, it has been maintained by local people and businesses since 1996. The 3.5 hectares of land the park occupies lay derelict until the mid-1990s, when a local group came together to protect the interests of the community. The park is run by the Heeley Development Trust on a 125-year lease from Sheffield City Council. It is run by the Trust's staff and a community of volunteers.

# Payment for ecosystem services

#### How does this work?

2.20 Under this mechanism, the environmental services and benefits provided by GI can be utilised to generate income. It is a relatively new area of financing and is one way of helping to boost investment by a range of public and private actors in the natural environment. This might include the production of renewable energy or offsetting through carbon credits or tools to offset impacts on biodiversity. It can also include funding for water management to reduce flood risk through SuDS. This model can be a useful way of reducing costs and funding ongoing maintenance for certain types of intervention. However, it requires upfront investment and work to make a viable case for investment.

### **Case studies**

**2.21** The River Lyd Nature Bid project **[See reference** 25**]** in Devon saw farmers and landowners in the Lyd catchment submit bids to an online auction to obtain grant funding for projects aimed at improving water quality. Examples of projects included woodland planting, aeration or sub-soiling of grassland, cover crops for arable areas, watercourse fencing, field buffer strips, installing ponds or wetland features. Demand for the scheme outstripped supply, thanks to a clear and simple application process.

**2.22** A somewhat different demonstration of this model is the Powering Parks [See reference 26] initiative in Hackney (east London) which uses heat pumps to collect ambient heat stored in the ground, water or air and then concentrate it so that it can be pumped into nearby buildings – either run by the local authority or nearby buildings. The initiative began at Abney Park cemetery but created a replication package for use by other park managers – including an online early-stage feasibility model.

- **2.23** The Forest Carbon [See reference 27] initiative is one of many ways to use carbon credits for organisations to offset their environmental impact.
- **2.24** Finally, Triodos Bank is working with a number of partners [See reference 28] to link investment in nature-based solutions to economic and social outcomes to make this kind of investment a recognised commercial proposition. The bank selected four projects to receive funding as part of a pilot scheme to become 'investment ready.' They include the restoration of wetlands in Devon and natural flood management in the Wyre catchment.

# Multi-agency opportunities

#### How does this work?

2.25 This mechanism involves working in partnership or collaboration among multiple organisations. It pieces together different funding sources, including grants. This model creates opportunities for large-scale change through new infrastructure. Special designations (e.g. for landscape in particular) can allow access to alternative funding sources. However the funding available is often for specific short-term uses and rarely funds core capacity. The time commitment for putting together detailed applications and identifying co-funding can also be onerous.

# **Case studies**

**2.26** The planned Clyst Valley Regional Park [See reference 29] in Devon is an area almost the same size as Exeter. It is protected through Strategy 10 of East Devon District Council's Local Plan and will be high quality greenspaces linked by trails and public transport. The project was in large part driven to provide access to nature while protecting local sensitive habitats. The capital for projects will often arrive from a variety of sources: national government, grants from charities, developer contributions and other places.

# References

- Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework [pdf]. Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1005759/NPPF\_July\_2021.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1005759/NPPF\_July\_2021.pdf</a>
- Natural England (n.d.) Introduction to the Green Infrastructure Framework Principles and Standards for England [online]. Available at: <a href="https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.a">https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.a</a>
  spx
- 3 River Lea Catchment Partnership website. Available at: http://www.riverleacatchment.org.uk/
- 4 River Colne Catchment Action Network website. Available at: http://www.colnecan.org.uk/
- Department for Environment, Food and Rural Affairs (2015) Water for life and livelihoods: Part 1: Thames river basin district River basin management plan [pdf]. Available at:

  <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/718342/Thames\_RBD\_Part\_1\_river\_basin\_management\_plan.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/718342/Thames\_RBD\_Part\_1\_river\_basin\_management\_plan.pdf</a>
- 6 Revitalising Chalk Rivers website. Available at: http://www.revitalisingchalkrivers.org.uk/
- 7 River Lea Catchment Partnership: Farming4 Clean Water Scheme website. Available at: <a href="http://www.riverleacatchment.org.uk/index.php/middle-lea-cmp/middle-lea-projects/1193-farming-4-clean-water-scheme">http://www.riverleacatchment.org.uk/index.php/middle-lea-cmp/middle-lea-projects/1193-farming-4-clean-water-scheme</a>
- 8 CaBA Chalk Stream Restoration Group (2021) Chalk Stream Restoration Strategy 2021 [pdf]. Available at: <a href="https://catchmentbasedapproach.org/wp-content/uploads/2021/10/CaBA-CSRG-Strategy-MAIN-REPORT-FINAL-12.10.21-Low-Res.pdf">https://catchmentbasedapproach.org/wp-content/uploads/2021/10/CaBA-CSRG-Strategy-MAIN-REPORT-FINAL-12.10.21-Low-Res.pdf</a>
- 9 Regulators' Alliance for Progressing Infrastructure Development (2021) Strategic regional water resource solutions: Standard gate one final decision for Grand Union Canal Transfer [pdf]. Available at:

https://www.ofwat.gov.uk/wp-content/uploads/2021/12/Standard-gate-one-final-decision-for-Grand-Union-Canal-

<u>Transfer.pdf#:~:text=The%20Grand%20Union%20Canal%20%28GUC%29%20solution%20utilises%20the,areas%20of%20water%20deficit%20in%</u>20Affinity%20Water%27s%20supply.

- Forestry Commission (2017) The UK Forestry Standard: The governments' approach to sustainable forestry [pdf]. Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/687147/The\_UK\_Forestry\_Standard.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/687147/The\_UK\_Forestry\_Standard.pdf</a>
- Ministry of Housing, Communities and Local Government (2021) National Model Design Code: Part 1 The Coding Process [pdf]. Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1009793/NMDC\_Part\_1 The Coding Process.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1009793/NMDC\_Part\_1 The Coding Process.pdf</a>
- 12 Hertfordshire County Council (2019) Air Quality Strategy 2019:
  Implementation Plan [pdf]. Available at:
  <a href="https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/data-and-information/public-health/air-quality-implementation-plan.pdf">https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/data-and-information/public-health/air-quality-implementation-plan.pdf</a>
- Hertfordshire County Council (2018) Hertfordshire's Local Transport Plan 2018-2031 [pdf]. Available at: <a href="https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf">https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf</a>
- Hertfordshire County Council (n.d.) Hertfordshire Joint Strategic Needs Assessment [online]. Available at: <a href="https://www.hertfordshire.gov.uk/microsites/jsna/hertfordshires-joint-strategic-needs-assessment.aspx">https://www.hertfordshire.gov.uk/microsites/jsna/hertfordshires-joint-strategic-needs-assessment.aspx</a>
- 15 Hertfordshire County Council (2017) Rights of Way Improvement Plan [pdf]. Available at: <a href="https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/countryside-access-and-management/rights-of-way/improvement-plans/rights-of-way-improvement-plan-201718-202728.pdf">https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/countryside-access-and-management/rights-of-way/improvement-plans/rights-of-way-improvement-plan-201718-202728.pdf</a>
- Hertfordshire County Council (n.d.) Landscape Character Assessment [online]. Available at: <a href="https://www.hertfordshire.gov.uk/services/recycling-">https://www.hertfordshire.gov.uk/services/recycling-</a>

- <u>waste-and-environment/landscape/landscape-character-</u> assessment.aspx#
- 17 De Bell, S., Abrahams, R., Lovell, R. and Wheeler, B. (2021) Alternative funding mechanisms for green space (SWEEP Report) [pdf]. Available at: <a href="https://sweep.ac.uk/wp-content/uploads/AFM-Report.pdf">https://sweep.ac.uk/wp-content/uploads/AFM-Report.pdf</a>
- 18 Heartwood Community Woodfuel Group (n.d.) Heart of the Forest Cooperative [online]. Available at: <a href="https://www.heartwoodhof.org.uk/heart-of-the-forest-co-operative">https://www.heartwoodhof.org.uk/heart-of-the-forest-co-operative</a>
- 19 British Property Federation (2008) Tax Increment Financing: A new tool for funding regeneration in the UK? [pdf]. Available at: <a href="http://www.andywightman.com/docs/BPF\_TIFS\_Paper\_Final\_A4.pdf">http://www.andywightman.com/docs/BPF\_TIFS\_Paper\_Final\_A4.pdf</a>
- The Land Trust (n.d.) Our Service Charge Sites [online]. Available at: <a href="https://thelandtrust.org.uk/land-management-solutions/our-service-charge-sites/">https://thelandtrust.org.uk/land-management-solutions/our-service-charge-sites/</a>
- 21 Greater London Authority (2015) Greening the BIDs: Private-public collaboration to deliver green infrastructure opportunities [online]. Available at: <a href="https://www.c40.org/case-studies/greening-the-bids-private-public-collaboration-to-deliver-green-infrastructure-opportunities/">https://www.c40.org/case-studies/greening-the-bids-private-public-collaboration-to-deliver-green-infrastructure-opportunities/</a>
- 22 Newcastle City Council (n.d.) Creating a Trust for Newcastle's Parks & Allotments [online]. Available at:

  <a href="https://www.newcastle.gov.uk/services/environment-and-waste/green-spaces/creating-trust-newcastles-parks-allotments#:~:text=On%2020%20November%202017%2C%20Cabinet,care%20for%2C%20for%20future%20generations.&text=Newcastle%20Parks%20%26%20Allotments%20Trust%20officially,city%20on%20April%201st%2C%202019.</a>
- The Parks Trust Milton Keynes website. Available at: https://www.theparkstrust.com/
- 24 Heeley People's Park website. Available at: https://www.heeleypeoplespark.co.uk/
- 25 River Lynd NatureBid website. Available at: <a href="https://tamar.naturebid.org.uk/">https://tamar.naturebid.org.uk/</a>

#### References

- Powering Parks (2019) Powering Parks: Unearthing the ground source heat potential from parks and public green spaces across Great Britain [online]. Available at: <a href="https://www.wearepossible.org/latest-news/powering-parks">https://www.wearepossible.org/latest-news/powering-parks</a>
- 27 Forest Carbon website. Available at: <a href="https://www.forestcarbon.co.uk/">https://www.forestcarbon.co.uk/</a>
- Tridos Bank (2020) Making the case for investing in our shared natural environment [online]. Available at:

  <a href="https://www.triodos.co.uk/articles/2020/making-the-case-for-investing-in-our-shared-natural-environment">https://www.triodos.co.uk/articles/2020/making-the-case-for-investing-in-our-shared-natural-environment</a>
- 29 Clyst Valley Regional Park website. Available at: https://clystvalleypark.org.uk/

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