

using site-specific guidance to enhance district-wide GI policy

Example, site-specific, green infrastructure guidelines have helped Cotswold District Council to develop district-wide green infrastructure policy, as **Sophia Price**, **James Brain** and **Lesley Davies** explain



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This article assesses how the preparation of site-specific green infrastructure (GI) guidelines has helped in the development of GI policy and an updated district-wide design code that incorporates GI issues. It also shows how other initiatives, policies and projects informed the evolution of the new GI policy framework for the district.

Background – the original policy components

Cotswold District Council's GI policy and guidance have been built upon the council's previous Cotswold Design Code and the Strategic Framework for Green Infrastructure in Gloucestershire, developed by the Gloucestershire Local Nature Partnership (GLNP).

Box 1**A Strategic Framework for GI in Gloucestershire 2015****Vision**

'That Gloucestershire's green infrastructure is enhanced, extended, promoted and managed to maximise its contribution to our high quality natural and historic environment, our health and well-being, our economy, our resilience to climate change and to a better quality of life for all.

'And that sustainable economic growth in the county is strengthened by giving green infrastructure the same consideration as other key county-wide infrastructure issues.'

Source: *A Strategic Framework for Green Infrastructure in Gloucestershire 2015*²

Cotswold District Council adopted the first Cotswold Design Code as Supplementary Planning Guidance in 2000 to guide the design of new developments within the district. The Code focused on architectural design and, like most documents from that period, did not mention GI. This lack of reference to landscape design (in its widest sense) and GI issues was undoubtedly a weakness, and to address this shortcoming the Code was updated as part of the Cotswold District Local Plan (2011-2031) review. The new Cotswold Design Code (2018) was incorporated within the Local Plan 2011-2031¹ itself to ensure that it was as robust as possible, with the benefit of being subject to viability testing and examination in public. This gives the Code maximum strength as an integral part of delivering sustainable development through the Local Plan, which forms the starting point for the determination of planning applications.

The GLNP was established in 2011, and one of its first priorities was to consider how GI initiatives could be most profitably co-ordinated across the county (see Box 1). A GI working group was set up and produced *A Strategic Framework for Green Infrastructure in Gloucestershire*,² which was adopted by the LNP in 2015.

The strategic development site at Chesterton Farm

In parallel to the development of the Local Plan, pre-application discussions were under way about a strategic development site at Chesterton Farm, south of Cirencester, for 2,350 homes and 9.1 hectares of employment land, as well as community facilities such as a primary school, allotments and public open space.

The initial pre-application discussions with the site promoter, Bathurst Developments Ltd, highlighted the need for robust and high-quality landscape and GI design for the site – in part to respond to the

sensitivity of the site's location adjacent to the Cotswolds Area of Outstanding Beauty and an important historic market town, as well as to provide a high-quality environment for existing and future residents.

This focus on green infrastructure was championed by Gloucestershire Wildlife Trust, with the support of colleagues from Worcestershire Wildlife Trust who had extensive experience of working on green infrastructure issues in strategic developments.

What is meant by 'good GI'?

There can be a lack of clarity and common understanding among developers, planners, environmental champions and others on what 'good GI' looks like. GI is, by its very nature, multi-functional, and this means that different stakeholders, even within a local authority, can have different ideas of what good GI might look like – from being focused on delivering drainage solutions to providing outdoor recreational space or habitat for priority species. Similarly, external partners and stakeholders, and the developers themselves, may also hold different views on how the GI on a development site should be designed.

Thus to help develop clarity and a shared understanding on defining good GI, the local authority planning team for the Chesterton Farm site brought together a range of relevant stakeholders across the public and voluntary sectors, including Gloucestershire Wildlife Trust, Natural England and local authorities (town, district and county councils – involving representatives from a range of departments). There was some debate over whether the developers and their agents and consultants should be included in this initial stakeholder work, but it was felt that the discussions would be more aspirational and less constrained if they were not present.

Box 2

Examples from the potential objectives for GI at Chesterton Farm

Examples resulting from the GI partner workshop held on 27 November 2014.

Objective 4: Existing landscape features

The GI distribution across the site will be informed by existing landscape, ecological and historical features, with important features (for example hedgerows, stone walls, ponds) being retained and successfully integrated into the GI network. It is acknowledged that there are only a limited number of significant landscape and ecological features currently on the site and no nationally or locally designated natural environment assets; however, there are a number of nationally designated heritage (historic environment) assets present.

Objective 6: Interrelationship with off-site GI

The on-site GI will be designed to ensure that it links physically with off-site GI features to maximise opportunities for ecological connections; footpath and cycle links; continuity of landscape features; etc.

Objective 12: Sustainable drainage solutions

The principal approach to the SuDS [sustainable drainage system] infrastructure will be to ensure that as much of it as possible is provided on the surface. The SuDS infrastructure will not only serve a drainage role, but will also contribute to the visual amenity and the wider environmental performance of the development (for example enhancements for biodiversity), and its management will be fully integrated with the management of other aspects of GI.

Objective 25: Mechanism for long-term management

The effective long-term management of the GI network at the site is key to its success in delivering all its multi-functional benefits. The means by which the GI will be managed and financed should be clearly laid out in the relevant documentation, for example the Section 106 agreement. The overall management could be controlled and undertaken through a variety of mechanisms, for example by the setting up of a community development trust; through the handover of the land to the town council or another third party; via a management company; etc.

A stakeholder workshop was held in November 2014, facilitated by two members of ATLAS (the Advisory Team for Large Applications, then funded by the Department for Communities and Local Government), who were already assisting with the development proposals. There was a diverse and interesting debate on GI issues in general, as well as on site-specific matters. The workshop generated a list of 33 draft GI objectives for the site covering a wide variety of issues, from site-specific matters, such as the design of the interface between the new and existing dwellings, to more general points, such as the long-term maintenance and management of GI (Box 2 sets out some example objectives). The draft objectives were the subject of further consultation among the workshop group to ensure that there was agreement and buy-in from all stakeholders. Stakeholders who were unable to attend the workshop were also given the opportunity to comment on the objectives.

Using the objectives to design the GI at Chesterton Farm

The next step was to share the objectives with the developers – who offered a very positive

response. There were a few objectives from the stakeholder workshop that were highly aspirational and even at the workshop were not necessarily considered achievable through this development, but were considered worthy of inclusion as possible ways of delivering GI benefits. All the objectives (including the aspirational objectives) were fully considered by the site promoters, in partnership with the local authority, and the majority were incorporated into the GI strategy and the GI parameters plan for the development site, as part of the outline planning application submission.³

The application was approved by Cotswold District Council in April 2019.⁴ The GI parameters plan is fixed as part of the outline planning permission, and provides a clear indication of where GI will be located within the development. The GI strategy is more flexible, but provides a baseline against which future reserved matters applications will be tested. The Section 106 agreement includes the arrangements for the future management of the GI by a community management trust, with appropriate funding, to ensure its long-term enduring success.



Illustrative layout of GI at Chesterton Farm

In parallel – ‘Building with Nature’

In parallel, a Knowledge Transfer Partnership between the University of the West of England and Gloucestershire Wildlife Trust set out to define high-quality GI at each stage of the planning and development process through the creation of a GI benchmark, building on the Gloucestershire LNP GI working group’s original aspiration for a GI benchmark. From 2015 to 2017, with the support of a range of organisations, including Cotswold District Council, the team developed the ‘Building with Nature’ standard, ensuring its effectiveness and usability by testing it on a number of developments, including Chesterton, which was one of the frontrunner developments selected to help fine-tune the benchmark.⁵

This close working between Building with Nature and the developers played a key role in preparing the GI strategy for the site, alongside the stakeholder workshop draft GI objectives. In 2017 the development was awarded Building with Nature ‘Candidate’ status⁶ in recognition of the quality of GI design in the outline planning application.

Progressing the Local Plan and the Cotswold Design Code

The review (in 2015/2016) of the Cotswold Design Code, as part of Cotswold District Council’s Local Plan preparation, provided the opportunity to

combine consideration of GI with other design issues. Rather than starting from scratch, the GI principles in the Design Code were based on the draft GI objectives that had been developed to inform the Chesterton Farm application. The objectives covered the full spectrum of GI issues and were the result of excellent collaborative work by a range of key GI stakeholders with extensive knowledge of GI in the area.

It was necessary to edit some of the Chesterton Farm draft GI objectives to make them more generic and district-wide and to cover some additional points that had not been relevant at the Chesterton Farm site before inclusion in the Cotswold Design Code. They were incorporated as ‘key principles’ under the heading ‘Effective green infrastructure and high quality landscape’ (see Box 3 on the next page). Some general points on landscape and GI are also included in the main text of the Code.

The Cotswold Design Code, and GI issues more generally, will be delivered through the implementation of a range of policies in the Cotswold District Local Plan – for example those related to the historic environment, biodiversity, green transport, etc. In addition to this integrated approach, there are two policies that refer specifically to the Cotswold Design Code – the ‘Design of the built and natural environment’ policy (EN2) and the ‘Green

Box 3**Extract from the Cotswold Design Code****Effective green infrastructure and high quality landscape**

D.66 High quality, well integrated and carefully designed green infrastructure (GI) and landscape provision is crucial to the long-term success of developments, ensuring that the maximum multi-functional benefits are achieved for those that live in, work at and visit new developments. The spaces in between new buildings, the surrounding areas, and the connections between a new development and the existing townscape or landscape, are equally important to the design of the structures themselves. The detail of the GI and landscape provided on a development site will be related to various factors, including the nature of the site itself, and the type, size and impact of the development. Improved GI and high quality landscape is also of great benefit when introduced into existing built areas. Key principles include the following:

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| <i>a</i> | National and local standards and best practice | The amount, type and design of GI should be informed by the appropriate national and local standards, guidance and best practice, including the Accessible Natural Greenspace Standard from Natural England and the national allotment provision recommendations from the National Society of Allotment and Leisure Gardeners. |
| <i>b</i> | Local character | The design of newly created elements of GI and landscape should be inspired by and enhance the character of the existing GI, landscape, biodiversity and built environment of the site and the wider area. |
| <i>c</i> | Existing landscape features | GI design and distribution should be informed by existing landscape, ecological and historical features. For example, stone walls, hedgerows, trees and ponds should be retained and successfully integrated into the GI network. |
| <i>d</i> | Heritage assets | A new development site may include or fall within the setting of historic buildings and structures, and archaeological sites. The GI network should be designed, used and managed in such a way as to protect and enhance the heritage assets and their settings, preserving key views and buffer areas. |
| <i>e</i> | Interface with existing properties | The interface between a new development and any existing adjacent properties should be designed to respect the amenity of existing residents and to ensure that the existing and new developments are well integrated. |
| <i>f</i> | On-site GI network | This should function as a network of interconnected green (and blue/aquatic) spaces, which fulfil various functions, including: formal sport; recreation; pedestrian and cyclist routes; accessible natural green space; structural landscaping; SuDS; and wildlife habitat. Most of the elements of the GI should be multi-functional. |
| <i>g</i> | Distribution of GI across the site | The GI network should be designed to ensure that all residents, employees and visitors have convenient access to green spaces. This should be achieved through dispersal of meaningful and usable areas across the site. Elements of the GI should be of sufficient size to be functional and easily managed. The GI and landscape provision should be located so that it makes best use of and enhances important local views. |
| <i>h</i> | GI and landscape provision on individual plots | The landscape design of individual plots and the areas immediately surrounding them (for example roadside verges) should be of high quality and should reflect the landscape, ecological and built character of the area. Private spaces such as gardens should be of an appropriate size for the dwelling provided, and should be designed to ensure privacy and adequate daylight. Private spaces should be clearly recognisable as such, through the use of suitable boundary treatments. |
| <i>i</i> | Inter-relationship with off-site GI | The on-site GI should be designed to ensure that it links physically with off-site GI to maximise opportunities for ecological connections, footpath and cycle links, continuity of landscape features, etc. |
| <i>j</i> | Off-site GI enhancements | Where possible, enhancements to off-site GI assets should be achieved, for example increasing public access to nearby land, and better management of wildlife sites in the locality. |

Continued...

<i>k</i>	Sustainable drainage solutions	The principal approach to the SuDS infrastructure should be to ensure that as much of it as possible is provided on the surface, mimicking the natural drainage of the site. This will reduce the burden on the existing sewerage system. The SuDS infrastructure should not only serve a drainage role, but also contribute to the visual amenity and the wider environmental performance of the development. Its management should be fully integrated with the management of other aspects of GI.
<i>l</i>	Green features on buildings	Green features (living roofs and walls, bird or bat boxes, etc.) should be incorporated, where appropriate, into new and existing buildings.
<i>m</i>	Biodiversity enhancements	Opportunities should be taken within all areas of GI (and the built environment) to enhance biodiversity through species choice, creation of new habitats, land management, etc. There should be linkages with existing biodiversity assets and networks, and increasing access to nature for people.
<i>n</i>	Species choice	Within planting schemes, species choice should be guided by appropriateness to the local area (with an emphasis on native species); suitability for its function (for example winter screening); value for wildlife; and resilience to climate change.
<i>o</i>	Street trees	Wherever possible, street trees should be planted to improve amenity and environmental performance. Street trees can also be used to help to define the character of different areas of a development and improve legibility.
<i>p</i>	Road junctions	The landscape design of new or significantly altered road junctions, particularly at visually prominent locations, should be of high quality, reflect the landscape character of the area, help to give a sense of place, and ensure greater legibility.
<i>q</i>	Pedestrian and cycle routes	The walking and cycling network, which will form part of the GI, should encourage 'active travel', in line with the highway user hierarchy principle. On-site routes should link to off-site non-vehicular routes, particularly those that lead to key destinations such as shops, schools and railway stations. These routes should be designed so that they are also available to the existing residents and businesses in the locality, and they should be implemented early in the delivery of the development.
<i>r</i>	Healthy lifestyles	GI should be designed to encourage healthy lifestyles for all, including: encouraging walking and cycling; provision of formal and informal sports facilities; providing volunteering opportunities; and food production.
<i>s</i>	Provision for all sectors of the community	The amount, distribution and type of GI across a site (and any off-site GI enhancements) should be based on an assessment of the needs of the new residents and other users of the site. Consideration should also be given to helping to meet any shortfall in existing provision.
<i>t</i>	Accessibility	The majority of the GI should be accessible, both physically and socially, to all sectors of the community, providing safe, attractive, welcoming and engaging spaces for local people. It should meet the needs of all sectors of the community, including 'hard to reach' groups and those who may require specific provision (for example seating to assist those with limited mobility).
<i>u</i>	Timing of 'construction' of GI	Where appropriate, elements of the GI network should be 'constructed' in advance of built development. Where this is not appropriate, the timing of their 'construction' should be tied to the relevant phase of built development.
<i>v</i>	Long-term management	The management and monitoring of GI should usually be controlled by a management plan. The plan should clearly set out who will be responsible for the management of the GI and landscape provision. Management plans should be implemented in full and regularly reviewed. Where appropriate, the local community should be involved in the management of GI.

Source: Cotswold District Local Plan 2011-20311

Box 4

Extracts from the Cotswold District Local Plan 2011-2031

Policy EN2: Design of the built and natural environment

Development will be permitted which accords with the Cotswold Design Code (Appendix D). Proposals should be of design quality that respects the character and distinctive appearance of the locality.

Policy INF7: Green infrastructure

- 1 Development proposals must contribute, depending on their scale, use and location, to the protection and enhancement of existing Green Infrastructure and/or the delivery of new Green Infrastructure.
- 2 New Green Infrastructure provision will be expected to link to the wider Green Infrastructure network of the District and beyond.
- 3 Green Infrastructure will be designed in accordance with principles set out in the Cotswold Design Code (Appendix D).

Source: Cotswold District Local Plan 2011-2031

infrastructure’ policy (INF7) (as set out in the Local Plan extracts shown in Box 4).

The future

The GI principles in the Cotswold Design Code are now being put into practice by developers designing new developments in the district. The Code is also being used by Cotswold District Council and other partners to assess whether new developments are acceptable and meet the requirements of Local Plan policy to achieve sustainable and high-quality developments.

The next review of the Local Plan will update the Cotswold Design Code GI principles, to reflect how well they have worked in practice and to include any new national or local guidance or legislation. In particular it will enable clearer reference to the Building with Nature benchmark, which was not sufficiently developed to be included in the 2018 Cotswold Design Code.

GI is clearly accepted by government, through the National Planning Policy Framework,⁷ as a key component of creating good places for people to live; and that emphasis on GI is increasing and will be given greater priority in the next Local Plan.

In terms of the success of the current Cotswold Design Code principles and the Chesterton Farm draft GI objectives, it is too early to assess any impact on the ground in delivering high-quality GI, but the provision of these principles and objectives has and will continue to help mainstream GI at an earlier stage in the development process and secure additional multi-functional benefits.

The use of very site-specific objectives that were the result of partnership working across a wide range of stakeholders has undoubtedly ensured that the final GI principles in the Cotswold Design Code will be widely supported and effective. This model of bringing together partners and stakeholders to

discuss site-based issues and then ‘extrapolating’ the outcomes to larger geographical areas has proved very effective in mainstreaming GI into policy and practice and should be considered for other similar issues, such as health and wellbeing.

● *Sophia Price, James Brain and Lesley Davies are with Publica Group, working on behalf of Cotswold District Council. The views expressed are personal.*

Notes

- 1 Appendix D: ‘Cotswold Design Code’. In *Cotswold District Local Plan 2011-2031*. Cotswold District Council, Aug. 2018. www.cotswold.gov.uk/residents/planning-building/planning-policy/local-plan-2011-2031/
- 2 *A Strategic Framework for Green Infrastructure in Gloucestershire 2015*. Gloucestershire Local Nature Partnership, Apr. 2015. www.gloucestershirenature.org.uk/green-infrastructure-framework
- 3 Application Ref. 16/00054/OUT. Submitted to Cotswold District Council, 8 Jan. 2016. <https://publicaccess.cotswold.gov.uk/onlineapplications/simpleSearchResults.do?action=firstPage>
- 4 Outline Planning Permission on Application Ref. 16/00054/OUT. Cotswold District Council, Apr. 2019. <https://publicaccess.cotswold.gov.uk/online-applications/applicationDetails.do?activeTab=document&s&keyVal=00MXJ7FIKAK00>
- 5 G Jerome and D Sinnett: ‘Building with Nature – principles defining high-quality green infrastructure’. *Town & Country Planning*, 2019, Vol. 88, May, 161-65
- 6 See the Building with Nature website, at www.buildingwithnature.org.uk/
- 7 *National Planning Policy Framework*. CP 48. Ministry of Housing, Communities and Local Government, Feb. 2019 (updated version of the revised NPPF of Jul. 2018). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf