



WWT Wetlands for life



**Want to know more
about SuDS?**

What is the latest policy
and advice in your area?

Here's where to look ...

Water is *the* key natural resource above all others, and the way we deal with it has life changing implications. As with many environmental issues it seems too big for individuals to effect but understanding and using SuDS is a key part of the solution that is open to everyone in both private and professional lives from householders, land managers, planners, architects, developers, engineers and almost all organisations and groups. Each can contribute at different levels and some have the potential for huge influence.

But how can you effect change? Much of the answer to this question lies in the multiple benefits that SuDS bring and the multiple policy hooks and drivers that can be used to promote them. This document

aims to help you find out more about the issue in your local area, and point to more technical and policy information. You may be considering a local SuDS project, or using it in a bigger scheme, or broadening knowledge in good practice water management. If so, this is where to look.

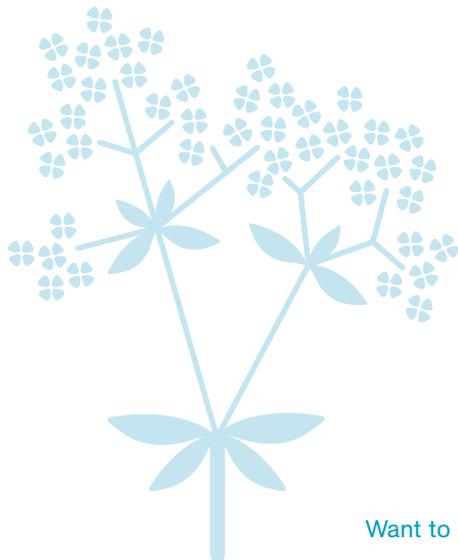
The document is structured under the four main elements of policy that SuDS can contribute to, and where the main opportunity lies to promote them – in existing plans and frameworks. These four categories are: water, biodiversity, planning and amenity/health.

More detailed information on the specific policies and plans and how they relate to SuDS can be found in the tables in the Appendices.



Photo: Jane Sebitre

SuDS can be beautiful and inspiring places.



1

SuDS and Water

Strategic water management for supply, quality and flooding is central to quality of life and economic stability. However water awareness can begin at home and advice is available at all levels. The [Water Framework Directive](#)¹ sets out the international policy advice from the EU and this is enacted nationally by the UK in the [Flood and Water Management Act](#)². Both are available to read online and give the general overview, including aquifer sustainability and the importance of catchments. Both contain good general information as background and give direction and policy advice for larger authorities, organisations and land managers. These documents form the basis of more regional and local policies related to drainage that may apply more directly to you, and are usually tailored to local circumstances.

For help on what to look out for,

find out what catchment you live in (or where your project is located) and which streams and rivers are involved. Your [local authority](#)³ can help with this and in fact they will also be likely to be the source of other advisory and policy documents on SuDS. Both the County and District councils may have published Supplementary Planning Documents on SuDS themselves, and many of their other plans and guidance documents will contain reference to drainage and/or SuDS as well. Information may in some cases be linked to pollution and public health in which case your local Environmental Health department will be a good source.

Many local authorities will also have flood risk management plans (often called SWMP's - [Surface Water Management Plans](#)⁴), which although often talk about reaction to extreme events and protection of property and infrastructure, will

also contain important general information about conditions locally, local data and advice. Another important body in this respect is the [Environment Agency](#)⁵ which also publishes advisory and guidance documentation such as "[Retrofit sustainable drainage systems for urban water quality enhancement](#)"⁶ among many others. Their website is a huge information resource.

Catchment management is gaining increasing recognition across the country, particularly through the [Catchment-Based Approach](#)⁷ (CaBA). Groups such as Internal Drainage Boards can also play a crucial role. SuDS can be most effective when used at a catchment scale and should be linked by those involved in catchment planning. Your local catchment may have a plan and the CaBA website is a good reference point.

¹ http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/flooding/Documents/suds_design_adoption_guide.pdf http://ec.europa.eu/environment/water/water-framework/index_en.html

² <http://www.legislation.gov.uk/ukpga/2010/29/contents>

³ <https://www.gov.uk/find-your-local-council>

⁴ <https://www.gov.uk/government/publications/surface-water-management-plan-technical-guidance>

⁵ <https://www.gov.uk/government/organisations/environment-agency>

⁶ <http://www.envirobase.info/PDF/7123.pdf>

⁷ <http://www.catchmentbasedapproach.org/>



Photo: Graham Hann



Photo: Christopher Algar

2

SuDS and Biodiversity

Use and implementation of SuDS has immense potential to provide and enhance wildlife habitat. Wet and water-based habitats have been in decline for many years and SuDS can help to redress the balance. There are many ways to implement SuDS but in order to be truly multi-functional an environmentally sustainable design should always be employed. This will also mean that many other complimentary policies related to landscape work, habitat provision and wildlife conservation can also usually be covered, making SuDS a very practical solution.

Again, quite often Local Authorities are the main source for guidance and policy direction. All District and County Councils have environmental policies which are usually "cross-cutting" across several departments such as planning, nature conservation, design, public health and recreation. They will also have

policies and guidance on sustainability and climate change, including appropriate mitigation in the local area. Look for the [Local Development Framework](#)⁸ and also the Community Strategy. These may not contain direct reference to SuDS (although increasingly they do) but will talk about environmental protection and sustainable designs as well as nature conservation, all of which SuDS can help to deliver. There may also be a Green Infrastructure Strategy, a Biodiversity Action Plan or Supplementary Planning Guidance for Nature Conservation. All will contain statements, policies or guidance about habitats and species, many of which could be water or wetland related. Use of SuDS will help to deliver that policy or guidance and be a welcome part of your ideas and proposals.

Other organisations involved with nature conservation will also have complementary guidance and

documentation and these are a good resource for looking across all the often confusing and myriad of official policies and strategies relating to SuDS and biodiversity. These include the Wildlife Trusts, WWF, [RSPB](#) and [WWT](#)⁹. Natural England produce in depth advice on green infrastructure ([Natural England: Green Infrastructure Guidance](#)¹⁰) which contains reference to SuDS as a delivery mechanism. ALGE (Association of Local Government Ecologists) also publish a "[Framework for Biodiversity](#)"¹¹ which talks about wet habitat and its importance. The Forestry Commission also offer [guidance on their website](#)¹², as well as case studies of good practice.

Lastly the agricultural and land management sector may also offer guidance, such as through [LEAF \(Linking Environment and Farming\)](#)¹³ and advice is also available from local Farming and Wildlife groups.

⁸ <http://www.planningportal.gov.uk/wps/portal/ldf>

⁹ http://www.wwt.org.uk/uploads/documents/1400927422_SustainableDrainageSystemsGuide.pdf

¹⁰ <http://publications.naturalengland.org.uk/publication/35033>

¹¹ http://www.alge.org.uk/publications/files/Biodiversity_Framework.pdf

¹² <http://www.forestry.gov.uk/fr/INFD-8AEHPX>

¹³ <http://www.nutrientmanagement.org/sustainable-drainage-systems-leaf-and-the-ea/>

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SuDS and Planning

This is a major delivery area and there is great potential to involve SuDS in practically all proposals that require planning permission. Permission is normally sought from District and County Councils and the best source of advice and policy status is if that planning authority has a dedicated SuDS guidance document. These are usually in the form of Supplementary Planning Documents and there are good examples from [Essex County Council](#)¹⁴, [Cambridge City Council](#)¹⁵, [Southwark Borough Council](#)¹⁶, [Central Bedfordshire Council](#)¹⁷ and [Ashford District Council](#)¹⁸.

This quote is taken from the latter: *“Tackling flooding, water supply and water quality is imperative for*

the housing and economic growth planned for the area. Growth must not come at the expense of the environment, instead it must be a force for urban and rural environmental improvement”.

These general statements almost always lead to more specific policies relating to SuDS within the document which will be key to your proposals. If the local authority does not have specific SuDS guidance and documentation, they will have many policies as referred to in the biodiversity section, and also in relation to sustainable development. A well designed SuDS scheme could satisfy and help the proposals to gain approval through complying and delivering those policy aims.

The [National Planning Policy Framework](#)¹⁹ (NPPF) which guides all local authority planning decisions and plan-making also contains environmental, design, green infrastructure and biodiversity advice and policy that can support SuDS (look at Chapter 11 para 14). In relation to development there is now a British Standard 8582, 2013, [“Code of Practice for surface water management for development sites”](#)²⁰. That ensures good practice for sustainable drainage during the site phase of development and should be referred to by all considering method statements and site works, which have the potential to be detrimental.

¹⁴ http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/flooding/Documents/suds_design_adoption_guide.pdf

¹⁵ <https://www.cambridge.gov.uk/sites/www.cambridge.gov.uk/files/docs/SUDS-Design-and-Adoption-Guide.pdf>

¹⁶ http://www.southwark.gov.uk/info/200151/supplementary_planning_documents_and_guidance/1254/sustainable_design_and_construction_spd

¹⁷ http://www.centralbedfordshire.gov.uk/Images/140509%20Central%20Bedfordshire%20Sustainable%20Drainage%20Guidance%20low%20res_tcm6-55090.pdf

¹⁸ <http://www.ashford.gov.uk/sustainable-drainage-spd>

¹⁹ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

²⁰ <http://shop.bsigroup.com/ProductDetail/?pid=000000000030253266>



Photo: ©Stock.com/BartCo (User: catherine.mclwraith)



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SuDS and Amenity/Health

Water as part of the variety of a landscape, urban or otherwise is often greatly appreciated by the public, from ponds, rivers and streams to the sea. Provision of amenity space both public and private is a requirement of all Local Authorities and this can take the form of parks and gardens or more informal open space and natural spaces such as woodland or meadows. Pond dipping is a memory many people have and the educational value of ponds and wet areas has been part of society for many years. Wet amenity features can have a SuDS function as well, and they can be part of the “high recreational value” policies that public bodies tend to have as a remit.

Look for Parks and Open Spaces strategy documentation or Play Development plans. Also look for Green Infrastructure Strategies and plans, many local authorities have them now in order to deliver NPPF and other requirements, and many also talk about the “blue” infrastructure component, of which SuDS can be a part.

Local Authorities are also responsible for increasing levels of physical activity in their area and SuDS can provide important open space which can be used to encourage activity. There is also plenty of research showing the link between access to green spaces and mental health, which is another key responsibility for

local authorities. The Department of Health has produced a useful [factsheet](#)²¹ summarising the role of local government in this area.

Personal amenity is also a factor and back (or indeed front) gardens can deliver SuDS too, for example via rainwater harvesting and the “[rain garden](#)”²² principle. That can also apply to school grounds, and help to support the [National Curriculum](#)²³ and deliver many other educationally based policies. [WWT](#)²⁴, [Froglife](#)²⁵ and other organisations publish advice on the creation of pond habitat and BTCV (British Trust for Conservation Volunteers) offer community based projects and advice.

²¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216708/dh_131904.pdf

²² <http://raingardens.info/>

²³ <https://www.gov.uk/government/collections/national-curriculum>

²⁴ <http://www.wwt.org.uk/get-involved/get-involved/gardening-for-wetlands/create-a-wildlife-pond/>

²⁵ <http://www.froglife.org/info-advice/>

Further Information



Photo: Julia Freeman-Woolbert

Many useful sources on information have been referenced throughout this document; however websites like [Susdrain](http://www.susdrain.org/)²⁶ and [CIRIA](http://www.ciria.org/)²⁷ deserve a mention as repositories for a whole host of information. Commercial company websites, such that of as [HR Wallingford](http://www.hrwallingford.com/)²⁸ are also rich sources of knowledge.

And of course, there is a whole host of other information out there on the internet. Just type “SuDS advice” into your search engine of choice and plenty of useful results will show up. If you add some sort of local reference too you will find many nearby experts and examples. Almost always there will be contacts to speak to who will help with further advice for your SuDS project or query. The information is out there and becoming more prevalent as SuDS and related water issues become normal, expected and required considerations in what we do.

To see existing SuDS projects just ask your local planning authority (especially if they have a SuDS Supplementary Planning Document) or your local Environment Agency office, as they may know of something locally.

²⁶ <http://www.susdrain.org/>

²⁷ <http://www.ciria.org/>

²⁸ <http://www.uksuds.com/>

Appendices

Appendix 1: Summary of water-related policy links and levers

Flood and Water Management Act (2010)¹

- Includes provisions to make the installation of SuDS compulsory for nearly all new developments (exemptions apply for single properties and roads)
- Removes the right of automatic connection to sewers unless the drainage scheme is approved by the (yet to be created) SuDS Approving Bodies (SABs)
- Creates a duty for Local Authorities to ensure high quality, fit for purpose SuDS are delivered.

National Environment Programme (NEP) of the Periodic Review 2014²

- Reducing storm overflows is a priority for water quality improvement schemes under the NEP
- Urges “thinking innovatively about measures” including catchment-scale approaches.

The National Policy Statement for Waste water (2012, UK Government)³

- States that “government encourages households, businesses and communities to retrofit SuDS in place of conventional drainage that risks overloading public sewers.”
- Directly recommends retrofitting SuDS as the greatest opportunity to reduce the impact of surface water runoff.

‘The Pitt Review: learning lessons from the 2007 floods’⁴

- Encourages the Environment Agency and local authorities to work with developers and other partners to explore opportunities for natural solutions in urban areas, such as SuDS.

- Recommends that government finds a solution is found to the question of ownership/adoption and management responsibilities regarding SuDS.

The Synergies Project (2013, Natural England, Environment Agency)⁵

- Recommends that the catchment based approach should encourage the production of catchment plans that consider opportunities to deliver synergies across environmental objectives.

¹ http://www.legislation.gov.uk/ukpga/2010/29/pdfs/ukpga_20100029_en.pdf

² <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0612buqw-e-e.pdf>

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69505/pb13709-waste-water-nps.pdf

⁴ http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html

⁵ <http://bobbloomfield.files.wordpress.com/2013/11/defra-synergies-project-final-report.pdf>

Flood and Coastal Risk Management Strategy (2011, UK Government)⁶

- Encourages government and local authorities and other organisations to “take opportunities to work with and enhance communities, services and the natural environment.”⁷

‘Working With Natural Processes to Manage Flood and Coastal Erosion Risk’⁸

- Promotes taking action to manage flood and coastal erosion risk by protecting, restoring and emulating the natural regulating function of catchments, rivers, floodplains and coasts.

Water Framework Directive (WFD) (2000, European Commission)⁹

- The directive is based on the principle of supporting sustainable management and use of water resources

- Many water bodies designated under the WFD are failing to achieve Good Ecological Status due to diffuse pollution from urban environments, especially from road ways.

- Specifically in a UK context:

- SuDS can help local authorities in their aims to assist with delivery of the **Catchment Based Approach** (2013, UK Government)¹⁰
- SuDS are identified in the **Challenges and Choices** consultation (as well as many regional **River Basin Management plans**) as measures to combat Significant Water Management Issues including fine sediment and physical modification.
- SuDS are identified in RBMP programmes of measures as a legitimate and effective means of addressing SWMIs and therefore to meet WFD objectives. As such, funds may be available to support their construction.

The EU Floods Directive¹¹

- Requires the production of local flood risk management plans.
- These plans need to take account of areas which have the potential to retain flood water, such as natural floodplains, the environmental objectives of the WFD, soil and water management, land use and nature conservation.

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228898/9780108510366.pdf

⁷ <http://cdn.environment-agency.gov.uk/geho0711btze-e-e.pdf>

⁸ <http://cdn.environment-agency.gov.uk/geho0310bsfi-e-e.pdf>

⁹ http://ec.europa.eu/environment/water/water-framework/index_en.html

¹⁰ <https://www.gov.uk/government/publications/catchment-based-approach-improving-the-quality-of-our-water-environment>

¹¹ http://ec.europa.eu/environment/water/flood_risk/

Appendix 2: Summary of biodiversity-related policy links and levers

Biodiversity 2020: ‘a strategy for England’s wildlife and ecosystem services’.⁴⁰

- Aim: to halt overall biodiversity loss, support healthy well functioning ecosystems and establish coherent ecological networks with more and better places for nature for the benefit of wildlife and people.
- Of specific note here is “the development of a coherent and resilient ecological network”, with an ecological network defined as “a network of high quality sites, protected by buffer zones, and connected by wildlife corridors and smaller, but still wildlife-rich, “stepping-stone” sites.” Wildlife provision in urban corridors forms a vital part of this ecological network.
- One of the Biodiversity 2020 priority actions is: “Through reforms of the planning system, a strategic approach to planning for nature within and across local areas is required. This approach will guide development to the best locations, encourage greener design and enable development to enhance natural networks. We will retain the protection and improvement of the natural environment as core objectives of the planning system.”

With this priority action in mind, local planning departments are urged to promote enhancements for biodiversity in SuDS design and implementation.

The Natural Environment and Rural Communities Act (2006, UK Government)⁴¹

- Local authorities have a duty to conserve biodiversity: “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”
- Public authorities are, as a result, expected to incorporate biodiversity considerations into authority-wide services and functions. This therefore infers that local authorities should seek outcomes for biodiversity when considering SuDS design in new developments.

EU Biodiversity Strategy (2012, European Commission)⁴²

- Target 2 of the strategy states that “By 2020, ecosystems and their services are maintained and enhanced by establishing green infrastructure and restoring at least

15% of degraded ecosystems.” Target 2 focuses on maintaining and enhancing ecosystem services and restoring degraded ecosystems by incorporating green infrastructure in spatial planning. SuDS are one form of green infrastructure which could assist in meeting this target.

- The EU Biodiversity Strategy also states that this target “will contribute to the EU’s sustainable growth objectives and to mitigating and adapting to climate change, while promoting economic, territorial and social cohesion and safeguarding the EU’s cultural heritage. It will also ensure better functional connectivity between ecosystems within and between Natura 2000 areas and in the wider countryside.”

Convention on Biodiversity (1993)⁴³

- This convention states that “A key conservation aim for many species is . . . to create conditions that allow particularly fragmented habitats to expand or, in the case of animal species, to retain or create wildlife corridors.”

⁴⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

⁴¹ <http://www.legislation.gov.uk/ukpga/2006/16/contents>

⁴² <http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>

⁴³ <http://www.cbd.int/convention/default.shtml>

Appendix 3: Summary of planning-related policy links and levers

National Planning Policy Framework (2012, UK Government)⁴⁴ (NPPF)

- Planning policies and decisions should aim to ensure that developments function well and add to the overall quality of the area over the lifetime of the development;
- Planning policies and decisions should aim to ensure that developments should optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;
- Planning policies and decisions should aim to ensure that developments are visually attractive as a result of good architecture and appropriate landscaping.
- Planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment.
- Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.
- Planning policies should be based on robust and up-to-date assessments of the needs for open space, sports and recreation facilities and opportunities for new provision.
- Local planning authorities should adopt strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations
- New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.
- The planning system should contribute to and enhance the natural and local environment by:
 - minimising biodiversity impacts and providing net gains in biodiversity where possible,
 - contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Opportunities to incorporate biodiversity in and around developments should be encouraged
- Requires all local authorities to produce local plans. Incorporating biodiversity and amenity benefits into SuDS design represents a significant and cost-effective opportunity for local authorities to meet various local plan priorities.

⁴⁴ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

The Natural Choice: securing the value of nature white paper⁴⁵

- The Natural Choice: securing the value of nature white paper
- States that protection and improvement of the natural environment will be retained as core objectives for local planning and development management. The planning system will continue to facilitate coherent and resilient ecological networks in association with local partners and reflect the value of natural systems.
- Promotes a planning system that contributes to the objective of no net loss of biodiversity; encourages local authorities to promote multi-functional development so that we get the most from land; and protects our best and most versatile agricultural land.

- States that “urban green infrastructure is recognised as one of the most effective tools available to us in managing environmental risks such as flooding and heatwaves. It is part of the answer to the challenges posed by a changing climate.”
- States that “urban green infrastructure is recognised as one of the most effective tools available to us in managing environmental risks such as flooding and heatwaves. It is part of the adaptation response to the challenges posed by a changing climate.” SuDS are an important tool in managing these risks. Creating SuDS can also enable groundwater recharge vital for wildlife and public water supply.

The Community Infrastructure Levy Regulations (2010, UK Government)⁴⁶

- Allows local authorities in England and Wales to raise funds from developers undertaking new building projects in their area. The money can be used to fund a wide range of infrastructure needed as a result of development.
- This can include flood defences and green space provision, and can therefore be used to fund SuDS. However, it cannot be used to fund obligatory SuDS required under the Flood and Water Management Act (2010).

⁴⁵ <https://www.gov.uk/government/publications/the-natural-choice-securing-the-value-of-nature>

⁴⁶ <https://www.gov.uk/government/policies/giving-communities-more-power-in-planning-local-development/supporting-pages/community-infrastructure-levy>

Appendix 4: Summary of amenity/health-related policy links and levers

If SuDS in an area are designed from the outset with community help, community cohesion can be improved. Ongoing maintenance of the project could also have community involvement. Such involvement in a local scheme can help develop ownership and belonging. This supports government policy on integration, promoting social responsibility and sharing experiences with others⁴⁷. Involving the local community in SuDS projects also supports government policy by encouraging social action in the community⁴⁸. SuDS projects can utilise local volunteer groups and also help develop training packages, for example by offering training places in the development of the design and implementation.

Nature Nearby: Natural England's accessible natural greenspace standard' (2010, Natural England)⁴⁹

- Suggests that accessible green space in and around urban areas significantly contributes to creating places where people want to live and work, and so can help encourage people to settle in an area.

- SuDS can help local authorities achieve this standard and also help towards an area achieving a green flag award, the national standard for parks and green spaces in England and Wales.

'Healthy Lives, Healthy People: our strategy for public health in England' white paper (2010, UK Government)⁵⁰

- Notes that green spaces can improve mental health and the quality of community life.

The Marmot review, 'Fair Society, Healthy Lives'⁵¹

- Recommends increasing access to green space as it is associated with better mental and physical health across socioeconomic groups thereby reducing health inequalities.

The Natural Choice: securing the value of nature⁵²

- States that "if every household in England were provided with good access to quality green space, an estimated £2.1 billion in healthcare costs could be saved."

- Includes a government ambition "to see every child in England given the chance to experience and learn about the natural environment".

- Sets out four key reforms for reconnecting people and nature, one of which is "action to get more children learning outdoors, removing barriers and increasing schools abilities to teach outdoors".

The National Curriculum⁵³

- From 2014 the National Curriculum requires pupils to take part in outdoor activities. SuDS provide opportunities to learn about a diverse range of subjects including geography (the water cycle and land management) and biology (aquatic biodiversity), to subjects like mathematics (calculating runoff areas and contribution to alleviating flooding), chemistry (removal of pollutants from water) art and English (creative writing).

⁴⁷ <https://www.gov.uk/government/policies/bringing-people-together-in-strong-united-communities>

⁴⁸ <https://www.gov.uk/government/policies/promoting-social-action-encouraging-and-enabling-people-to-play-a-more-active-part-in-society>

⁴⁹ http://www.naturalengland.org.uk/regions/east_of_england/ourwork/gi/accessible_natural_greenspace_standard.aspx

⁵⁰ <https://www.gov.uk/government/publications/healthy-lives-healthy-people-our-strategy-for-public-health-in-england>

⁵¹ <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

⁵² <https://www.gov.uk/government/publications/the-natural-choice-securing-the-value-of-nature>

⁵³ <https://www.gov.uk/government/collections/national-curriculum>



Pavilion roof in WWT London Wetland Centres RBC Rain Garden - Danny Evans





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