

**REPORT TO:** East Lothian Council

MEETING DATE: 25 June 2019

BY: Depute Chief Executive Partnerships and Communities

**SUBJECT:** East Lothian Local Development Plan 2018 –

Supplementary Planning Guidance on Sustainable Drainage Systems; and Countryside and Coast

## 1 PURPOSE

1.1 This report seeks Council approval of the Supplementary Planning Guidance on Sustainable Drainage Systems, which has recently been subject to public consultation.

- 1.2 It also seeks approval for consultation purposes of draft Supplementary Planning Guidance on the Countryside and Coast.
- 1.3 Both documents have been prepared as supporting information to the East Lothian Local Development Plan 2018 (LDP).

# 2 RECOMMENDATIONS

That the Council:

- notes the responses from the public consultation on the draft Supplementary Planning Guidance: Sustainable Drainage Systems (Appendix 1);
- approves and adopts the draft Supplementary Planning Guidance: Sustainable Drainage Systems (Appendix 2)
- provides the Service Manager Planning with delegated authority to revise the wording of the document at a later date to reflect the Council's future decision on the Section 7 process; and
- approves for public consultation the draft Countryside and Coast Supplementary Planning Guidance (lodged in the Members' Library, Ref: 88/19, June 2019 Bulletin).

## 3 BACKGROUND

- 3.1 The LDP includes several references to the intention to produce additional Supplementary Planning Guidance (SPG) providing further detail on some of the policies in the Plan, where implementation of the policies can be assisted by additional information too detailed for inclusion in the LDP document itself. Once adopted, non-statutory SPG is a material consideration in planning decisions.
- 3.2 The LDP includes various references to the intention of the Council to produce SPG on specific policy areas.
- 3.3 There are no statutory provisions setting out the scope or process for preparing non-statutory SPG; however, if it is to carry enhanced weight as a material consideration in planning decisions it must be consulted on and adopted by the Council.

# **Sustainable Drainage Systems Supplementary Planning Guidance**

- 3.4 Following approval of the draft Sustainable Drainage Systems SPG, for public consultation at the meeting of East Lothian Council on 26 February 2019, a six-week period of consultation was held from 8 March to 19 April 2019. Prior to the start of the consultation period, letters were sent to each community council in East Lothian alerting them to the consultation.
- 3.5 Written submissions to the consultations were received via the consultation hub or via email. Comments were received from Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH), Scottish Water, Homes for Scotland, Gullane Area Community Council and some individual housebuilders and members of the public. Appendix 1 includes a summary of the range of issues raised by the consultees.
- 3.6 The hub questionnaire asked for comments on eight questions, which covered the comprehensiveness of the guidance and the extent to which it provided sufficient information to applicants.
- 3.7 Overall, the majority of respondents agreed with the purpose of the document and the value in having additional guidance on a key element in achieving good quality sustainable design. Several points were raised around the issue of land title, responsibility for future maintenance and the gradient of SuDS features, particularly from Scottish Water. Further discussions took place with Scottish Water and these points have now been addressed in the final SPG. A full list of the comments received and the officer responses to reach point are included in Appendix 1.
- 3.8 One point raised in the discussions with Scottish Water is the future maintenance of SuDS facilities. This is the subject of ongoing discussions between local authorities across Scotland, including East Lothian. Section 7 of the Sewerage (Scotland) Act 1968 allows roads authorities (including local authorities) and Scottish Water to enter into agreements on providing,

- managing, maintaining or using their sewers or drains for conveying water from the surface of a road or surface water from premises.
- 3.9 Future maintenance is a key issue in the success of SuDS and it important that it is reflected in the SuDS guidance. The SPG presented for approval by Council includes a reference to the ongoing discussions around the Section 7 agreements. When these discussions conclude, it is intended that the SPG be updated to reflect the outcome of this process. Delegated authority is sought from Council to make changes to the SPG to reflect what would be factual changes that had already been approved by the Council.

# **Countryside and Coast Supplementary Planning Guidance**

- 3.10 As part of the LDP several countryside policies were added that provide additional protection for the setting of East Lothian settlements, the character of the landscape and protection for the characteristics of the coastal areas.
- 3.11 The LDP states that additional guidance would be provided on countryside policy to highlight the points that any development proposal would have to address and the specific characteristics of different locations that require to be protected.
- 3.12 The draft guidance sets out the policy context in the LDP and then proceeds to identify in more detail what would be required from development proposals to meet the requirements of the LDP.
- 3.13 Key to considering development proposals in the countryside and coast is the initial justification of why a proposal requires a countryside or coastal location. The Guidance provides further information on the types of uses that may be acceptable.
- 3.14 For each of the Countryside Around Towns designations a reason for the initial designation is provided alongside the particular characteristics of each area that development proposals must complement.
- 3.15 In a similar manner, the coastal areas are divided into several different zones based on their landscape characteristics and information is provided on the points in each that development proposals will be required to address.
- 3.16 If approved by Council the draft Countryside and Coast SPG will be subject to public consultation over the summer. The results of this consultation will be reported back to Council in early autumn 2019 alongside the finalised guidance for approval.

# 4 POLICY IMPLICATIONS

4.1 Both SPG documents will provide valuable additional direction to both the applicant and the planning department when considering development

proposals in the countryside. By producing these documents the Council is delivering on actions set out in the LDP. Neither document creates new policy but provide further guidance on policies already approved through the 2018 LDP.

## 5 INTEGRATED IMPACT ASSESSMENT

5.1 The subjects of this report have been through the Integrated Impact Assessment process through the LDP and no negative impacts have been identified.

### 6 RESOURCE IMPLICATIONS

- 6.1 Financial none
- 6.2 Personnel none
- 6.3 Other none

## 7 BACKGROUND PAPERS

- 7.1 Appendix 1 Responses to consultation on Supplementary Planning Guidance: Sustainable Drainage Systems
- 7.2 Appendix 2 Final Supplementary Planning Guidance: Sustainable Drainage Systems
- 7.3 Draft Countryside and Coast Supplementary Planning Guidance (available in the Members' Library, Ref: 88/19, June 2019 Bulletin)
  - https://www.eastlothian.gov.uk/meetings/meeting/16428/members\_library\_service
- 7.4 Integrated Impact Assessment Supplementary Planning Guidance: Sustainable Drainage Systems
- 7.5 East Lothian Local Development Plan 2018

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DATE	4 June 2019

Q1. Does the SuDS SPG provide sufficient detail on the benefits of using each particular SuDS type for reducing flood risk, managing surface water, habitat creation/biodiversity, and improving human health?

# **Online Consultation Hub Responses**

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes	Comment noted
002 (Colin Roberts)	Yes - Guidelines should be informed by some disastrous previous schemes such as Andrew Meikle Grove in East Linton. Is this not a case of the horse having left the stable. Retrospective enforcement should be considered.	Comment noted. Whilst the SuDS SPG aims to promote high quality design, placemaking, biodiversity and other benefits of SuDS features, it is recognised there is a need for strong and clear management and maintenance schemes to be in place and that they are complied with or (where required) enforced. It is not however for this SuDS SPG to comment on individual schemes and their ongoing maintenance responsibilities.
003 (Gullane Area Community Council)	Yes	Comment noted
004 (Jacqueline Bell)	No	Comment noted
005 (James Proudfoot)	No – More information on who is responsible for maintenance is required.	Comment noted. The SuDS SPG already provides details of what information is required at the submission stage of planning applications on long term maintenance arrangements for SuDS. The SuDS SPG is not intended to be a guide for specific maintenance requirements and responsibilities for each type of SuDS feature as this will be managed through the MOU and Section 7.
006 (Scottish Natural Heritage)	Yes - Biodiversity is listed as one of several subsequent benefits of well-designed SuDS. Many of the photographs used in the document include diverse planting schemes which are the basis of bringing benefits to biodiversity. The schemes are presented as attractive and so demonstrate amenity value as well.	Comments noted. The SuDS SPG aims to ensure that the requirements of developers and designers are clear with regards to considering and designing for improved biodiversity.
	However, the focus is mainly on presenting information and to a lesser extent options and it could benefit from being more directive in many sections. It would be	It is accepted that the SuDS SPG could be more directive in places, and therefore additional wording will be added to ensure that the Council's position is clear.

useful for the guidance to be clearer on what East Lothian Council want to achieve, e.g. at page 11 which states what the Council's preference is in relation to filter trenches in residential areas.

In relation to biodiversity, we suggest the following amendments:

Page 5 – replace "meaningful habitat value" with "benefits to biodiversity". Meaningful habitat value is a potentially subjective term that is unclear whereas 'benefits to biodiversity' is clearly understood.

Page 6 – we suggest much stronger direction is provided in place of "Although detention basins are typically grassed, other vegetation is supported..." This should be replaced with "detention basins should be planted with a mix of suitable native plant species, including flowering plants, to benefit amenity and biodiversity." This change would also help the guidance to contribute to delivery the Pollinator Strategy for Scotland 2017 – 2027).

Page 7 – we suggest deleting "stagnant and unattractive" as this is a generally unhelpful term.

Page 9 – replace 2 references to "indigenous" with "native".

Page 13 – includes a requirement that applications including biodiversity measures should be in line with the Local Biodiversity Action Plan (LBAP). At time of

The suggested replacement wording would be helpful to clarify the Council's position here. This will be amended in the final SuDS SPG.

The Council notes that not all detention basins can be planted. Lined basins can only be grassed. However the suggestion to improve the wording of this section is accepted. This has been amended to state: "where basins are not lined they should be planted with a mix of suitable native plant species, including flowering plants, to benefit amenity and biodiversity" An additional reference to the ELC Green Network Strategy SPG has also been added.

Suggestion noted and accepted.

Suggestion noted and accepted.

The reference to the Local Biodiversity Action Plan will be removed in the final SuDS SPG.

writing, we are unable to find the LBAP on the East Lothian Council website and suggest that this reference is reviewed if the document is not publicly available.

Appendix B – this appendix includes biodiversity pond design alongside a reference to CIRIA materials. We suggest that the detail of pond design is removed and that readers are directed to the more detailed CIRIA guidance. Detail could be retained if this was used to set out pond design specific to East Lothian although we are unaware of species present in East Lothian that would require special consideration.

Appendix C – this appendix includes a useful list of plants although we note the use of terms such as "controlled" and "banned". We are unclear where these terms originate from as species such as meadowsweet (Filipendula ulmaria), which is listed as controlled, is a native species that is widespread throughout the UK and would not generally be considered a 'controlled' species. We understand that the intent is to reduce the selection of species that could become dominant if planted in a SuDS scheme. We suggest instead that they are therefore described as species that developers should "plant sparsely" or "use occasionally". In the case of Typha sp. the Royal Horticultural Society describes them as invasive but it is important to note that this is not in the sense of a 'banned' species. In that case we suggest the table describe them as "use in specific circumstances" or similar as there may be occasions when reedmace would be an acceptable/appropriate choice.

Comments and suggestions noted regarding pond design. This has been removed from the SuDS SPG which will now highlight the CIRIA (The SuDS Manual C753) guidance instead.

Comments noted and accepted. The additional information contained within the appendix on plant species has been amended.

007 (Homes for Scotland)	The SPG does well to contain a complex subject area within a twenty-page document. However, we believe that it would be helpful to contain more specific and detailed information on the importance such systems have in protecting communities against flooding risk as well as the type of ecological, biodiversity and health benefits associated. This should be offset by the removal of references to proposed standards that fall outwith national guidance contained within Sewers for Scotland 4.	The Council notes comments in relation to highlighting the overall principles of well-designed SuDS features. Additional references to flood prevention, ecology and human health will be added to strengthen the document, as well as more references to the closely related ELC Green Network Strategy SPG.  In relation to the removal of proposed standards, the SuDS SPG does not contradict Sewers for Scotland, rather it seeks to encourage going beyond these minimum standards and requirements. Any scheme would still require consent from relevant statutory bodies. Scottish Water have been involved with the production of this SPG. No further changes proposed.
008 (Persimmon Homes)	This explains this well however the standards do not align with Scottish Water	Comments noted. Scottish Water have been involved with the preparation of this SuDS SPG and agreement has now been reached. The final version of the SuDS SPG has been amended to reflect these discussions.

# Q2. Does the SuDS SPG make it clear how SuDS are expected to contribute towards placemaking requirements as set out in national and local policy and guidance?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	No – Seems to note that they "should" contribute to placemaking etc, but not "how they should	Comment noted. Additional references and guidelines as to how SuDS features can contribute to placemaking will be added to the SPG to provide clarity on the link between Designing Streets, the Local Development Plan 2018 policies, and the Council's requirements for SuDS contributing to these objectives. Visual examples have also been added at the end of the document for further reference.
002 (Colin Roberts)	No	Comment noted
003 (Gullane Area Community Council)	Yes	Comment noted
004 (Jacqueline Bell)	No	Comment noted
005 (James	No – No clear and additional information is required on	Comment noted. The SuDS SPG already provides details of what
Proudfoot)	who is responsible for maintenance is required.	information is required at the submission stage of planning applications on long term maintenance arrangements for SuDS. The SuDS SPG is focussing on design requirements for SuDS rather than maintenance which will be detailed in a separate document following the MOU being agreed between East Lothian Council and Scottish Water.
006 (Scottish Natural Heritage)	Unsure - Our reading of the SPG is that it includes one reference to placemaking, in Appendix A within a quote of LDP 'Policy NH10: Sustainable Drainage Systems'. It is not clear from this how SuDS are expected to contribute towards placemaking in East Lothian.  A useful cue to including statements on how SuDS are expected to contribute to placemaking could be taken from the photos used in the document as these show attractive places that have biodiversity and amenity value and are likely to contribute towards	Comments noted. The SuDS SPG aims to highlight the valuable contribution of SuDS towards placemaking throughout the document using references to best practice and visual examples. However, it is accepted that more references to the images used and how they specifically highlight what the Council aims to achieve in terms of placemaking would be useful. This will be addressed in the final SuDS SPG.

	delivery of Scottish Planning Policy's 6 qualities of successful place in development in East Lothian.	
007 (Homes for Scotland)	The SPG should set out the relevant national and local placemaking objectives this guidance seeks to address within the main body of the policy content, helping provide clearer connection between the policy context and what is being asked of industry. Importantly, we believe the SPG introduces some significant barriers that would limit the potential to achieve placemaking objectives in reality.  The industry is concerned with the position proposed within the SPG relating to the adoption of SUDS features that deal with surface water run-off from roads and footpaths only. It is clear from this that ELC will not sign the Memorandum of Understanding regarding the provision of surface water drainage from housing developments (MOU) as supported by Scottish Water, the Scottish Government and SCOTS, or agree to maintenance responsibilities set out by Section 7 of the Sewerage (Scotland) Act 1968. In practice this will mean that ELC will have a duty to ensure the provision, and meet the full costs of maintaining, a separate drainage system. This approach completely undermines the principles of collaboration, undoes the positive work around SUDS adoption Scottish Water has undertaken with public and private stakeholders and, importantly, creates a more convoluted framework for the delivery of infrastructure that aims to protect communities against flooding risk.  The SPG also proposes a number of variations from the national standards contained within Sewers for Scotland 4. In the context of ELC's position on SUDS relating to non-road surface water, we question the purpose and rational for ELC to impose additional requirements where there is no intention to take on any of the responsibilities associated with such infrastructure. Furthermore, Sewers for Scotland 4 provides an agreed standard by which SUDS infrastructure should be designed and constructed. Deviation from these	The Council accepts that the SuDS SPG did not previously refer to existing national guidance on placemaking. In response, the SuDS SPG has been amended to include more detail in the Overview section on National Policy and Guidance, in particular Designing Streets, and the contribution that SuDS features can make towards achieving the six key qualities of successful places. Examples of what the Council expects developers to achieve have been provided using photos that represent the high quality places that SuDS can be used to create.  The Council fully intends to sign the Memorandum of Understanding. A specific reference to this has been added to the SuDS SPG.  The SuDS SPG does not propose to change any standards that are already set out within Sewers for Scotland, rather it seeks to encourage developers to go beyond the minimum standards that such technical guidance provides. This is in the interests of achieving the highest quality of SuDS design to create more multi-functional spaces.

008 (Persimmon Homes)	It is clear that little consideration has been given to the practicalities of the approach outlined by ELC, how this might affect key agency collaboration and what impact this might have on land requirement and housing density going forward. In that context, we would advise ELC to reconsider its approach.  Yes – This however will sterilise land for housing given larger SuDS basins and slopes required. This may also not be agreed with Scottish Water and therefore no approval granted. There needs to be agreement with Scottish Water/SEPA prior to any document being released.	The Council does not agree that there will be sterilisation of land as there are no changes proposed to the requirements for land-take of SuDS features in the SPG. There are proposed changes to the slope however in order for SuDS features to be more useable and multifunctional space. ELC have engaged with Scottish Water and SEPA on
	create a new barrier to getting SUDS infrastructure vested/adopted.  In the context of the above points, we would question whether further aspects of the guidance would align with placemaking objectives, such as soft boundaries and an implied requirement to prevent run-off from plot curtilage to road drainage (and subsequently roads to wider SUDS infrastructure); a 1 in 8 gradient standard which would double the land take required for a flow channel affecting density and the effectiveness of the five-year land supply; or proposals to replace traditional systems of road gullies with SUDS which is itself inconsistent with the remainder of the proposed guidance.	

# Q3. Does the SuDS SPG provide sufficient detail and clarity on the relationship between SuDS and Local Development Plan 2018 open space policy and requirements?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes	Comment noted
002 (Colin Roberts)	No	Comment noted
003 (Gullane Area	Yes	Comment noted
Community Council)		
004 (Jacqueline Bell)	No	Comment noted
005 (James	Yes	Comment noted
Proudfoot)		
006 (Scottish Natural Heritage)	No - Open space is referred to regularly throughout the document, including in Appendix A on planning policy. However, there is no clear link between the content of the SPG and LDP Advice Box 2 and Policies OS3 and OS4. We suggest that the clearest way to make this link would be to expand on Appendix A.	It is accepted that the LDP 2018 Policies OS3 and OS4 do not make specific reference to SuDS. However, at paragraph 3.127, it is stated that SuDS "may form part of informal open spaces subject to their design and provided they contribute to and do not harm the amenity value of the wider open space."  The Council therefore wishes to clarify in the SuDS SPG (and further encourage) opportunities to be taken for SuDS to be designed effectively so that they can form part of open space requirements on development sites. It is recognised that this is not always achieved currently, possibly due to technical constraints, however there needs to be greater consideration from developers to designing more successful SuDS schemes that have multiple benefits for the natural environment and communities. This is the key message that the SuDS SPG wish to make. In order to clarify this, the appendices to the SuDS SPG will be amended to show a clearer link to the LDP 2018.
007 (Homes for Scotland)	HFS welcomes the position that SUDS may be considered as part of open space requirements on new housing development. This approach could help enable the delivery of quality, usable and multi-benefit open spaces on new housing developments.	The Council has engaged with Scottish Water in the development of this SuDS SPG and at the time of writing, discussions regarding Section 7 agreements are currently ongoing. SEPA have also engaged in the consultation process and subject to some minor changes, are supportive of this SPG.

	However, the position ELC's holds on Section 7 as well as the proposed variations to standards will be a barrier to achieving this outcome. There are already challenges around vesting of SUDS in 'active' open spaces as well as around the vesting of assets not constructed to the Sewers for Scotland 4 standard. It is vital in that context, that local authorities and Scottish Water agree to a more collaborative framework of engagement with regard to their respective responsibilities on maintenance and align to a common set of standards that provide consistency in this area.	The Council would question the figures provided here regarding the depth and potential increases in area of land for SuDS. The SuDS SPG is encouraging the combining of SuDS within open space.
	More specifically, we are keen to understand the impact of proposed variations, such as the 1 in 8 gradient standard, will have on programmed sites and the maintenance of a five-year land supply. Measured against Sewers for Scotland 4, the proposal has the potential to double the land take for a flow channel from 12m to 24m either side of a swale (e.g. 3m deep, 1m wide low flow channel would increase from 13m to 25m). In addition, the approach does not compliment the wider policy remits, for example SEPA, that seek to reduce the impact new development has on the environment including land-take.	References to slope for particular SuDS have been removed pending the MOU between ELC and Scottish Water which will include details of all maintenance requirements.
008 (Persimmon Homes)	Unsure – This needs to be included in PPPs and solutions identified at early and not detailed stage.	Comments noted. Additional references including the open space policies have been added to the SuDS SPG to provide clarity on the link to new developments and SuDS as open space.

# Q4. Are the Council's requirements for SuDS to be designed with long term management and maintenance strategies clearly explained in the SuDS SPG?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes	Comment noted
002 (Colin Roberts)	No - Management and maintenance if transferred to a	Comment noted. The SuDS SPG aims to make it clear that upfront
	resident association of a new development should only	information will be required at the planning application stage on all
	be required once the implementation meets the highest	SuDS features in order to make a judgement on whether the proposed
	standards. Developers don't care about SUDS once the	arrangements for design and ongoing maintenance are acceptable. It
	development is complete, residents do.	also aims to ensure that appropriate consideration is given to the
		operational lifetime of the SuDS feature so that once it is functional,
		the responsibilities for ongoing maintenance are understood and
		complied with so that the SuDS feature can continue to provide a
		valuable contribution to developments. Additional detail on
002 (C. II A	W	management and maintenance will be added to the final SuDS SPG.
003 (Gullane Area	Yes	Comment noted
Community Council)	No. There are investigable to the control of the co	Comments and Militable Co.DC CDC comments and if an arifficiance
004 (Jacqueline Bell)	No - There are issues locally about management and	Comments noted. Whilst the SuDS SPG cannot rectify specific issues
	maintenance. A SUDS at Andrew Meikle Grove in East	with existing SuDS schemes, it does aim to improve their design,
	Linton was not adopted by Scottish Water. There is a reference to maintenance by Factors. However, there	safety and management going forward. It also aims for designs to be improved to achieve wider benefits for communities. Through
	are many issues with unsatisfactory Factoring services	providing more detail on what the submission requirements are for
	across East Lothian. There needs to be clarity about	SuDS features forming part of planning applications, the SPG seeks to
	who is responsible if SUDS are not appropriately	provide clarification on the standard of design being sought, the
	maintained. In Dunbar there have been issues of	process of obtaining relevant statutory consents, and the need to
	Greenbelt the Factor selling on green spaces and play	have a clear and strong ongoing maintenance responsibility. At the
	parks to people unknown to residents who pay	time of writing, the Council are in discussions with Scottish Water on
	maintenance fees. Play parks have been left in a	Section 7 agreements and the Memorandum of Understanding. Once
	dangerous state and Building Control have no powers to	this is agreed and in place, the Council will have greater opportunity
	insist on repairs. There must therefore be robust	to be directly involved with the management of some SuDS features.
	guidelines in place for maintenance responsibilities	This has been noted in the SuDS SPG.
005 (James	No – A Lot more detail on maintenance responsibilities	Comment noted. The SuDS SPG already provides details of what
Proudfoot)	is required.	information is required at the submission stage of planning
		applications on long term maintenance arrangements for SuDS. East

006 (Scottish Natural Heritage)	Unsure - There are references to management and maintenance throughout the SPG but requirements are less clear. We suggest that if effective SuDS are to be delivered and their functioning secured in the long-term the SPG should clearly set out what requirements East Lothian Council has for management and maintenance. This should include those which Scottish Water may vest if compliant with Sewers for Scotland.	Lothian Council are in discussions with Scottish Water regarding future arrangements for maintenance. These will be detailed in the MOU once agreed.  Comments noted. The SuDS SPG aims to highlight what the Council expects developers to provide regarding information on how SuDS will be maintained once built, and the ways in which additional detail provided at the application stage can clarify such matters. It is not considered necessary in this SPG to repeat guidance given in Sewers for Scotland, rather the SPG where necessary, highlights certain standards set out in SfS and the need to seek formal approval from Scottish Water. The Executive Summary and other references within the SPG to management and maintenance responsibilities will be clarified in the final SuDS SPG.
007 (Homes for Scotland)	ELC's requirements around maintenance responsibilities is not clear, given the implied position on the MOU and Section 7 Agreements. It would be helpful in the first instance for ELC to articulate within the guidance a position on the above aspects and highlight which aspects of SUDS and the wider surface water drainage network each party (the authority and Scottish Water) will be responsible for.  It can be assumed from the SPG that ELC intend to transfer responsibility for the maintenance of SUDS assets onto the homeowner/occupier. We believe that this negates the authority's responsibilities under the Sewerage (Scotland) Act, risks the future integrity of community flood defence systems, and accentuates the systemic issues experienced over the last two decades in relation to the adoption/vesting of SUDS systems.  The SPG position indicates that maintenance should be undertaken via a factoring agreement with residents of a new development. In effect this would require land title for relevant assets to be transferred to individual plots in order that a legal obligation can be constructed to enforce a	Comments noted. ELC are currently in discussions with Scottish Water regarding the Memorandum of Understanding and Section 7 agreements which will allow clarity on the matter of maintenance, including any land ownership. These will be detailed in the final version of the SuDS SPG once agreement is reached. The SuDS SPG also provides details of the interaction between SuDS and Roads Construction Consent and this has been agreed across multiple services within the Council. The Council does not accept the comment relating to the transfer of financial burdens. The SuDS SPG does not make any changes to the existing processes, rather it seeks to provide greater clarity on matters and to encourage designers and developers to explore more options, including SuDS contributing towards open space requirements. Furthermore, once the MOU between ELC and Scottish Water is signed, this will clearly set out the responsibilities for each party in terms of maintenance, and will in fact allow the Council to take on additional responsibility for maintenance of SuDS where this was not possible through private factoring arrangements.

	factoring arrangement. Scottish Water policy implies that full land title is required to undertake their duties under the Act and ultimately to vest SUDS assets. This policy is at odds with the efforts of the industry in addressing legacy SUDS and will likely exacerbate the issue further; a backward step for all parties involved.  In principle, ELC's position transfers the financial burden for	
	maintaining open space and flood mitigation measures to the general public. In light of concerns raised in recent articles such as "the hidden costs of new homes" and Graham Simpson MSP's private members' bill on new home buyer protection, this policy is unacceptable.	
	Furthermore, there is no indication that this policy aligns with internal requirements for obtaining road construction consents. On that basis, the SPG should be clear in highlighting the requirements of the guidance will be supported elsewhere in the authority. More generally, we question the rationale behind the authority's approach to incorporating variations to standards to assist with the maintenance of such systems when the authority seeks to transfer the risk and responsibility elsewhere.	
008 (Persimmon Homes)	No – Section 7 with Scottish Water needs to be signed and explained to the developer at planning stage.	Comments noted. At the time of writing, the Council are currently in discussions with Scottish Water regarding a Memorandum of Understanding and arrangements for Section 7 agreements. Once agreed, this will provide clarity on the matter and allow developers a greater understanding of what is required from an early stage.

# Q5. Are the Council's requirements for SuDS to be designed to be safe and accessible for all users clearly explained in the SuDS SPG?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes	Comment noted
002 (Colin Roberts)	Yes - How is this enforced. Developers will skirt round regulations and do the minimum possible. The plan is aspirational and without proper enforcement is a paper exercise.	Comment noted. The SuDS SPG aims to provide clarity on the agreements and responsibilities of each party involved with SuDS design, approval and management. Whilst the Council can exercise powers under enforcement, the aim of the SuDS SPG is to ensure that there are upfront clear responsibilities for management and maintenance of SuDS features agreed through the planning process. Where appropriate, the Council can (and does where possible) require remedial solutions where SuDS are not being maintained correctly.
003 (Gullane Area Community Council)	Yes	Comment noted
004 (Jacqueline Bell)	No - There are local issues of safety. A SUDS area at Robertson/Avant in Dunbar became a lake that needed urgent fencing. The SUDS at Cala in Belhaven has a water level that rises rapidly in wet weather with 2 swim rings for safety - although it is not clear who would use them. It does not seem the best design to have the Cala SUDS next to a play park. More information is needed as to how safety should be ensured. Also more information on responsibilities - the developer, the factor, the residents?	Comments noted. The SuDS SPG does not intend to discuss specific SuDS features that have already been construction. However, the SuDS SPG provides details of how safety must be a primary consideration in the design process including undertaking risk assessments. It is also stated that these will be required at the planning application submission stage. Furthermore, information is included in the SuDS SPG on how to design appropriately for safety and the circumstances in which fencing may or may not be required. Arrangements for maintenance including factoring will be detailed in the upcoming Memorandum of Understanding and Section 7 agreements between ELC and Scottish Water.
005 (James Proudfoot)	Yes	Comment noted
006 (Scottish Natural Heritage)	N/A	N/A
007 (Homes for Scotland)	Health and safety as well as accessibility requirements are already set-out within wider standards. We would advocate that ELC ensure their requirements are aligned to such	Comments noted. The Council are aware of such standards. However, the SuDS SPG aims to provide a local context and to go beyond

	standards and highlight an appropriate standardised approach to the format of any required signage.	minimum standards where appropriate in order to create higher quality design and safe environments.
008 (Persimmon Homes)	Unsure – Encouraging people to play in SuDS we feel would not be advisable for safety or maintenance.	Comments noted. The SuDS SPG does not specifically indicate that SuDS should function as play space, rather it seeks to provide clarity on the circumstances in which SuDS can be considered and part of open space requirements, and the potential uses of this space for the surrounding community in terms of recreation.

# Q6. Are there any other types of SuDS features that you think the SuDS SPG could make reference to that would function and improve the quality of development in East Lothian?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes – Bio-retention tree pits used to good effect	Comments noted. The Council is aware of bio-retention pits and their
	elsewhere, may be a good alternative?	function. However, there are concerns over the use of these where
		they take road run-off. As they can become full of salt, this damages
		tree roots leading to damage/death of the tree. The SuDS SPG would
		not therefore encourage the use of these in general.
002 (Colin Roberts)	Yes - Not best practice. SUDS should enhance rather	Comments noted. The SuDS SPG aims to improve the standard of
	than replicate existing environments. Lack of aspiration	SuDS design in East Lothian by providing examples of best practice. In
	in consultation documents.	addition, the SuDS SPG seeks to go beyond the industry standards set
		out in Sewers for Scotland and achieve greater benefits from SuDS
		features. No changes recommended.
003 (Gullane Area	Unsure	Comment noted
Community Council)		
004 (Jacqueline Bell)	Unsure	Comment noted
005 (James	Unsure	Comment noted
Proudfoot)		
006 (Scottish Natural	Yes - Green roofs are a means of source control of run-	Comments noted. In principle, the Council would be supportive of
Heritage)	off which have additional benefits in habitat networks	green roofs and other SuDS features. This will be added to a section at
	and in contributing to placemaking. Further information	the end which explains how all opportunities for use of SuDS features
	on their benefits is available here:	should be explored and considered for use in new developments.
	https://www.netregs.org.uk/environmental-	
	topics/water/sustainable-drainage-systems-suds/green-	
	roofs-in-sustainable-drainage-systems-suds/	
	The role of green roofs in SuDS is noted at paragraph	
	6.28 (page 137) of the LDP and we recommend that the	
	SPG makes reference to them as a feature that will	
	improve the quality of development in East Lothian	

007 (Homes for	In light of a suggested transition away from a traditional gully	Comments noted. The SuDS SPG has been prepared by a cross-service
Scotland)	system, it would be helpful for ELC to outline what it expects to manage and maintain as part of road surface water drainage. Further consideration should be given to whether this aligns with policy around roads adoption ensuring that such an approach is agreed to internally by the council and practical for those delivering the infrastructure.	Working Group to ensure that there is agreement on such matters. Furthermore, the upcoming Memorandum of Understanding between ELC and Scottish Water which will provide clarity for all parties involved including public/private land. The SuDS SPG also seeks to raise the standard of design through applying placemaking principles to SuDS, maximising the benefits for biodiversity, health and
	In addition, ELC should consider whether its policy on permeable paving and roads is contradictory to the aims of the SPG. We ask ELC to consider why use of permeable	recreation, and to ensure there is a suitable long-term maintenance agreements in place.
	paving, given the aim of treating surface water at source, slowing down the rate of discharge, treating water naturally and releasing it in a controlled way, preferably to watercourses or groundwater rather than into sewers; is not acceptable for adoptable roads but would suffice for private roads? This, alongside other policies, suggests that the main aim of the SPG is to transfer all risks and responsibilities away from ELC rather than maximise the benefits of placemaking, green space, biodiversity and health outcomes.	In relation to permeable paving, it is the Council's position that this is not a preferred method. However, the SuDS SPG makes it clear that this could potentially be an option but would depend on the design.
008 (Persimmon Homes)	No – Sewers for Scotland 4 states basins to be designed minimum 1:4 slope with end of line swale acceptable. This therefore meets requirements and approval guidance. Introducing more features will only add cost, maintenance and reduce developable space.	Comments noted. The SuDS SPG has been amended to provide clarity on acceptable design including slopes for SuDS, aligning with SfS and CIRIA. The Council would be required to approve such designs to ensure they can be satisfactorily maintained.

# Q7. Are the Council's requirements for information on SuDS to be submitted with planning applications clearly set out in the SuDS SPG?

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	Yes	Comment noted
002 (Colin Roberts)	No	Comment noted
003 (Gullane Area Community Council)	Yes	Comment noted
004 (Jacqueline Bell)	Yes	Comment noted
005 (James	A planning application should not be granted before a	Comment noted. The planning application process and the roads
Proudfoot)	RCC is approved and granted and SUDS is fully considered. While two separate processes both need to be granted before progressing.	construction consent process are separate due to different legislation that controls them. In addition, it is the general practice of ELC that planning permission is granted prior to roads construction consent being given. However, the Council is working towards better alignment of these processes going forward in terms of the level of information required/provided and to avoid potential changes/delays.
006 (Scottish Natural Heritage)	N/A	N/A
007 (Homes for Scotland)	The requirements set out by the SPG will have a significant impact on the sector, requiring greater amounts of detailed information to be produced at a conceptual stage and revised as the design is amended by an authority throughout the process, for example while obtaining road construction consents (RCC). Subsequently, the requirement to confirm Scottish Water approvals prior to obtaining road construction consent has potential to cause significant delay to development timescales, especially where there is no	Comments noted. The Council does not agree that there will be a significant impact upon the development sector as a result of this SuDS SPG. Rather it is the intention of the document that there is clarity on the information that is required at the planning application stage in order to ensure the process is streamlined, and that there are improvements to the quality of SuDS features and their contribution to placemaking.
	approach to aligned consents and amendments are being made by local authority personnel in relation to road geometry and development layout. Any changes made following planning approval will have a consequential impact on the technical approvals obtained by Scottish Water. Given obtaining RCC already takes on average 62 weeks (data extracted from 45 sites over 9 authority areas between 2013	The interrelated planning and RCC processes are ultimately controlled by different legislation and the Council are limited as a result to making changes. However, there is a strong commitment to ensuring processes align as closely as possible and that all parties involved are aware of their duties and timescales. This SuDS SPG aims to assist with this and to provide each party with a clear understanding of how SuDS can benefit multiple sectors. The SuDS SPG has been prepared by a

	and 2018, affecting to 4,113 homes) any further delay to development processes would not be welcomed by the sector.	cross-service Working Group involving Planning, Roads, Flooding, Landscape and Biodiversity Officers, and there is agreement on the approach set out in the document.
	It is clear that the proposed process does not align with both internal and wider consents and approval processes. Creating additional complexity and bureaucracy to the process, in addition to the existing resource constraints experienced across the public and private sectors, will only go to further exacerbate issues surrounding housing delivery.	
008 (Persimmon Homes)	No – There are too many sets of standards Council and Scottish Water not aligned.	Comments noted. The SuDS SPG seeks to provide a simple and easy to use guide to SuDS design that is specific to East Lothian without being too detailed and using images to illustrate best practice examples that are hoped to be achieved. Where applicable, the document refers to other guidance (Sewers for Scotland and CIRIA).

# Q8. Should you wish to provide any additional or general comments on the SuDS SPG, please provide these in the box below. You may also upload any supporting information via the file upload below.

Respondent	Response	Officer comment and recommendation
001 (CALA Homes)	N/A	N/A
002 (Colin Roberts)	N/A	N/A
003 (Gullane Area Community Council)	Ferrygate is a very good example of what not to do.	Comment noted. The SuDS SPG aims to achieve high quality design of SuDS features in developments going forward. The document therefore uses examples of successful SuDS schemes to promote best practice. It is not for this SuDS SPG to comment on the management or maintenance of existing SuDS features.
004 (Jacqueline Bell)	Main concerns are about ongoing guidelines for maintenance and legal responsibilities given ongoing local issues with play parks maintenance and factors selling on areas of open space. There have been issues nearby of SUDS areas that have not been accepted for responsibility by Scottish Water. Thus everything has to be very clear so that developer, factor (if any) and residents are all very clear as to who is responsible for areas like ongoing care and safety.	The SuDS SPG focusses on improving the design of SuDS. The Council are currently in discussions with Scottish Water regarding Section 7 agreements for approval of SuDS and for maintenance. These requirements will be detailed in a separate document once agreement is reached. Maintenance requirements will be specific to each site/application/permission. However, The SuDS SPG provides details of the information provided at the planning application submission stage, with the intention that this will allow for clarity at the consent stage on responsibilities for management and safety. Therefore the SUDS SPG seeks to highlight that design standards set out in Sewers for Scotland and the impact upon maintenance requirements must be considered at an early stage of development design.  With regards to selling on areas of open space, this is a matter that is beyond the scope of the SuDS SPG.
005 (James Proudfoot)	N/A	N/A
006 (Scottish Natural Heritage)	N/A	N/A

007 (Homes for Scotland)	In conclusion, we do not believe that the ELC approach to SUDS is conducive to meeting the aspired aims around placemaking, diversity and climate change adaptation or a proportionate way to transfer its duties under the Sewerage (Scotland) Act upon both the home building sector or home buying public. In that context, we do not support the proposed guidance. HFS would be keen for ELC to meet with industry and Scottish Water to discuss these challenges in more detail with a view to agreeing a suitable framework for delivering, managing and maintaining these critical flood mitigation assets on new sites.	Comments noted. The Council has put together this SuDS SPG as there is a need for such guidance to both improve the quality of SuDS designs being put forward and to provide clarity on the The SuDS SPG is aspirational and it is hoped that over time, there will be improvements to the standard of SuDS design and a greater recognition in the industry of their contribution towards placemaking.
008 (Persimmon Homes)	N/A	N/A

# **Other Responses**

Respondent	Response	Officer comment and recommendation
009 (Historic	We have no specific advice to offer on the contents of	Comments noted.
Environment	the guidance, which does not relate to our interests.	
Scotland)		
010 (Scottish	Summary comments	
Environment	It is very helpful to see the East Lothian Council specific	Comments noted and support welcomed.
Protection Agency)	requirements for SuDs within this guidance. We have	
	made a number of comments, including the provision of	
	further information on water quantity and flood risk	
	requirements	
	We would suggest that general requirements for SuDS	These comments and suggestions are noted and the SuDS SPG will be
	such as amenity, biodiversity etc are clearly outlined as	amended to add further references.
	part of the design guidance, and further references are	
	made to the CIRIA manual alongside the East Lothian	
	Council specific requirements for SuDS.	
	We are happy to meet to discuss and provide further	
	support in developing this guidance if required.	
	Executive Summary	
	We consider that there is an opportunity in the	The Council would accept this recommendation to amend the
	Executive Summary to further describe the	Executive Summary and to make additional references in the SuDS
	multifunctional benefits of SuDs, particularly in regard	SPG to placemaking and wider benefits of SuDS features.
	to placemaking. As indicated throughout the document,	
	SuDs have multi-benefits for place-making and should	
	form an important component of blue-green networks.	
	Well-designed SuD features can enhance biodiversity,	
	reduce siltation thereby enhancing water quality,	
	alleviate flash flooding and be incorporated within and	
	alongside active travel routes and provide an	

interesting educational resource. The communication of this message in the Executive Summary will assist in building wider understanding of the value of wellmaintained SuDS.

#### Overview

We consider that SuDs should be considered as a component of blue-green networks. The opportunity should be taken to enhance and connect existing blue-green networks while creating new ones. This context should underlie the design of any SuDs scheme onsite. We consider that this could be further described within the text of the overview to ensure that readers understand what is meant by this.

We would also add in this section, that careful landscaping can usually avoid the need for fencing, avoiding unnecessary loss of connectivity between the SuD feature and wider blue-green network. Maintaining access to SuD ponds, enhances their value within public open space, making it more likely that residents will understand their role and take an interest in their long-term maintenance.

### **Design Guidance**

We would suggest that further information to clarify responsibilities for SuDS is included in the guidance and options for SUDS ownership and adoption in East Lothian are set out. This will assist in the clarification of when Scottish Water standards need to be met and when East Lothian Council standards need to be met (or where full CIRIA manual standards can be followed). For example, in-curtilage SUDS should be considered part of

The Council accepts that the SPG could make additional references to blue and green infrastructure and the manner in which landscaping is undertaken to avoid the need for fencing. These will be added to the SuDS SPG.

Comments are noted regarding boundaries and the SuDS SPG has been amended to clarify the reasons for avoiding the need for fencing and for risk assessments to be undertaken.

The Council would accept these comments and that the SPG could be amended by providing more detail about the information required at planning application submission, specific maintenance requirements for operational SuDS, and a specific section on the current position with regards to ELC and Scottish Water for the Memorandum of Understanding and Section 7 agreements and the options for ownership of SuDS features following the agreement in place.

the SUDS design with responsibility for ownership and maintenance being with the home owner / landowner. However maintenance responsibilities and requirements should be made clear to any new owner in order to ensure that SuDS remain effective. We have noted this under the Executive Summary and Design Guidance section, however it may be beneficial to have a separate chapter on this.

There is also the opportunity for shared ownership of SuDS between Scottish Water and East Lothian Council under Section 7 of the Sewerage (Scotland) Act 1968. We are not clear if this has been agreed in East Lothian Council yet, however it may be helpful to include this if agreements have been established.

Overall it is helpful to see the East Lothian Council specific requirements set out clearly under the different types of SuDS. To further support the information provided we have provided further advice under several topic headings below which could be incorporated as part of overall general requirements of SuDS design.

#### Amenity

It would be useful if East Lothian Council LDP polices in regard to open space and green networks were identified within the Design Guidance section to promote the contributions which SuDS make to these aspects of development. The CIRIA Manual provides information on design objectives and criteria for amenity and also gives detail on how different SUDS features (e.g. basins, swales and ponds) should be

The Council noted comments on shared ownership and maintenance agreements. ELC are currently in discussions with Scottish Water on this matter. Once agreement is reached, there will be a separate document outlining in detail these responsibilities.

The Council notes the importance of highlighting the interaction between SuDS and open space. The SuDS SPG will be amended to include references to relevant open space policies within the Design Guidance section where SuDS could be designed to form part of open space requirements. The policies (in full) and any advice boxes or preamble text from the LDP 2018 will be included as an appendix to the final SuDS SPG.

designed to provide amenity value and gives supporting guidance on landscape and health and safety.

### **Biodiversity**

We also consider whether it is possible for the East Lothian LDP policies with regard to biodiversity to be referenced to promote the contributions which SuDS can have in delivering biodiversity. The CIRIA Manual provides information on design objectives and criteria for biodiversity and also gives detail on how different SUDS features (e.g. basins, swales and ponds) should be designed to provide biodiversity value. We note there is discussion of this in the Information required for Planning Applications sections, however this may be better placed within the Design Guidance section.

Comments on biodiversity are noted and it is accepted that the design guidance section could make more references to specific opportunities for improving biodiversity for each SuDS type. This will be amended in the final version of the SuDS SPG.

## Water quality

With regard to water quality, we note that reference is made to SEPA requirement for the CIRIA SUDS manual standards for water quality to be met (SEPA Regulatory Method WAT-RM-08 Sustainable Urban Drainage Systems) at the beginning of the document. It would be beneficial if this was reiterated in the Design Guidance section.

Comments noted and additional reference to requirement will be added to the final version of the SuDS SPG.

# Water quantity and flood risk

We consider that there is an opportunity to provide further information with regards to water quantity and flood risk requirements in relation to SuDS. SuDS can be designed to include areas that are designated to flood on an infrequent basis, for example car park, roads, recreation areas and these areas should be designed and managed with this multifunctional purpose in mind.

The Council notes comments on adding more detail on water quantity. Reference is made to CIRIA's four pillars and the SPG directs the reader to the full CIRIA SuDS Manual for further information. It is not intended to repeat such guidance in this SPG.

The CIRIA Manual provides further information including design objectives, criteria and standards for water quantity and also gives detail on the hydraulic design requirements for different SuDS features (e.g. basins, swales and ponds). The CIRIA manual also provides supporting guidance on hydrology and hydraulics. **Construction and Maintenance** The CIRIA manual provides information on how design The SuDS SPG sets out what will be required from developers at the should take into account maintenance requirements. planning application submission stage. As discussions with Scottish Water are ongoing on maintenance agreements, the SuDS SPG does We recommend that this is identified within the guidance. An operation and maintenance manual not propose to set out these requirements in detail as these will be should be made available to those responsible for the within a separate document once agreement is reached. SUDS and directions to information on best practice with regard to construction. Further information on East Lothian Council Flood risk Comments noted on flood risk. The SUDS SPG has been anended to management requirements should be provided add additional references to flood risk management including the LDP including requirements for exceedance design E.g. all of 2028 policies within Appendix 1. the development including roads and access areas should have no surface water up to the 1 in 30 year rain (except in the designated drainage features). For management of more extreme rain events between 1 in 30 and 1 in 200 year areas may be specifically designated for temporary flood storage or conveyance as part of the design of the surface water management system. 011 (Scottish Water) Page 3 – Executive Summary This doesn't appear to be reflected throughout the Comments noted. These references have been amended in the final document as filter trenches via gullies and dismisses version of the SuDS SPG. permeable surfaces on roads

Outwith site boundaries should also be considered when it may form part of a more strategic solution or opportunity to do so arises

Assume they will adopt SUDS features that are not next to carriageway but deal with road run-off only?

Is this possible if SW vests? SW needs land title and developers have placed doubt on the legality of including land not owned by residents within their factoring agreement. Also this conflicts with later statements stating it is the council's responsibility?

## Page 6 - Overview

There is a need for in curtilage SUDS to be required via Building Control (green roofs, permeable surfaces, rain gardens, soakaways, etc)

SW's Surface water policy states that no combined sewer connection will be given. All alternative options must be investigated and evidence provided of viability.

## **Design Guidance**

## Page 6-7 - Detention Basins

What justification for this? Other public bodies (Transport Scotland to name one) and factors currently use sit on mowers for maintenance. This deviates from both SfS and Ciria SUDS manual referenced. Has this been agreed with factors who Council are making responsible? Also 1:3 and 1:4 slopes are detailed in the construction drawings later in the document

Reference removed from SuDS SPG.

SuDS SPG has been amended to provide clarity on road run-off.

Comments noted. The SuDS SPG has been amended to provide more information on vesting and future maintenance arrangements once the MOU between ELC and SW is signed.

Comments noted however it is not felt that a reference to Building Standards is required here.

Comments noted. The SuDS SPG has been amended to reflect SW's position regarding surface water, combined sewers and preference for separate systems.

Comments noted. References to these gradients have been removed from the SuDS SPG in order to avoid confusion and to allow the Council to consider the proposal in terms of the upcoming MOU and Section 7 agreements.

There is no reference to SUDS for Roads document developed by SCOTS on behalf of LA's

Planting again will need to be low maintenance

Is there any if factoring agreement?

## Page 8 – Swales

What justification for this? Other public bodies (Transport Scotland to name one) and factors currently use sit on mowers for maintenance. This deviates from both SfS and Ciria SUDS manual referenced. Has this been agreed with factors who Council are making responsible? Also 1:3 and 1:4 slopes are detailed in the construction drawings later in the document

What about the factor?

# Page 11-12 - Filter Trenches

This conflicts with Executive Summary that "SUDS should replace the traditional system of road gullies" Kerbs should be avoided to promote sheet flow to the filter trench and avoid bypassing of filter media by direct piped connection

Is there evidence of this? Can designated utility strips not be made visible by different blocks?

This does not comply with statement in Executive Summary and also this option is within SUDS for Roads developed by SCOTS on behalf of LA's. This surface is widely considered for adoption throughout the UK. Comments noted. This document is a useful resource and has now been included within the SuDS SPG.

Comments noted and changes reflected in SuDS SPG.

These will be set out in the upcoming MOU and as part of Section 7 agreements.

Comments noted. Following discussions with Scottish Water, specific references to slopes have been removed. Additionally, greater clarity on future maintenance has been added to the SuDS SPG, including references to the future Memorandum of Understanding and Section 7 agreements.

Comments noted and amendments made to final SuDS SPG.

Page 13 – Information Required for Planning
Applications

...in accordance with "Water Assessment and Drainage Assessment guide" published by SUDSWP in 2015

A sentence should be added confirming ELC's agreement with SW to enter into a shared maintenance plan for shared surface water drainage systems serving roofs and roads.

Comments noted and amendment made to final SuDS SPG.

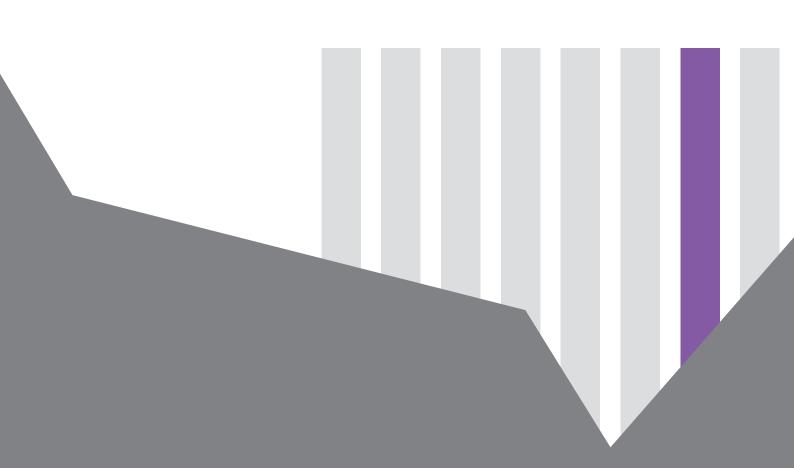
Comments noted and amendment made to final SuDS SPG.



# local development plan 2018

# Sustainable Drainage Systems (SuDS)

supplementary planning guidance



Cross-service SuDS Working Group
East Lothian Council
Final Version – June 2019

# **Executive Summary**

Sustainable Drainage Systems (SuDS) deal with excess water from a site, and return it to the water system in a controlled manner to alleviate flood risk and reduce discharge of diffuse pollutants. SuDS should replace the traditional system of surface water entering directly into combined surface water and foul water sewers.

CIRIA's latest edition of *The SuDS Manual* provides advice on designing SuDS, some of which Scottish Water will vest if the SuDS also complies with their *Sewers for Scotland* technical guidance. Sewers for Scotland provides the minimum requirements for compliance, and has often been interpreted in a way that has resulted in SuDS features functioning as a water attenuation and treatment solution, but not maximising the full capability of the SuDS feature for biodiversity, recreational and amenity value.

This SuDS Supplementary Planning Guidance has been prepared by East Lothian Council's cross-service SuDS Working Group. It supplements the Local Development Plan 2018 policies regarding SuDS and flood risk management and links with wider Council policies, strategies and priorities. The SPG sets out the Council's preferred approach to the design, functionality and management of new SuDS features for all types of development to ensure that they are visually attractive, add value in terms of recreation, amenity and biodiversity, and can be maintained effectively.



Figure 1: Detention basin providing water detention as well as usable attractive amenity space with a wide base and relatively shallow slopes. Source: The SuDS Manual C753

#### Credits

All images (unless stated otherwise) courtesy of Woods Ballard, B, Wilson, D, Udale-Clarke, H, Illman, S, Scott, T, Ashley, R, Kellagher, R (2015) **The SuDS Manual C753**, CIRIA, London (ISBN: 978-0-86017-759-3) www.ciria.org

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### 1. Overview

Sustainable Drainage Systems (SuDS) are an effective flood risk management and water treatment strategy within the built environment, helping to protect existing and new communities from the harmful effects of surface water flooding. SuDS function by managing surface water run-off by treating it as near to source as possible, slowing down the rate of discharge, treating water sustainably, and releasing it in a controlled way to watercourses or groundwater. Since 2006 SuDS have been a legal requirement<sup>1</sup> for most new developments<sup>2</sup>.

#### 1.1 National Policy and Guidance

Scottish Planning Policy (SPP) 2014 (paragraphs 254-268) requires Planning Authorities to promote flood avoidance, flood reduction, and avoidance of increased surface water flooding through the use of SuDS. Within Development Planning, this should be achieved through assessing flood risk at Strategic Flood Risk Assessment level, and the use of the flood probability risk framework to guide development. At the Development Management stage, regard must be had for the site characteristics, and the design and use of the proposed development. Depending on site location and characteristics, an assessment of flood risk through Flood Risk Assessments and Drainage Assessments should be undertaken in order to inform decision-making.

Designing Streets: A Policy Statement for Scotland uses six key qualities to define the characteristics and qualities of design and place. These are: Distinctive, Welcoming, Safe and Pleasant, Easy to Move Around, Adaptable and Resource Efficient. SuDS have a significant contribution to make in relation to the quality of the built environment and towards achieving these placemaking principles.

Further national guidance is also given in <u>Planning Advice Note 61 Planning and Sustainable Urban</u> Drainage Systems and Planning Advice Note 79 Water and Drainage.

#### 1.2 Local Policy

The Local Development Plan 2018 recognises the contribution SuDS can make towards high quality design and placemaking. It sets out in Chapter 6 (Advice Box 6: Water Environment and Policy NH9: Water Environment) the strategies and principles to be applied when designing new developments to protect and enhance the water environment. Policy NH10: Sustainable Drainage Systems explains how developers must incorporate SuDS features into new developments and the relevant standards to be applied depending on the type and location of SuDS feature. The LDP 2018 encourages the effective design and management of SuDS from the outset of development design. This is reflected through the requirement in Policy DP4: Major Development Sites criteria 16, where masterplans must describe and illustrate "the type, location and incorporation of Sustainable Drainage Systems". Different types of SuDS require more areas of land than others, and consideration must be given at the start as to how buildings and SuDS can best be integrated into site layouts. This is particularly important to ensure that the benefits of SuDS for green networks, flood risk management, water quality, amenity, biodiversity, climate change adaptation and economic gain are maximised. Policy NH11: Flood Risk sets out how the Council will consider flood risk in relation to new development. This SuDS SPG also links closely to Policy DC10: The Green Network and the approved Green Network Strategy SPG.

<sup>&</sup>lt;sup>1</sup> Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended):

<sup>&</sup>lt;sup>2</sup> Exceptions are single dwellings and low-risk direct discharges to coastal waters

The level of SuDS required is dependent on the nature and size of the proposed development and the environmental risk posed by it. SEPA's "Simple Index Approach" (SIA) should be used to identify what level of treatment is appropriate for the development. Guidance on use of the SIA can be found in SEPA's Regulatory Method 08 (WAT-RM-08) or Section 26.7.1 of the CIRIA SuDS Manual C753.

#### 1.3 The Aim of this SuDS SPG

This SuDS Supplementary Planning Guidance seeks to provide developers with a clear understanding of how and why SuDS design and management must be carefully considered and form part of the overall design strategy for any development in East Lothian. SuDS design must be as a response to the specific location and context of the site, and developers/designers must demonstrate how the SuDS feature will provide additional benefits beyond just the engineering requirements of surface water management. CIRIA describe the four main categories of benefits that can be achieved by SuDS, referring to them as the four pillars of SuDS design, as shown in the diagram below.

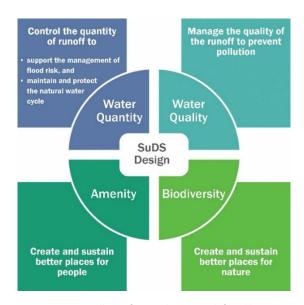


Figure 2: Four pillars of SuDS design as defined by CIRIA Source: The SuDS Manual C753

East Lothian Council require SuDS features to be well-designed to integrate with and enhance the built environment and surrounding landscape and contribute to high quality green space in line with LDP 2018 policies and CIRIA The SuDS Manual. SuDS can offer a wealth of opportunities within developments for both passive and active recreation for the local community. How these benefits will be achieved must be demonstrated in new development layouts, utilising one or more in the wide variety of SuDS features including (but not limited to) green roofs, rain gardens, soakaways, bioretention, swales, filter trenches, permeable paving, detention basins and ponds. Multiple SuDS features can be used within a single site to provide the necessary treatment, and they must each contribute towards high quality design and placemaking.

To be considered as part of the Council's on site open space requirements for new housing, SuDS need to provide both suitable surface water treatment (including flood attenuation and water quality) **and** enhanced landscape setting, benefits to biodiversity or useable recreational space. East Lothian Council supports well-designed SuDS solutions within amenity areas. In terms of public safety for ponds and similar features, the Council promotes the use of soft boundaries (i.e. planting) around SuDS and the avoidance of steep drops or sudden changes in level. This may avoid the need to fence them off. However, this would always require to be considered via an appropriate risk assessment.

# 1.4 Maintenance of SuDS – Memorandum of Understanding & Section 7 Agreements

At the time of writing this SuDS SPG, East Lothian Council are in discussions regarding a Memorandum of Understanding (MOU) between East Lothian Council and Scottish Water for the vesting and management/maintenance of SuDS that deals with surface water from both private curtilages and roads. It is the intention that the agreement will set out clear responsibilities for both above ground and below ground maintenance of SuDS features that are vested by Scottish Water and also deal with road run-off.



Figure 3: Pond at Toll House Neuk in Windygoul, Tranent providing a distinctive area of wildlife and biodiversity interest well overlooked by surrounding housing adding to their visual amenity and contributing to placemaking principles. Source: author's photo

# 2. Planning Applications – Submission Requirements for SuDS

SuDS must form an integral part of the design process from the start, be considered fully through the planning application process in terms of contribution to placemaking and environmental improvement, and into the construction, operation and maintenance phases.

East Lothian Council requires sufficient information to be submitted with any planning application that includes a SuDS to allow a full assessment to be made. This information must include how the SuDS features will contribute towards water management and flood risk reduction, placemaking, biodiversity, amenity and other benefits. A Drainage Assessment should be submitted with relevant planning applications, the content and detail of which will vary depending on the size of the development (see Part 3 of the <u>SUDSWP Water Assessment and Drainage Assessment Guide</u> for further guidance). Planning Advice Note 79: Water and Drainage should also be referred to. The assessment and accompanying drawings must demonstrate that the SuDS features have been sized to the required Treatment Volume (as per Simple Index Approach (SIA)), and confirm that the proposals comply with Sewers for Scotland standards (where applicable) or CIRIA The SuDS Manual where they are not to be vested.

Scottish Water should be contacted at an early stage to discuss the principle of development, network capacity and proposed SuDS. Although every site and proposal will vary, the following information should be provided, in addition to the engineering and technical details, to allow the full assessment of proposed SuDS features:

#### 2.1 Applications for Planning Permission in Principle

- An overall drainage strategy including a flood risk assessment and drainage assessment
- **SuDS Plan** An appropriately scaled annotated site plan to show the approximate locations and land-take of the proposed SUDS features

#### 2.2 Applications for Detailed Planning Permission

- SuDS Plan An appropriately scaled annotated site plan to show the locations and land-take of the proposed SuDS features
- **SuDS sections** –sections through SuDS features showing its form and relationship with surrounding land
- **SuDS Features Maintenance Schedule** Details of the annual and long-term maintenance which will be required for the system.
- **SuDS Maintenance Plan** a plan showing who will have maintenance responsibilities for each area of land (for instance, the Local Authority, a communal factor, Scottish Water or individual home owners).
- SuDS Features Risk Assessment Demonstrating that risks have been appropriately considered and mitigated
- Details of compliance with Sewers for Scotland or CIRIA The SuDS Manual (as applicable)
- Outputs from Simple Index Approach (SIA) tool

#### 2.3 Ownership and Maintenance

The ownership and post-construction maintenance responsibilities of SuDS must be clearly set out from the start, whether this will be for homeowners, through communal factoring, Scottish Water or East Lothian Council. Refer to section 1.4 above on Maintenance of SuDS. For submission of planning applications, the maintenance schedule should accord with CIRIA C753 guidance. Additional

information is available in the SCOTS National Roads Development Guide: <a href="http://www.scotsnet.org.uk/phone/national-roads-development-guide.html">http://www.scotsnet.org.uk/phone/national-roads-development-guide.html</a>. Should planning permission be granted, as part of the approval and the conditions of a planning permission, the Council will ensure compliance with the management and maintenance strategy.

#### 2.4 Roads Construction Consent (RCC)

Scottish Water approval will be required for SuDS they intend to vest in order to obtain Road Construction Consent (RCC). Scottish Water should be consulted as early as possible in the design process in order to confirm the features which are intended for them to vest are compliant with the current edition of Sewers for Scotland.

#### 2.5 Assessing SuDS design at the Planning Application stage

When assessing a proposal at project level, the key determining factor will be the policies in the Local Development Plan 2018. In addition to technical compliance, the Council will have regard to the following considerations on the suitability of a SuDS feature:

- Does the SuDS positively contribute to the visual amenity of the development?
- Does it contribute positively to the biodiversity value of the site?
- Is the developer proposing a SuDS feature to form part of their open space requirements, and if so, is it accessible and useable for the majority of the year?
- Why has this particular location and design been chosen?
- What alternatives locations and design have been considered? Why have they been dismissed?
- Has the Drainage Strategy demonstrated that the development has maximised opportunities to deal with surface water using SuDS features, thereby minimising the need for or use of underground pipes?

# 3. Design Guidance on SuDS

SuDS features, when designed and managed effectively, have a valuable contribution to make towards placemaking within new developments. They can significantly enhance the character of a development by providing attractive environments that buildings can be positioned around, create a focal point for a site or neighbourhood, link with other (existing or new) blue and green infrastructure, encourage social interaction, recreation and play, provide educational benefits on environment and wildlife, and help plant and animal species to thrive.

The following section describes the range of SuDS features that should be used within East Lothian to maximise the above benefits. In all cases SuDS must contribute positively to placemaking. For each type, the SPG provides any specific design requirements or considerations and how maintenance must be carried out. Photos of existing SuDS have been used to illustrate positive design features. For all SuDS types, the use of appropriate signage should be considered.

Proposals that involve enhancement of biodiversity in and around SuDS features should help to implement the Council's Green Network Strategy SPG. The location of SuDS and their amenity value should also be considered in relation to providing points of interest along sustainable travel corridors.

Proposals must also demonstrate that changes to the existing topography will not have a detrimental effect on existing wetlands, habitat, groundwater or watercourses.

In order to improve awareness of maintenance responsibilities and to promote educational benefits of SuDS features, the use of interpretation boards close to the SuDS feature is strongly encouraged. This should include details of the function of the SuDS, such as whether it is a generally wet or dry feature, safety information such as the maximum water depth (where applicable), how the SuDS may change during heavy rainfall, types of planting used and the insect and animal species it may attract, and contact details in the event that there is a need to report a maintenance or safety issue.



Figure 4: A detention basin in North Berwick with shallow depth and side slopes providing water detention as well as attractive amenity space. A space that contributes to placemaking values by being welcoming, safe and pleasant, as well as resource efficient. Source: author's photo

#### 3.1 Detention Basins

Detention Basins are indentations which capture surface water run-off in times of flood, and release it slowly into the downstream system. They are expected to be dry for much of the year. Detention basins can be designed for either infiltration or attenuation, depending on site conditions.

If detention basins are to be included as recreational open space, consideration should be given to the following:

- The area must be accessible to all. This means side slopes of a suitable gradient for at least part of the basin or accessible paths across steeper slopes.
- It must be easy for people to escape the basin in times of a flood.
- Sewers for Scotland notes that the dual use of detention basins as passive public open space for
  recreation activities can be considered where the area is subject to flooding from events less
  frequent than the 1-year return period and where it can be clearly distinguished from the area
  providing flood storage for more frequent events.
- Where a dual use is proposed, the installation of educational and warning signage i.e. explaining the purpose/operation of the basin and any other measures identified within an appropriate risk assessment by the developer.
- Detention basins with a flat base size of a minimum of 60m x 40m can form an informal sports pitch.

In all cases the following will apply:

- The slope gradient, depth and profile of a detention basin must be considered together and must be informed by site specific characteristics and landscape, design, amenity and biodiversity objectives.
- Although Sewers for Scotland specifies that the side slopes of basins must not be steeper than 1
  in 4, East Lothian Council strongly encourages shallower slopes and a variety of slope gradients to
  create visual interest.
- In accordance with Sewers for Scotland and CIRIA, the shape profile of basins should not be geometric and angular but curved, giving a more natural and interesting appearance.
- Where the side slopes are designed to be grass covered and cut the gradient must be agreed with East Lothian Council to enable reasonable maintenance.
- Planting should be low maintenance.



Figure 5: Detention basin with amenity planting and easy access for maintenance. A space that contributes to placemaking values by being welcoming, safe and pleasant. Source: The SuDS Manual C753

If other adequate informal recreational space is delivered elsewhere within the development and within an adequate radius of the housing units then a detention basin can be considered to form part of the landscape setting and potentially biodiversity enhancement. Although detention basins are typically grassed, where basins are not lined, they should be planted with a mix of suitable low-maintenance native plant species, including flowering plants, to benefit amenity and biodiversity by providing wildlife habitats (see <u>ELC Green Network Strategy SPG</u>). Planting can also help prevent erosion and slow flows across the basin thereby increasing sediment settling.



Figure 6: Detention basin providing water detention as well as usable attractive amenity space with raised areas for planting and a variety of side slope gradients, being adaptable and resource efficient. Source: The SuDS Manual C753

Topsoil depths should be appropriate for the type of planting.

- 100mm subsoil for wildflower meadow planting
- 150mm topsoil for amenity grass
- 450mm for shrub planting
- Trees will require individual pits up to 1m in depth

Planting within SuDS basins must comprise of robust plants that are tolerant of a wide range of conditions, both wet and dry. When determining planting species, consideration must also be given to the effects of varying water levels, extreme winds, and seasonal changes (e.g. autumn) on the increased risk of blockage to flow control features. Small pools planted with wetland and marginal plants may be included as a feature of a detention basin. However, consideration must be given to the possibility of these drying out completely in summer months and the consequences for the planting.

To ensure that the SuDS feature remains attractive and well-maintained, a maintenance schedule must be provided at the planning application stage to allow assessment of the long-term maintenance

responsibility. An example of a maintenance schedule is given in table 22.1 on page 483 of the CIRIA C753 The SuDS Manual.



Figure 7: A SuDS basin within a larger area of landscaping creating an attractive landscaped area that is distinctive, welcoming, safe and pleasant, adaptable and resource efficient. Pinkie Park, Battlefield Drive, Musselburgh. Source: author's photo

#### 3.2 Swales

Swales are shallow, flat bottomed, vegetated, open channels that can have multiple functions including:

- Water conveyance the swale collects surface water run-off and moves it to another part of the treatment system.
- Water treatment if the swale includes a filter trench in the base this provides water collection and treatment through a filter medium.
- Water retention swales can also be designed to be wet with a permanent shallow level of water in the base supporting wetland planting.

Swales provide the opportunity to introduce green vegetated areas into road corridors where there would be limited open space value of grass as play space. Vehicles must be prevented from parking or over-running the edges. Short sections of swale between driveways need to be carefully designed to discourage vehicle encroachment. This may be achieved by use of planting with shrubs or trees rather than grassed.



Figure 8: Shallow formal grassed swale wide and shallow enough to be cut by a ride-on mower. Note low fence to prevent vehicle over-run. Source: The SuDS Manual C753

The depth, width and slope gradient of swales must be considered together, informed by site characteristics, the design objectives for the site and a risk assessment.

As it can be difficult for grass-cutting equipment to navigate the swales, alternative planting material should be considered as appropriate for the function of the swale and whether it is expected to be predominantly wet or dry. Where the side slope is designed to be grass covered and cut as part of the maintenance schedule, the gradient must be agreed with East Lothian Council.

Planting in a swale in natural soil must be robust and tolerant of a wide range of conditions, both wet and dry. Planting schemes in an under-drained swale must be drought tolerant. Trees should be kept to the natural soil banks.



Figure 9 (above and right): Examples of wet and dry planted swales, contributing to placemaking principles by being distinctive, welcoming, safe and pleasant, adaptable and resource efficient.

Source: The SuDS Manual C753

As swales are generally shallow surface features they must be designed in order not to present significant risk or danger to the health and safety of the public. This needs to be considered as part of an appropriate risk assessment by the developer.



Figure 10: Natural play within a shallow swale providing distinctive adaptable and resource efficient space that is well overlooked and has high amenity value. Source: The SuDS Manual C753

#### 3.3 Ponds or Wetlands

Well-designed and maintained permanent water bodies such as ponds and wetlands can offer important aesthetic, amenity and wildlife benefits to development sites. While in dense urban environments, a hard landscaped pond may be appropriate, in the semi-rural setting of East Lothian ponds or wetlands are likely to be naturalistic features with shallow planted and grassed side slopes.

Ponds which are to function as SuDS features should be designed by appropriately skilled landscape professionals in conjunction with engineers in order to ensure aesthetic quality, effective integration within the landscape and performance as a community resource.

Depending on their location, the balance of visual amenity and habitat provision can be adjusted accordingly:

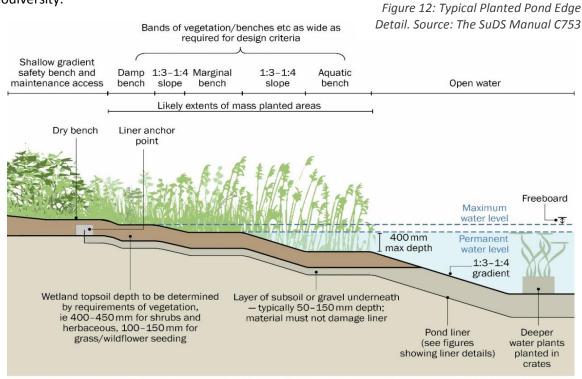
- At the core of the development a pond or wetland should provide an aesthetically pleasing feature with a range of habitats to suit native and desirable species.
- As part of the wider landscape setting or on the periphery of the site, the focus should be on biodiversity and habitat provision within a landscape that reflects native species. In such cases the design should demonstrate connectivity with adjacent green corridors to enable species migration.

In terms of public safety, the Council promotes soft boundaries and the avoidance of steep drops and sudden changes in level. This may eliminate a requirement for fencing and retains a more naturalistic appearance to the SuDS pond. However, this would also require to be considered via an appropriate risk assessment by the developer. This approach also enables efficient maintenance by allowing the use of ride on grass cutting equipment. Soft boundaries can be achieved by incorporation of low to medium height marginal planting, varying grass cutting heights and gentle shelves to ponds.



Figure 11: SuDS basin / pond in North Berwick for C400 houses within a larger area of landscaping creating an attractive more formal landscaped area that is both distinctive and welcoming, contributing to placemaking. Source: author's photo

In order to provide effective water treatment functions the 'effective' area of a pond needs to be 1 metre deep. However, there should be a mix of water depths (as indicated in Figure 11 below) and a minimum of 150mm water depth to provide adequate capacity to sustain desirable species. Gentle changes in slope around the pond perimeter as indicated in Figure 11 below allow the development of different types of wetland vegetation. Locating new ponds close to existing water bodies can benefit biodiversity.



Notes: Width, surfacing and extent etc of safety bench and maintenance access all dependent on site, size of pond, maintenance requirements etc

Further information on the design of ponds can be found in the current edition of Sewers for Scotland and/or CIRIA guidance. Information on appropriate planting for ponds can be found in Appendix B.



Figure 13: Roads and playing pitches drainage at Law Primary, Haddington Road, North Berwick, naturally regenerating with local species, and providing access for education via a boardwalk. Source: author's photo

#### 3.4 Filter Trenches

Filter drains or filter trenches are linear features filled with a filter material such as gravel. They may have perforated pipes along the bottom to convey the water that percolates down through the filter material. They can be positioned at the bottom of dry swales or be on their own. They must be protected from silting up through upstream protection. Roadside filter trenches can be of the 'French style' that are open, usually stone filled up to the ground surface, or enclosed under a hard or soft surface. With reference to the following section on permeable paving, it is the Council's preference (in residential areas) to have filter trenches located underground with access chambers at significant changes in direction, or at a maximum spacing of 20 metres to facilitate ease of maintenance.

## 3.5 Permeable Paving

Permeable paving can be accepted in private parking areas and driveways. East Lothian Council will not generally accept permeable paving on roads and parking areas that will be adopted by the Council.

Utility services should be minimised under permeable paving to avoid disruption to the water attenuation and treatment elements of the permeable paving, should access to the underground services be required.

Permeable paving must be clearly identified on the maintenance and factoring plan and details on the maintenance of these features included within the maintenance schedule. Information on the requirement to retain and maintain these must be provided to householders where provided within private curtilages.

#### 3.6 Other SuDS Features

There are a variety of other types of SuDS features that may be supported where they follow the recommendations of the SPG, and subject to detailed design and statutory consents.

## 3.7 Further Guidance and Best Practice Examples

A number of examples of best practice exist and applicants are recommended to refer to these. In particular, The CIRIA SuDS Manual Version 6 and subsequent updates published by CIRIA, offers detailed guidance on the technical requirements of SuDS design, as well as demonstrating how the ethos of combining technical requirements with amenity, aesthetic and biodiversity considerations can be best achieved.



Figure 14: Swale planted for biodiversity and amenity, adding to placemaking principles by being distinctive and welcoming. Source: The SuDS Manual C753



Figure 15: Wet swale example contributing to placemaking by creating attractive and distinctive space that is overlooked to be safe and pleasant, shallow slopes to be easy to move around, and being adaptable and resource efficient. Source: The SuDS Manual C753



Figure 16: Pond example with barrier planting preventing access to standing water and interpretation board with information on the requirements for and biodiversity value of the pond. Source: The SuDS Manual C753



Figure 17: Pond example with dipping platform over shallow water.

Source: The SuDS Manual C753

# Appendix A: Local Development Plan 2018 policies and advice

#### **POLICY NH10: Sustainable Drainage Systems**

All development proposals must demonstrate that appropriate provision for Sustainable Drainage Systems (SuDS) has been made at the time of submitting a planning application, except for single dwellings or developments in coastal locations that discharge directly to coastal waters where there is no or a low risk to designated bathing sites and identified Shellfish Waters. Sufficient space for proposed SuDS provision, including the level and type of treatment appropriate to the scheme of proposed development, must be safeguarded in site layouts. Provision must also be made for appropriate long-term maintenance arrangements to the satisfaction of the Council.

A drainage assessment may also be required to show the impact of a 1 in 200-year rainstorm event. SUDS schemes should be designed with an allowance for climate change.

Proposals must also demonstrate how SuDS will be used to promote wider benefits such as placemaking, green networks and biodiversity enhancement.

See also preamble text from paragraph 6.25 to paragraph 6.30 and Advice Box 8.

#### POLICY NH11: Flood Risk

Development that would be at unacceptable risk of flooding will not be permitted. New development within areas of medium to high risk of coastal or watercourse flooding (with greater than 0.5% annual probability of flooding) should generally be avoided In accordance with the provisions set out in Advice Box 8.

All relevant development proposals will be assessed based on the probability of a flood affecting the site and the nature and vulnerability of the proposed use, taking into account the following:

- a) the characteristics of the site and any existing or previous development on it;
- b) the design and use of the proposed development, including use of water resistant materials and construction;
- c) the size of the area likely to flood;
- d) depth of flood water, likely flow rate and path, and rate of rise and duration;
- e) the vulnerability and risk of wave action for coastal sites;
- f) committed and existing flood protection methods: extent, standard and maintenance regime;
- g) the effects of climate change, including an appropriate allowance for freeboard;
- h) surface water run-off from adjoining land;
- i) culverted watercourses, drains and field drainage;
- j) cumulative effects, especially the loss of storage capacity;
- k) cross-boundary effects and the need for consultation with adjacent authorities;
- I) effects of flood on access including by emergency services; and
- m) effects of flood on proposed open spaces including gardens.

Flood Risk Assessments will normally be required for proposals within the medium to high risk category of flood risk. They may also be required in the low to medium category in certain circumstances, for example at the upper end of the probability range or for essential infrastructure and the most vulnerable uses.

Development proposals will not be supported if they would increase the probability of flooding elsewhere. Piecemeal reduction of the functional floodplain will be resisted given the cumulative effects of reducing storage capacity.

Areas of land that contribute to sustainable flood management, or have the potential to do so, will also be safeguarded from inappropriate development by this policy. These areas will include locations where the Council will promote flood defences in Musselburgh and Haddington once solutions are identified through the outputs of its Local Flood Risk Management Plan.

#### **POLICY DC10: The Green Network**

All relevant development must make provision for the Green Network in accordance with the relevant Development Brief and the Council's Green Network Strategy supplementary planning guidance once adopted. This will include the provision of off-site Green Network measures where identified in the Green Network Strategy, and where relevant as set out in a Development Brief. Where loss or reduction in quality to any element of the Green Network is required to facilitate development, alternative provision to the satisfaction of the Council must be provided.

See also preamble text from paragraph 5.24 to 5.26.

#### Policy OS3: Minimum Open Space Standard for New General Needs Housing Development

See paragraph 3.127 and Advice Box 2.

Developments of 20 and more dwellings must provide open space in line with Section 1. On-site provision of open space is encouraged for developments of less than 20 dwellings but is not required. The Council will require developer contributions in lieu of on-site provision of open space in line with Section 2. Developers must make provision for the future management and maintenance of open space to the satisfaction of the Council.

#### Section 1: On-site provision

For developments of 20 and more dwellings the minimum requirement for on-site provision of open space is 60m2 per dwelling. This will consist of provision of formal and informal open space as well as space for equipped play areas in accordance with Policy OS4. Proposal shall also make provision for natural green space, which will provide suitable recreational opportunities close to home, and where possible will link these areas to wider networks including core paths and recreational routes.

Arrangements must be in place for management and maintenance of all types of open space to the satisfaction of the Council.

Where a development forms part of an area for which there is a masterplan approved by the Council, open space must be provided in accordance with the approved masterplan; this may require greater provision than that described above.

Where developers justify an exceptional circumstance that is acceptable to the Council it may reduce the minimum standard.

#### Section 2: Off-site enhancement

The Council will require developer contributions toward off-site enhancement of existing open space in circumstances where:

- i. The open space to be enhanced is easily accessible from the development and is of a size that can accommodate increased use generated by the development; and
- ii. The fabric of the open space requires enhancement as a direct consequence of the development.

Arrangements must be in place for management and maintenance to the satisfaction of the Council.

# Appendix B: Guidance on Plant Species for SuDS

The following lists native species that should grow well in marshy or aquatic conditions in East Lothian, and is provided for guidance only. Species should be selected based on site conditions and adjacent habitats and planting locations should be determined in consultation with a specialist, such as a landscape architect. Each species is available from commercial stockists, either as part of a seed mix or as plug plants. *Typha* species should be used with caution as they have the potential to dominate a wetland area. These species should therefore only be used in specific circumstances, where conditions will limit the spread.

#### Low Growing Pond and Marsh Species

These species are preferred as they commonly grow as a mix of species to create diverse wetland vegetation communities.

- Achillea ptarmica (Sneezewort)
- Alisma plantago-aquatical (Water Plantain)
- o Angelica sylvestris (Wild Angelica)
- o Caltha palustris (Marsh Marigold)
- Carex ovalis (Oval Sedge)
- Dipsacus fullonum (Teasel)
- Eriophorum vaginatum (Hare's-tail Cotton Grass)
- Geum rivale (Water Avens)
- Galium palustre (Marsh Bedstraw)
- o Hypericum tetrapterum (Square-Stalked St John's Wort)
- Lychnis flos-cuculi (Ragged Robin)
- Lythrum salicaria (Purple Loosestrife)
- Mentha aquatic (Water Mint)
- Myosotis scorpioides (Water Forget-me-not)
- Polygonum amphibium (Amphibious Bistort)
- o Potentilla palustris (Marsh Cinquefoil)
- Primula veris (Cowslip)
- Primula vulgaris (Primrose)
- Prunella vulgaris (Selfheal)
- o Ranunculus flamula (Spearwort)
- Stachys palustris (Marsh Woundwort)
- Valeriana dioica (Marsh Valerian)
- Veronica beccabunga (Brooklime)

#### Tall Species

These species are taller and more robust, and therefore suitable for planting around water margins as they are tolerant of a range of conditions including shallow water or damp ground. They can become dominant if the conditions are suitable, which will reduce overall plant diversity and can reduce landscape quality. Pond design should take into account planting conditions when using these species to restrict their spread.

- o Filipendula ulmaria (Meadowsweet)
- Iris psuedacorus (Yellow Flag Iris)
- Juncus spp (Rushes)
- Phalaris arundinacea (Reed Canary Grass)
   Phragmites communis (Common Reed)

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