

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
Land Use Planning System SEPA Guidance Note 2 Planning advice on Sustainable Drainage Systems (SUDS)	Page no: 1 of 7
	Issue No: Version 8
	Issue date: 31/08/10

1. Purpose and scope

- 1.1 SEPA engages with the land use planning system to enable good development and protect the environment. The purpose of this note is to provide guidance on the approach that we should take when dealing with development plan and development management consultations with surface water drainage implications, with a view to securing implementation of Sustainable Urban Drainage Systems or simply Sustainable Drainage Systems (SUDS). The general principles of how we respond to consultations, such as keeping our responses short, helpful, and proportionate, are enclosed within guidance note LUPS GU10 *Guidance on response letter layout and style*.
- 1.2 We are training local authorities to increase their in-house expertise and to allow them to be better equipped to assess surface water drainage schemes. In the future, where it is known that SUDS features will be adopted by Scottish Water, we will also explore the possibility of adopting a streamlined planning approach whereby Scottish Water, and not SEPA, will provide comment to the planning authority. In the interim, we will continue to provide site specific advice to ensure that larger developments include the recommended number of levels of treatment, and that there is sufficient space allocated within the site.
- 1.3 For smaller scale developments (less than 25 houses), planning authorities will be encouraged to refer to SEPA standing advice, which will address issues such as the importance of allowing space for SUDS, and the need for keeping surface water out of combined sewer systems.

2. The benefits of and requirement for SUDS

- 2.1 SUDS help to protect water quality and reduce potential for flood risk, as stated in paragraph 209 of Scottish Planning Policy (SPP):
- “The Water Environment (Controlled Activities) (Scotland) Regulations 2005 require all surface water from new development to be treated by a sustainable drainage system (SUDS) before it is discharged into the water environment, except for single houses or where the discharge will be into coastal water. The aim of SUDS is to mimic natural drainage, encourage infiltration and attenuate both hydraulic and pollutant impacts to minimal adverse impacts on people and the environment..”, and “planning permission should not be granted unless the proposed arrangements for surface water drainage are adequate and appropriate long term maintenance arrangements will be in place”.*
- 2.2 SUDS are appropriate in both urban and rural situations. Cost effective SUDS solutions can be found for almost every situation. Where the alternative is the use of combined systems, SUDS release capacity in the public sewerage network. SUDS also provide opportunities for increased amenity and biodiversity value of sites.
- 2.3 The River Basin Management Plans identify SUDS as an important measure to prevent and reduce pollution from diffuse urban sources. The Scotland River Basin Plan states:

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
Land Use Planning System SEPA Guidance Note 2	Page no: 2 of 7
	Issue No: Version 8
	Issue date: 31/08/10
Planning advice on Sustainable Drainage Systems (SUDS)	

“Local authorities, Scottish Water and SEPA will continue to work together to co-ordinate their efforts to tackle pollution from diffuse urban sources. This will include incorporating sustainable urban drainage systems into local plans and programmes” (Chapter 3, Section 7.4.1).

- 2.4 The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (as amended) (CAR) includes a requirement that the discharge must not result in pollution of the water environment. It also makes SUDS a legal requirement for new development, with the exception of runoff from a single dwelling and direct discharges to coastal waters. Whilst the Regulations make SUDS a requirement, the location, design and type of SUDS are largely controlled through planning.
- 2.5 Through the planning process we encourage surface water run-off (including roof water) from all development to be fully or partly drained by SUDS in line with Scottish Planning Policy and Planning Advice Note 79 *Water and Drainage*. Drainage is a material consideration during the assessment of planning applications. Many development plans include a policy requiring the implementation of SUDS for new developments.
- 2.6 We encourage the design of SUDS to Sewers for Scotland Second Edition standards and the adoption of SUDS features by Scottish Water as we are of the view that this leads to best standards and maintenance. This does not rule out other options.

3. Development plans and SUDS

- 3.1 The SPP states, *“local development plans should incorporate the legal requirement for SUDS, promote a coordinated approach to SUDS between new developments and set out expectations in relation to the long term maintenance of SUDS”* (Paragraph 209). We would expect the policies in the plan to cover the requirement for SUDS for all new development in line with this policy. The plan should also promote SUDS as an important measure to reduce diffuse pollution from surface water run-off, to free up capacity in water management infrastructure, and to ensure efficient water management in light of predicted changes to climate. For these reasons we also encourage the allocation of land for strategic SUDS in larger urban areas.
- 3.2 Most existing local plans now include a policy on SUDS, but it is important to ensure that this issue has been addressed within the Main Issues Report and Proposed Plan. As a key agency we play an important role in preparation of the Main Issues Report and Proposed Plan, so the need for policy requiring SUDS should be made clear from the outset. Further detail may be provided in supplementary guidance (which now forms part of the statutory development plan). A brief mention will be warranted in the Main Issues Report of the LDP to ensure that the Strategic Environmental Assessment takes SUDS into account. It is unlikely that SUDS will be addressed in Strategic Development Plans, but it may be included within an overarching water environment policy.
- 3.3 An example of the type of policy we would seek in an LDP (either as a stand-alone policy, or as an element of a wider policy) is as follows:

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
<p style="text-align: center;">Land Use Planning System SEPA Guidance Note 2</p> <p>Planning advice on Sustainable Drainage Systems (SUDS)</p>	Page no: 3 of 7
	Issue No: Version 8
	Issue date: 31/08/10

"All proposed development must be drained by Sustainable Drainage Systems (SUDS) designed in accordance with the CIRIA SUDS Manual (C697) and, where the scheme is to be adopted by Scottish Water, the Sewers for Scotland Manual Second Edition. All proposed developments that include roads should be designed in accordance with the [SUDS for Roads](#) manual. Planning applications should be submitted with information in accordance with PAN 61, paragraphs 23 and 24."

Through discussion with the planning authority, other equally acceptable wording may be arrived at. Supporting text for the development plan policy could usefully include references to the further guidance listed at the end of this guidance note, as it may help developers identify suitable SUDS solutions.

- 3.4 When engaging in development plan processes it is important to highlight to planning authorities that adequate space must be available within developments for SUDS so that allocations set out housing densities which take into account space for SUDS.
- 3.5 If there has been full engagement in development plan preparation, SUDS are likely to have been integrated into the draft plan. However, if the planning authority, despite our engagement, does not propose a policy on SUDS, or where it is clear there is not enough land within an allocation to accommodate SUDS, we should make representations (object) clearly detailing the reasons for our representations and what modifications are required in order to remove our objection. It is important to set this information out clearly to provide helpful information to the planning authority.

4. Development management - how to assess surface water drainage proposals

- 4.1 Our aim in development management is for SUDS to be incorporated in all development in order to protect and, where possible, enhance the environment and free up capacity in the public drainage infrastructure to enable future development.
- 4.2 It is most effective if we comment on surface water drainage proposals early in the planning application process, at pre-application discussions, during scoping of environmental statements, and when considering applications for planning permission in principle. This will allow the layout and land required for satisfactory SUDS to be considered when proposals are at the formative stage and changes will result in least expense to the developer. No additional land take is required for certain types of SUDS such as green roofs and permeable paving, but other forms of SUDS may require significant areas of land.
- 4.3 Many development proposals will already include SUDS, but some may not, or may offer inadequate treatment. Therefore, it is important that we secure SUDS wherever possible and that the proposals are proportionate to the risk to the water environment. Pre-application engagement should resolve issues in relation to the provision of adequate land to accommodate SUDS.

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
Land Use Planning System SEPA Guidance Note 2	Page no: 4 of 7
	Issue No: Version 8
	Issue date: 31/08/10
Planning advice on Sustainable Drainage Systems (SUDS)	

4.4 For all small scale developments, as set out in SEPA Guidance Note LUPS-GU09 *Advice on how and when to consult SEPA*, the SEPA Guidance Note LUPS-GU08 *SEPA standing advice for planning authorities on small scale local developments* should be used by planning authorities and sent in response to any enquiries from developers. For all developments where we have been consulted in line with SEPA Guidance Note LUPS GU9 *How and when to consult SEPA*, an appropriately scaled annotated site plan should be submitted with the planning application detailing:

- Where the proposed SUDS features will be located, including a pond or basin where a second level of treatment is required;
- The land take necessary to accommodate the proposals;
- Where relevant, confirmation that the proposed pond or basin has been sized to the required Treatment Volume (Vt) value eg 1 Vt for residential development; and
- Confirmation that the proposals have been designed to either CIRIA or Sewers for Scotland Second Edition standards.

4.5 Where the applicant has not submitted the information listed above, we should object clearly setting out the information we require prior to determination in order to remove our objection. Where the applicant has demonstrated there is adequate space to accommodate SUDS as outlined above, but inadequate treatment is proposed, we should consider whether or not planning conditions could satisfactorily address this.

4.6 If there are unresolved significant concerns which cannot be addressed through planning conditions, such as insufficient space to accommodate the required level of SUDS treatment, we should object clearly setting out the modifications or information we require prior to determination in order to remove our objection. It is important to clearly set out this information in order to provide helpful information to the planning authority and developer.

4.7 The level of surface water treatment required is dependant on the nature of the proposed development (for example residential or non residential), the size of development, and the environmental risk posed by the development. The environmental risk is principally determined by the type of activity being proposed (residential, industrial, etc), the available dilution, and the sensitivity of the receiving waterbody. The following levels of treatment represent best practice and for mixed use developments the level of treatment required will be determined by the use with the highest sensitivity within the development.

- a) Residential developments of 50 houses or less and retail/commercial/business parks with car parks of 50 spaces or less require one level of treatment for all hardstanding areas including roads. We expect this first level of SUDS to be source control and will encourage this at the pre-application stage. However, we will not object if an applicant wishes to pursue an alternative SUDS device. Please also refer to point f) below.
- b) Residential developments of more than 50 houses and retail/ commercial/ business parks with car parks of more than 50 spaces require two levels of treatment for all hardstanding areas including roads. An exception is run-off

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
Land Use Planning System SEPA Guidance Note 2	Page no: 5 of 7
	Issue No: Version 8
	Issue date: 31/08/10
Planning advice on Sustainable Drainage Systems (SUDS)	

from roofs which requires only one level of treatment. We recommend, as best practice, the second level of treatment to be a basin or pond designed in accordance with Sewers for Scotland Second Edition. Please also refer to point f) below.

- c) Industrial developments require three levels of treatment for hard standing areas and two levels of treatment for roads. An exception is run-off from roofs which requires only one level of treatment. We recommend, as best practice, the second level of treatment to be a basin or pond designed in accordance with Sewers for Scotland Second Edition. Please also refer to point f) below.
 - d) All roads schemes typically require two levels of treatment, except for small scale developments as detailed in point a) above. For technical guidance on SUDS techniques and treatment for roads please refer to the [SUDS for Roads](#) manual.
 - e) For all developments, run-off from areas subject to particularly high pollution risk (eg yard areas, service bays, fuelling areas, pressure washing areas, oil or chemical storage, handling and delivery areas) should be i) minimised and ii) directed to the foul sewer. Where run-off from high risk areas cannot be directed to the foul sewer we can, on request, provide further site specific advice on what would be the best environmental solution.
- 4.8 Requirements for SUDS discharging to transitional waters, or waters where there is a conservation site (SAC or SSSI) designated for freshwater pearl mussels downstream, will be dependant on site specific circumstances. You should consult the local EPI team to ascertain if what is proposed in each case is acceptable.
- 4.9 SUDS are not compulsory for discharges to coastal waters but may be required in certain circumstances, for example where there are designated bathing waters or shellfish waters. Again you should consult the local EPI team to ascertain if what is proposed in each case is acceptable.
- 4.10 Each individual type of SUDS feature, such as a filter drain, detention basin, permeable paving or swale, provides one level of treatment. For example, surface water treated by permeable paving then in turn by a detention basin, ie runoff passing through both features in series (not in parallel), would be classed as receiving two levels of treatment, whereas surface water treated by two detention basins would be classed as receiving one level of treatment. We should encourage as best practice one level of treatment to be source control such as the use of permeable paving. However, an objection on the basis that source control is not being employed could not be sustained.
- 4.11 Where the proposal states that surface water will be discharged to a combined sewer, we will not formally object to this disposal option. Scottish Water only accepts surface water into a combined system in exceptional circumstances. At present, Scottish Water will not adopt a system without receiving a copy of SEPA's planning response; it is therefore very important that the content of our response sets out the benefits of removing surface water from the combined sewer as it increases capacity in infrastructure for future developments and reduces the risk of pollution events. For these reasons, our response should

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
<p style="text-align: center;">Land Use Planning System SEPA Guidance Note 2</p> <p>Planning advice on Sustainable Drainage Systems (SUDS)</p>	Page no: 6 of 7
	Issue No: Version 8
	Issue date: 31/08/10

indicate that we expect Scottish Water and the applicant to ensure that all reasonable efforts are made to remove surface water from the combined sewer.

- 4.12 SUDS can be accommodated on the functional flood plain only if they do not alter floodplain storage or functionality. In some cases, a flood risk assessment may be required to demonstrate this. If a pond, for example, is placed in the flood plain it may have a bund around it to protect it from inundation. Compensatory flood storage would have to be provided to cover any losses in flood storage due to the bunding. If no bund is provided, then flooding is likely to reach the SUDS. It is important that this will occur only for situations where no other alternative arrangements are possible and not within at least the 30 year return period flood level.
- 4.13 Maximising the ecological value of SUDS should be encouraged, for example at pre-application meetings and EIA scoping. This can include retention and enhancement of natural drainage systems and features and other measures identified in Section 3.5 and elsewhere within CIRIA C697.
- 4.14 On most sites, an open drainage network comprising conveyance swales or linear wetlands is encouraged as this allows for rapid detection and management of accidental spills, as well as providing an initial level of treatment.
- 4.15 Conveyance SUDS can also be accommodated where previous historic activities may have resulted in elevated levels of contaminants on site. In these situations, we should advise developers/planning authorities that a SUDS solution is still required, but may necessitate avoidance of certain types of SUDS (eg infiltration) or incorporation of protective measures (eg impermeable lining).
- 4.16 We do not assess water quantity or adoption issues regarding SUDS. It is important to remind the planning authority or developer to seek comments from the Local Authority Roads Department, Local Authority Flood Prevention Unit and Scottish Water on water quantity/flooding/adoption issues.
- 4.17 Regulatory Method (WAT-RM-08) Sustainable Urban Drainage Systems (SUDS) advises on the interaction of the planning function and regulatory teams regarding advice on SUDS provisions.

5. Sources of further guidance

- 5.1 There is a wide range of policy and guidance on SUDS available:
- a) [Scottish Planning Policy](#). Paragraph 209 is particularly relevant.
 - b) [Scottish Planning Advice Note 61 Planning and Sustainable Urban Drainage Systems](#)
 - c) [Scottish Planning Advice Note 79 Water and Drainage](#)
 - d) [Scottish Planning Advice Note 50 Controlling the Environmental Effects of Surface Mineral Workings](#)

SCOTTISH ENVIRONMENT PROTECTION AGENCY	Identifier: LUPS-GU2
<p style="text-align: center;">Land Use Planning System SEPA Guidance Note 2</p> <p>Planning advice on Sustainable Drainage Systems (SUDS)</p>	Page no: 7 of 7
	Issue No: Version 8
	Issue date: 31/08/10

- e) CIRIA manual C697 [The SUDS Manual](#)
- f) [SUDS for Roads](#) manual
- g) [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2005: A Practical Guide](#)
- h) SEPA's Regulatory Method (WAT-RM-08) Sustainable Urban Drainage Systems
- i) [Designing Streets: A Policy Statement for Scotland](#)