

Guidelines for writing susdrain case studies

Detailed case studies & “light” case studies

Thank you for agreeing to write a case study for susdrain at www.susdrain.org.

All susdrain case studies should:

- disseminate and showcase **good practice** and **lessons learnt**
- demonstrate what is **achievable**
- highlight **innovation** in detail, design and overall approach wherever possible
- explain the **rationale** behind the scheme (in relation to site opportunities and constraints)
- illustrate **well designed** and **integrated** schemes with plans and high quality images
- For full case studies, the information given should be sufficiently **robust** and **credible**, to withstand peer review. Light case studies are not peer reviewed but should also be robust and credible.

Susdrain case studies should where possible* describe the following details:

- how **multiple benefits were delivered** and what design criteria was used
- use of **source control**
- how **managing water on the surface** was achieved
- implementation of a SuDS **management train**

** It is understood that on some sites achieving these outcomes is difficult, but please explain how this was challenging.*

Case studies will normally only be accepted if they have reached practical completion and have been operational for a minimum of 6 months post completion.

If this is not the case, the project will need to demonstrate a unique approach that would benefit a wider readership in the short term, or be of significance pre construction from a planning, community engagement or other point of view. If this is the case a follow up case study would be expected to explain outcomes of the planning or other engagement processes.

Susdrain case studies should not:

- be used to promote goods and services (ie CIRIA can encourage generic technology/processes but not accept registered trademarks in any submitted case study or illustrations)
- to promote any political agenda
- be excessively long, please keep below 3 x A4 pages of supporting text (although this may be relaxed for larger major infrastructure schemes)
- Light case studies should not exceed one A4 page of supporting text

Please consider the following when compiling your supporting information:

- The best case studies should tell the story behind the SuDS scheme by illustrating and/or describing an evolution from an early idea to a functioning reality.
- To make these case studies come alive they need the best set of illustrations, images and photos you can provide. This is an opportunity for you to showcase your project.
- We do not require a lot of images - one good quality image is better than several poor ones. Site plans are particularly useful.
- Ensure all plans, images and photos are correctly acknowledged with details provided (**all relevant permissions should be sought by the case study author before submission for use by CIRIA and others assuming the images are properly credited**).
- Case studies should be technical, written in the third person, rather than editorial.
- Light case studies should draw out key factors and can be written in bullet point form
- Inclusion of logos of the team, or just the authoring organisations will promote the organisations.

Your descriptive text should:

- Be realistic, we want to know about your successes but also the challenges you faced along the way which influenced the design and the outcomes.
- Describe how you managed to overcome challenges.
- Explain your design rationale and how you delivered good practice (or not as the case may be).
- Demonstrate a collaborative process at professional levels with a good interdisciplinary mix of people.
- Demonstrate early engagement with statutory and local authorities (planners etc) and the community.
- Demonstrate technical competence and awareness of critical issues during the design process.
- The points above should be covered only briefly in light case study.

Who will read your case studies?

The case study must be engaging, so that it can appeal to an informed, but not always an expert readership. Where possible the case studies should follow the prescribed structure which is outlined below.

Review process and the difference between detailed case studies and light case studies:

All detailed case studies submitted will be peer reviewed (often by an engineer and landscape architect). This process improves the quality and credibility of the case study and may require additional iterations, or in extreme case rejection.

Light case studies will not be peer reviewed but will be required to meet susdrain guidelines (see below). The light case studies will be revisited after a year, being upgraded to a detailed case study with peer review, for which more details will be required, or a decision will be made on their inclusion.

1. Detailed case study guidelines

If the key elements (marked with an ‘*’) are not provided it is unlikely the case study can progress.

| | Section heading | Guidance notes |
|----|----------------------------|--|
| 1. | Title* | Known name of project and main town or county |
| 2. | Location* | Location details (where feasible provide an address with postcode or geo-reference) |
| 3. | Description* | Briefly describe the scheme, the type of development, its setting, any unique features or design considerations (size, number of properties) and the drivers. Provide information on the character of the area and how the development is anticipated to fit in. |
| 4. | Main SuDS components used* | Briefly outline the overall drainage strategy of the scheme and support this with a SuDS drainage plan. List and describe the SuDS components and provide suitable images of the finished details - the case studies will be tagged on the basis of the main components |
| 5. | How it works* | Explain the drainage strategy including the opportunities and challenges faced. The following questions should be considered and described in your response: <ul style="list-style-type: none">– Explain the design rationale.<ul style="list-style-type: none">○ How much of the runoff is managed on or near the surface?○ To what extent is source control provided and with what components?.○ Was a SuDS management train used?– How does the system work ie flows going to what components etc?– Where does the component/scheme discharge to (infiltration, watercourse, sewer or other)?– How was the drainage strategy developed and evaluated |

| | Section heading | Guidance notes |
|-----|---|---|
| | | <ul style="list-style-type: none"> ○ Plans/drawings ○ Simple text commentary ○ Tools eg www.uksuds.com ○ Hydraulic design or modelling software – What were the key considerations for the design criteria and how were they set (eg national policy, local policy, client etc) around each of the following <ul style="list-style-type: none"> ○ Flows and volumes* <ul style="list-style-type: none"> ▪ Has interception losses been considered? ▪ What return period was the scheme designed to? ▪ What is the final discharge flow rate? ▪ Has drainage exceedance been considered? ○ Water quality <ul style="list-style-type: none"> ▪ How is runoff being treated? ▪ What components are being used to provide water quality treatment? ○ Biodiversity <ul style="list-style-type: none"> ▪ What design features and interventions are being used to encourage biodiversity? ○ Amenity <ul style="list-style-type: none"> ▪ What design features and interventions are being used to ensure multi functionality and amenity use? |
| 6. | Specific project details | <p>Include the following:</p> <ul style="list-style-type: none"> – a wider description of the scheme – comparisons in performance with traditional drainage etc – what disciplines were involved in delivery? – description of stakeholder and community engagement – anything of note on the design and construction process |
| 7. | Maintenance & operation * | <ul style="list-style-type: none"> – Describe how adoption was managed ie who does the maintenance? – How is the scheme maintained? |
| 8. | Monitoring and evaluation | <ul style="list-style-type: none"> – Has, or is the scheme being monitored or assessed? – What evaluation processes are in place post construction? |
| 9. | Benefits/achievements * | <ul style="list-style-type: none"> – What are the project's greatest achievements? – Outline the evidence if benefits are quantified. |
| 10. | Lessons learnt/challenges * | <ul style="list-style-type: none"> – What were the key challenges and how have they been overcome? – What lessons were learnt and how can they influence others? – What other aspects does the case study demonstrate, specific implications for H&S, stakeholders etc. |
| 11. | Interaction with the local authority (or client) | <p>If appropriate</p> <ul style="list-style-type: none"> – description of the relationship with the local authority (and/or client) |
| 12. | Project details * | <p>Where possible provide the following</p> <ul style="list-style-type: none"> – Status (when was it construction completed) – Costs (broken down to design and capital costs). – Extent of the scheme <p><i>When discussing status the most important date is construction, but please provide other key dates</i></p> |

| | Section heading | Guidance notes |
|-----|----------------------|--|
| | | <i>Comparative costs would be useful, comparing the scheme with a traditional drainage system</i> |
| 13. | Project Team* | <p>Please provide a list of key project personnel and organisations including clients, funders, designers, contractors, suppliers etc.</p> <p>If logos are provided these can be included too, even just a logo of the authoring organisation.</p> |

2. Light case study guidelines

All headings need to have information provided, otherwise they will not be accepted for inclusion on susdrain.

| | Section heading | Guidance notes |
|-----|------------------------------------|--|
| 1. | Title | Known name of project and main town or county |
| 2. | Location | Location details (where feasible provide an address with postcode or geo-reference) |
| 3. | Description | Briefly describe the scheme, the type of development, its setting, any unique features or design considerations. |
| 4. | Main SuDS components used | Briefly outline the overall drainage strategy of the scheme and if possible support this with a SuDS drainage plan. List the SuDS components and provide suitable images of the finished details - the case studies will be tagged on the basis of the main components |
| 5. | How it works | Explain the drainage strategy including the opportunities and challenges faced. Explain the design rationale: How much runoff is managed through source control and managed on or near the surface. What were the key considerations for the design criteria and how were they set around each of the following <ul style="list-style-type: none"> ○ Flows and volumes ○ Water quality ○ Biodiversity ○ Amenity |
| 6. | Maintenance & operation | Describe how adoption was managed ie who does the maintenance? Does the maintenance and/or operation deviate from known good practice? |
| 7. | Benefits/achievements | What are the project's greatest achievements? Any quantified benefits? |
| 8. | Lessons learnt/challenges | <ul style="list-style-type: none"> – What were the key challenges and how have they been overcome? – What lessons were learnt and how can they influence others? – What other aspects does the case study demonstrate, specific implications for H&S, stakeholders etc. |
| 9. | Project details | Where possible provide the following <ul style="list-style-type: none"> – Status (when was it construction completed) – Costs (broken down to design and capital costs if possible). – Extent of the scheme <i>When discussing status the most important date is construction, but please provide other key dates</i> |
| 10. | Project Team | Please provide a list of key project personnel and organisations including clients, funders, designers, contractors, suppliers etc. If logos are provided these can be included too, even just a logo of the authoring organisation. |