

Surface Water Management Programme (SWMP) Opportunity Funding Application

AMP7 Surface Water Management Programme

1 General Information

|  |  |  |
| --- | --- | --- |
| 1.1 | Opportunity Name |  |
| 1.2 | Opportunity Location(address, postcode, location plan) |  |
| 1.3 | Name and address of lead entity |  |
| 1.4 | Contact name and contact details (phone, email) of lead entity |  |
| 1.5 | Names of main stakeholders supporting application |  |
| 1.6 | What is the stage of the project i.e. concept design, detailed design, construction etc |  |
| 1.7 | Is planning permission required for the opportunity? If yes, what is the stage of the planning application? |  |
| 1.8 | Anticipated construction start date |  |
| 1.9 | Anticipated completion date |  |
| 1.10 | Are there any risks/showstoppers that may impact on project delivery by the anticipated completion date? |  |

2 Opportunity Description

|  |  |  |
| --- | --- | --- |
| 2.1 | Outline drivers of the opportunity. What needs is this opportunity addressing? |  |
| 2.1.1 | How does the project support key SWMP principles (e.g. collaboration, need for sewer capacity, generating public value, flooding, pollution, resilience). Are these drivers/benefits measurable or quantifiable? If yes, provide details (e.g. no of properties affected, pollution incidents, flow reduction, downstream etc...) |  |
| 2.2 | Describe the scope of the opportunity – please provide any drawings, reports, sketches etc |  |
| 2.3 | What is the existing connection of the rainwater to the Thames Water sewer network? |  |
| 2.4 | Is the opportunity disconnecting, or attenuating flows before discharging back into Thames Water sewer system? |  |
| 2.5 | Does the opportunity include elements of surface water re-use i.e. rainwater harvesting, planters, water butts etc? |  |
| 2.6 | Does the opportunity include elements of a blue-green infrastructure? E.g. soakaways, bioswales, attenuation basins, rain gardens, green roofs and walls, street trees, planters, restored urban watercourses. |  |
| 2.7 | Does the opportunity include elements of grey infrastructure? Eg new surface water sewer/culvert, offline/online storage tanks, permeable paving. |  |
| 2.8 | What is the total area of the catchment from which flows are being disconnected or attenuated from the TWUL’s network?  |  |
| 2.9 | Describe catchment composition – rural or urban or industrial or mixed? What are the composition ratios? |  |
| 2.10 | What is the effective catchment area from which flows are being disconnected or attenuated by implementation of this opportunity? Include assumptions used in calculations. |  |
| 2.11 | Maintenance Statement |  |

3 Funding Needs

|  |  |  |
| --- | --- | --- |
| 3.1 | What is the estimated overall and construction cost of the opportunity related to surface water management? |  |
| 3.2 | What other funding sources have been sought and what amount of funding has been secured to date? |  |
| 3.3 | Are there other funding sources that are still to be explored? |  |
| 3.4\* | What is the amount of funding sought from TWUL SWMP? |  |
| 3.5 | How critical is TWUL SWMP funding in realising this opportunity? |  |
| 3.6 | When is the funding required? |  |
| 3.7 | Define preferred payment milestones |  |
| 3.8 | Would securing TWUL SWMP funding be helpful in securing funding from other sources? |  |
| 3.9 | Describe how TWUL SWMP funding will be used? |  |
| 3.10 | Additional comments supporting this application. |  |

4 Submission

|  |  |  |
| --- | --- | --- |
| 4.1 | Name |  |
| 4.2 | Date |  |

\*Section 3.4 – TWUL SWMP funding VAT inclusive, if VAT is applicable.

Supporting Information

The following supporting information shall be provided with the application:

* evidence that surface water is connected to Thames Water sewer system – drainage plans or connectivity surveys or Impermeable Area Survey (IAS) or dye tests or any other evidence clearly demonstrating the above,
* solution to disconnect/attenuate surface water from Thames Water sewer system - drawings, sketches, area take-off diagrams, calculations in particular evidence of how catchment area has been determined and how effective contribution area has been calculated. Results of hydraulic modelling may be required, depending on project complexity.
* initial Maintenance Statement (or can be included in section 2.11).

In addition to technical information supporting the application, if you are a charity or NGO or private entity, we require a confirmation of your status to confirm your eligibility to apply for funding. Evidence of the organisation type may include: charity registration number, company number, public body terms of reference, HMRC registration, proof of status as a legal entity.

Guidance Notes

Design Standards

It is recommended that all design should comply to CIRIA C753 – The SuDS Manual & relevant British Standards. It is recommended that the minimum design return period for sustainable drainage system is 1 in 10-year return period. Ideally, solutions will be sized to attenuate a 1 in 30 storm, plus allowance for climate change. Solutions with lower return periods will be considered, particularly where cost effectiveness is good and/or additional benefits will be achieved.

The following resources provide useful further guidance:

[GLA Sustainable Drainage Guide](https://www.london.gov.uk/what-we-do/environment/climate-change/surface-water/suds-sector-guidance)

[SuDS in London - a design guide](https://consultations.tfl.gov.uk/policy/suds-guidance/user_uploads/suds-in-london---a-design-guide_full-document.pdf)

Technical Guidance on Runoff Area

The performance of the SWMP is measured by ‘effective contributing area’ of a catchment (in hectares) which is either disconnected from the Thames Water assets or where the flow of rainwater is attenuated.

‘Effective contributing area’ is determined by the application of appropriate factors/coefficients that take into account catchment characteristics and associated losses.

Examples of run off coefficients can be found in Table 1 below. These apply mostly to simple/small semi urbanised to urbanised catchments. For complex catchments, modelling or other established methodologies may be required to calculate the ‘effective contributing area’.

Thames Water will claim the amount of benefit from the project - ‘claimed effective contributing area’ or ‘output area’ in proportion to the financial or non-financial contribution provided by Thames Water. This will be related to the proportion of the capital cost of those elements required to disconnect, divert and/or attenuate surface water that Thames Water’s contribution will cover. For example, the overall scheme cost is £1m, the cost of SuDS is £100,000, and the funding ask from Thames Water is £50,000. Thames Water would record 50% of the output area of the project.

Table 1 - Guidance on Effective Contributory Area

|  |  |  |
| --- | --- | --- |
| Source | Surface Type | References/Links |
|  | Road | Roof |  |
| Wallingford Procedure (1981) Modified Rational Method | Average 75% (ranging from 60 to 90%) |  |
| WaPUG User Note 28 (2009) | 60%- Normal urban paved surface80% - Well drained roads100% - Very high-quality roads | 80% | [WaPUG User Note 28](https://www.ciwem.org/assets/pdf/Special%20Interest%20Groups/Urban%20Drainage%20Group/WAPUG_User_Note_28.pdf) |
| CivilWeb Spreadsheets | 55-80% - Pervious Asphalt70-95% - Asphalt70-95% - Concrete | 75-95% - Roofs Large Flat90-95% - Roofs Small Flat90-95% - Roofs Steeply Sloping | [CivilWeb Spreadsheets](https://civilweb-spreadsheets.com/drainage-design-spreadsheets/runoff-and-rainfall-intensity-calculator-spreadsheet/rational-method-runoff-coefficient/) |
| Thames Water | 70% - standard road90% - concrete road | 85% | See Footnote to table |

Notes to Table 1

1. ‘Standard’ road assumed to comprise a mix of ‘normal urban paved surfaces’ (pavements, drives, other paved surfaces) and ‘well drained roads’ (see WaPUG User Note 28), hence average of 70%.

2. Concrete road assumed to be average of ‘well drained roads’ and ‘very high-quality roads’ (see WaPUG User Note 28), hence average of 90%

For permeable areas i.e. parks, gardens, lawns, it is recommended to use runoff coefficients as indicated by the table below (Typical values of runoff coefficient in urban areas (adapted from Urban Water Resource Council, 1992):

|  |  |  |  |
| --- | --- | --- | --- |
| Area description | Runoff coefficient | Surface type | Runoff coefficient |
| City centre | 0.70-0.95 | Asphalt & concrete paving | 0.70-0.95 |
| Suburban business | 0.50-0.70 | Roofs | 0.75-0.95 |
| Industrial | 0.50-0.90 | Lawns | 0.05-0.35 |
| Residential | 0.30-0.70 |  |  |
| Parks and gardens | 0.05-0.30 |  |  |

Use of alternative coefficients would require provision of supporting information i.e. calculation, modelling to justify coefficient value.

Application evaluation process

Stage 1 – Application screening

The Thames Water SWMP team will screen submitted application to identify if:

* the project is eligible i.e. if it disconnects or attenuates surface water flows from the Thames Water assets,
* the applicant is eligible to apply for funding,
* the application form is filled in and signed,
* the required supporting information is included.

The SWMP team will inform applicants within 10 working days of receipt of the application whether the application is accepted and will be progressed to the next stage of assessment, or whether further clarifications/information are needed.

If further information/clarification is required, the applicants are expected to respond within the 10 working days from the date of the notification of any required information.

Thames Water reserves the right to reject the application if the missing information is not provided within the specified period.

Stage 2 – Application evaluation and scoring

The Thames Water SWMP team will evaluate application using a multi-criteria assessment methodology developed for the programme and assign scoring accordingly.

Details of the Evaluation methodology and Scoring criteria are included below.

**Score >15 - Strong opportunity** that uses blue-green infrastructure, with high cost effectiveness and/or high adherence to SWMP principles and high confidence in delivery within AMP7. High probability that funding application will be successful.

**Score 6-15 - Promising opportunity**, usually using blue-green infrastructure, with adherence to some SWMP principles and mixed cost-effectiveness. Probability of success of this application will depend on the number of applications considered.

**Score <6 – Potential opportunity**, usually with low cost effectiveness and low adherence to SWMP principles, potentially utilising grey infrastructure. Low probability that funding application will be successful, however low score does not result in automatic rejection of application, as we are looking to gain experience of delivering a wide range of solutions with a range of partners, that will help to build long term success.

The SWMP team may request more information / clarification to support any statements made within the application or supporting information. While applicants may provide an initial assessment of the scoring, the final scoring will be made by the SWMP team.

All evaluated applications will be presented to the Thames Water SWMP Steering Group for acceptance. The Steering Group is comprised of Senior Thames Water staff and meets once a month.

The Thames Water SWMP Steering Group will consider how the scheme aligns with the programme strategic aims to confirm which applications to fund. In rare cases the Steering Group may request additional information.

Detailed Scoring Criteria

The overall score (S) of the project will be calculated using the following formula:

**S = (Ce+Cp+Cd) x Bt x Bm**

**Cost Effectiveness (Ce)** – how much ‘claimed effective contributing area’ will the project achieve for the funding provided by Thames Water? Calculated as the funding ask divided by the claimable area:

* Very Low: >£750k/ha (1 point)
* Low: £500-750k/ha (2 points)
* Medium: £250-500k/ha (3 points)
* High: £50-250k/ha (4 points)
* Very High: <£50k/ha (5 points)

**Adherence to SWMP Principles (Cp)** – This criterion will be scored depending on how many SWM principles or other drivers the project achieves. Three points are available for adherence to the three SWMP key principles, plus 2 points for contribution to the aims of other Thames Water performance commitments (maximum score available = 5 points).

The Surface Water Management Programme is based on the three fundamental principles:

1. Collaboration: Thames Water want to partner with those who are already improving the streets and places where our customers live, so we can achieve mutual benefits through common means.

*Note: Any project delivered in partnership between Thames Water and a 3rd party will fulfil this criterion.*

1. Need for capacity: Where possible, Thames Water want to focus on areas where we know our existing sewer systems have lower capacity.

*Note: Information on sewers with low capacity can be found through DWMP Practitioners Portal, or obtained either from the SWMP team or your local Thames Water System Planner.*

1. Generate public value: Thames Water wants to focus on projects that deliver value for communities and the environment.

*Note: the application should describe how the project delivers social and environmental benefit, supporting Thames Water’s strategic ambition to go beyond regulatory compliance to demonstrate long-term stewardship of the environment and deliver social good. For example, does your scheme include vegetated SuDS that create or enhance habitat, recreation and biodiversity?*

1. Other Performance Commitments: contribution to the aims of another Thames Water Performance Commitment, such as CS03 internal flooding, ES01 pollution, DS01 resilience, or other PC.

*Note: the SWMP team will review catchment specific needs with the Thames Water System Planners. The application can describe qualitatively a contribution to, for example, reducing pollution in a number of ways, such as providing treatment of highway runoff, and removing flow from a combined or foul sewer is highly likely to reduce discharge from CSOs;*

**Delivery Confidence (Cd)** – confidence in delivery of the project within AMP7, so that the benefit can be claimed by Thames Water:

* Low - large scale, complex scheme with numerous elements, estimated construction programme is 3-5 years. If scheme is partnership funded, 50% funding from partners is confirmed (1 point),
* Medium - estimated construction programme 2-3 years. If scheme is partnership funded, 50% of funding from partners is confirmed (2 points),
* High - simple, small scale scheme. Landowner is engaged and onboard with the project, planning approval has already been granted, majority of the funding is in place. Estimated construction programme 1-2 years (3 points)

If the scheme has an estimated construction programme of over 3 years, and/or is reliant on unconfirmed partnership funding sources – 0 points

**SWM Method Benefit Factor (Bm)** - Where a scheme includes a water reuse element (e.g. rainwater harvesting, stormwater harvesting, planter, water butts etc.) the water reuse factor should be applied.

|  |  |  |  |
| --- | --- | --- | --- |
| Method | Definition | Benefit Factor | Water Reuse Factor |
| Disconnection | Removes surface water from the sewer network by conveying it elsewhere (i.e. infiltration or to watercourse). No connection to the sewer network is required (an exception to this may be where an overflow connection is required for extreme weather). | 1.0 | 1.5 |
| Attenuation | ‘Calms’ the sewer network by reducing peak storm flows entering the sewer network, but a connection to the sewer network is required. | 0.75 | 1.25 |

**SWM Type Benefit Factor (Bt)**

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| --- | --- | --- |
| Type | Definition | Benefit Factor |
| Blue-Green Infrastructure (BGI) | Mimics pre-development hydrology through interception, infiltration, evapotranspiration and storage. Can also have multifunctional uses (amenity, biodiversity, ecosystem services).E.g. bioswales, attenuation basins, rain gardens, green roofs and walls, street trees, planters, restored urban watercourses. | 1.5 |
| Grey Infrastructure (GI) | Traditionally ‘hard’ or ‘engineered’.E.g. New surface water sewer/culvert, offline/online storage tanks, permeable paving. | 0.75 |
| BGI+GI | Solution involving both types of SWM | 1.0 |



