

Construction Phase Surface Water Management Plan (SWMP)

Site Name: [insert site name]

Contractor Name: [insert contractor name]

Document Reference: [insert document reference]

Planning Application Number: [insert planning application number]

Date: [insert DD/MM/YYYY]

Revision Record

Issue Number	Description of Revision	Date
[X]	[x]	DD/MM/YYYY

1. Introduction

This document outlines the on-site measures to be implemented to ensure that surface water generated by any application site during the demolition, remediation, earthworks and/ or construction phases is appropriately managed regarding issues of flooding (i.e., ponding and conveyance of overland surface water flows) and environmental impact upon local receptors (i.e., contamination of groundwater or watercourses).

2. Site Details

2.1 Site Location

Site Location: XX

Site Postcode: XX

Grid Reference: Easting XXXXXX, Northing XXXXXX.

Insert a map or location plan showing the site and the site boundary.

Site Location Plan

Construction SWMP Issue No. [X, DD/MM/YYYY]

2.2 Existing Site Conditions

The site boundary has an area of: XX hectares/ XXXXm².

Insert a description of the existing site prior to any works being undertaken.

Is the Site a greenfield land parcel?

Is the Site a brownfield land parcel? If so, describe any existing buildings and/or drainage infrastructure.

2.3 Site Topography and Drainage Paths

Insert a description of the sites topography prior to any works being undertaken, including a description of any natural or engineered drainage paths (i.e., infiltration, discharge to watercourses and/ or sewers etc.) and existing discharge points.

2.4 Development Proposals

Insert a description of the site development proposals, including any demolition works, remediation and excavation works (i.e., profiling) and construction works required to develop the site.

Include an estimate of the duration of any proposed works.

Insert a plan showing the proposed site layout plan

Proposed Site Layout Plan

3. Contractor Details

3.1 Principal Contractor and Subcontractor(s)

The Principal Contractor managing the site works is: XXXX

The sub-contractor undertaking the site works is: XXXX

Principal Contractor Details

Contact	Role	Company Name & Address	Contact No & Email Address

Subcontractor Details

Contact	Role	Company Name & Address	Contact No & Email Address

4. Managing Surface Water during Construction Phase

Please indicate in the table below which of the following options you intend to use and supply during the temporary works associated with the proposed development.

4.1 Option 1

Build, use and remediate permanent surface water drainage system.

4.2 Option 2

Install, use, and remove a temporary surface water drainage system.

4.3 Option 3

Utilise existing drainage system with pollution control measures (brownfield sites only).

Option 1	YES/ NO
Option 2	YES/ NO
Option 3	YES/ NO

4.4 Management Detail

Please include information demonstrating how you will achieve your preferred surface water management option.

You should provide detail upon the following: -

Plans

- Phasing Plan (if required)
- Construction Site Plan showing compounds, material storage areas, temporary site parking etc.
- Layout of any temporary or permanent drainage during the Construction Phase

Surface Water Management (provide answers as necessary)

- Who or what are the potential receptors from surface water generated during the construction phase? (Think of flood risk or pollution issues to neighboring land, highways, and watercourses etc., which may be affected)
- What is the existing drainage path for surface water runoff prior to the construction phase (infiltration, waterbody, sewer)?
- What is the existing runoff rate from the pre-developed site?
- What is the principle of the Construction Surface Water Drainage System? Include details on methods for providing conveyance, storage and attenuation of surface water generated during the construction phase.
- How will site runoff be restricted to existing runoff rates?
- What Pollution, Water Quality & Emergency Control Measures are to be in place during the Construction Phase?
- What is the final point of outfall for surface water outfall from the site during the construction phase?
- Are there any required consents (e.g., Land Drainage Act, Environmental Permit etc.) to achieve a discharge from site? Are these in place?
- How will the system be managed and maintained during the construction phase and who is responsible?

5. Flood Alerts

5.1 Fluvial Flooding

Fluvial Flooding occurs when the capacity of any neighboring watercourses or waterbodies is exceeded, and flood waters spill out into adjacent areas.

Please indicate whether the site is in Flood Zone 1, Flood Zone 2, or Flood Zone 3 (delete as appropriate from the options below).

- The Site is in Flood Zone 1 and is less than 25m from any watercourse or waterbody.
- The Site is in Flood Zone 1 and is more than 25m from any watercourse or waterbody.
- The Site is in Flood Zone 2 of the (indicate the name of the watercourse/ body of water).
- The Site is in Flood Zone 2 and 3 of the (indicate the name of the watercourse/ body of water).

The Project Manager and Works Manager should sign up to the Environmental Agency flood warning system <https://www.gov.uk/sign-up-for-flood-warnings> if the site is within a flood zone 2 or 3 and the table below shall be completed to demonstrate what actions will be undertaken (and by whom) in the event that a flooding alert, warning or sever warning are issued.

Alert Level	Definition	Action	Responsibility
Flooding Alert	Flooding is possible – be prepared	Please indicate what actions will be undertaken in the event of a flooding alert.	Please indicate who is responsible for undertaking the actions in the event of a flood alert
Flood Warnings	Flooding is expected – immediate action required	Please indicate what actions will be undertaken in the event of a flood warning.	Please indicate who is responsible for undertaking the actions in the event of a flood warning
Severe Flood Warning	Severe flooding – danger to life	Please indicate what actions will be undertaken in the event of a severe flood warning.	Please indicate who is responsible for undertaking the actions in the event of a severe flood warning

6. Weather Alerts

6.1 Pluvial (Surface Water) Flooding

Pluvial Flooding occurs when heavy rainfall falls upon greenfield land and exceeds the capacity of the natural infiltration rate of the ground strata. Rainfall begins to pool in low topographic areas before naturally running off the land down a gradient.

For brownfield sites, rainfall is converted to runoff almost instantly due to a lack of permeability.

Please indicate whether the site is at risk of surface water flooding in the following scenarios (delete as appropriate from the options below):

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- The Site is not affected by surface water flooding during the 1 in 30-year, 1 in 100-year and 1 in 1000-year return period events (very low risk).
- The Site is affected by surface water flooding during the 1 in 1000-year return period event but is not affected by surface water flooding during the 1 in 100-year and 1 in 30-year return periods (low risk).
- The Site is affected by surface water flooding during the 1 in 1000-year and 1 in 100-year return period events but is not affected by surface water flooding during the 1 in 30-year return period event (medium risk).
- The Site is affected by surface water flooding during the 1 in 30-year, 1 in 100-year and 1 in 1000-year return period events (high risk).

Project Manager and Works Manager should sign up to the Met Office weather warning system <https://www.metoffice.gov.uk/public/weather/warnings> and the table below shall be completed to demonstrate what actions will be undertaken (and by whom) in the event that an alert is issued by the Met Office.

Alert Level	Definition	Action	Responsibility
Yellow – be aware	Yellow warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low-level impacts, including some disruption to travel in a few places. Other yellow warnings are issued when the weather could bring much more severe impacts to many people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.	Please indicate what actions will be undertaken in the event of a yellow warning.	Please indicate who is responsible for undertaking the actions in the event of a yellow warning
Amber – be prepared	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your works plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property	Please indicate what actions will be undertaken in the event of an amber warning.	Please indicate who is responsible for undertaking the actions in the event of an amber warning
Red – act	Dangerous weather is expected and, if you haven't already done so, you should act now to keep yourself and your works force safe from the impact of the severe weather. It is very likely that there will be a risk to	Please indicate what actions will be undertaken in the event of a red warning.	Please indicate who is responsible for undertaking the actions in the event of a red warning.

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	life, with substantial disruption to travel, energy supplies and possibly widespread. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities		
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7. Guidance

Guidance Documents & Methodology
(British Standard) BS 8582:2013 Code of practice for surface water management for development sites
(Ciria) SuDS Manual (C753) *
(CIRIA) Containment Systems for the Prevention of Pollution (C736) *
(CIRIA) Drainage of Development Sites – a guide (X108) *
Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors (C532)
Control of Water Pollution from Linear Construction Projects – Technical Guidance (C648)
Control of Water Pollution from Linear Construction Projects – Site Guide (C649)

*Free to download from CIRIA website