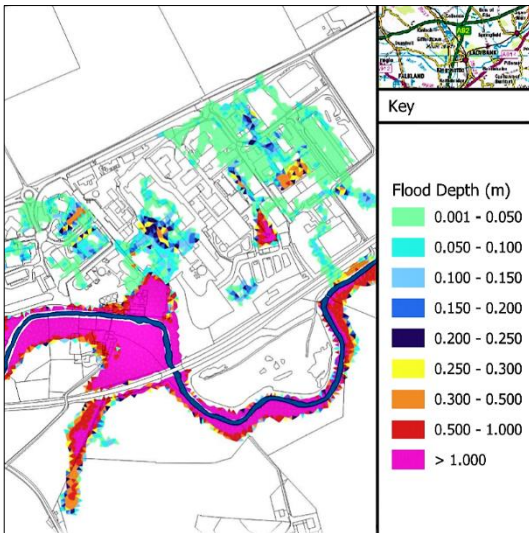
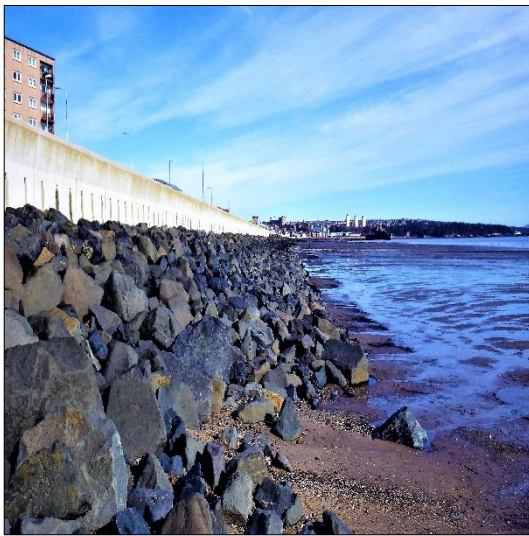


DESIGN GUIDANCE ON FLOODING AND SURFACE WATER DRAINAGE REQUIREMENTS



VERSION	STATUS	DATE	PRODUCED	CHECKED	AUTHORISED
3.0	Approved	10/04/2025	A Atkinson	D Sharp	M Anderson

REVISION TABLE

Revision Number	Date of Issue	Note
0.0	26/05/2004	Valid from 26/05/2004 Original document developed by the Fife Flood Liaison and Advice Group (FLAG) to set out the nature of the problems generally and in Fife in particular, the standards we have adopted in relation to the control of flooding, and associated protection measures, along with the information required to ensure these standards are met.
1.0	26/05/2004	Valid from 26/05/2004 Original document developed by the Fife Flood Liaison and Advice Group (FLAG) to set out the nature of the problems generally and in Fife in particular, the standards we have adopted in relation to the control of flooding, and associated protection measures, along with the information required to ensure these standards are met.
2.0	17/11/2020	Valid from 01/01/2021 Restructured to accommodate changes in Legislation, reference material and science.
2.1	22/04/2022	Valid from 02/05/2022 Updated formatting Updated Climate Change figures
3.0	10/04/2025	Valid from 10/04/2025 Updated in line with National Planning Framework 4, updates to SEPA guidance. Incorporation of new requirements dependant on whether a proposal is Major or Local development as per Circular 5 2009: Hierarchy of Developments .

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1 INTRODUCTION

Flooding is a natural phenomenon, and many parts of Scotland have a legacy of development at risk of flooding from watercourses, the sea, groundwater, and inadequate drainage. Recent research indicates that climate change will significantly increase the risk of flooding due to changes in precipitation and rising sea levels. Already, since the mid-1980s, Scotland has seen an increase in the number of floods and high flow levels on many rivers. The latest science also predicts a sea level rise of 0.85m¹ by 2100 for the Fife region. It is therefore imperative that flooding, flood risk and flood risk management are primary concerns for all development.

National Planning Framework 4 (NPF4) was published by the Scottish Government in 2023 provides a national framework on which Fife planning policy is based. Policy 22 of NPF4 relates to Flood Risk with the intent being to strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding. Policy 10 on coastal develop seeks to promote the protection of coastal communities and assets and support resilience to the impacts of climate change.

This supplementary guidance document on flooding and surface water drainage requirements has been prepared by Fife Council to inform developers, their consultants and all stakeholders involved in the planning process in relation to flooding and surface water management of the requirements of Fife Council. It is based on existing legislation, planning policy, technical guidance and best practice. Compliance with this guidance will serve to meet the requirements of NPF4, the Council's Local Development Plan and assist in the efficient processing of a developers' application.

Surface water management should be taken out of pipes as far as possible. The use of well-designed landscape-based SuDS should be a priority as it provides multiple benefits, including biodiversity enhancement and attractive landscape features.

2 AIM

This document is intended as supplementary guidance for the area of Fife in respect of existing national legislation regarding flooding and surface water drainage (see Chapter 9). It also aims to encourage and promote an increased awareness, understanding and knowledge in flooding and surface water management issues of everyone involved in the development process and thus make Fife a safer place to live, work and visit.

Fife Council is the local Planning Authority and has statutory duties under the Flood Risk Management Scotland Act 2009 to reduce the risk of flooding. As part of these duties Fife Council must not permit development which has the potential to increase flood risk. This document outlines the requirements of Fife Council and includes pro-forma for Self-Certification and Independent Checking organisation.

It should be noted that there is a presumption against development within a site where flooding occurs during a 1 in 200-year event (plus current allowances for climate change). This is in line with Fife Council's FIFEPlan (adopted on 21 September 2017) Policy No 12 "Flooding and Water Environment".

¹ [Climate change guidance](#): Climate change allowances for flood risk assessment in land use planning

3 Flood Risk Assessment and Surface Water Drainage Planning Review Process

Fife Council operates a tier system for application review for flood risk and drainage assessments depending on the type of development - National, Major and Local. The definitions for each are provided below.

National Developments are defined by the Scottish Parliament in the National Planning Framework.

Major Developments are defined as those which fall within the following nine classes:

- All development under Schedule 1 of the EIA (Scotland) Regulations 1999.
- Housing proposals of 50 dwellings or more, or housing sites exceeding 2 hectares (ha).
 - Business and general industrial, storage and distribution with a gross floorspace of 10,000m² or a site exceeding 2 ha.
- Electricity Generation where capacity is or exceeds 20 MW.
- Waste Management Facilities where capacity is or exceeds 25,000 tonnes per annum, or for sludge treatment facilities where capacity of or exceeds 50 tonnes (wet weight daily).
- Transport and Infrastructure where the road, railway, tramway, waterway, aqueduct or pipeline exceeding 8km in length.
- Fish Farming where the surface area of water covered exceeds 2 ha.
- Mineral Extraction where the site area is or exceeds 2 ha.
- Other Development not falling wholly within one of the above classes where the gross floor space is or exceeds 5,000m² or a site area exceeding 2 ha.

Local Development

Planning applications which are not Major developments are classed as Local development. All changes of use applications will be typically classified as Local development.

For a more detailed explanation of the Planning Hierarchy please visit the legalisation available [here](#) and [here](#).

Please review the submission requirements in the table for each tier the type of development.

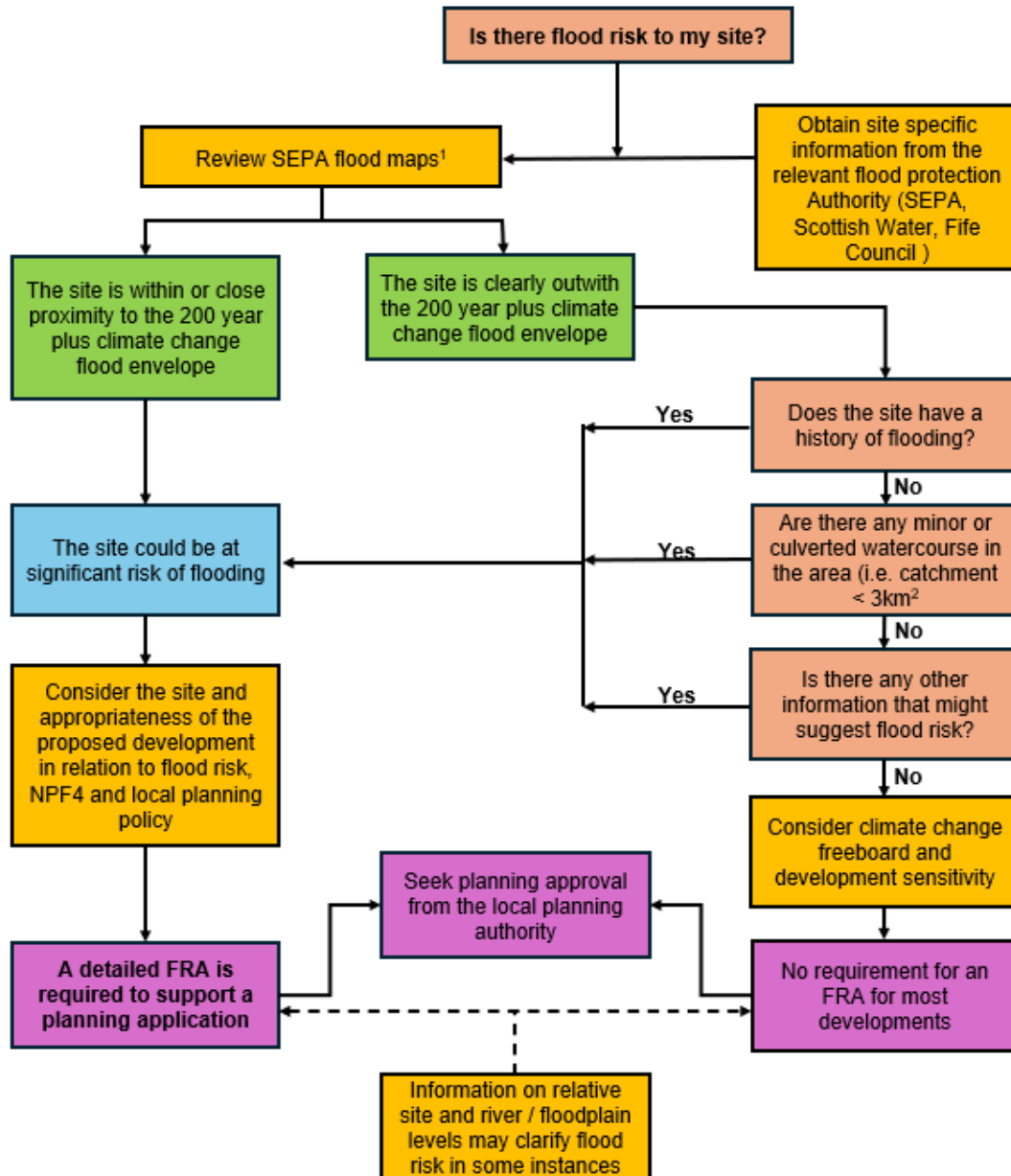
Table 1: Submission requirements for local and major development applications

Tier	Scope	Requirements for submission	Consultation
1	Local development	<p><u>Drainage</u></p> <p>The Design Compliance Certificate and Independent Check Certificate must be signed and submitted by suitably qualified professional from a different company.</p> <p>Appendix 1 and Appendix 2</p> <p><u>FRA</u></p> <p>The FRA Compliance Certificate and Independent Check Certificate must be signed and submitted by suitably qualified professional from a different company.</p> <p>Appendix 5 and Appendix 6</p>	<p><u>Drainage</u></p> <p>Structural Services will not be consulted on these planning applications unless the Proposed Development is discharging into a sensitive watercourse.</p> <p><u>FRA</u></p> <p>Structural Services will not be consulted on these planning applications unless the Proposed Development is adjacent to a sensitive watercourse.</p>
2	Major applications	<p><u>Drainage</u></p> <p>The Design Compliance Certificate and Independent Check Certificate will be required, and the latter will need to be signed and submitted by a suitably qualified professional independent of the process. They can be from the same company as the signatory on the Design Compliance Certificate.</p> <p>Appendix 3 and Appendix 4</p> <p><u>FRA</u></p> <p>The FRA Compliance Certificate and Independent Check Certificate will be required, and the latter will need to be signed and submitted by a suitably qualified professional independent of the process. They can be from the same company as the signatory on the Design Compliance Certificate.</p> <p>Appendix 7 and Appendix 8</p>	<p><u>Drainage</u></p> <p>Structural Services will be consulted on these planning applications.</p> <p><u>FRA</u></p> <p>Structural Services will be consulted on these planning applications.</p>

A declaration on the Independent Check Certificate confirms that liability is accepted by the checking engineer's company by signing the Independent Check Certificate. A copy of their professional indemnity insurance as per the requirements is to be provided with the certificate.

4 FLOOD RISK ASSESSMENT

Flooding is a material consideration at the planning stage of a development and is required from the outset (i.e. at both full planning permission and planning permission in principle stage). The Flood Risk and Planning Flow Chart (Figure 1), illustrates when a Flood Risk Assessment (FRA) is required for review, acceptance and records. Completed FRA certification as per [Appendix 5/6](#), or [Appendix 7/8](#) shall be submitted with the Application (see table 1 for submission requirements).



Additional Notes

1. Review SEPA surface water flood maps and fluvial maps as smaller watercourses may not be shown on SEPA fluvial flood maps.

Figure 1: Flood Risk and Planning Flow Chart

In addition, an FRA is also required in the following circumstances:

1. Construction of a new watercourse,
2. Construction of a structure over or adjacent to a watercourse,

3. Development in or adjacent to a flood bank or any flood control structure or constraint,
or
4. Construction adjacent to coastal waters and/or below the 6mAOD contour.

An FRA should be carried out in accordance with the Reporting Requirements for Flood Risk Assessments issued by SEPA. SEPA have minimum requirements for a Flood Risk Assessments and where flood risk needs to be quantified in greater detail (through modelling), guidance is also provided on undertaking detailed Flood Risks Assessments. The latest copies issues can be obtained from the SEPA website - [Flood risk general advice and guidance notes](#).

Climate Change

Peak Flow increases

At present [SEPA Climate guidance](#) contains the River Basin Region applicable to your assessment. Table 2 below contains the peak river flow allowance to be used in Fife:

Table 2: Peak river flow allowance for the Tay River basin

River Basin Region	Total Change to the year 2100
Tay	53%

Peak Rainfall increase

Rainfall allowances can be used to provide a more accurate estimation for surface water (pluvial) flooding and watercourse (fluvial) uplifts in small 'flashy' catchments. Small watercourses are impacted because of the high volume of runoff relative to their channel capacity. Increases in rainfall intensity due to climate change are likely to result. Table 3 provides the uplift for the Tay River basin.

Table 3: Peak rainfall intensity allowance for the Tay River basin at date of issue

River Basin Region	Total Change to the year 2080
Tay	39%

Coastal

Changes in sea level rise are driven by the thermal expansion of the ocean as well as the addition of water through global ice melt. Within Scotland, these impacts are being partially offset by glacial isostatic rebound - the ongoing rise of land formally depressed by the huge weight of ice sheets during the last glacial period. Isostatic rebound is the key driver for the differences in the rate of cumulative rise shown below. The allowances indicated in table 4 gives the cumulative sea level rise from 2017 to 2100 based on the outputs from UK Climate Projections 2018 (UKCP18). However, given that sea level rise will continue well beyond the end of the 21st century, it would be required that an additional allowance of 0.15m per decade after the year 2100 be applied where the design life of a development is known to extend beyond that date.

Table 4: Sea level rise uplift for the Tay River basin

River Basin Region	Total Change to the year 2080 (m)
Tay	0.85

SEPA review and update climate change values on a regular basis so it is prudent to check for the latest guidance upon undertaking an assessment at - [Guidance and advice notes | Scottish Environment Protection Agency \(SEPA\)](#).

Freeboard

Freeboard is often defined as the difference between the design flood level and the finished floor levels of a development, or soffit level of a bridge/culvert. It can also be defined as the difference between the design flood level and the flood defence level of a Flood Protection Scheme. Freeboard is a requirement to account for uncertainties involved in flood estimation, and other physical factors that vary between sites such as post-construction settlement or wave action.

Fife Council and SEPA would expect a minimum 600mm freeboard (below the finished floor levels), unless a more detailed assessment of freeboard is made. For gardens, Fife Council would expect the extent of a 1 in 200 year flood event plus climate change should be a minimum of 300mm below the lowest garden ground level.

In coastal instances additional freeboard to the 1 in 200 year flood plus climate change event plus 600mm freeboard extent may be required to account for uncertainties associated with the coastal processes including wave action and spray, local bathymetric processes, and reduction of design level due to erosion. Applicants should either account for this within freeboard assessment or should provide reasoning why these are not required to be accounted for.

In addition to freeboard, it is recommended that water resilient materials and forms of construction are considered for developments.

Compensatory Storage

New developments must not affect the ability of the flood risk area to store and convey floodwater. Removal of flood risk area by land raising will displace floodwater and have an unacceptable impact unless it is linked to the provision of compensatory storage. Generally, piecemeal reduction of a flood risk area should be avoided given the cumulative effects of reducing storage capacity, and land raising should only be considered in exceptional circumstances where it is shown to have a neutral or better impact on flood risk out with the raised area. Land raising is unlikely to be acceptable within an area of natural or undeveloped floodplain. Should there be exceptional circumstances, compensatory storage should be provided in line with SEPA guidance on a 'like for like basis'. For more information refer to [SEPA's Technical Flood Risk Guidance for Stakeholders](#) document.

Access and Egress

The FRA should include comment on access and egress to the development. Safe access/egress must be available at all times during events up to the 1 in 200 year return period plus climate change.

Detailed Flood Risk Assessment

Where flood risk is identified in close proximity to a development, a more detailed FRA will be required to quantify flood risk to the development and input into the design of a development. A detailed FRA will typically involve modelling to allow for a quantified understanding of flood risk. In addition to understanding flood risk to development, assessment should allow determination if proposals would create adverse impacts elsewhere (this would not be permitted).

SEPA provide specific guidance ([Flood Modelling Guidance for Responsible Authorities](#)) on undertaking hydrological and modelling work. SEPA and Fife Council require sensitivity analysis on all models to provide an understanding of the uncertainty within the model.

Sensitivity analysis would be expected to include:

- Boundary conditions e.g. a 20% increase in design flow
- Surface roughness e.g. increasing or decreasing the roughness coefficient used in the model.

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- Location and type of upstream and downstream boundary conditions to ensure there is no impact on results within the area of interest
- Blockage of critical structures such as culverts and other hydraulic structures which may be prone to blockage during flood events
 - The percentage blockage scenario/s should be justified based on site specific factors.

Technical details of all hydrology and modelling work undertaken should be appended to the FRA.

5 DRAINAGE IMPACT ASSESSMENTS (DIA)

Drainage Impact Assessments (DIA) are required for **ALL** Applications except those detailed in Section 5.2. The purpose of a DIA is to enable Fife Council to be satisfied, before recommending an application for approval, that the criteria within this guidance have been met.

5.1 Sustainable Drainage System (SuDS)

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR) requires that a Sustainable Drainage System (SuDS) is installed for all new developments where surface water discharges to ground or water in order to prevent pollution, with the exception of runoff from a single dwelling or discharge to coastal waters.

For single dwellings, where no surface water treatment is required, surface water attenuation must be provided in line with the criteria set up in this guidance.

That is unless written consent has been provided as part of the planning application confirming that Scottish Water will accept the surface water discharge from the development into their drainage system at a discharge rate agreed with Scottish Water. The attenuation storage must still accommodate the flood return period set up in this guidance.

There are many ways to provide sustainable surface water drainage solutions, for example:

- **Swales** - Broad, shallow channels covered by grass or other suitable vegetation. Swales attenuate the surface water flow and allow time for filtration and sedimentation into sub-surface soil in areas where soil porosity is suitable.
- **Filter Strips** - These are wide, gently sloping areas of grass or other dense vegetation that slow and treat runoff from adjacent impermeable areas.
- **Filter Drains** - Filter drains are trenches that are filled with permeable material such as gravel. They work by providing capacity for attenuation. Surface water from paved areas flows into the trenches, is filtered and conveyed to other parts of the site. A perforated pipe may be built into the base of the trench to collect and convey the water.
- **Infiltration Devices** - Dispose of surface water runoff into the ground. Both groundwater and ground conditions must be suitable to receive the volume and quality of water anticipated.
- **Permeable Surfaces** - Allow rainwater to pass through the surface into an underlying storage layer, where water is stored before infiltration into the ground. They can be designed to fit in with a variety of settings e.g. permeable paving or gravel surfaces in car parks, garden paths.
- **Infiltration Basins** - Depressions created within the site to store runoff and allow filtration into the ground below.
- **Extended Detention Basins** - These are normally dry, though they may have small permanent pools at the inlet and outlet. They are designed to detain larger runoff volumes than infiltration basins as well as providing water quality treatment.
- **Ponds and Pools** - Small but permanent water bodies which provide temporary storage for additional storm runoff above normally expected water levels. Wet ponds may provide amenity and wildlife benefits and a sedimentation process to reduce pollution to watercourses. Water may be retained for as long as 2 or 3 weeks.
- **Constructed Wetlands** - These are ponds with shallow areas and wetland vegetation to improve pollutant removal and enhance wildlife habitat. They may also be landscaped to provide amenity value.
- **Green Roof Systems** - Cover a building's roof (or walls) with vegetation. They are laid over a drainage layer, with other layers providing protection, waterproofing and insulation. Sedum rather than grass can minimise maintenance.
- **Below Ground Storage** - Enables retention of water for irrigation of green infrastructure.

A full listing of SuDS units, including siting, technical and maintenance details, is available in C753: The SuDS Manual (2015) linked in Ch 9.

5.2 Development not requiring flood protection authority approval

The following categories of development will not typically require a DIA, but the best available option for surface water drainage is expected to be demonstrated:

- Alteration and small-scale extension proposed on an existing hardstanding area that has existing positive drainage in place.
- Alteration and extension proposed on a permeable area under 50m².
- Changes of use not involving new buildings or hard surfacing.

5.3 Planning Permission in Principle (PPP)*

[Appendix 11](#) to be submitted with a PPP Application.

Point	Description
	Information to be provided by the Developer (This list is not exhaustive and additional information may be requested as required)
5.3.1	An outline drainage plan/sketch showing the proposed drainage network and the location of the connection into either a nearby sewer network or discharge to a watercourse.
5.3.2	Preliminary calculations for any SuDS/attenuation volume required. The proposed discharge rate from a development site should be in accordance with Fife Council requirements. Fife Council require a discharge rate to be no greater than the lesser of: <ul style="list-style-type: none"> • 1 in 5 year greenfield runoff rate • 4.0 l/s/ha Lesser of 1 in 2 year greenfield runoff rate or 3.3 l/s/ha if discharged to an existing flood sensitive (or a tributary of)/culverted watercourse or a piped drainage system. Sensitive watercourses list as detailed below. In order to attain the flow rates above, the 1 in 200 year post development critical storm plus the current climate change allowance for the application site is to be accommodated within the surface water drainage system without flooding.
5.3.3	A Simple Index Approach (SIA) to check the suitability of proposed SuDS components in mitigating water quality risks to receiving waterbodies.
5.3.4	Where it is proposed to discharge surface water to a Scottish Water system the Developer shall provide written evidence of Scottish Water's approval of the surface water drainage connection into their network at the discharge rate agreed with Scottish Water.
5.3.5	Completed SuDS certification as per Appendix 1/Appendix 2 or Appendix 3/Appendix 4 as appropriate. (For single dwelling only, Appendix 1 is required)

*Following receipt of Planning Permission in Principle when FULL permission or conditional permission via an ARC (Applications to vary or discharge matters reserved by planning conditions) is sought, the applicant would be expected to submit **ALL** information as per a FULL application

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as outlined below taking into account, within the design, the latest guidance and advice at the time of the new application (e.g. climate change uplift values).

5.4 Full Planning Application

[Appendix 12](#) to be submitted with a FULL Application

Point	Description
	<p>Information to be provided by the Developer</p> <p>(This list is not exhaustive and additional information may be requested as required)</p>
5.4.1	<p>A drainage layout showing the proposed drainage network and the location of the connection into either a nearby sewer network or discharge to a watercourse.</p> <p>Outline details of any attenuation features and details of any flow control including overflow arrangements in case of blockage.</p>
5.4.2	<p>The proposed discharge rate from a development site should be in accordance with Fife Council requirements. Fife Council require a discharge rate to be no greater than the lesser of:</p> <ul style="list-style-type: none"> • 1 in 5 year greenfield runoff rate • 4.0 l/s/ha <p>Lesser of 1 in 2 year greenfield runoff rate or 3.3 l/s/ha if discharged to an existing flood sensitive/culverted watercourse or piped drainage system. Sensitive watercourses list as detailed below.</p> <p>In order to attain the flow rates above, the 1 in 200 year post development critical storm plus the current climate change allowance for the application site is to be attenuated within the surface water drainage system.</p> <p>On sites where surface water run-off is received from adjacent higher ground, it will also be necessary for developers to demonstrate that this additional volume of storm water has been considered when complying with the Council’s design criteria.</p>
5.4.3	<p>Calculations of any SuDS/attenuation volume required either by hydraulic modelling software or by hand. If using software outputs for all underground pipework including rainfall data, manhole and pipe schedules (to mAOD), a pipe surcharge report for all underground pipe connections must be included. The manholes in the calculation should be cross-referenced to the drainage drawing to enable interpretation. The results should show the 1 in 200 year return period events plus the current climate change allowance.</p> <p>Dry pedestrian access must be available at all times during events up to the 1 in 200 year return period plus the current climate change allowance.</p> <p>Should the calculations be undertaken by hand then account must be taken of the staged discharge relationship which applies to orifices and vortex flow control devices. In order to provide a conservative estimate, a halved discharge rate must be applied when calculating the required storage volume.</p>
5.4.4	<p>If a soakaway is proposed, then adequacy of the soil (ground investigations) and other investigations (i.e. porosity tests) will be required to demonstrate that a 1 in 200 year return period plus the current climate change allowance can be accommodated without presenting a flood risk to property and that it can drain in a suitable time to accommodate successive events. Note that any soakaway should be a minimum of 5m away from any building foundation and plot boundary.</p> <p>Subsoil porosity testing for proposed infiltration devices should be undertaken in line with the requirements of BRE Digest 365 or similar recognised methodology (to be confirmed</p>

	<p>by the Developer prior to submission of any calculations). Note: Subsoil porosity testing must be undertaken as close as possible to the proposed location of each infiltration device/component to ensure that the results are representative. If a porosity test is deemed to be too remote from the proposed location, the test results may be refused, and the test may require to be re-done.</p>
5.4.5	<p>Pre-development and post-development flow path diagrams must be identified on separate drawings. This can be achieved by taking the existing site survey and over-marking arrows to denote falls and then completing the same with the post-development arrangement. This should include runoff entering from out with the site, from unpaved areas within the site and from paved areas during rainfall events which exceed the capacity of the drainage system. Simply submitting an un-annotated topographical survey is not sufficient.</p> <p>The purpose of these drawings is twofold. Firstly, to understand if there is any significant re-direction of surface water flows to surrounding land and secondly to identify if surface water will flow towards property entrances.</p>
5.4.6	<p>A Simple Index Approach (SIA) to check suitability of the proposed SuDS components in mitigating water quality risks to receiving waterbodies.</p>
5.4.7	<p>Assessment of the maximum groundwater level at the location of any underground attenuation features to demonstrate that the base of these features will remain above the groundwater level and to confirm the viability of the proposed feature (as detailed within the current edition of CIRIA C753: The SuDS Manual 2015).</p>
5.4.8	<p>Where it is proposed to discharge surface water to a Scottish Water system the Developer shall provide written evidence of Scottish Water's approval of the surface water drainage connection into their network at the rate agreed with Scottish Water.</p>
5.4.9	<p>Confirmation of who will adopt/vest and maintain the surface water network out with property boundaries, including any SuDS as per Appendix 8.</p> <p>Responsibility for maintenance of a SuDS within property boundaries rests with the property owner. Developers shall provide confirmation on how they intend to make homeowners aware of the burden of responsibility and whether there will be an allowance for setting up factoring arrangements to manage maintenance.</p> <p>At present there is no Section 7 agreement, as described within the Sewerage (Scotland) Act 1968, in place between Scottish Water and Fife Council, see 5.6 Adoption/Vesting of SuDS.</p>
5.4.10	<p>A maintenance schedule for all proposed SuDS, to include a detailed list of activities and timescales. The maintenance schedule should comply with the current edition of CIRIA C753: The SuDS Manual 2015.</p>
5.4.11	<p>Confirmation of Construction Status SuDS compliance.</p> <p>It is a legal requirement that all development sites, on commencement of construction, have a full Construction Status SuDS in place, managed and maintained throughout the construction process by the Site Manager(s). It is the Site Manager's responsibility to ensure that this Construction Status SuDS is fully compliant with the relevant legislation (currently CAR/GBR10).</p>

5.4.12	<p>Completed SuDS certification as per Appendix 1/Appendix 2 or Appendix 3/Appendix 4 as appropriate.</p> <p>(For single dwelling only, Appendix 1 is required)</p>
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It may be impossible for single house dwellings or small developments to achieve the allowable greenfield runoff discharge rate as the orifice size required to control such discharge may be susceptible to blockages. In these instances, the Developer should contact the Flooding, Shoreline & Harbours team in order to agree a suitable discharge rate. The agreed figure will be dependent on factors such as the size of the watercourse to which you will be discharging to and the susceptibility of the area to flooding.

The Council will not accept any surface SuDS or underground attenuation storage features located within the 1 in 200 year flood plain plus current climate change allowance, as during flood events the performance of these features will be compromised by flood water and could potentially lead to more extreme flooding of the site.

All SuDS for new developments within Fife shall be designed in accordance with the system they are discharging to, e.g. if discharging to a Scottish Water sewer they should be designed in line with current editions of Scottish Water's design guide - Sewers for Scotland and CIRIA C753: The SuDS Manual 2015 (unless otherwise agreed with Fife Council), conversely if discharging to a watercourse/infiltration the system should be designed adhering to Fife Council guidance. Furthermore if connecting to the Scottish Water network written confirmation of acceptance of this will be required from Scottish Water.

The Developer should also note that the presence of existing drains in the vicinity of the application site increases the risks of pollution occurring. The Developer should therefore follow the guidance provided in SEPA's Pollution Prevention Guidance Notes which are available on their website www.netregs.org.uk.

SEPA must be consulted regarding the proposed SuDS serving the application site. The developer may also be required to obtain a license from SEPA as part of the Controlled Activities Regulations.

[Sensitive watercourses list](#)

- Auchtermuchty – Calsay Burn / Auchtermuchty Burn
- Ballingry – Lochty Burn (and unnamed culverted watercourses within the town)
- Cairneyhill – Torry Burn
- Cupar – Lady Burn, River Eden
- Dunfermline – Lyne Burn, Mowbray Burn, Bellyeoman Burn
- East Wemyss – Kingslaw Burn
- Falkland – Maspie Burn (and unnamed culverted watercourses within the town)
- Freuchie Mill – Pittilock Burn
- Inverkeithing - Inverkeithing Burn, Keithing Burn, Brankholm Burn, Whinny Burn
- Kirkcaldy – Den Burn, Tiel Burn
- Kinglassie – Lochty Burn
- Leven – Scoonie Burn, River Leven
- Rosyth - Brankholm Burn, Whinny Burn
- St Andrews – Kinness Burn, Lumbo Burn, Cairnsmill Burn, Swilken Burn

(The list is not exhaustive and additional watercourses may be specified, i.e. sensitive watercourse tributaries)

5.5 Further Information

All information detailed within this guidance is required to be provided as part of the relevant Planning Application submission. Failure to do so will delay the application being registered by the Planning Authority. Fife Council's Flooding Team will not condition Planning Approvals to allow drainage and flood risk information to be submitted after planning permission has been granted.

5.6 Adoption/Vesting of SuDS

Fife Council will only adopt SuDS features that deal with surface water from public roads and any SuDS proposed for adoption should be clearly indicated on plans submitted for Road Construction Consent. Every site is specific, and it is essential for developers to enter into discussion about the maintenance responsibility during the pre-application stage with relevant bodies such as Scottish Water and Fife Council.

Scottish Water has no statutory duty for draining roads, footpaths/footways out with the curtilage of premises; groundwater or to accept land drainage connections, however Scottish Water is negotiating agreements to manage surface water using shared facilities including sewer pipes, public road drainage and any SuDS measures. These agreements are being made pursuant to Section 7 of the Sewerage (Scotland) Act 1968. There is not currently a Section 7 agreement in place between Scottish Water and Fife Council. Until such time that a formal agreement is in place, developers shall provide details regarding the long-term maintenance requirements and responsibilities of any SuDS features within their development.

There may be elements of the proposed SuDS serving the application site that Scottish Water will be unwilling to adopt (land drainage from adjacent higher ground for example).

In order to ensure that the proposed SuDS serving the application site operates at its optimum efficiency, it is essential that regular maintenance is carried out. The Developer should ensure that the proposed SuDS serving the application site is designed and constructed to enable adoption for future maintenance by Scottish Water or some other suitable organisation in perpetuity. The developers should follow the [National Roads Development Guide](#) and [Fife Council Regional variations to national roads development guidelines](#).

See [Appendix 13](#) for Prospectively adoptable SuDS/drainage components.

[Appendix 10](#) - Confirmation of future maintenance of Sustainable Drainage Apparatus shall be provided as part of the full planning application and [Appendix 9](#) - Confirmation of Sustainable Drainage System Constructed to Current Best Practice shall be provided post development once the SuDS is constructed.

6 COASTAL EROSION

NPF4 emphasises the need to consider how to adapt coastlines to the impacts of climate change. Any coastal development will need to consider the potential impact of coastal erosion on the development into the future, in addition to any potential impacts the development could have on coastal erosion. To strengthen resilience to coastal erosion Fife Council's stance is avoidance as the first principle of existing and future development that could be impacted.

If you believe the development could be at risk of coastal erosion, assessment should be undertaken by a suitably qualified coastal geomorphologist.

7 COMPLIANCE CERTIFICATE REQUIREMENTS

7.1 Sustainable Drainage Design Compliance Certificate

In addition to providing confirmation that the proposed SuDS serving the application site is to the satisfaction of both Scottish Water and SEPA, Fife Council require the Applicant, or their suitably qualified Agent, to certify that the proposed SuDS serving the application site has been designed in accordance with current editions of CIRIA C753: The SuDS Manual 2015 and Sewers for Scotland.

Both Tier 1 and Tier 2 applications will require to submit the appropriate Certificates as noted below:

Tier 1 (Local Development):

- a SuDS Design Compliance Certificate in accordance with the attached pro-forma in [Appendix 1](#); and
- a SuDS Independent Check Certificate in accordance with the attached pro-forma in [Appendix 2](#).

Tier 2 (Major Development):

- a SuDS Design Compliance Certificate in accordance with the attached pro-forma in [Appendix 3](#); and
- a SuDS Independent Check Certificate in accordance with the attached pro-forma in [Appendix 4](#).

7.2 Flood Risk Assessment Compliance Certificate

Where a Flood Risk Assessment is submitted, Fife Council require the Applicant, or their suitably qualified Agent, to certify that the Assessment has been prepared in accordance with the reporting requirements issued by SEPA by providing:

- a Flood Risk Assessment Compliance Certificate in accordance with the attached pro-forma in [Appendix 5](#); and
- A Flood Risk Assessment Independent Check Certificate in accordance with the attached pro-forma in [Appendix 6](#).

7.3 Sign off

For Local² development applications, the SuDS Design Check Certificate and Independent Check Certificate must be signed and submitted by different companies. The SuDS design Independent Check Certificate includes a declaration confirming that professional liability will rest with the company signing the certificate and will therefore be required to demonstrate their professional indemnity insurance as per the current requirements.

For Major³ developments the SuDS Design Compliance Certificate and SuDS Independent Check Certificate cannot be signed by the same signatory. However, the signatory may be an employee within the same company holding the appropriate qualifications but who has not been involved in the assessment / design. As above, professional liability will rest with the company signing the SuDS Independent Check Certificate.

² [Scottish Planning Series Circular 5 2009: Hierarchy of Developments - gov.scot](#)

³ [Scottish Planning Series Circular 5 2009: Hierarchy of Developments - gov.scot](#)

Fife Council require that professional indemnity insurance for design is maintained at the level of **£5 million pounds** for each and every claim. Evidence will take the form of a copy of the certificate of insurance.

To speed up the processing of planning applications, the Planning Service will require evidence to be submitted with applications to demonstrate the necessary level of professional indemnity insurance as per the above requirements.

Disclaimer

This document is for information purposes only and is a statement of Fife Council's requirements in relation to flooding and surface water drainage. Developers will be required to satisfy themselves as to the current statutory and/or legal requirements.

8 GLOSSARY/ABBREVIATION

- **Attenuation** - Reduction of peak flow by spreading it over a longer period of time
- **BRE** - Building Research Establishment
- **CIRIA** - Construction Industry Research and Information Association
- **FFL** - Finished Floor Level
- **Floodplain** - Land adjacent to a watercourse that would be subject to repeated flooding under natural conditions up to the 0.5% AP (200 year) return period.
- **Flood Risk Management (Scotland) Act 2009** - A more sustainable and modern approach to flood risk management, supersedes Flood Prevention (Scotland) Act 1961 and Flood Prevention and Land Drainage (Scotland) Act 1997
- **FRA** - Flood Risk Assessment
- **Groundwater** - Water that has percolated into the ground; it includes water in both the unsaturated zone and the water table
- **Greenfield Run-off** - This is the surface water run-off regime from a site before development, or the existing site conditions for a brownfield redeveloped site through the attenuation of run-off by way of SuDS
- **Ha** - Hectares
- **Local application** – scale of development as defined by Circular 5/2009
- **Major application** – scale of development as defined by Circular 5/2009
- **mAOD** - metres above ordnance datum
- **MICRODRAINAGE** - A software tool to design and analyse drainage systems
- **NPF4** – National Planning Framework 4
- **Return Period** - The theoretical return period is the inverse of the probability that the event will be exceeded in any one year. For example, a 10-year flood has a $1/10 = 0.1$ or 10% chance of being exceeded in any one year and a 50-year flood has a 0.02 or 2% chance of being exceeded in any one year.
- **Risk Assessment** - Is the determination of quantitative or qualitative value of risk related to a specific situation and a recognised threat (also called hazard)
- **SEPA** - Scottish Environment Protection Agency
- **SEPA Flood Maps** - Details areas of land in Scotland estimated to be at risk of flooding from rivers, the sea and surface water with an annual probability of 0.5% (1 in 200) or greater
- **Soakaway** - A subsurface structure into which surface water is conveyed to allow infiltration into the ground
- **SuDS** - Sustainable Drainage System or Sustainable urban Drainage System. A sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques
- **Watercourse** - All means of conveying water except a water main or sewer
- **Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR)** - A set of regulations that control activities which may affect Scotland's water environment

9 REFERENCE MATERIAL FOR DESIGN

This section lists the main national legislation and technical guidance that Fife Council expects developers and their consultants to follow when preparing a Drainage Impact Assessment (DIA), Surface Water Management Plan (SWMP), Flood Risk Assessment (FRA), and design of Sustainable Drainage Systems (SuDS) and other drainage infrastructures. The list below is not exhaustive, and developers must ensure that all guidance and other relevant documentation is clearly referenced in their submissions.

Many of these documents are subject to frequent revision, and developers should ensure that they are using the current versions.

When preparing a design, the developer shall make reference to the following:

9.1 Scottish Government documents

- [Flood Risk Management \(Scotland\) Act 2009](#)
- [National Planning Framework 4](#)
- [Planning Advice Note 51: Planning, Environmental Protection and Regulation](#)
- [Planning Advice Note 61: Planning and Sustainable Urban Drainage Systems](#)
- [Circular 5 2009: Hierarchy of Developments](#)
- [The Water Environment and Water Services \(Scotland\) Act 2003](#)
- [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011](#)
- [Roads \(Scotland\) Act 1984](#)
- [Planning etc \(Scotland\) Act 2006](#)
- [Delivering Sustainable Flood Risk Management](#)
- [Surface Water Management Planning Guidance](#)

9.2 Scottish Environment Protection Agency documents

- [Land Use Vulnerability Guidance](#)
- [Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 \(As amended\) \(“the Controlled Activities Regulations”\)WAT – RM – 08 Sustainable Urban Drainage Systems \(SuDS or SuD Systems\)](#)
- [BRE.365 – Soakaway Design](#)
- [SEPA Ponds, Pools and Lochans - Guidance on the Good Practise in the Management and Creation of Small Waterbodies in Scotland](#)
- [SEPA Technical Flood Risk Guidance for Stakeholders](#)
- [SEPA Flood Maps](#)
- [Any other general SEPA guidance available](#)
- [SEPA Climate Change Allowances for Flood Risk Assessment in Land Use Planning](#)
- [Flood Risk Standing Advice for Planning Authorities and Developers](#)
- [SEPA Flood Risk Assessment Checklist](#)

9.3 SuDS Working Party Document

- [Water Assessment and drainage assessment guide](#)

9.4 CIRIA Documents

- [CIRIA C532: Control of Water Pollution form Construction Sites – Guidance for Consultants and Contractors](#)
- [CIRIA C582: Source Control using Constructed Pervious Surfaces. Hydraulic, Structural and Water Quality Performance Issues](#)

- [CIRIA C624: Development and Flood Risk – Guidance for the Construction Industry](#)
- [CIRIA C625: Model Agreements for Sustainable Water Management Systems](#)
- [CIRIA C635: Designing for Exceedance in Urban Drainage – Good Practice](#)
- [CIRIA C687: Planning for SuDS – Making it happen](#)
- [CIRIA C688: Flood Resilience and Resistance for Critical Infrastructure](#)
- [CIRIA C698: Site Handbook for the Construction of SuDS](#)
- [CIRIA C713 Retrofitting to Manage Surface Water](#)
- [CIRIA C724: Creating Water Sensitive Places](#)
- [CIRIA C737 Structural and geotechnical design of modular geocellular drainage systems](#)
- [CIRIA C753: The SuDS Manual 2015](#)
- [CIRIA C762: Environmental Good Practice on Site – Pocket Book](#)
- [CIRIA C786: Culvert, Screen and Outfall Manual](#)
- [CIRIA R156: Infiltration Drainage – Manual of Good Practice](#)

9.5 Scottish Water Documents

- [Sewers for Scotland current edition and to such other documents, statutory guidance and/or legislation as are in force at the date of the submission](#)

9.6 Other Reference Documents

- [Sustainable Urban Drainage System for Roads](#)
- [DEFRA – Flood Risk Assessment Guidance for New Development](#)
- [UKCP18](#)
- [Fife Local Development Plan](#)
- [BS EN 1610:2015 Construction and testing of drains and sewers](#)
- [Institute of Hydrology Report 124](#)
- [Flood Estimation Handbook](#)

10 CONTACT DETAILS

Flooding, Shoreline & Harbours

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Bankhead Park

Glenrothes

KY7 6GH

Planning/Road Construction Consent

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Fife Council

Planning

3rd Floor West

Fife House

North Street

Glenrothes

KY7 5LT

Appendix 1 - SuDS Design Compliance Certificate - Tier 1 Local Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in designing the sustainable drainage system for the below named development in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Guidance on Flooding and Surface Water Drainage Requirements.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Designers Company

.....

.....

.....

Name of Designer.....

Position Held.....

Engineering Qualifications⁴.....

Signed

Date

Drawing No's relative to this certificate

.....

.....

.....

⁴ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 2 - SuDS Independent Check Certificate – Tier 1 Local Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in the below named development with a view to securing that:

1. It has been designed in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Criteria Guidance Note on Flooding and Surface Water Management Plan Requirements.
2. It shall be accurately translated into construction drawings and schedules.
3. I hereby confirm that I hold professional indemnity insurance for £5 million pounds and append a copy of the certificate of insurance.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Checkers Company (this cannot be someone from the same company that signed the related Design Check Certificate).

.....

.....

.....

Name of Checker.....

Position Held.....

Engineering Qualifications⁵.....

Signed

Date

⁵ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 3 - SuDS Design Compliance Certificate - Tier 2 Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in designing the sustainable drainage system for the below named development in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Guidance on Flooding and Surface Water Drainage Requirements.

ePlanning Reference No

Name of Development

Name of Developer

Name and Address of Designers Company

.....

.....

.....

Name of Designer.....

Position Held.....

Engineering Qualifications⁶.....

Signed

Date

Drawing No's relative to this certificate

.....

.....

.....

⁶ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 4 - SuDS Independent Check Certificate – Tier 2 Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in the below named development with a view to securing that:

1. It has been designed in accordance with the current editions of CIRIA C753: The SuDS Manual 2015, Sewers for Scotland and Fife Council's – Design Criteria Guidance Note on Flooding and Surface Water Management Plan Requirements.
2. It shall be accurately translated into construction drawings and schedules.
3. I hereby confirm that I hold professional indemnity insurance for £5 million pounds and append a copy of the certificate of insurance.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Checkers Company (this can be someone from the same company but cannot be the same person that signed the related Design Check Certificate).

.....
.....
.....
.....

Name of Checker.....

Position Held.....

Engineering Qualifications⁷.....

Signed

Date

⁷ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 5 - Flood Risk Assessment - Compliance Certificate – Tier 1 Local Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in carrying out the Flood Risk Assessments and preparing the Flood Risk Assessment Report for the below named development in accordance with the Reporting Requirements for Flood Risk Assessments issued by SEPA.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Designers Organisation.....

.....

.....

.....

Name of Assessor.....

Position Held.....

Engineering Qualifications⁸.....

Signed

Date

⁸ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Institution.

Appendix 6 - Flood Risk Assessment – Independent Check Certificate - Tier 1

Local Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in checking the Flood Risk Assessments for the below named development with a view to ensuring that it has been accurately translated into the Flood Risk Assessment Report.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Designers Organisation.....

.....

.....

.....

Name and Address of Checkers Company

.....

.....

.....

Name of Checker (this cannot be someone from the same company that signed the related Design Check Certificate).

Position Held.....

Engineering Qualifications⁹.....

Organisation.....

Signed

Date

⁹ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Institution.

Appendix 7 - Flood Risk Assessment - Compliance Certificate – Tier 2 Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in carrying out the Flood Risk Assessments and preparing the Flood Risk Assessment Report for the below named development in accordance with the Reporting Requirements for Flood Risk Assessments issued by SEPA.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Designers Organisation.....

.....

.....

.....

Name of Assessor.....

Position Held.....

Engineering Qualifications¹⁰.....

Signed

Date

¹⁰ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Institution.

Appendix 8 - Flood Risk Assessment – Independent Check Certificate - Tier 2

Major Applications

I certify that all the reasonable skill, care and attention to be expected of a qualified and competent professional in this field has been exercised in checking the Flood Risk Assessments for the below named development with a view to ensuring that it has been accurately translated into the Flood Risk Assessment Report.

ePlanning Reference No.....

Name of Development

Name of Developer

Name and Address of Designers Organisation.....

.....

.....

.....

Name of Checker.....

Position Held.....

Engineering Qualifications¹¹.....

Signed

Date

¹¹ Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Institution.

Appendix 9 - Confirmation of SuDS Constructed to Current Best Practice

I hereby confirm that the Sustainable Drainage System as detailed below and on the approved construction drawing numbered has been constructed in accordance with the current best practice as checked by the undernoted organisation and **a copy of the Health & Safety File is provided along with this certificate.**

Planning Application No

Roads Construction Consent No.....

Name of Development

Name of Developer.....

Name and address of maintenance organisation (including contact telephone number and e-mail address)

.....
.....
.....

Telephone: Email:.....

Details of sustainable drainage apparatus to be maintained:

.....
.....
.....

Name of Checker.....

Position Held.....

Engineering Qualifications¹².....

Signed

Date

¹² Minimum Qualification - Incorporated Engineer or equivalent from an appropriate Engineering Institution.

Appendix 10 - Confirmation of future maintenance of SuDS Apparatus

I hereby confirm that the future maintenance of the Sustainable Drainage Apparatus as detailed below and on the drawing numbered will be carried out in accordance with the attached maintenance schedule, by the undernoted organisation.

Planning Application No. (completed by Fife Council Planning Service)

Roads Construction Consent No. (completed by Fife Council Planning Service)

Name of Development.....

Name of Developer.....

Name and address of maintenance organisation (including contact telephone number and e-mail address)

.....
.....
.....

Telephone: Email:.....

Details of sustainable drainage apparatus to be maintained:

.....
.....
.....
.....

Signed

Name

Position Held

Name of Organisation.....

Date

Appendix 11 - Planning Permission in Principle Checklist

Point	Description	Provided Y (Yes), N (No), N/A
3.0	Flood Risk Assessment.	
5.3.1	An outline drainage plan/sketch.	
5.3.2	Preliminary calculations for any attenuation volume required.	
5.3.3	Confirmation of the SuDS treatment train.	
5.3.4	Written evidence of Scottish Water’s approval of the surface water drainage connection into their network at the rate agreed with Scottish Water.	
5.3.5	Completed SuDS certification as per Appendix 1 and Appendix 2 or Appendix 3 and Appendix 4 (depending of tier of development) . (For a single dwelling, only Appendix 1 is required)	

Appendix 12 - Full Planning Application

Point	Description	Provided Y (Yes), N (No), N/A
3.0	Flood Risk Assessment.	
5.4.1	A drainage layout.	
5.4.2	Confirmation of discharge rate.	
5.4.3	Calculations for any attenuation volume required.	
5.4.4	Soakaway information (i.e. ground investigation, porosity test).	
5.4.5	Pre-development and post-development flow path diagrams.	
5.4.6	Confirmation of the SuDS treatment train.	
5.4.7	Assessment of the maximum groundwater level at the location of any underground attenuation features is applicable.	
5.4.8	Written evidence of Scottish Water's approval of the surface water drainage connection into their network at the rate agreed with Scottish Water.	

5.4.9	Confirmation of who will adopt and maintain the surface water network, including any SuDS as per Appendix 5.	
5.4.10	A maintenance schedule for all proposed SuDS, to include a detailed list of activities and timescales.	
5.4.11	Confirmation of Construction Status SuDS compliance.	
5.4.12	Completed SuDS certification as per Appendix 1 and Appendix 2 or Appendix 3 and Appendix 4 (depending of tier of development) . (For a single dwelling, only Appendix 1 is required)	

Appendix 13 – Prospectively adoptable SuDS/drainage components by Fife Council

Technique	Description	Adoptable Y (Yes) / N (No)
SuDS components		
Bioretention area	Vegetated area for collecting and treating runoff before discharging downstream, or to the ground via infiltration.	Y
Detention basin	Dry depression designed to store water for a specific retention time.	Y
Filter drain	Linear drain/trench filled with a permeable material, often with a perforated pipe in the base of the trench.	Y
Filter strip	Vegetated strip of gently sloping ground draining water evenly from an impermeable area and filtering out particulates.	Y
Infiltration basin	Depression that stores and disposes of water via infiltration of surface water into the ground.	Y
Infiltration trench	As filter drain but allowing infiltration through trench base and sides.	Y
Permeable concrete block pavement	A surface which drains through voids between concrete blocks.	N
Pond	Depression used for storing and treating water, with a permanent pool, bankside emergent and aquatic vegetation.	Y
Porous asphalt	An asphalt material used to make pavement layers pervious, with open voids to allow water to pass through.	N
Sand filter	Treatment device using a sand bed as a filter medium providing treatment of runoff.	N
Swale	Shallow vegetated channel that conveys or retains flow. The vegetation filters particulates.	Y
Wetland	As a pond, but the runoff flows slowly and continuously through aquatic vegetation. Shallower than a pond.	Y
Pre-treatment		
Gullies	Collection points in the road pavement to allow surface water to enter the drainage system.	Y
Oil separator	Prefabricated proprietary system used to remove any spilled oils or hydrocarbons from surface runoff.	N

Technique	Description	Adoptable Y (Yes) / N (No)
Silt trap	Often referred to as a catchpit, it is a chamber constructed within a piped system located at regular intervals, at changes in direction and gradient and often prior to discharge of a piped system to a SuDS component. Provision is made for collection of the silt by a sump which provides a permanent wet well.	Y
Proprietary systems		
Filtration systems	These are designed to remove sediments, oil & grease, metals, organics and nutrients. There are various filter media which are used, and it is typically found in cartridge form.	N
Hydrodynamic systems	Hydrodynamic systems are designed to remove floated debris, sediments and other associated pollutants from surface water.	Y
Prefabricated bio retention systems	Prefabricated bio-retention systems are used to remove dissolved and ultra-fine pollutants from surface water runoff and can also provide small volumes of attenuation and flow reduction.	N
Vegetated swale	A vegetated swale is similar to a traditional swale, described above, however they have thick vegetation covering the side slopes and base.	Y
Storage/Attenuation		
Modular system storage	Modular systems are used for the underground storage, attenuation and infiltration of surface water runoff. These systems typically have a crate-like structure.	N
Tank storage	Tank storage is used for the underground storage, attenuation and infiltration of surface water runoff. There are many different types of tanks available, ranging from large pipes up to 4m diameter, to arched chambers and cube structures.	N

No part of an underground storage system shall be constructed below a prospectively adoptable road (this includes carriageway, footways, verges and service strips) nor be within the 45° zone of influence measured from the rear of the prospectively adoptable road/car park/footpath.

Fife Council will adopt SuDS features that deal with surface water from public roads only.

All the above is subject to discussion and approval from Fife Council on a site-by-site basis.