

Producing a Flood Emergency Plan for new development

***DISCLAIMER***

*Medway Council, as far as it can ascertain, acknowledges that this flood emergency plan guidance document is suitable for the purposes set out in in the National Planning Policy Framework and accompanying guidance.*

*Flood emergency plans are the sole responsibility of the applicant and Medway Council cannot accept any responsibility for any omission or error contained in any such plan, or for any loss, damage or inconvenience, which may result from such plan’s implementation.*

*Any subsequent approval does not impute any approval of those plans from the Environment Agency or any of the emergency services. Flood emergency plans must be reviewed on a regular basis – at least every three years or when information changes that requires it to be amended – to ensure that they are consistent with good practice and use the latest available information on flood risk.*

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# 1 Introduction

1.1 Medway Council produced this guidance to support applicants and developers who are required or encouraged to produce and submit a Flood Warning and Emergency Plan (FWEP) as part of a planning application.

1.2 The purpose of this guidance is to highlight matters for consideration when developing a plan, including flood warnings, safe access and egress, and evacuation options in the context of the most up to date guidance on flood risk and development set out in the National Planning Policy Framework (NPPF) and the accompanying National Planning Practice Guidance (NPPG).

# 2 Background

2.1 Paragraph 040[[1]](#footnote-1) of *Flood and Coastal Change* National Planning Policy Guidance (NPPG) states that a site-specific Flood Risk Assessment (FRA) may need to show that appropriate evacuation and flood response procedures are in place to manage residual risk. Residual risk refers to the risks remaining after applying the sequential approach to the location of development and taking mitigating actions.

2.3 Paragraph 056 specifically states that a FWEP is required for sites at risk of flooding used for holiday or short let caravans and camping or sites with transient occupants (e.g. hostels and hotels).

2.4 Whilst there are no policy requirements for other types of developments, FWEP’s are often requested by the EA and/or LPA for other developments as part of and in conjunction with FRA’s to demonstrate that any development is safe.

2.5 Paragraph 025, in reference to the Local Plan, states that flood warning and evacuation issues need to be considered in the design and layout of planned developments, via a level 2 Strategic Flood Risk Assessment (SFRA). However, it is noted that specific access and egress issues may not be defined until a detailed site-specific FRA is undertaken, which will need to take account of risks for the lifetime of the development.

2.6 Although not formally defined via the planning system, paragraph 026 of NPPG *Flood and Coastal Change* confirms that the lifetime of a development in the context of flood risk is 100 years minimum for a residential development. Further advice from the LPA should be sought to estimate the lifetime of any non-residential development based upon characteristics of the development.

2.6 The objectives of Flood Warning and Evacuation Plans are to:

* Raise awareness of the risk of flooding in the location specified.
* Detail the flood warnings and estimated lead time available.
* Detail how the Plan is triggered, by who and when.
* Define any areas of responsibility for those participating in the Plan.
* Describe what actions are required by the people in the development.
* Establish a safe route to a safe location.
* Outline the evacuation procedure and place of refuge to safely evacuate the occupants of a premises.
* Establish procedures for implementing the Plan.

2.7 This guidance outlines the structure and key sections that should be present. The majority of the advice and guidance provided in this document can be used for any type of development; the FWEP should be proportionate to the risk and appropriate to the scale, nature, location, and type of proposed development.

2.8 The document is aimed to be used by applicants/developers for both individual properties and larger premises as well as for residential and non-residential developments.

2.9 As referenced at 2.4, there is no policy requirement for developments other than sites at risk of flooding used for holiday or short let caravans and camping or sites with transient occupants (e.g. hostels and hotels) to submit a FWEP, however, are often requested by the EA and/or LPA for other developments as part of and in conjunction with FRA’s to demonstrate that any development is safe.

2.10 FWEP’s are often requested during the planning application process, or a condition of planning is recommended for submission of a FWEP prior to development, and in the context of the FRA.

2.11 There is no statutory requirement on the EA or the emergency services to approve evacuation plans. However, as the EA has the skills and knowledge on the technical information contained within a flood emergency plan, they will review the FRA which provides the foundations for a flood plan and may make comments on the accuracy of such technical information (i.e. flood hazard, onset of flooding, flood depth, flood warning availability and timing etc.).

2.12 The EA will not comment on the acceptability of the flood plan, i.e. whether the access and egress arrangements are “safe”. Therefore, Medway Council will need to make the final decision on whether the flood plan and the proposed development are acceptable.

2.13 Any Flood Warning and Evacuation Plan should be submitted to the Medway Council (LPA) and not to the Council’s Emergency Planning Team. The LPA may then consult the Council’s Emergency Planning and Lead Local Flood Authority Services to provide local knowledge and advice with regard to potential flood events and situations as well as on the acceptability of the flood plan and any of its proposed measures.

# 3 Flood Warning Evacuation Plan content

3.1 The following section presents a suggested structure and contents for a FWEP. Other formats are acceptable as long as the FWEP contains the required information included below.

***3.2 Introduction, scope, and objective***

* The FWEP should detail the reason the Plan is required and specify the exact location covered.
* Explanation of the reason for making a FWEP including aim, purpose, and objectives of the Plan and the importance of preparation in flood risk management.
* Some background information on the history of flooding in the area, if applicable, could be useful.

***3.3 Location and proposal***

* The nature and extent of the site that the plan is covering must be detailed in the context of Flood Zones (including surface water and groundwater risk areas).
* Provision of background information useful to site users and the emergency services responding to a flood event at the site, including the purpose of the site, the usual and maximum number of people in the site, and key locations in the site such as facilities, parking, offices, accommodation, etc.
* The plans should also provide information on infrastructure and utilities within the site, other hazards and normal access and egress routes and an assessment to ensure that emergency vehicles are able to safely access and egress the site.

***3.4 Flood Risk Summary***

* The site should have been subject to an FRA which assesses the impact and consequences of flooding and identifies the hazards that could be present during a flood and/or evacuation. The FWEP should summarise the assessment and relate to all forms of flooding identified.

***3.5 Flood Warnings***

* The EA operate a Flood Forecasting and Warning Service in areas at risk of flooding from rivers or the sea[[2]](#footnote-2). If flooding is forecast, warnings are issues using a set of four easily recognised codes. A description of the Flood Forecasting and Warning Service and codes should be included within the FWEP.
* Note that the Environment Agency’s (EA) flood warnings are only in relation to fluvial and tidal flooding, and do not cover other sources of flooding such as surface water or groundwater flooding which will also need to be considered.
* It is important to consider the estimated lead in time for a Flood Warning and how this may impact the timing of recommended actions. This will depend on the type and cause of flooding identified in the FRA. Typically, the lead in time for areas along the Medway Estuary will be up to three days.
* Parts of the site may be designed to flood, such areas will be highlighted in the FRA (for example, ground floor parking and amenity areas). These areas must contain signs to highlight the susceptibility to flooding and the estimated duration of flooding (if known).

***3.6 Action on Alarm Being Raised/Warnings Being Received***

* It must be ensured that there are plans in place for reacting to information from the EA. The EA provides useful guides on how to react to different flood warning levels. There should be a site-specific escalation plan, based around the EA’s flood warning codes.
* If the FWEP is for a non-residential development, procedures should be included which outline how to close down the premises so that people and assets can be safeguarded, the site can be made safe and secure, and the premises evacuated well within the time afforded by the warning.
* There should also be a description in the plan on what will be done to protect the development and its contents, such as how easily items (i.e. cars, furniture, other equipment etc.) can be relocated or flood barriers across doors deployed. At this stage there should also be a description on the preparation for evacuation procedures.

***3.7 Prevention, protection and preparation***

* The FWEP should identify actions that can be taken to prevent flooding, protect against flooding and prepare for flooding. The actions should be documented in an Action Plan and made available to building owners and occupants. Environment Agency advice includes specific actions for home and business owners including which should be referenced and signposted to. Including;

- A guide to preparing your business for flooding.[[3]](#footnote-3)

- What to do before, during or after a flood.[[4]](#footnote-4)

- Personal Flood Plan.[[5]](#footnote-5)

* Such actions may also include installing temporary flood barriers or flood protection that need to be informed in advance of any flooding to minimise impact. Such actions should outline who is responsible for undertaking these actions, including nominated deputies and any training requirements.

***3.8 Safe access and egress routes***

* Medway Council considers that Flood Warning and Evacuation Plans to be an acceptable way of managing flood risk where the flood hazard, as identified by a Flood Risk Assessment and accompanying evidence, has been given a ‘very low’ hazard rating.
* In some instances, flood emergency plans may also be acceptable where the rating is “danger for some”. However, it is unlikely to be an acceptable way of managing residual flood risk where the hazard to people classification is “danger for most”. Where the hazard rating is a “danger for all”, the Council considers that the danger to risk of life is too high to allow new developments and as such, flood emergency plans are not an acceptable way of managing flood risk in these high hazard areas.
* Where appropriate, the FRA will identify safe access and egress routes within and outside of the development which should include identification of;

- a safe, dry route for people and vehicles,

- if a dry route is not possible, a route for people where the flood hazard (in terms of the combination of the depth and velocity of flooding) is low and should not cause a risk to people,

- if a dry route is not possible, a route for vehicles where the flood hazard (in terms of depth and velocity of flooding) permits access for emergency vehicles.

* Evacuation procedures should be developed which identify when and how evacuation takes place. If necessary, signed routes may be required and consideration given to the road network around the site and the risk of flooding to the roads.
* The FEWP should also consider disabled or vulnerable people and any limitations/hazards that need to be considered.
* The above points should be fully addressed and fully supported by maps and plans that clearly identify locations and routes.

***3.9 On site temporary refuge***

* Depending on the safe access/egress procedures and whether occupants will be evacuated during a flood event, on-site and/or temporary refuge may be required. Designated on-site refuge will be required if people will remain on the site/premises when flooding occurs. If on-site refuge is considered appropriate, the place of refuge should be well above the predicted flood level, as a minimum above the 1 in 100 fluvial or 1 in 200 tidal flood level – whichever is greater – including an allowance for climate change, and where applicable, taking into account breach of flood defences. This is to ensure that the place of refuge is safe during a flood event.
* The quality of the refuge in terms of facilities, communication and warmth provided should reflect the timescales that people would be trapped. It will be necessary to provide the expected duration of flooding on site within the Plan if a temporary refuge option is considered. Additional information may also be required regarding the duration of flooding from other sources of flooding.

***3.10 Command & Control***

* Any staff on the site must be clear of their roles and responsibilities in response to flood warnings and flooding. There should be a single person in control of the site response to ensure all activities are coordinated. Any plans must be drawn up to work on a 24/7 basis. If immediate flooding is forecast and the opportunity to safely evacuate is gone, pre-emptive flood protection tasks must be implemented (if time allows) and the formal instruction given to move to the area of safe refuge.

***3.11 Site Re-Occupation***

* The EA have published advice [on what to do before, during and after a flood.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/403213/LIT_5216.pdf)
* An important task that the Council undertakes is to set up Rest Centres where appropriate. A Rest Centre is a temporary, short-term emergency accommodation (up to 48 hours) where evacuated people can rest and obtain refreshments and information about the flood.
* Returning to site should only be permitted when advised by emergency services or local authority officials that it is safe to do so.
* If the proposed development is of commercial/retail nature (office, shop, restaurant etc), the future occupiers should develop a business continuity plan (BCP) in the event of a flood, or in the event of any emergency or disruption to activities. A BCP anticipates disruptions to normal activities and identifies critical activities that need to be maintained to deliver services, run the business and survive the crisis.

***3.12 Briefing / Training / Exercising***

* All personnel who work or are resident on site should be made aware of this plan and briefed / trained accordingly. Exercising of the plan and personnel is essential. Health & Safety records should be kept listing which personnel have been trained and exercised. The plan will form part of the Health & Safety at Work Register maintained by the organisation.

***3.13 Document Control***

* The plan should be owned, maintained, and updated. All users should be reminded periodically to provide details of any changes that may materially affect the plan in any way.
* Details of changes should be recorded, and the documentation updated. This should be completed either through a re-issue of the plan or via an amendments record.
* The plan should be reviewed at least every three years, or more regularly if required, for example, as a result of lessons identified after an activation event or exercise, following major changes of personnel or policy, or following any change to the flood risk or warning process.
* Documentation control procedures should be in place to ensure that only the current version of the plan is in circulation.

# 4 Summary

4.1 This document has been produced to guide applicants, developers who are requested via a planning condition to submit a FWEP. There is no specific planning policy which requests the completion or submission of a FWEP other than for holiday or short let caravan and camping sites but there are times when other types of development proposals may be requested to produce a FWEP in order to ensure that a development will remain safe for its lifetime and to manage residual risks for the lifetime of the development.

4.2 The LPA may also find this document useful where they are requested to review a FWEP after receiving advice from the EA.

4.3 The guidance contains key elements for consideration but is not an exhaustive or extensive list. Any specific FWEP should be led primarily by the findings included within a site-specific Flood Risk Assessment with specific reference to the hazard rating established by the assessment where necessary.

1. <https://www.gov.uk/guidance/flood-risk-and-coastal-change#flood-warning-and-evacuation> [↑](#footnote-ref-1)
2. <https://flood-warning-information.service.gov.uk/warnings> [↑](#footnote-ref-2)
3. <https://www.gov.uk/government/publications/preparing-your-business-for-flooding> [↑](#footnote-ref-3)
4. <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/403213/LIT_5216.pdf> [↑](#footnote-ref-4)
5. <https://www.gov.uk/government/publications/personal-flood-plan> [↑](#footnote-ref-5)