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SCOTTISH PLANNING POLICY 7: PLANNING and FLOODING

I am pleased to enclose a copy of Scottish Planning Policy (SPP) 7: *Planning and Flooding* which replaces National Planning Policy Guideline (NPPG) 7. SPP 7 sets out the Scottish Executive's planning policy on new development and flooding.

We are grateful to the planning authorities, Homes for Scotland, the Royal Town Planning Institute, CoSLA, Scottish Water, Scottish Environment Protection Agency, the Association of British Insurers, Glasgow and Clyde Valley Structure Plan Team, the Scottish Construction Industry Group and the Society of Chief Officers of Transportation in Scotland for their assistance through the Advisory Group.

The SPP refers to the Planning Advice Note on Flooding which will also include advice on Building Standards issues. This will cover a lot of the issues on which consultees sought advice and elaboration. Work on this is well advanced and it is expected to be issued in the near future.

Further copies of the SPP and PAN are available from the Scottish Executive Development Department, Planning Division, Area 2-H, Victoria Quay, Edinburgh EH6 6QQ (0131 244 7066) and on the Scottish Executive web site at www.scotland.gov.uk/planning.

Yours faithfully

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7 PLANNING AND FLOODING



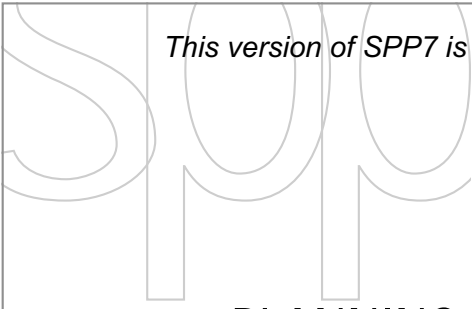


SCOTTISH EXECUTIVE
Development Department

Scottish Planning Policy

SPP 7

Planning and Flooding



PLANNING SERIES:

- Scottish Planning Policies (SPPs) provide statements of Scottish Executive policy on nationally important land use and other planning matters, supported where appropriate by a locational framework.
- Circulars, which also provide statements of Scottish Executive policy, contain guidance on policy implementation through legislative or procedural change.
- Planning Advice Notes (PANs) provide advice on good practice and other relevant information.

Statements of Scottish Executive policy contained in SPPs and Circulars may be material considerations to be taken into account in development plan preparation and development control.

Existing National Planning Policy Guidelines (NPPGs) have continued relevance to decision making, until such time as they are replaced by a SPP. The term SPP should be interpreted as including NPPGs.

Statements of Scottish Executive location-specific planning policy, for example the West Edinburgh Planning Framework, have the same status in decision making as SPPs.

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SUMMARY

Flooding damages property and lives. Many parts of Scotland have a legacy of development at risk of flooding from watercourses, the sea, groundwater and inadequate drainage. Climate change is predicted to worsen the situation. The Scottish Executive expects developers and planning authorities to err on the side of caution in decision making whenever flooding is an issue. Flood risk will be a material consideration in a range of cases.

New development should not take place if it would be at significant risk of flooding from any source or would materially increase the probability of flooding elsewhere. The storage capacity of functional floodplains should be safeguarded, and works to elevate the level of a site by landraising should not lead to a loss of flood water storage capacity.

Where built up areas already benefit from flood defences, redevelopment of brownfield sites should be acceptable but greenfield proposals will extend the area of built development at risk and should preferably be considered in the light of alternatives through the development plan process. Water resistant materials and forms of construction may be required. Generally, drainage will be a material consideration and the means of draining a development should be assessed. Sustainable drainage will be required whenever practicable and watercourses should not be culverted. Flood prevention and alleviation measures should respect the wider environmental concerns and appropriate engineering solutions recognise the context provided by the development plan. Whilst it is preferable for open spaces to flood rather than buildings it may not always be acceptable.

For coastal and watercourse flooding a Risk Framework characterises areas for planning purposes by their annual probability of flooding and gives the planning response:

- Little or no risk area (less than 0.1% (1:1000)) – no general constraints.
- Low to medium risk area (0.1% to 0.5% (1:1000 – 1:200)) – suitable for most development but not essential civil infrastructure.
- Medium to high risk area (0.5% (1:200)) or greater – in built up areas with flood prevention measures most brownfield development should be acceptable except for essential civil infrastructure; undeveloped and sparsely developed areas are generally not suited for most development.

(These probabilities include an allowance for climate change. An allowance for 'freeboard' will be additional).

The Framework will be relevant when planning authorities prepare their development plans and will be a material consideration in determining planning applications and appeals.

This summary is intended as a guide to the statement of policy set out below.

INTRODUCTION

1. Flooding is a natural phenomenon which cannot entirely be prevented and has an important role in the natural environment. Some parts of Scotland are already susceptible to intermittent flooding and climate change is expected to worsen the situation. Inadequate drainage infrastructure can also increase the risk of flooding. In the past some development has taken place without sufficient regard to flooding and its effects on individuals and local communities. The effects can be devastating in terms of personal suffering, inconvenience and financial loss. The central purpose of this Scottish Planning Policy (SPP) therefore is to prevent further development which would have a significant probability of being affected by flooding or which would increase the probability of flooding elsewhere.
2. Planning authorities must take the probability of flooding from all sources and the risks involved into account during the preparation of development plans and in determining planning applications. Prospective developers also have key responsibilities, including: taking flood risk into account before committing themselves to a site or project; undertaking flood risk assessments and drainage assessments where required; and implementing agreed measures to deal with flood risk.

For advice in support of this SPP see the associated PAN

POLICY CONTEXT

SUSTAINABLE DEVELOPMENT AND SOCIAL JUSTICE

3. In achieving social, economic and environmental goals in support of sustainable development, and delivering environmental justice, a long-term view of flood risk has to be taken. Communities should be free from the threat of flooding. Those who are already socially and economically disadvantaged may be particularly vulnerable to the hardship caused by flood damage to their homes and possessions. The identification of land and property for development and redevelopment, including economic development, should therefore have regard to the potential harmful effects of flooding. New development should aim to be in harmony with the water environment and not attempt to work against it. It is unlikely that the Scottish Executive would support a Flood Prevention Scheme which was required just to defend proposed new development (see also paragraph 40).
4. The Scottish Executive's National Flooding Framework addresses the problems of flooding through 4 areas of action: Awareness, Assistance, Avoidance and Alleviation. This SPP is a key part of the avoidance theme and has an important role to play in alleviation. The role of planning therefore complements other policies and legislation, for example, the requirement to promote sustainable flood management as included in the Water Environment and Water Services (Scotland) Act 2003 (The WEWS Act).

See SPP 1 for planning policy on sustainable development and social justice

The SPP will be kept under review as the WEWS Act is implemented

5. Climate change is presenting new challenges. Flood risks due to river and coastal flooding, and to intense rainfall overloading natural and artificial drainage systems, are predicted to increase during the 21st century. Climate change must be taken into account by developers and planning authorities.

BACKGROUND TO FLOODING

6. Scotland already has many properties at risk from flooding. Numerous settlements are located on flood plains, alongside rivers, lochs or on the coast, and have experienced intermittent flooding. In some places the problem has been made worse by inadequate culverts and flood defence measures, poor watercourse maintenance, inappropriate development, rain water run-off from development and rising ground water, including changes in the water table due to the cessation of mine pumping. Local flooding can also occur when percolation into the ground and drainage systems e.g. sewers and watercourses, have insufficient capacity to drain the land. These sources of flooding are not restricted to the flood plains.
7. Coastal flooding is not widespread in Scotland, although it is expected to increase as a result of climate change. An estimated 90,000 mainland properties below the 5m contour are potentially at risk.¹ Storms and tidal surges are predicted to become more frequent and together with a rise in sea level, are likely to increase the probability of flooding along the coast. Developers and planning authorities should therefore recognise that the potential of a site to flood is affected by its location and its role in the wider systems of land drainage.

RESPONSIBILITIES

8. The primary responsibility for safeguarding and insuring land or property against natural hazards such as flooding lies with the owner. Owners are also responsible for the private sewers and drains within the boundary of their property. For agricultural and forestry land, flood defence is the responsibility of the owner.
9. Public responsibilities for flooding issues are widely spread. There are implications for most if not all Council departments. As well as land use planning these include building standards, emergency planning and roads. Councils also have a duty to assess and maintain watercourses which are in a condition likely to cause flooding and powers to promote flood prevention schemes for non-agricultural land.
10. The Scottish Environment Protection Agency provides advice on request to planning authorities on the probability of flooding and flood risk based on the information it holds, including any provided by the developer. It also operates flood warning schemes and the Floodline advice service. Scottish Water has responsibility for the public drainage system, including rain or storm water drains, though road drainage for adopted roads is the responsibility of the Roads Authority. British Waterways is responsible for the canal system.

11. It is Scottish Executive policy that every Council should convene a Flood Liaison and Advice Group (FLAG), or combine with other Councils to do so, possibly on a catchment basis. The purpose of the groups is to provide a forum for the key public and private interests to share knowledge and offer advice on flooding issues. Further information about responsibilities and about the work of FLAGs is in the Planning Advice Note (see also Glossary).

BUILDING STANDARDS

12. The Building Standards system complements the planning system. In this context, its role is to protect the ground immediately below and adjoining a building from harmful effects caused by flood water, ground water and existing drains, but the current Technical Standards do not require precautions to be taken to protect the building fabric from flood damage. Non-mandatory guidance is available on the likely effects of flooding on materials, forms of construction and possible measures to reduce the risk of flood damage.^{2&3}
13. The Building (Scotland) Act 2003 provides the basis for a modernised Scottish Building Standards system. It will allow the system to be more responsive to the needs of industry and the public, allow more flexibility for designers to promote new and innovative designs and promote sustainable development. It is expected that a new 'Mandatory Standard' will say that buildings must be designed and constructed so that there will not be a threat to the building or the health of the occupants as a result of flooding and the accumulation of ground water. For advice on how to comply with the Mandatory Standard through using water resistant materials and forms of construction see the PAN.

INSURANCE ISSUES AND NEW DEVELOPMENT

14. Insurers have, for some time, been concerned about the potential frequency and cost of environmental risks, including flooding. Recent floods, particularly since 2000, have caused insurers to review the provision of flood cover to UK property owners. Insurers have stated that it is their intention to continue to provide flood insurance to as many property owners and occupiers as possible, but new development in areas at risk of flooding which lack adequate protection is likely to face increasing difficulties with the cost and/or availability of insurance.⁴ In their view this could create difficulties in mortgaging new development which could make it unviable. In turn this could undermine the basis of a development strategy including regeneration. Developers should therefore consider the availability of insurance for subsequent purchasers or tenants at an early stage of their evaluation of a site. For its own part, the insurance industry may wish to make appropriate representations about proposals for the location of new development during the preparation of development plans, including the level of acceptable risk for specific developments. If a development were to affect flood risk elsewhere in the catchment, insurers might take this into account when renewing cover.

PLANNING POLICY

THE GENERAL PRINCIPLES

15. The policy in this SPP is based on the following principles:

- Developers and planning authorities must give consideration to the possibility of flooding from all sources.
- New development should be free from significant flood risk from any source (see paragraph 40).
- In areas characterised as 'medium to high' flood risk for watercourse and coastal flooding (see paragraph 34 and the Risk Framework) new development should be focussed on built up areas and all development must be safeguarded from the risk of flooding.
- New development should not:
 - materially increase the probability of flooding elsewhere;
 - add to the area of land which requires protection by flood prevention measures;
 - affect the ability of the functional flood plain (see Glossary) to attenuate the effects of flooding by storing flood water;
 - interfere detrimentally with the flow of water in the flood plain;
 - compromise major options for future shoreline or river management.
- Flooding from sources other than watercourses and on the coast must be addressed where new development is proposed, if necessary through a drainage assessment (see Glossary). Any drainage measures proposed should have a neutral or better effect on the risk of flooding both on and off the site.
- Alterations and small scale extensions to buildings are generally outwith the scope of this SPP provided they would not have a significant effect on the storage capacity of the functional flood plain or affect local flooding problems.

The policy applying these principles is set out in the relevant paragraphs of this SPP.

DEVELOPMENT ON FUNCTIONAL FLOOD PLAINS

16. Functional flood plains store and convey flood water during times of flood. These functions are important in the wider flood management system. New development on the functional flood plain will not only be at risk itself, but will add to the risk elsewhere. Cumulative effects will arise from proposals which individually may seem of little consequence. For planning purposes the functional flood plain will generally have a greater than 0.5% (1:200) probability of flooding in any year.

17. Built development should not therefore take place on functional flood plains. Piecemeal reduction of the flood plain must be avoided because of the cumulative effects on storage capacity. There may be exceptions for infrastructure if a specific location is essential for operational reasons or it is incapable of being located elsewhere. In such cases, it should be designed to remain operational in times of flood, not impede water flow and the effect on the flood water storage capacity should be kept to a minimum.
18. On some parts of coastal and estuarial flood plains, a managed realignment of the coast may help to create new areas of functional flood plain and extend inter-tidal habitats inland. New development should not be permitted in such areas unless the potential flooding issues are addressed, consistent with this SPP.

LANDRAISING

19. Landraising which permanently elevates a site above the functional flood plain of a watercourse, or elsewhere if flooding is an issue, may have a role. Proposals for landraising should:
 - be linked to the provision and maintenance of compensatory flood water storage to replace the lost capacity of the functional flood plain;
 - have a neutral or better effect on the probability of flooding elsewhere, including existing properties;
 - not create a need for flood prevention measures elsewhere;
 - not create 'islands' of new development but should adjoin developed areas outwith the functional flood plain; and
 - be set back from the bank of the watercourse.

In the context of this SPP the land created by landraising will no longer be part of the functional flood plain and landraising is not to be construed as a flood prevention measure.

20. The engineering and environmental implications of landraising must be fully explored and there may be opportunities for habitat creation. An Environmental Impact Assessment may also be required. Major proposals should come forward through the development plan process (see paragraphs 38 – 43). From 2005, engineering operations for landraising are likely to be a controlled activity under the WEWS Act to control the risk of serious harm to the water environment.

DRAINAGE AND CULVERTS

21. Intense rainfall can overload drainage systems, including sewers and culverts, leading to local flooding. If natural drainage patterns are disturbed by development, flooding may also be caused. Drainage is a material planning consideration. Drainage measures proposed as part of a planning application should have a neutral or better effect on the risk of flooding both on and off the site. Planning authorities have a duty to consult Scottish Water and SEPA on appropriate planning applications. Applicants may however show as part of the information in support of a planning application that the drainage is acceptable to Scottish Water and SEPA (see paragraph 45).
22. The primary role of sustainable drainage systems (SuDS) is to manage the flow of rain water run-off from a site by treating it on site and so reducing the loading on conventional piped drainage systems. They are not a means of preventing on-site flooding from watercourses, although some SuDS such as detention ponds can slow the rate of run-off by temporarily storing the water. This can help to mitigate peak flows to watercourses and can therefore make an important contribution to limiting off-site flood risk and managing the water environment generally.
23. Surface water run-off from development should be fully or partially drained by a sustainable drainage system unless this is impracticable. Where flooding is an issue, SuDS should be designed to deal with a storm inflow very soon after a flood subsides. If this is not possible SuDS are unlikely to be acceptable and if conventional drainage is already constrained this will be a material consideration in the determination of the planning application.
24. Culverts are a frequent cause of local flooding, particularly if the design or maintenance is inadequate. Watercourses should not be culverted as part of a new development unless there is no practical alternative. If they are unavoidable they must be designed to maintain or improve existing flow conditions and aquatic life. Issues of ownership and long-term maintenance must be addressed.
25. Existing culverts should be opened whenever appropriate. If a new development involves drainage by an existing culvert, the applicant should demonstrate that the overall drainage provision will not add to flood risk on-site and off-site. A culvert may be acceptable as part of a flood prevention scheme or where it is used to carry a watercourse under a road, railway, etc. All culverts should be designed with full regard to natural habitat and environmental concerns.

Scottish Water is preparing Drainage Area Plans

See PAN 61: Planning and SuDS, and The Building Standards

Under the WEWS Act, public (not private) SuDS constructed to an appropriate standard are to be vested in Scottish Water who have responsibility for their future maintenance

See NPPG 14: Natural Heritage paragraph 56

DEVELOPMENT OF LAND PROTECTED BY EXISTING FLOOD PREVENTION MEASURES

26. Flood prevention measures reduce the probability of flooding but they cannot eliminate it entirely. They are designed to deal primarily with flooding from watercourses and on the coast. They protect against a specified height of flood water ('the design flood') and a flood greater than this may overwhelm the measures and flood the defended area. Land and buildings would also be extremely vulnerable should a flood wall, embankment or sea wall be breached. Flood defences have a finite life.

27. In areas protected by existing flood prevention measures, brownfield development should generally be acceptable provided the measures are properly maintained and achieve or exceed the minimum design standard for grant aided Flood Prevention Schemes (FPS) having regard to the Risk Framework below. Development on greenfield land or public open space which is protected by existing measures will add to the developed area at risk and will therefore be generally unacceptable. Preferably such proposals should be considered in the light of alternative sites and should therefore come forward through the development plan process.

FLOOD ALLEVIATION AND PREVENTION MEASURES FOR NEW DEVELOPMENT

28. A development which requires additional flood alleviation or prevention measures to address flood risk from any source, is likely to be acceptable only outside or adjoining the boundary of 'medium to high' risk areas. Alleviation measures may include land raising and underbuilding. Elevating buildings on structures such as stilts is unlikely to be acceptable for watercourse or coastal flood risk. Flood prevention measures include walls, embankments, new channels and flood storage areas. New development should not lead to demands for flood prevention schemes. Exceptionally there may be circumstances where a pro-active approach to development opportunities may facilitate the provision of flood prevention measures.
29. The Flood Prevention (Scotland) Act 1961, as amended in 1997, puts limited duties of maintenance of watercourses on to local authorities in certain circumstances. These duties are likely to take precedence over the provisions of a planning permission or agreement and require Councils to assume the ultimate responsibility for maintenance measures approved as part of a planning application.

See Circular 12/
1996: Planning
Agreements

ENVIRONMENT AND NATURAL HERITAGE

30. Flood prevention and alleviation measures should not lead to a deterioration in the ecological status of the watercourse or body and may provide opportunities for habitat enhancement or creation. The environmental policies of the development plan will provide the context for considering appropriate measures. These may include channel improvements, restoration of former watercourses, managed realignment, culvert opening, provision of additional flood water storage in wetlands, pasture and attenuation reservoirs, flood walls and embankments.

See also
paragraph 20 and
NPPG 14

PROPOSALS FOR NEW OPEN SPACES, PARKS AND PLAYING FIELDS

31. While it is generally preferable for open spaces rather than buildings to flood, they may be damaged and polluted by flood water and the debris it deposits. They may remain affected after the water has subsided. It should not therefore be assumed that flooding of open spaces will be acceptable in every case. The potential damage and the temporary loss of use or amenity should be considered in development plan allocations and will be a material consideration in decisions on planning applications. The activities proposed for the open space will be a factor in whether flooding will be acceptable, with playing fields and synthetic surfaces being particularly susceptible to damage.

See PAN 65:
Planning and
Open Space,
Box 3 – Types of
Open Space

WATER RESISTANT MATERIALS AND CONSTRUCTION

32. Proposals in 'medium to high' flood risk areas, and where flooding from other sources is an issue, should use water resistant materials and forms of construction as appropriate. In consultation with building standards officers, planning authorities may decide that water resistant materials and forms of construction are material planning considerations. If this is the case, and provided it would be consistent with Circular 4/1998, conditions may be attached to a grant of planning permission. The use of water resistant materials and forms of construction will not however be sufficient to make a development acceptable when the probability of flooding indicates that it should not be approved in principle. If planning measures to address flood risk appear to be incompatible with Building Standards, developers should seek an appropriate solution through discussion with planning and building standards officers. The planning system should not be used to secure objectives that are more properly achieved under other legislation, including the Building (Scotland) Act 2003.

See SPP1: The Planning System Paragraph 57, Circular 4/1998 The Use of Conditions in Planning Permissions, and the Building Regulations

WATERCOURSE AND COASTAL FLOODING:

THE PLANNING APPROACH TO ASSESSING RISK

33. The probability of any site being flooded lies between virtually zero (0.0%) and near certainty (100%). Even in areas generally free from flooding, local conditions and exceptional rainfall can lead to flooding. It is therefore not possible to set planning policy and determine applications solely according to the calculated probability of river or coastal flooding. Nevertheless, to provide a basis for decision making, a characterisation of flood risk into 'little or none', 'low to medium' and 'medium to high' is set out in the Risk Framework on page 10 even though this necessarily simplifies the situation. For each level of risk an appropriate planning response is outlined.
34. The Executive considers that for planning purposes, taking into account the expected life of most development and subsequent redevelopment in the longer term, it is reasonable on present evidence to regard areas with a current annual probability of watercourse or coastal flooding above 0.5% (1:200) to be characterised as having a 'medium to high' risk of flooding. The Executive also considers that the outer limit to the area of concern for extreme flood events may be defined by a current annual probability of flooding of 0.1% (1:1000). These probabilities of flooding, the areas they delineate and the appropriate planning responses are summarised in the Risk Framework below. Planning authorities should have regard to them in drawing up policies in development plans and in development control decisions, alongside any more specific information obtained from other sources, including the Scottish Environment Protection Agency (SEPA).
35. SEPA have issued planning authorities with indicative flood risk maps. The Scottish Executive Environment and Rural Affairs Department has commissioned SEPA to prepare a 2nd generation flood map which will provide a better basis for identifying the risk areas. They will be produced using a generalised

procedure for estimating flood frequency and a national digital elevation model (DEM). The map will indicate the extent of the flood plain as defined by the DEM. It will not recognise areas where the risk is reduced by flood prevention or alleviation measures. The maps will be reviewed regularly to take into account additional hydrological data and changes in the DEM, so accounting for climate change.

36. In these circumstances it is not national policy to add an additional allowance for climate change above the 0.5% probability but planning authorities may do so if it can be justified, taking account of the most recent UKCIP scenarios as applied to the area concerned. A freeboard allowance may be required as a response to local circumstances.
37. The Risk Framework is based on the annual probability of flooding. In applying the Risk Framework developers and planning authorities should also take into account as appropriate:
 - the characteristics of the site;
 - the use and design of the proposed development;
 - the size of the area likely to flood;
 - depth of water, likely flow rate and path, rate of rise and duration;
 - existing flood prevention measures - extent, standard and maintenance regime;
 - an allowance for freeboard;
 - cumulative effects of development, especially the loss of flood storage capacity;
 - cross boundary effects and the need for consultation with adjacent authorities;
 - effects of a flood on access, including by emergency services;
 - effects of a flood on proposed open spaces including gardens; and
 - the extent to which the development, its materials and construction is designed to be water resistant.

The calculated probability of a flood occurring should be regarded as a best estimate and not a precise forecast. Developers and planning authorities should therefore err on the side of caution in taking decisions when flood risk is an issue.

THE RISK FRAMEWORK – The Planning Response to Flood Risk (Coastal, Tidal and Watercourse)

This framework has to be read in the context of the whole SPP.

1. Little or no risk area

Annual probability of watercourse, tidal or coastal flooding: less than 0.1% (1:1000), i.e. less frequently than the so-called 1:1000 year flood

Appropriate Planning Response – No constraints due to watercourse, tidal or coastal flooding.

2. Low to medium risk area

Annual probability of watercourse, tidal or coastal flooding: in the range 0.1% – 0.5% (1:1000 – 1:200)

Appropriate Planning Response

It will not usually be necessary to consider flood risk unless local conditions indicate otherwise. Suitable for most development. A flood risk assessment may be required at the upper end of the probability range (i.e. close to 0.5%) or where the nature of the development or local circumstances indicate heightened risk. Water resistant materials and construction may be required depending on the flood risk assessment. Subject to operational requirements, including response times, these areas are generally not suitable for essential civil infrastructure, such as hospitals, fire stations, emergency depots etc. Where such infrastructure has to be located in these areas or is being substantially extended, they must be capable of remaining operational and accessible during extreme flooding events.

3. Medium to high risk area (see the 2 sub areas below)

Annual probability of watercourse, tidal or coastal flooding: greater than 0.5% (1:200)

Generally not suitable for essential civil infrastructure, such as hospitals, fire stations, emergency depots etc. schools, ground based electrical and telecommunications equipment. The policy for development on functional flood plains applies. Land raising may be acceptable.

3(a) Within areas already built-up – Appropriate Planning Response

These areas may be suitable for residential, institutional, commercial and industrial development provided flood prevention measures to the appropriate standard already exist, are under construction or are planned as part of a long term development strategy in a structure plan context. In allocating sites preference should be given to those areas already defended to that standard. Water resistant materials and construction as appropriate.

3(b) Undeveloped and sparsely developed areas – Appropriate Planning Response

These areas are generally not suitable for additional development, including residential, institutional, commercial and industrial development. Exceptions may arise if a location is essential for operational reasons, e.g. for navigation and water-based recreation uses, agriculture, transport or some utilities infrastructure, and an alternative lower risk location is not achievable. Such infrastructure should be designed and constructed to remain operational during floods. These areas may also be suitable for some recreation, sport, amenity and nature conservation uses (provided adequate evacuation procedures are in place). Job-related accommodation (e.g. caretakers and operational staff) may be acceptable. New caravan and camping sites should generally not be located in these areas. Exceptionally, if built development is permitted, flood prevention and alleviation measures are likely to be required and the loss of storage capacity minimised. Water resistant materials and construction as appropriate. Land should not be developed if it will be needed or have significant potential for coastal managed realignment or washland creation as part of an overall flood defence.

Interpretation of the Risk Framework

- (a) The annual probabilities relate to the land at the time an application is submitted or a land allocation is made.
- (b) In the longer term the calculated probabilities of flooding may be affected by climate change, improved data/methods and land uses elsewhere in the catchment.
- (c) As paragraph 33 explains this framework necessarily simplifies the situation.

IMPLEMENTATION

DEVELOPMENT PLANS GENERALLY

38. The potential of land to flood should be considered during the preparation and review of every development plan in accordance with this SPP. 'Medium to high' risk areas for watercourse and coastal flooding, and areas where flooding from other causes is an issue must be identified early in the plan preparation process. Taking that into account, planning authorities should still allocate sufficient land for development, and in particular meet the housing land requirement for each housing market area in full (see SPP 3). Proposals for the development of additional areas which would require new flood prevention measures must only come forward through the development plan process and with full consideration of all the implications. FLAGs should be involved at appropriate stages during plan preparation and review. The policy in this SPP will also be relevant in due course to the new development plans proposed under the Review of Strategic Planning.

STRUCTURE PLANNING

39. The structure plan settlement strategy must take account of the potential risks from flooding. For coastal and watercourse flooding the proposals and policies should be based on the Risk Framework and SEPA's flood maps. Areas should also be identified where local plans should give detailed attention to flood risk from other sources. Strategic proposals for landraising, in accordance with the policy at paragraphs 19 - 20 above, should be identified.
40. Where exceptionally the strategy in a submitted plan can only be developed if flood prevention measures are implemented, the Scottish Ministers will expect a very thorough justification, including an examination of the alternatives. Ministers will be mindful that such measures cannot eliminate the risk entirely.
41. Structure plans also have contributions to make towards achieving the wider objectives of flood management and the water environment. These can include: safeguarding from development the major areas and storage capacity of the functional flood plain; considering whether the option of managed realignment of the coast and any implications for development should be evaluated further; and playing their part in relation to River Basin Management Planning under the Water Environment and Water Services (Scotland) Act 2003.

LOCAL PLANNING

42. The potential for sites to flood must be considered during the preparation and review of every local plan. Few if any local plan areas will be completely free from the threat of flooding. Flood plains, other land alongside watercourses, land with drainage constraints or otherwise poorly drained, and low lying coastal land should be assumed to be at risk. The consideration should take into account any areas identified in the Structure Plan, SEPA's indicative flood risk maps, records of previous floods, other sources and advice from consultees. Flood risk assessments undertaken by developers or agents may also be available, though planning authorities may wish to validate them. FLAGs should be used to help identify and source the available information. These sources of information should usually be sufficient for local planning but a specific piece of work may occasionally be needed.

43. Each Local Plan should:

- for watercourse and coastal flooding set out policies and select development sites on the basis of the Risk Framework providing full justification if different probabilities are chosen;
- consult adjacent authorities where different probabilities raise cross boundary issues;
- indicate the circumstances where a freeboard allowance should apply;
- identify sites or areas constrained by flood risk from other sources;
- safeguard the flood storage capacity of functional flood plains;
- set out policy for SuDS;
- indicate the circumstances when a drainage assessment will be required on grounds of flood risk;
- if appropriate describe where the promotion of managed coastal realignment or restoration of functionality to the flood plain could contribute to more sustainable flood management and natural heritage objectives; and
- indicate the circumstances when water resistant materials and forms of construction will be appropriate.

DEVELOPMENT CONTROL

44. Flood risk is a material planning consideration for a wide range of sites including those with a history of flooding, in a flood plain, on low lying coastal land, adjacent to a watercourse, drained by a culvert, with drainage constraints or otherwise poorly drained. Very careful consideration must be given to those development proposals for which a flood would have especially serious adverse consequences. Examples include: care homes, sheltered housing and accommodation for other vulnerable groups including people with restricted mobility, nurseries, schools, caravan and camping parks, chalet-type holiday accommodation and those where hazardous materials will be used or stored.
45. Pre-application discussions will help identify whether flooding is an issue. If it is, developers should commission a flood risk assessment and/or a drainage assessment (see paragraph 50). This will clarify the situation and may prevent abortive expenditure. If the assessment shows that development is compatible with flooding policy it should also advise on prevention and alleviation measures if they are required. Planning authorities have powers under the Town and Country Planning (General Development Procedure) (Scotland) Order 1992 (GDPO) to require additional information and evidence, including flood risk assessments, for outline as well as full applications.
46. Planning decisions must be made in accordance with the development plan unless material considerations indicate otherwise. This SPP, including the Risk Framework, and the advice from SEPA on flood risk are important material

considerations. Flood protection equipment such as door boards, air brick covers and building 'skirts' are likely to delay water ingress for only a short period and so are unlikely to be material considerations or make a proposal acceptable. When alleviation measures such as land raising or underbuilding are specified the planning authority must be satisfied that they have been implemented before the development is occupied and this can be achieved through the use of planning conditions. Failure to implement them will be a basis for enforcement action and it is unlikely that they could be added to a completed development. Similarly, where flood prevention measures are under construction a suspensive condition might be required.

47. Planning authorities are required under the GDPO 1992 (as amended) to consult SEPA before granting planning permission where it appears to them that the development is likely to result in a material increase in the number of buildings at risk of being damaged by flooding. Their advice may result in notification to Scottish Ministers (see paragraph 51). These existing arrangements are described more fully in the associated PAN and the SEPA-Planning Authority Protocol:- Advice and Consultation. An opportunity will be sought to amend the GDPO to clarify that landraising proposals which affect flood risk will be subject to consultation with SEPA. In the meantime, planning authorities should consult on a voluntary basis. Flood Liaison and Advice Groups may also provide a forum to discuss major proposals, particularly in the early stages.
48. Flooding is one of several material considerations (subsidence and contamination are others) where the applicant and occupier also have responsibilities for safeguarding their property. The planning authority's responsibility is to have regard to the risk of flooding in determining the planning application. This does not affect the liability position of developers or owners, though planning authorities must act reasonably in reaching decisions on planning applications. In particular, planning authorities should avoid any indication that a grant of planning permission implies the absence of flood risk. Consistent standards must be applied irrespective of whether or not the planning authority has an interest in the land or the development.
49. Planning permission for flood prevention schemes under the 1961 Act is sought through the Notice of Intention to Develop (NID) procedure, though a normal planning application is required if part of the scheme lies in another authority's area. The scheme should be designed in the context provided by the development plan and have regard to other material considerations. NIDs and applications have to be determined in accordance with the plan unless material considerations indicate otherwise.
50. For large scale proposals, those in areas where drainage is already constrained or otherwise problematic, or if there would be off-site effects, a comprehensive drainage assessment may be required (see Glossary). This should also address groundwater issues and discharges to watercourses. Ideally it should accompany the planning application though its absence should not be a reason to refuse to register an application. For further advice see the PAN.

The Town and Country Planning (Development by Planning Authorities) (Scotland) Regulations 1981

See Circular
4/1997
Notification of
Planning
Applications

NOTIFICATION ARRANGEMENTS

51. Planning authorities must notify the Scottish Ministers if they intend to grant permission for development which has been the subject of consultation with SEPA under the GDPO (Article 15(1)(h)(i)) where SEPA has advised against the granting of planning permission or has recommended conditions relating to flood risk which the planning authority do not propose to attach to the planning permission.

CONCLUSION

52. This SPP is aimed at helping all the parties to consider flooding issues properly, especially in the light of climate change predictions, and so prevent additional land and development being put at risk from flooding.
53. The Scottish Executive expects developers and planning authorities to deal very seriously with flooding, to take an informed approach to decision making and err on the side of caution where flood risk is an issue. When owners accept their primary responsibility for safeguarding and insuring their land and property against flooding they should be able to do so in the expectation that the planning authority and the developer have properly had regard to the probability of flooding and the associated risks.

NOTES

54. Enquiries about the content of this SPP should be addressed to Nick Evans, SEDD Planning, Area 2-H, Victoria Quay, Edinburgh, EH6 6QQ (0131 244 7552) or by e-mail to: nick.evans@scotland.gsi.gov.uk Further copies can be obtained by telephoning 0131 244 7543. This SPP, other SPPs, Planning Advice Notes and a list of Circulars can be viewed on the Scottish Executive web site: <http://www.scotland.gov.uk/planning>

GLOSSARY

Brownfield land – land which has previously been developed. The term may encompass vacant or derelict land; infill sites; land occupied by redundant or unused buildings; and developed land within the settlement boundary where further intensification of use is considered acceptable. (SPP3)

Culvert – a structure with integral sides, soffit and invert, including a pipe that contains a watercourse as it passes through or beneath a road, railway, building, embankment etc, or below ground.

Detention pond – a basin constructed to store water temporarily to attenuate flows.

Drainage assessment – a statement of the drainage issues relevant to a proposal and the suitable means of providing drainage. The length and detail should be proportionate to the issues. As appropriate it may include existing drainage systems and problems, infiltration, groundwater, surface water flow, foul and storm water disposal, SuDS and drainage related flooding issues (may also be called a Drainage Impact Assessment). See also PAN 61 paragraphs 23 – 24.

Flood Liaison and Advice Group (FLAG) – a non statutory advisory group of public and private sector representatives, convened by Councils to share concerns and knowledge and to provide advice on a wide range of planning and other flooding issues in an informal setting. FLAGs were formerly called Flood Appraisal Groups under the 1995 NPPG. The new name better describes their roles.

Flood plain – the generally flat areas adjacent to a watercourse or the sea where water flows in time of flood or would flow but for the presence of flood prevention measures (also called the geographical flood plain). The limits of a flood plain are defined by the peak water level of an appropriate return period event. See also Functional Flood Plain.

Flood prevention measures – works including walls, new channels, embankments and flood water storage areas. Usually components of a flood prevention scheme (see below).

Flood prevention scheme – a scheme of flood management measures under the Flood Prevention (Scotland) Act 1961.

Flood risk assessment – an assessment carried out to predict and assess the probability of flooding for a particular site or area and recommend mitigation measures including maintenance.

Flood warning system – SEPA services giving general alerts (Flood Watch) for the whole of Scotland and Flood Warnings for specific areas only.

Freeboard allowance – a height added to the predicted level of a flood to take account of the height of any waves or turbulence and the uncertainty in estimating the probability of flooding.

Functional flood plain – the areas of land where water flows in times of flood which should be safeguarded from further development because of their function as flood water storage areas.

Greenfield land – land which has never previously been developed, or fully restored formerly derelict land which has been brought back into active or beneficial use for agriculture, forestry, environmental purposes or outdoor recreation. (SPP 3)

GDPO – The Town and Country Planning (General Development Procedure) (Scotland) Order 1992 (as amended). Statutory Instrument 1992 No. 224 (S.18). London HMSO.

Public drainage system – the drainage systems which are the statutory responsibility of the roads and water authorities.

Sustainable Drainage Systems – also called Sustainable Urban Drainage Systems, SuDS describes a range of techniques for managing the flow of water run-off from a site by treating it on site and so reducing the loading on conventional piped drainage systems.

Washland - an alternative term for the functional flood plain which carries the connotation that it floods very frequently.

Watercourse – all means of conveying water except a water main or sewer (see Flood Prevention (Scotland) Act 1961).

Water table – the level of ground water below which the ground is saturated.

WEWS Act – Water Environment and Water Services (Scotland) Act 2003.

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This version of SPP7 is hosted by Ambiental at <http://www.flood-risk-assessment.com>

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