Guidance Note

For Aberdeenshire & Aberdeen City

Works to Watercourses and their Banks

Flooding Issues

1. Introduction

Our rivers and burns contribute much to the character and industry of both Aberdeenshire and Aberdeen City. They provide us with water to drink, an essential resource in terms of agriculture, industry, commerce (angling and the tourist trade), natural habitats, biodiversity and an ever-present refuge from the stresses and strains of contemporary life. This being the case, it is of the first importance that we manage our watercourses and their floodplains in such a manner as to conserve those qualities for which we should so value them, as well as utilising their potential in a sustainable manner. This means that we must properly consider the wider implications of any management works we may undertake.

Even when management works or development in or near to a river or burn has been carefully thought out and executed there may be a knock-on effect on stretches out-with the immediate area of the work and sometimes at a considerable distance. Erosion may be accelerated in some localities, and displaced material may affect water quality, damage spawning grounds, infill pools, and result in siltation. Such effects can threaten and disturb wildlife, alter the natural function of the river system, damage water abstraction plants, incur financial costs for others and detract from the scenic appeal of the area.

Aberdeen and Aberdeenshire has a range of river catchments varying in attributes and associated management issues. Sections of the River Dee lie within Sites of Special Scientific Interest and the River Dee has been proposed as a Special Area of Conservation. The lower stretch of the River Ythan is also of great importance for nature conservation and falls within a National Nature Reserve. The Ythan Catchment is designated as a Nitrate Vulnerable Zone under the EU Nitrates Directive and much of the remainder of Aberdeenshire has been proposed for designation (as at February 2002). A project centred on the River Ugie promoted good riparian management. Significant stretches of our rivers and their tributaries have important spawning beds for salmonids. There are a wide range of river-related projects and initiatives currently underway aiming to benefit salmonids and other species and riparian habitats.

This is a practical guide for anyone with an interest in carrying out projects associated with watercourses, their banks and floodplains and drainage of land for any purpose. This includes landowners, farmers, contractors, developers, statutory undertakers and fisheries interests. The guidance is divided into two sections, the first section deals with works to watercourses and their banks, the second deals with flooding issues. Against the background of the legislation (Appendix A) the guidance explains the necessary steps to follow to secure the appropriate permissions for different projects. Key contacts and additional sources of useful information are detailed in Appendix B and C respectively.

Works to Watercourses and their Banks:

2. Guidelines for landowners, farmers, fisheries interests, developers, contractors, statutory undertakers, local authorities, and Scottish Water

2.1 Consultation

When planning any works in or on land adjacent to watercourses, you should consider what permission, consents, notifications or consultations are necessary. Informal consultation should be held early, at least 3 months in advance of the intended start date. In the case of formal consents this should also be considered at least 3 months in advance of the intended date of commencement of site operations. No work should commence until informal consultations are carried out and formal consent is obtained, where it is required. As the legislative framework changes activities that may not have required formal consent in the past may do so. It is therefore necessary to consult the relevant agencies in all cases.

2.2 Timing

Work within a salmon river should generally be carried out during June, July and August to restrict disturbance to salmon spawning,the e mergnce of the fry and emigration of the smolts. No work should commence until formal consent is obtained, where it is required. The season for operations in rivers is critical and timing should be established with the relevant District Salmon Fisheries Boards (DSFB). Constraint on timing in relation to other freshwater interests should also be considered in the light of advice from SNH.

2.3 Legislation

The following Acts and Regulations may be relevant, and the Local Planning Authority and other relevant agencies should be consulted on an informal basis to establish whether or not they may constrain, or indeed, prohibit the works proposed:

- The Town and Country Planning (Scotland) Act 1997
- The Town and Country Planning (General Permitted Development) (Scotland) Order 1992
- The Environmental Impact Assessment Regulations Scotland 1999
- Wildlife and Countryside Act 1981
- The Conservation (Natural Habitats etc.) Regulations 1994
- The Salmon Fisheries (Scotland) Act 1868

The requirements of the above and additional Acts and Regulations are given in Appendix A.

Frog

3. Key consultees

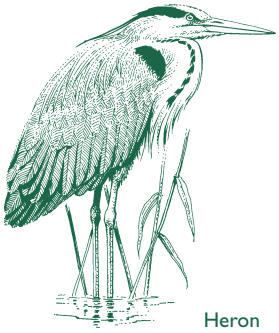
3.1 Planning Authority - Development Control

Planning Permission will not be required in every case **but this does not remove the essential need to consult the relevant agencies (listed at Appendix B) to avoid damaging works.** As the interests vary from river to river the Planning Authority will exercise its judgement on a case by case basis in accordance with adopted planning policy and best practice.

Generally, work involving mechanical plant, particularly for excavation and/or construction will fall within the definition of "engineering operations" and planning permission will be required unless it is permitted development as defined in the Town and Country Planning General Permitted Development (Scotland) Order 1992 (see Appendix A). ***The Area Planning Officer (listed at Appendix B) can advise on this.***

3.2 Local Authority - Nature Conservation

Even small projects can have a considerable effect on the functioning of a river system. In addition to considering the legislative controls and permissions for projects you are encouraged to explore alternatives to hard engineering and look for sustainable solutions which follow best practice and are consistent with the local river environment. This includes consideration of opportunities to enhance and restore the river and associated habitat. A number of guidance notes on specific topics and works are commended to help you plan projects and consider the best options for the river environment (Appendix C).



Heron

Aberdeenshire Council's Natural Heritage Team can provide advice on sources of relevant guidance (Appendix B).

Key Guidance Notes and Leaflets

Dredging, Ditching and Drainage - Minimising the Risks to Wildlife

Pond Design - Considerations for Wildlife and Landscape

Riparian Management - Looking after Aberdeenshire's Burns and River Banks

Drainage Impact Assessment - A Guidance Note for Developers and Regulators

Culverting - An Agenda for Action

Details of these leaflets and others are listed in Appendix C.

3.3 Local Authority - Flood Management

Works within or on the banks of watercourses can often have a detrimental effect elsewhere. All works which change the physical characteristics within or on the banks of the watercourse should be discussed with the relevant authorities beforehand to assess the likely impact of the proposals.

Any works which change the direction or speed of water flow have the potential to cause scour which may then affect the stability of river banks, river bed, training walls, bridge piers and the like. Any works which canalise the river have the potential to cause flooding downstream by reducing flood plain storage under spate conditions. The likelihood of scour damage or flooding arising as a

consequence of proposed works should be assessed during the planning process.

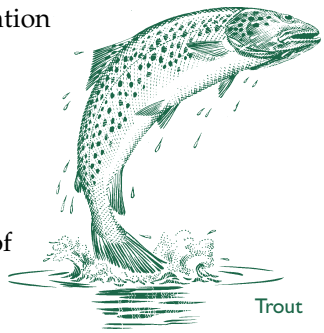
Engineering staff in the Structures Section of Transportation & Infrastructure will be happy to advise (see Appendix B).

3.4 District Salmon Fisheries Boards

The relevant District Salmon Fishery Board should be contacted for advice on any works to a river or its banks, including water abstraction, see Appendix B for contacts for the relevant Fishery Boards. District Salmon Fishery Boards will provide advice on timing and method of works appropriate to a site. District Salmon Fishery Boards have powers to take action under the Salmon Fisheries (Scotland) Act (Appendix A) against anyone found to have caused the wilful destruction or disturbance of salmon spawn or spawning beds. The Salmon (Fish Pass and Screens) (Scotland) Regulations 1994 (Appendix A) require the owner or occupier of a dam to ensure free passage of migratory fish both up and down stream and the owner or occupier of any water abstraction point to provide screens to prevent passage of salmon smolts at the intake and adults access to the outlet.

3.5 Adjacent Landowners

These guidelines have been prepared in consultation with land-owning interests. It is recommended that informal consultation should include notifying landowners up, down and across the watercourse well in advance of intended works.



Trout

3.6 Scottish Environment Protection Agency (SEPA)

Any work carried out in or near watercourses must be regarded as high risk with significant potential to cause pollution. Silt, cement, concrete, fuel, lubrication and shutter release oils, petrol, sewage, bridge cleaning debris and other waste materials have the potential to cause significant damage. The Control of Pollution Act 1974 (Appendix A), gives SEPA power to protect rivers, streams, groundwater and inshore coastal waters from pollution. SEPA should be consulted on any work which has potential to cause pollution. Guidance on such work is given in SEPA's Pollution Prevention Guidelines 5: "Works in, near or liable to affect watercourses." Pollution Prevention Guidelines 6: "Working at construction and demolition sites" may also be relevant. It is important to highlight that sediment released, for example, by dredging is a potentially serious pollutant.

SEPA will be the Lead Agency with statutory responsibility for implementation of the Water Environment Act in Scotland (See Water Framework Directive Appendix A). This Act is likely to have wide reaching implications for what is acceptable in terms of work to watercourses, including water abstraction, impoundment, land drainage and other engineering works. These guidelines will be reviewed to include additional controls necessary once the Water Environment Act comes into force. Further information on the Water Framework Directive and the Water Environment Act is available from SEPA (Appendix B).

3.7 Scottish Natural Heritage (SNH)

Written consent must be obtained from SNH by the owner or occupier to undertake drainage or other works listed as Potentially Damaging Operations which affect Sites of Special Scientific Interest (SSSIs). SNH can advise on proposals which affect National Nature Reserves and Ramsar sites which may or may not be SSSIs, and on species protected under the Wildlife and Countryside Act 1981 (Appendix A). SNH should be consulted on all works which may significantly affect a designated or proposed European Site (SAC or SPA). Permitted Development Rights may be withdrawn if projects have the potential to significantly affect the interests for which the European Site has been designated, and advice should be sought from the Planning Authority. The River Dee has been identified as a possible SAC in recognition of the importance of its populations of freshwater pearl mussel, Atlantic salmon and otter. If the Dee becomes a candidate SAC or is designated as a SAC it will have a considerable impact on the consent procedure for work associated with the river. Regardless of SAC designation many species are legally protected (e.g. freshwater pearl mussel, otter, water vole and all species of bat) and expert advice should be sought from SNH on any work which may affect these species.

Otter

3.8 Historic Scotland - Cultural Heritage

Written consent must be obtained from Historic Scotland where arterial drainage or river works may affect the integrity of a Scheduled Ancient Monument.

3.9 Further Sources of Advice

In addition to the list of consultees above, other organisations that can provide advice and guidance are listed in Appendix B.

Consultation Requirements

Initial advice may be obtained by phone or email. A plan, description of the proposal, method statement and timing schedule may be requested before advice can be given. In the event of a major engineering operation being intended it will be necessary to obtain a report from a qualified hydrologist and/or fluvio-geomorphologist.

Flooding Issues:

4. Guidelines for landowners, farmers, fisheries interests, developers, contractors, statutory undertakers, local authorities, and Scottish Water

4.1 Policy Guidance

Planning policy is guiding developers away from areas which are at risk of flooding, such as flood plains. This is in recognition of the importance of floodplains and flooding as part of naturally functioning river systems.

4.2

National Planning Policy Guidelines (NPPG 7) on Planning and Flooding state that 'in accordance with the precautionary principle, planning authorities should first, seek to avoid increasing the flood risk by refusing permission where appropriate, and secondly, seek to manage the threat of flooding only in cases where other reasons for granting permission take precedence over flood risk'. This guidance should ensure that decisions in relation to areas of existing and future development take account of flood risk, whether inland or on the coast.

4.3

This is further supported by policy in the Aberdeen and Aberdeenshire Structure Plan (North East Scotland Together 2001-2016). Policy 22: Water Management, states that 'Development shall be directed away from areas at significant risk from flooding according to the sensitivity of the development and the risk of flooding of the site. Functional floodplains should be allowed to flood naturally where appropriate'. This policy also states that 'developers will be required to provide Flood Risk Assessments for proposals in appropriate cases'.

Policy 19: Wildlife, Landscape and Land Resources states that 'development will be sited and designed to avoid adverse impacts on the biodiversity of a site, including its environmental quality, ecological status and viability'. The impact of any work on biodiversity and habitat will therefore have to be considered.

4.4

The relevant Local Plan will provide specific policy on flooding and should be consulted as required.

4.5

In summary land use should take account of areas where the risk of flooding is considered to be significant, either on-site, upstream or downstream. Development is discouraged where it would:

- **be at risk or would intensify the risk of flooding to existing or proposed development;**
- **be likely to require high levels of public expenditure on flood protection works, or;**
- **result in extensive channel modification and/or loss of habitat/ biodiversity.**

Water crowfoot

Common reed

5. The Causes of Flooding

5.1

At its simplest, steep watercourses draining small rocky catchments will quickly respond to rainfall and, along with urbanised catchments, are most affected by intense rainfall of short duration. Larger rivers respond more slowly, with flooding most likely to result from steady rainfall over a longer period of perhaps 1-2 days.

5.2

Flooding can result from several causes, for example: -

- a large catchment relative to the size of the watercourse draining it;
- rapid snow-melt in upland areas feeding already high river flows;
- high spring tides and strong winds creating storm surges in coastal areas;
- lack of maintenance of defence systems, watercourses, culverts (including the flood relief areas about them) and road gullies;
- canalisation, modification and diversion of rivers and watercourses which increases the rate of flow and decreases the time taken for water to travel within the catchment;

- progressive development, increasing the cover of impermeable surfaces in catchments results in increased rate and volume of run-off
- sub-standard agricultural practices e.g. badly designed and constructed modifications to river channels and inappropriate drainage works;
- land drainage activities for any purpose - often resulting in the loss of wetlands and flood storage areas but also causing soil moisture deficit which can then require remedial irrigation;
- poor forestry practices e.g. badly designed ploughing and drainage in upland areas and increased deforestation;
- direct loss of floodplain to development and associated building of structures (e.g. embankments) which restrict storage within historical flood plains and create additional flood risks downstream;
- silt or gravel movement which raises the river bed level thereby reducing channel capacity;
- local blockages (e.g. blocked culverts);
- undersized structures such as small culverts and bridges with low headroom, which restrict channel capacity;
- inadequate or inappropriate culverting which increases the flow rate but can also restrict flow volume at high flows, creating flooding up-stream of the culvert;
- development including road construction which results in paved areas of significant size, can lead to changes in the run-off characteristics of a watercourse's catchment area and hence the local drainage regime.

6. Responsibilities for Flood Protection and Prevention

6.1 Owners Responsibilities

The prime responsibility for safeguarding land or property against natural hazards such as flooding remains with the owner, including local authorities as owners of land and property.

6.2 Local Authority Responsibilities

Local authorities have the leading role under the Flood Prevention and Land Drainage (Scotland) Act 1997. The Act requires Local Authorities to assess the likelihood of flooding of any non-agricultural land in their areas and gives discretionary powers to Local Authorities to carry out works of maintenance to reduce the likelihood of flooding.

6.3 Planning Authority Responsibilities

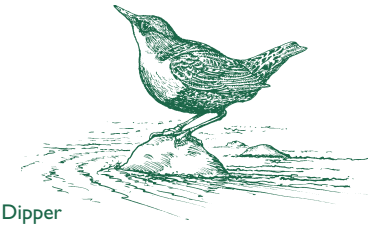
As the Planning Authority the Local Authority is responsible for regulation of development under the Town and Country Planning Act (Appendix A). Development includes any engineering works to rivers, flood plains, culverts etc. all of which may affect the local flooding regime. Regulation of these works is guided by national advice and legislation and Council Development Plan Policy (Appendix A).

Key points to be considered include: -

- Requirements for new or improved flood defences should be provided at the developer's expense where they are directly attributable to the development proposals.
- Flood related conditions of planning permission will be rigorously enforced.
- All proposals should include an allowance for climate change, with the expected life of the development being a key issue.

6.4 The Role of Building Standards

Part G, regulation 16 of the Technical Standards for compliance with the Building Standards (Scotland) Regulations 1990 as amended, requires protection of buildings and their users from the effects of moisture. This includes the preparation of the ground adjoining a building to minimise the risk of flooding. The regulation states that "a site, and ground immediately adjoining a site, shall be so drained or otherwise treated as to protect the building and its users, so far as may be reasonably practicable, from harmful effects caused by (a) groundwater, (b) flood water, and (c) existing drains." This applies to all new building work except certain limited life buildings. These regulations are intended to ensure that suitable and adequate drainage is designed and installed to accommodate normal conditions.



Dipper

6.5 Local Authority - Flood Appraisal Groups

Local authorities take a lead role in co-ordinating measures and responses to flooding. A Flood Appraisal Group has been jointly formed between Aberdeenshire and Aberdeen City Councils, and appropriate agencies to provide the Local Authorities with practical guidance and information on flood risk and its implications for development. Issues which will form the basis for discussion in Flood Appraisal Groups include information and data requirements, catchment management, flood management schemes, other mitigation measures, watercourse repair and maintenance, development plan land allocations, significant development proposals and future research requirements. The Flood Appraisal Group (see contact in Appendix B) intends to draw in a wide range of expertise and local interests to provide information and opinion on specific issues and contribute to the work of the group.

6.6 SEPA (Scottish Environment Protection Agency) - Flood Risk Assessment and Flood Warning

SEPA has a statutory role under the Environment Act (1995) to provide Local Authorities with advice on the risk of flooding on request. This duty includes advising against the granting of planning permission for any area SEPA has assessed as being at risk of flooding. SEPA also has discretionary powers to establish and operate Flood Warning Schemes.

Water vole

SEPA will be the Lead Agency with statutory responsibility for the implementation of the Water Framework Directive in Scotland. The Directive requires the development of River Basin Management Plans which will be underpinned by planning at the catchment level. Policy developed through the River Basin and Catchment Management Planning process will inform Council Development Plan Policy.

6.7 SEERAD (Scottish Executive Environment and Rural Affairs Department) - Agricultural Land Under Grant Schemes

SEERAD exercises control over all work done under agricultural grant aided schemes. With the exception of emergency floodbank repairs, farmers must obtain SEERAD's prior approval before starting any kind of arterial drainage or river works on which they intend to claim grant. SEERAD has produced a guidance booklet on the Rural Stewardship Scheme with information on habitat enhancement possible under the scheme (Appendix C).

6.8 SNH (Scottish Natural Heritage) - Areas of National and International Importance to Nature Conservation

Written consent must be obtained from SNH by the owner or occupier to undertake drainage or other works listed as Potentially Damaging Operations which affect Sites of Special Scientific Interest. SNH should be consulted on all drainage or flood prevention projects which may significantly affect a designated or proposed European Site (SAC or SPA).

6.9 Forestry Commission - Forestry and Woodland Planting and Felling

The Forestry Commission exercises control over all afforestation schemes which are grant aided under the Woodland Grant Scheme and all felling where a licence is required. Approval is conditional on compliance with the Forestry Commissions 'Forests & Water Guidelines'. The guidelines recognise that forestry can have a profound effect on watercourses and that the sensitivity of any water catchment to forest operations must be identified and taken into account at the planning stage. It is recognised that poor drainage practice can contribute to localised flooding where as good management of watercourses and adjacent areas, with appropriate planting of native species, enhances the wildlife and scenic value of areas and may act to reduce flood risk. The 'Forest and Water Guidelines' set out good practice in all forestry operations, including ground preparation and harvesting.

7. Managing Floodplains

7.1

Flooding is a natural function of rivers and floodplains. The basic cause of riverine flooding is run-off from the catchment upstream of the area in question exceeding the capacity of the watercourse to transmit the flow downstream. Many factors are involved such as the geology, topography and land use of the catchment, its permeability, the intensity and duration of the rainfall, snow-melt, the gradient and capacity of the watercourse channel, and physical obstructions. This is why some watercourses overtop while others do not.

Human activity such as development and agricultural drainage can exacerbate the natural tendency to flood out of the channel.

7.2

One characteristic of most (rivers and burns) is a succession of relatively steep sections followed by a much flatter reach. These reaches are often associated with areas of flatter ground often with a natural constriction at the downstream end. Although most noticeable at confluences, flat reaches can occur throughout the length of a stream or river or burn. Such areas are attractive for exploitation, either for agriculture or development, despite their tendency to flood.

7.3

Flood potential is likely to increase rather than diminish with climate change, and is definitely increasing as development degrades or eliminates the land's ability to absorb moisture. Agriculture and forestry's impact is less pronounced, but the Forestry Commission has shown that ploughing and planting a complete catchment with new commercial forest results in a significant increase in peak flows - perhaps in the order of 20-30%.

7.4

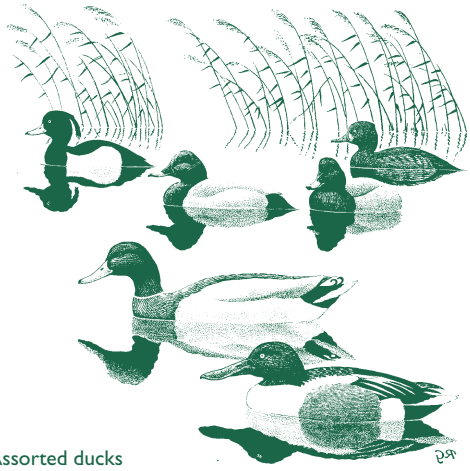
Local flood defences have the disadvantage that they merely transmit the problem downstream to the next weak point, where further dykes or retaining walls would relay it downstream again with the incremental increase in flow and erosive potential. In theory a river's banks could be so strengthened from its source to the sea that it could withstand anything, but this is unrealistic in terms of cost, water resources, loss of wildlife and habitat, and visual amenity. In addition to this all silt washed off the surrounding land would be contained within the river channel resulting in raised bed levels and reduced channel capacity. Thus progressive raising of the flood barriers, or lowering of the bed, would become necessary.

Canalising and deepening watercourses is not considered to be an appropriate or sustainable solution to managing flood risk.

7.5

Until recently the dominant working assumption was that sufficiently robust flood defences would prevent flooding. It is now recognised as more effective, sustainable and environmentally-beneficial to accept that flooding is inevitable. The economic importance of maintaining floodplains is also being recognised.

Flood defences are costly to build and maintain and the potential costs of repair to property if flood defences are breached is considerable. Floodplains retain excess water and release it slowly into the watercourses as the peak flow subsides. This maintains the natural function of the watercourse and relieves pressure at more sensitive locations.



Assorted ducks

8. Managing Flooding

In seeking sustainable management of flooding, alternatives to short term, localised solutions, such as building flood banks and culverting, are increasingly being explored. **Sustainable management of flooding requires a detailed assessment of river catchments or parts of catchments to find solutions for whole systems and prevent the transfer of problems from one part of the catchment to another.**

As part of this whole catchment approach the following measures should be considered in the development of projects which may increase the risk of flooding :-

- Undeveloped floodplains should continue to be available for use as flood relief areas to assist the management of the flood threat. Such areas may consist of golf courses, playing fields, open spaces, agricultural land including 'set-aside', woodland or other areas of semi-natural habitat. It is recognised that there are cases, for example in urban areas, where flood defences may be necessary to protect development that has already taken place on floodplains.
- Run-off treatment and drainage design should be undertaken so that possible impacts on areas where there is a risk of flooding are reduced. New development proposals should, where practical, include Sustainable Urban Drainage Schemes (SUDS) for the treatment and management of surface water run-off. The guidance in the CIRIA Design Manual for Scotland and Northern Ireland and local guidance on SUDS should be complied with.
- Development should avoid exacerbating flooding by not culverting watercourses or by removing existing culverts. Opportunities for removing culverts, re-instating wetland areas or re-profiling canalised burns should be taken whenever development proposals allow.
- Riparian strips should be created adjacent to watercourses, even in areas where no flooding has been experienced. These buffer strips prevent soil loss with rainfall, reduce bankside erosion, provide valuable wildlife habitat and contribute to SUDS.

Alder

There are a number of useful leaflets and publications that may be of assistance in designing schemes and projects that have the potential to impact on flooding. Here is a selection of key publications, further information is found in Appendix C.

Key Guidance Notes and Leaflets

Drainage Impact Assessment - A Guidance Note for Developers and Regulators (SEPA)

Forests and Water Guidelines (Forestry Commission)

Manual of River Restoration Techniques (River Restoration Centre)

Habitat Enhancement Initiative Water Courses in the Community (SEPA)

North East Scotland Together - Aberdeen and Aberdeenshire Structure Plan 2001-2016 (Local Authorities)

Riparian and Wet Woodland Habitat Action Plan North East Scotland Biodiversity Partnership

Details of these leaflets and others are listed in Appendix C

9. Assessing Flood Risk

9.1

All development on land within the floodplain of a watercourse, drained via a conduit or on low lying land adjacent to tidal waters is at some risk of flooding, however small. The degree of risk is calculated from historic data and/or statistical data. Statistical and modelling techniques form the basis of the Flood Estimation Handbook (Centre for Ecology and Hydrology). Where possible estimates of future flood risk are calculated from current scientific research. Risk is expressed in terms of the expected frequency of a flood at a given magnitude e.g. the 10 year, 50 year, 100 year or 200 year flood return period. However this concept is often misunderstood or misinterpreted. The meaning of these values is that there is a 10%, 2%, 1% or 0.5% chance respectively of such an event happening in any given year. NOTE these calculations are based on past experience and must be treated with caution in periods of changing climatic patterns.

SEPA are now advising that risk should be calculated using 200 year return period as a minimum. This is based upon a recent study, commissioned by the Scottish Executive, which suggests that floods which have a 100 year return period under current climate conditions will become more frequent in the future.

(Reference Scottish Executive Central Research Unit (2001): Environment Group Research Programme No 12 "Climate Change: Review of Levels of Protection Offered by Flood Prevention Schemes").

9.2

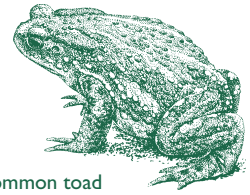
Where an area has been exploited for agriculture, there are often flood bank systems, some dating from the nineteenth century. These flood banks have normally been intended to provide defence against only frequent, and therefore relatively minor floods, (perhaps in the 5-15 year return period range). They have little effect in major floods as they are quickly overtopped, allowing the watercourse to utilise the flood plain.

9.3

In urban areas smaller watercourses have often been culverted and are therefore limited by their physical size etc. These culverts can be overtaken by later development causing increased run off, resulting in flooding to adjacent properties.

9. 4 Insurance

NPPG7 notes that flood prevention may be achieved by avoiding development in areas at risk from flooding, and in coastal areas by managing retreat of the coastline. It states that insurers are increasingly concerned about environmental risks such as flooding and the scale of claims to which they can give rise. They are therefore continually reviewing their policies relating to flood risk and before insurance cover is offered some are using increasingly sophisticated techniques to identify the risk to properties. In 2001, the insurance industry announced that after 2002, it could no longer guarantee to provide home insurance in areas where the flood hazard is greater than 0.5% probability, that is the 200-year return period. Where insurance is available, the premium is likely to increase significantly each year for several years until the rate matches the hazard.



Common toad

APPENDIX A - Relevant Legislation

The Town and Country Planning (Scotland) Act 1997

Section 26 - Defines development as the carrying out of building, engineering, mining or other operations in or over or under the land or the making of any material change in the use of any buildings or other land. In the context of rivers, this could include operations on and alterations to riverbanks, riverbed works, deepening pools, erection of groins, creation and stopping up of flood channels and installation of plant.

Section 28 - States that planning permission is required for the carrying out of any development of land.

The Town and Country Planning (General Permitted Development)(Scotland) Order, 1992

The provisions of this Order grants a general planning permission which permits certain types of development to be carried out without an express grant of planning permission.

Part 6, Class 18 (1c)

The carrying out on agricultural land comprised in an agricultural unit if any excavation or engineering operation is permitted by this class provided it is requisite (i.e. necessary) for the purpose of agriculture. For example, repair and reinstatement of riverbanks, and other works designed to prevent flooding and further erosion if this were necessary for the benefit of the agricultural use of the land.

Dragonfly larvae

Dragonfly

Part 6, Class 20

This Class permits any riparian owner to carry out works required in connection with the improvement or maintenance of a watercourse. It is for the Council to determine in each individual case whether the works proposed can be regarded as improvement or maintenance and so benefit from permitted development rights. It is to be stressed that this class relates solely to maintenance or improvement. Works designed for any other purpose, such as the creation of fishing pools or alteration of watercourses, are not afforded permitted development rights under this class.

A new Article 3(8) of the General Permitted Development Order excludes any proposed development which, if it were to be the subject of a planning application, would require environmental assessment under the Environmental Assessment (Scotland) Regulations, 1997, from the description of permitted development.

The Environmental Impact Assessment (Scotland) Regulations 1999

These regulations are concerned with the further implementation in Scotland of Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

The developer may seek the formal opinion of the Planning Authority on the requirement for an Environmental Impact Assessment. If the opinion is that an Environmental Assessment will be required, permitted development status will be lost and an application for planning permission will be necessary.

Environment Act 1995

A person contravenes (section 30F(5), Schedule 16) the Act by knowingly permitting any matter whatever to enter any inland waters so as to tend (either directly or in combination with other matter which he or another person causes or permits to enter those waters) to impede the proper flow of the waters in a manner leading, or likely to lead, to a substantial aggravation of:

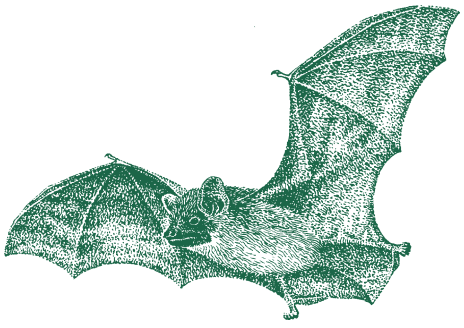
(a) pollution due to other causes; or
(b) the consequences of such pollution.

Wildlife and Countryside Act 1981

Section 28 of the Act includes the requirement for owners or occupiers of land notified as being of special scientific interest, not to carry out or cause or permit to be carried out any operation specified in the site notification without prior agreement with Scottish Natural Heritage. Common otter, fresh water pearl mussel and water vole are all protected under Schedule 5 of the Wildlife and Countryside Act.

EC Habitats and Birds Directives

The Habitats and Birds Directive (Scottish Office Circular No 6/1995: Rural Affairs and Natural Heritage Division - Habitats and Birds Directives) aims to contribute to the conservation of biodiversity by requiring Member States to put in place measures designed to maintain or restore certain habitats and wild species at favourable status. The Directive provides for the designation of Special Areas of Conservation (SACs) focused on habitats and Special Protection Areas (SPAs) focused on sites of particular importance for conservation of wild birds. The Directive is being implemented in the UK through the Conservation of Natural Habitats and Species Regulations 1994 (see below).

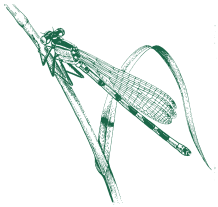


Pipistrelle bat

The Conservation (Natural Habitats and Species) Regulations 1994

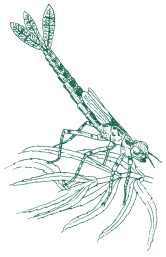
A network of SACs and SPAs is being designated under this Regulation to meet the requirements of the Habitats and Species Directive. SNH can provide advice on the locations and boundaries of these sites. Competent Authorities should be advised of any works proposed within sites designated as SACs or SPAs and also any works which may impact upon a designated site. SEPA, SNH and District Salmon Fishery Boards are regarded as competent authorities, as are Aberdeenshire Council and Aberdeen City Council.

Regulations 60-63 prevent any development which is likely to significantly affect a European Site from benefiting from Permitted Development rights unless the planning authority has decided, after consulting SNH, that it would not adversely affect the integrity of the site. The River Dee has been identified as a possible SAC in recognition of the importance of its populations of fresh water pearl mussel, Atlantic salmon and otter. If the Dee is designated as a SAC or a candidate SAC it will have a considerable impact on the consent procedure for work associated with the river. General Permitted Development Rights will be withdrawn for projects which are likely to cause significant effect on the interests for which the site is designated.



Damselfly - Common blue

Great diving beetle



Damselfly nymph

In addition to this if a proposed project in or adjacent to the river could have a significant effect on one or more of the features of interest then an appropriate assessment will be required. Details of withdrawal of Permitted Development Rights and procedures for appropriate assessment will be confirmed if the Dee becomes a candidate SAC. Up to date information on any SAC or SPA can be obtained from SNH.

The Salmon Fisheries (Scotland) Act, 1868 (as amended by the Salmon and Freshwater Fisheries (Protection) (Scotland) Act 1951, the Freshwater and Salmon Fisheries (Scotland) Act 1976 and the Salmon Act 1986)

Section 19 of the Salmon Act refers to destroying salmon fry, or disturbing spawning beds. The following activities are offences under the Act, which states that any person who wilfully takes or destroys any smolt or salmon fry or wilfully injures or disturbs any salmon spawn, spawning bed or any bank or shallow in which spawn may be is liable to a penalty.

The Salmon (Fish Pass and Screens) (Scotland) Regulations 1994

The regulations came into force in full in January 2000 requiring the owner or occupier of a dam to ensure free passage of migratory fish both upstream and downstream; and the owner or occupier of an offtake to provide screens to prevent smolts passage at the intake and adult access to the outlet. There are some exceptions, the main one being that a pass does not need to work in periods of flow too low for fish passage.

Control of Pollution Act 1974 (as amended)

This gives SEPA the powers to protect all rivers, streams, groundwater and inshore coastal waters, known as "Controlled Waters". This is achieved by issuing a consent for discharges of effluent to control the quality of such discharges, and by the use of powers to control discharges of polluting materials such as silt or oil, which may lead to a reduction in water quality. Accidental discharges are also subject to the legislation and may be the subject of enforcement action against the discharger.

Environmental Protection Act 1990 Part II

This deals with waste management operations which may include dredging and replacement of materials on riverbanks or within watercourses, which will require SEPA's authorisation

Water Framework Directive (2000) and forthcoming Water Environment and Water Services Act

The Water Framework Directive (2000) will be incorporated into Scottish Legislation through the introduction of the Water Environment Bill as an Act. Consultation on the policy to underpin this Act is ongoing at the time of writing (January 2002). It is expected that the Water Environment and Water Services Bill will be introduced in the Scottish Parliament during 2002 (see the Scottish Executive web site for further details). The Water Framework Directive establishes a new framework for the management and protection of the natural water environment.

The Directive puts an emphasis on ecology, recognising that current legislation to protect the chemical quality and quantity of water is not sufficient to secure habitats and species dependent on watercourses. It also recognises that water systems are interdependent and require management planning on a natural river basin scale. Central to the Directive is the requirement that all activities that impact adversely on the quality (in the widest sense) of the water environment are controlled. SEPA will be the Lead Agency with statutory responsibility for implementation of the Water Environment Act in Scotland. The implementation of the Water Framework Directive will be underpinned by the development of River Basin Plans and Catchment Management Plans within these River Basin Plans.

EC Nitrate Directive

Careful consideration of how improvement works in rivers may affect the nitrate levels in a catchment is required. The Ythan catchment has been designated as a Nitrate Vulnerable Zone under this Directive and consultation is ongoing on a proposal to designate much of the rest of Aberdeenshire. Note that the Directive specifically deals with nitrate from agricultural activity and not other sources.

White willow

Crack willow

Legislation Specifically Related to Flooding

General Development Procedure (Scotland) Order 1992

Article 15(1)(h)(i) states that planning authorities are required to consult SEPA "where it appears to the planning authority that the development is likely to result in material increase in the number of buildings at risk of being damaged by flooding."

The Environment Act, 1995, Section 25

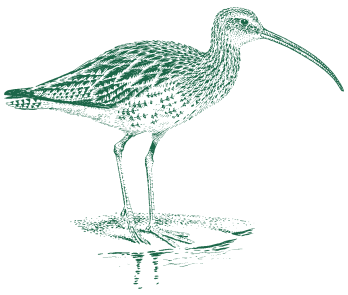
According to this SEPA has the function of "... assessing, as far as it considers it appropriate the risk of flooding in any area of Scotland" and the following statutory duty: "if requested by a planning authority to do so, SEPA shall on the basis of such information as it holds in respect to the risk of flooding in any part of the authority's area, provide the authority with advice as to such risk."

The Town and Country Planning (Notification of Applications) (Scotland) Direction 1997, Schedule, paragraph 14.

This states that any planning authority which proposes to grant planning permission for development "where SEPA has advised against the granting of planning permission or has recommended conditions which the planning authority do not propose to attach to the planning permission" must notify the Scottish Ministers. Circular 4/1997, paragraph 9, however, clarifies this by stating that notification is required when "a planning authority intend to approve a planning application contrary to advice from SEPA that there is a risk of flooding."

Flood Prevention and Land Drainage (Scotland) Act 1997.

This act imposes a duty on Local Authorities to assess the likelihood of flooding of watercourses and to ensure necessary maintenance work to reduce the likelihood of flooding is carried out by the responsible person. It recognises that regular maintenance of watercourses can contribute significantly to the prevention or mitigation of flooding.



Curlew

APPENDIX B - Contacts List

Key Contacts for Consultation

Local Authority Planning Service Aberdeenshire Council

Area Planning Officer Marr
(Upper Dee and Don, Bogie, Upper Deveron, Feugh)
Viewmount,
Arduthie Road,
Stonehaven
AB39 2DQ
Tel : 01569 768301

Area Planning Officer Kincardine and Mearns
(Lower Dee, Esk, Carron, Cowie, Bervie)
Viewmount,
Arduthie Road,
Stonehaven
AB39 2DQ
Tel : 01569 768301

Area Planning Officer Formartine
(Ythan, Upper Urie)
Gordon House
Blackhall Road
Inverurie
AB51 4WA
Tel : 01467 628272

Area Planning Officer Garioch
(Middle Don, Lower Urie)
Gordon House
Blackhall Road
Inverurie
AB51 4WA
Tel : 01467 628272

Area Planning Officer Buchan
(Ugie)
Town House,
51 Low Street,
Banff
AB45 1AY
Tel : 01261 813208

Area Planning Officer Banff and Buchan
(Lower Deveron)
Town House,
51 Low Street,
Banff
AB45 1AY
Tel : 01261 813208

Local Authority Planning Service Aberdeen City Council

Aberdeen City (Lower Dee)
Head of Development Control (South)
Aberdeen City Council
Planning and Strategic Development
St Nicholas House
Aberdeen
AB10 1BW
Tel : 01224 522288

Aberdeen City (Lower Don)
Head of Development Control (North)
Aberdeen City Council
Planning and Strategic Development
St Nicholas House
Aberdeen
AB10 1BW
Tel : 01224 522241

For Nature Conservation

Aberdeenshire Council Planning and Environmental Services - Natural Heritage Team
Gordon House
Blackhall Road
Inverurie
AB51 3WA
Tel : 01467 628002

For Flood Management

Aberdeenshire Council Transportation and Infrastructure - Structures Section
Carlton House
Arduthie Road
Stonehaven
AB39 2DP
Tel: 01569 768474

District Salmon Fishery Boards

Dee Salmon Fishery Board
Bailiff, Tel : 013398 85241
Mobile : 07870 842001
River Manager, Tel : 01330 844775

Board Secretary
Investment House
Union Row,
Aberdeen
AB10 1DQ
Tel : 01224 878402

Don District Salmon Fishery Board,
River Superintendent
28 Slattie Park
Bucksburn
Aberdeen
AB21 9QR
Tel : 01224 712989
or 01975 651488

Ythan Fishery Board
Clerk of the Board
Mains of Haddo
Tarves
Ellon
AB14 OLD
Tel : 01651 851664

Ythan Project Officer
Tel : 01358 726406

Deveron District Salmon Fishery Board
Deveron Project Officer, Tel : 01466 711388
Chairman, Tel : 01466 711282

Clerk of the Board
Murdoch, McMath & Mitchell Solicitors
27 Duke Street, Huntly

Ugie Salmon Fishery Board
Clerk of the Board
Masson & Glennie Solicitors
Broad Street
Peterhead
AB42 1HY
Tel : 01779 474271

Esk Salmon Fishery Board
Clerk of the Board
Woodside Croft
Ecclesgreig
St. Cyrus
DD10 0DP
Tel: 01674 850164

Further Sources of Advice

Scottish Environment Protection Agency (SEPA)
Greyhope House
Greyhope Road
Torry
Aberdeen
AB11 9RD
Tel : 01224 248338
SEPA Emergency Hotline : 0800 80 70 60

Scottish Natural Heritage (SNH)
17 Rubislaw Terrace
Aberdeen
AB10 1XE
Tel : 01224 642863

SEERAD (Scottish Executive Environment and Rural Affairs Department)
Thainstone Court
Inverurie
Aberdeenshire
AB51 5YA
Tel : 01467 626222
Web Site : www. scotland.gov.uk
Visit the web site for updates on new legislation

Scottish Water (formerly NOSWA)
Kingshill House
Arnhall Business Park
Westhill
Aberdeenshire
AB32 6UF
24 hour call line 0845 7437437

Grampian FWAG
Farming and Wildlife Advisory Group
Old Estate Office
Cluny Castle
Sauchen
Inverurie
AB51 7RT
Tel.: 01330 830080
Fax: 01330 830081
FWAG gives advice to farmers on sustainable management of watercourses, creation of wetlands, ponds, riparian buffer strips etc.

North East Native Woodlands
Ythan Grove
Victoria Street
Insch
AB52 6JW
Tel : 01464 821070
Advice on management and restoration of native woodlands along water courses

North East Scotland Local Biodiversity Action Plan (NELBAP)
Doig Scott Building
Craibstone Estate
Bucksburn
Aberdeen
AB21 9YA
Tel : 01224 711120
Information on priority species and habitats including water vole and riparian and wet woodland.

North East Scotland Biological Records Centre (NESBReC)
Room G64 MacRobert Building
Aberdeen University
King Street
Aberdeen
AB24 5UA
Tel : 01224 273633
Information on the distribution of species and habitats throughout NE Scotland to assist in planning projects and avoiding sites which are known to have protected species.

Further Sources of Advice Continued

River Restoration Centre
Silsoe Campus
Silsoe
Beds
MK45 4DT
Tel : 01525 863341
Information on restoring in-river and riparian habitats and river function.

Cairngorms Biodiversity Partnership
11 The Square
Granton on Spey
Morayshire
PH26 3HG
Tel : 01479 873630
Information on priority species and habitats and enhancement projects.

WWF
8 The Square
Aberfeldy
Perthshire
PH15 2DD
Tel : 01887 820449

Forestry Commission
Grampian Conservancy
Ordiquhill
Portsoy Road
Huntly
Aberdeenshire
AB54 4SJ
Tel : 01466 794542

All drawings used by courtesy of English Nature

APPENDIX C - Useful Guidance Notes, Booklet, Leaflets, Websites.

Dredging, Ditching and Drainage - Minimising the Risks to Wildlife
Pond Design - Considerations for Wildlife and Landscape
Riparian Management - Looking after Aberdeenshire's Burns and River Banks
Available from Aberdeenshire Council Natural Heritage Team (Appendix B)

North East Scotland Together -
Aberdeen and Aberdeenshire Structure Plan 2001-2016
Available from Aberdeen City and Aberdeenshire Council Planning Teams(Appendix B)

Rivers and Wetlands - Best Practice Guidelines
Available from Environment Agency
Tel : 0645 333111

Culverting - an Agenda for Action
Drainage Impact Assessment - Guidance for Developers and Regulators
Managing River Habitats for Fisheries - A Guide to Best Practice

SEPA - Habitat Enhancement Initiative
Water Courses in the Community
Ponds Pools and Lochans

SEPA Pollution Prevention Guidelines(PPG)
PPG 5 : Working on or Near Rivers
PPG 6 : Working at Construction and Demolition Sites

SEPA Policies
22 : Flood Risk Assessment Strategy
26 : Policy on Culverting of Water Course
34 : Flood Warning Strategy
41 : Development at Risk of Flooding - Advice and Consultation
Available from SEPA (Appendix B)
Tel : 01786 457700
Website : www.sepa.org.uk

Sustainable Urban Drainage Systems - Design Manual for Scotland and Northern Ireland
Available from CIRIA
Tel : 020 7222 8891

Manual of River Restoration Techniques
Available from
The River Restoration Centre (Appendix B)

Farming and Watercourse Management
Available from WWF Scotland (Appendix B)
Tel : 01887 820449
Website : www.wwf.org.uk

Forests and Water Guidelines
Available from Forestry Commission (Appendix B)
Tel : 0131 344 0303
Website : www.forestry.gov.uk

The Rural Stewardship Scheme
Available from SEERAD (Appendix B)
Tel : 01467 626222

Restoring and Managing Riparian Woodlands
Scottish Native Woodlands
Available from North East Native Woodlands (Appendix B)

North East Scotland Local Biodiversity Action Plan
Available from Local Biodiversity Partnership
Tel : 01224 711120
Website : www.nesbiodiversity.org.uk

ABERDEEN
CITY COUNCIL

Aberdeenshire
COUNCIL

This Guidance Note has been produced by Aberdeenshire and Aberdeen City Councils to guide and advise landowners, farmers, contractors, developers, statutory undertakers and fishery interests who may be carrying out projects associated with water courses, their banks and floodplains.

Front cover: Mondynes Bridge, Bervie Water, near Drumlithie

Back cover: Engineering works in the watercourse, Burn of Canny, near Banchory