ABERDEENSHIRE COUNCIL

THE FLOOD PREVENTION AND LAND DRAINAGE (SCOTLAND) ACT 1997

FIRST BIENNIAL REPORT

NOVEMBER 1997

ABERDEENSHIRE COUNCIL

FIRST BIENNIAL REPORT - NOVEMBER 1997

CONTENTS

- 1. Reason for Report
- 2. Background
- 3. The River Catchments within Aberdeenshire
- 4. Flood Prevention Schemes and Works of Maintenance Inherited by Aberdeenshire Council
- 5. Known Flooding Problems
- 6. Action Taken by Aberdeenshire Council under the Flood Prevention and Land Drainage (Scotland) Act 1997
- 7. Further Implementation of the Flood Prevention and Land Drainage (Scotland) Act 1997
- 8. Interpretation of the Flood Prevention and Land Drainage (Scotland) Act 1997 by Aberdeenshire Council
- 9. Funding
- 10. Conclusion
- 11. Figures 1, 2, 3 and 4
- 12. Appendix A

1. Reason for Report

1.1 This report specifies the measures which Aberdeenshire Council consider they require to take to prevent or mitigate flooding of non-agricultural land within Aberdeenshire. This report is published as required by the Flood Prevention and Land Drainage (Scotland) Act 1997.

2. Background

- 2.1 Aberdeenshire Council assumed responsibility for the implementation of the Flood Prevention (Scotland) Act 1961 within Aberdeenshire as from April 1996. The Flood Prevention and Land Drainage (Scotland) Act 1997 became law on 26 May 1997. The new duties imposed on Aberdeenshire Council by the 1997 Act can be summarised as:
- 2.1.1 to assess all watercourses from time to time to ascertain whether or not they are likely to cause flooding of non-agricultural land;
- 2.1.2 to carry out works to reduce the likelihood of flooding of non-agricultural land;
- 2.1.3 to liaise with adjacent authorities;
- 2.1.4 to prepare a report specifying all the measures which the Local Authority proposes to take to prevent or mitigate flooding of non-agricultural land;
- 2.1.5 to publish the said report by 26 November 1997;
- 2.1.6 to prepare and publish biennial reports thereafter.
- 2.2 This report summarises a review of all the information which is available to Aberdeenshire Council at the present time and proposes actions considered necessary arising from that review. It also proposes a philosophy for the assessment of watercourses within Aberdeenshire from which a programme of assessment will be developed. Interpretative decisions made by Aberdeenshire Council with respect to matters which are left to the Council's discretion are discussed. Consultation which has taken place with regulatory bodies and neighbouring authorities is summarised.

3 The River Catchments Within Aberdeenshire

3.1 The River Catchments in Relation to Geographic and Administrative Areas

The river catchments within Aberdeenshire are classified by the Scottish Environmental Protection Agency (SEPA) as described below. The rivers named are the main watercourses within the catchments. There are numerous tributary watercourses in addition within each catchment.

- 3.1.1 The Deveron Catchment: includes the Rivers Deveron, Isla, Bogie and Idoch together with the Forgue and Deskford Burns.
- 3.1.2 The Ugie Catchment: includes the North Ugie Water and the South Ugie Water which eventually combine to form the River Ugie.
- 3.1.3 The Ythan and Coastal Catchment: includes the River Ythan and the Eigie Burn.
- 3.1.4 The Don Catchment: includes the Rivers Don and Urie.
- 3.1.5 The Dee Catchment: includes the Rivers Dee, Girnock, Muick, Gairn and Feugh together with the Water of Dye.
- 3.1.6 The Kincardine Streams Catchment: includes the Burn of Muchalls, the Cowie Water, the Carron Water and the Bervie Water.
- 3.1.7 The North Esk Catchment: includes the River North Esk, the Luther Water, the West Water and the Water of Mark.

The extent of each catchment is shown in Fig I. They do not of course bear any relation to the geographic area covered by Aberdeenshire Council, which is shown in Fig 2, or to the administrative areas within Aberdeenshire, shown in Fig 3. Fig 4 shows the administrative areas superimposed upon the river catchments. A list of the main watercourses, tributaries and settlements within Aberdeenshire is tabulated in Appendix A.

3.2 Land Use

Outwith Aberdeenshire's settlements, the land use is mainly farming and forestry. In recent years there has been a significant amount of deforestation within Aberdeenshire which has resulted in localised changes in run-off characteristics.

3.3 <u>Discussion</u>

3.3.1 There are at the present time no flood warning schemes in operation on any of the catchments within Aberdeenshire. It may perhaps be concluded therefore that there was not perceived to be a serious risk of flooding within Aberdeenshire in the past.

- 3.3.2 SEPA have a responsibility to set in place flood warning schemes. It is understood that lack of funding prevents progress towards implementing flood warning schemes in Aberdeenshire. The lack of flood warning schemes is seen as being disadvantageous.
- 3.3.3 Gauging station records for all catchments are held by SEPA and will be consulted in conjunction with records from other sources to ascertain the severity of past flooding in each catchment.
- 3.3.4 Inspection of watercourses will be undertaken by catchment working across administrative boundaries as necessary, giving priority to the catchments which appear to have the greatest potential for flood damage. Priorities will be set in conjunction with SEPA.

4 Flood Prevention Schemes and Works of Maintenance Inherited by Aberdeenshire Council

- 4.1 The Grampian Regional Council (Fettercairn) Flood Prevention Scheme
- 4.1.1 This scheme was promoted and constructed under the Flood Prevention (Scotland) Act 1961 following flooding events in 1979 and 1981 and the emergency operations carried out after the 1981 flooding event.
- 4.1.2 The scheme consisted of the construction of stone filled gabions to protect the banks and invert of the Cauldcots Burn, the underpinning or reconstruction of garden walls on the north bank of the Cauldcots Burn and the construction of wooden board embankment protection on its south bank, all within the village of Fettercairn.
- 4.1.3 Because there have been flooding incidents since the scheme was completed, the Cauldcots Burn will be assessed as a matter of the highest priority.
- 4.2 Flood Prevention Works on the River Dee, Invermuick
- 4.2.1 A rock armour revetment was installed in 1961 on the River Dee at Invermuick, near Ballater, by Aberdeen County Council to protect the B976 road and the Bridge of Muick. It is not known whether a Flood Prevention Scheme was promoted to facilitate the works or not. The works will therefore be considered to be Works of Maintenance inherited by Aberdeenshire Council.
- 4.2.2 Recent inspection confirmed the current need for maintenance work at the downstream end of the revertment to restore localised bank erosion and maintain its stability. This work is planned to be carried out in the 1997/98 financial year.
- 4.3 Discussion

It is possible that other Works of Maintenance may be identified during the forthcoming watercourse assessment programme. If so, the current need for maintenance work will be assessed where appropriate.

- 4.4 Proposals with respect to Inherited Flood Prevention Schemes and Works of Maintenance
- 4.4.1 Cauldcots Burn, Fettercairn will be included in the highest priority for assessment.
- 4.4.2 Works of Maintenance, unknown at the present time but which may be identified during assessment of watercourses will be assessed where appropriate.
- 4.4.3 Maintenance of the river bank on the River Dee at Invermuick will be carried out in the 1997/98 financial year.

5 Known Flooding Problems

5.1 In and Around Inverurie

- 5.1.1 Localised flooding in and around Inverurie town centre has occurred in recent years apparently as a result of:
 - (1) increased impervious areas following recent development;
 - reduced areas of river flood plain following recent development;
 - (3) restrictions in the Strathburn Culvert.
- 5.1.2 The confluence of the River Don and the River Urie some 2km from Inverturie town centre is such that when either river is in spate, flow in the other river backs up causing localised flooding.
- 5.1.3 The Strathburn Culvert is inconsistent in cross section and form. The inconsistencies restrict the flow and the culvert's hydraulic capacity must therefore be questioned. It is known to be in poor condition in places.
- Watercourses in and around Inverturie will be assessed as a matter of the highest priority with a view to determining the nature and extent of works required to prevent or mitigate the flooding problem known to exist.

5.2 Other Towns

Localised flood problems have been notified at or around Huntly, Turriff, Ellon, Kintore and Ballater, although no details are currently available. Water courses in these areas will be assessed as a matter of the highest priority with a view to determining the nature and extent of works required to prevent or mitigate the flooding problems known to exist.

5.3 The Carron Water, Stonehaven

- 5.3.1 Localised flooding has occured on the Carron Water within Stonehaven in recent years. Domestic properties have been affected. Flooding appears to be related to shingle movement at the mouth of the Carron Water in Stonehaven Bay.
- 5.3.2 Shingle movement is inevitable but can be controlled by coast protection works. However, it is likely to be more cost effective to introduce a wier upstream of the area within Stonehaven which is prone to flooding. A feasibility study to identify the best option is planned to be carried out in the 1997/98 financial year.

5.4 <u>Undersized Drainage Systems Affecting Domestic Properties</u>

From time to time in the past, localised flooding has occured as a result of a lack of hydraulic capacity, notably in surface water pipe and ditch drainage systems. Domestic properties have been

affected. Flooding appears to be related to hydraulic factors rather than to a major flood event or other extreme circumstances.

Such problems are known to exist at:

- (1) St Andrews Drive, Fraserburgh Lossue A reinstehenent of drain track affected speechin farming
- (2) High Shore, Macduff coarporation + lond brange publica
- (3) Bridge Street, Banff Court Prohastron + Road Drainage problem
- (4) Millburn, St Combs love Drainage proslem
- (5) Parkhill, Kemnay
- → (6) Balmedie
 - (7) Kirkton of Skene Bun cleaned last year
- * (8) Glenbervie Road, Drumlithie Extragalley intelled in low spot bad drawings prostern
 - (9) Silverbank Gardens, Banchory
 - (10) Keithmuir Gardens, Drumoak needs avolf avain to stop from meher avaining of rec. grown over meroad.
 - (11) Kinnairdy Terrace, Torphins

Water courses in these areas will therefore be assessed with the highest priority with a view to determining the nature and extent of works required to prevent or mitigate the flooding problems known to exist.

5.5 The September 1995 Flood Incident

Widespread flooding occurred in the Grampian area in September 1995.

The early autumn floods were unusual in that they affected all catchments in the Aberdeenshire area at some time during the period 8th to 12th September. They also came as a dramatic contrast to the preceding summer when rainfall for the period June to August over the area totalled just 113mm, 50% of the 1961-90 long term average. This rainfall deficiency, coupled with some of the highest temperatures ever recorded in the area, caused drought conditions with an estimated return period of 70-100 years.

A series of fronts brought rain from the south-west across the area and caused flows to rise on the River Dee from 5 to 250 cumecs, overnight on the 1st/2nd of the month. Other catchments also responded to this rainfall, but not in such dramatic fashion. Further rainfall also affected most of the area on the 4th September.

However, the major events of the period were caused by a series of frontal systems which tracked south to north across the area on the 7th/8th, 9th/10th and 11th/12th September. All three frontal systems were slow to pass across the area and brought rainfall in from the east and north-east which affected all catchments.

Flood plain mapping was carried out by Babtie Group on behalf of the North East River Purification Board following this incident. The extent of flooding as recorded together with hydrological information obtained from river gauging stations for the Deveron, Ythan and Coastal and the Don catchments has been made available to Aberdeenshire Council.

5.6 <u>Discussion</u>

The need for comprehensive mapping of areas affected by flooding must be recognised. It is essential to have a comprehensive factual record to allow later evaluation of claims for financial assistance (under the Bellwin Scheme etc) and to allow informed decisions to be made on works necessary to prevent future flooding. Under the 1997 Act, it is the responsibility of Aberdeenshire Council to report flood events in each biennial report and therefore to commission flood plan mapping after significant flood events.

- 5.7 Proposals with respect to Known Flooding Problems
- 5.7.1 Water courses in and around Huntly, Turriff, Ellon, Inverurie, Kintore and Ballater will be included in the highest priority for assessment.
- 5.7.2 A feasibility study for a wier on the Carron Water in Stonehaven will be carried out in the 1997/98 financial year.
- 5.7.3 Surface water drainage systems known to be prone to regularly flood domestic properties will be included in the highest priority for assessment.
- 5.7.4 Flood plain mapping will be commissioned following significant flood events.

6 Action taken by Aberdeenshire Council under the Flood Prevention and Land Drainage (Scotland) Act 1997

6.1 Determination of Responsibilities within Aberdeenshire Council

The Director of Transportation and Roads is responsible for carrying out the obligations of Aberdeenshire Council arising from the Flood Prevention and Land Drainage (Scotland) Act 1997. These duties are delegated to the Head of Transportation and Roads South. The Infrastructure Services Committee have been fully appraised of the new duties and obligations which fall upon Aberdeenshire Council under the 1997 Act.

6.2 <u>Discussion with Regulatory Bodies</u>

- 6.2.1 Discussions with Hydrologists from SEPA have been held and one informal meeting has taken place. Information has been made available as a result. Meetings will be continued on a regular informal basis.
- 6.2.2 Discussions with the Aberdeenshire Council Planning and Economic Development Service have been held on an informal basis and will continue.
- 6.2.3 The need to give careful consideration to
 - (1) the effect that major developments can have on the amounts of additional run-off generated which will flow into water courses, and
 - (2) the consequences of permitting development in areas close to water courses with known potential for flooding

is recognised.

Accordingly, developers will be requested to submit hydrological studies where appropriate as part of the planning process to ensure that appropriate recognition and preventative or attenuation systems are put in place by the developer. This will ensure that the risk of flooding to the development or to other areas as a result of the development is minimised.

It is further recognised that drainage problems associated with deforestation require to be addressed and it is proposed that discussions with landowners and forestry organisations are undertaken to evaluate the consequences of changes in land use and methods of minimising the potential risk of flooding.

6.2.4 A formal Flood Appraisal Group is recognised as being essential to minimise the impact of development on flooding and will be established for the Aberdeenshire Council area.

6.3 <u>Discussion with Neighbouring Authorities</u>

Discussions with Officers of Aberdeen City Council, Angus Council and the Moray Council have been held. One informal meeting has taken place to exchange information. It is intended to meet informally some two or three times each year at least until such time as the assessment of watercourses is well established.

7 Further Implementation of the Flood Prevention and Land Drainage (Scotland) Act 1997

7.1 <u>Assessment of Watercourses</u>

The 1997 Act requires the Council to assess all watercourses in such a manner and within such a timescale as seems appropriate for the circumstances in Aberdeenshire. Thus, there are many things to be determined including basic criteria and priorities. Initial considerations of basic criteria and priorities are as follows:

7.1.1 Prioritise between Catchments

It is proposed to prioritise between catchments on the basis of previous knowledge so as to concentrate resources on those catchments within Aberdeenshire which have the greatest potential for flood damage to non agricultural land.

7.1.2 Prioritise between Individual Lengths of Watercourse

It is proposed to prioritise between individual lengths of watercourse on the following basis:

- (1) any length of watercourse identified as having been subject to flooding in the past will be given the highest priority;
- (2) any length of watercourse identified previously as being susceptible to flooding will be given high priority;
- otherwise, confluences in main channels will be assessed before main channels, before tributaries, before local burns or drains. Surface water pipes or ditches draining roads, dwellings, schools, commercial or industrial premises will generally be given the lowest priority;
- (4) main river channels and tributaries of all catchments will generally be completed before assessment of local burns or drains is commenced.

7.1.3 Appropriate Timescale

It is proposed to have carried out assessment of all main river channels and tributaries within two years and thereafter, to assess the remainder over a further six year period.

7.1.4 Frequency of Assessment

It is proposed to adopt a philosophy for frequency of assessment based on that adopted for bridge inspections some time ago:

(1) all main channels, all tributaries and those lengths of the remainder which following first assessment have been identified as requiring maintenance works or flood prevention schemes will be inspected on a two yearly cycle and reassessed after six years. Every third visit will

be a full scale assessment; in between each assessment, there will be two inspections at two yearly intervals;

- (2) a special inspection and, if necessary, a reassessment will be carried out at any time should the Council become aware of special circumstances;
- (3) the remaining watercourses will probably not be inspected more frequently than every sixth year.

7.2 <u>Maintenance of Watercourses</u>

- 7.2.1 Under the Flood Prevention (Scotland) Act 1961 as amended by the Flood Prevention and Land Drainage (Scotland) Act 1997, Aberdeenshire Council is required to "cleanse, repair or otherwise maintain in a state of efficiency any watercourse, barrier, embankment or other work for defence against flooding and any apparatus ancillary to any such work or to any watercourse".
- 7.2.2 It is recognised that regular maintenance can contribute significantly to the prevention or mitigation of flooding. As a consequence of the 1997 Act, the Council is obliged to carry out works of maintenance which will result in the likelihood of flooding being reduced.

7.3 Works to Prevent or Mitigate Flooding

As the assessment programme develops and the need for works to prevent or mitigate flooding becomes apparent, a Flood Prevention Scheme under the 1961 Act or Works of Maintenance will be proposed, as appropriate. Such schemes will be reported to Area Committees and to the Infrastructure Services Committee.

7.4 Subsequent Biennial Reports

- 7.4.1 Subsequent biennial reports will specify:
 - (1) all the measures which Aberdeenshire Council consider necessary to prevent or mitigate flooding;
 - (2) all the measures which Aberdeenshire Council have taken to prevent or mitigate flooding since the publication of the preceding report;
 - (3) details of all flood occurrences since publication of the preceding report.
- 7.4.2 The reports will contain sufficient information to demonstrate all that Aberdeenshire Council will have done to discharge its duties under the 1997 Act. They will be made available to members of the public.

7.5 <u>Liaison with Neighbouring Authorities</u>

7.5.1 General

Aberdeenshire Council will liaise with neighbouring authorities should the Council become aware of conditions likely to cause flooding in another authority's area.

7.5.2 Boundaries Coincident with Watercourses

Watercourses which form boundaries between Aberdeenshire and a neighbouring authority will be subject to a sharing agreement. It has been agreed that in the interests of communities which straddle such boundaries any Flood Prevention Scheme or Works of Maintenance which may become necessary will be jointly promoted. The costs will be shared between Aberdeenshire Council and the neighbouring authority apportioned as to that part of the works which falls within each authority's area, the boundary being a line drawn centrally between each river bank when the river is full, unless determined otherwise by title deeds.

7.5.3 <u>Development Proposals</u>

The need to be aware of significant development proposals in an upstream neighbouring authority and to advise a downstream neighbouring authority of significant development proposals is recognised. The lack of a requirement within the planning process for consultation to this effect is seen as disadvantageous. It is hoped that through the good offices of SEPA and/or through goodwill between neighbouring authorities, Aberdeenshire Council will be informed of significant upstream development proposals. Where a proposed development presents implications for a neighbouring authority, Aberdeenshire Council will endeavour to liaise with the neighbouring authority and resolve the implications on a case by case basis.

7.6 Discussion

- 7.6.1 The proposed criteria and priorities outlined in 7.1 have been discussed with Officers of SEPA who consider them reasonable. They will be reviewed and modified as appropriate during the assessment process and in response to future flood events.
- 7.6.2 It is considered likely that tributaries to main river channels will be more problematic than main channels.
- 7.6.3 The information gained during inspection and assessment of watercourses will be stored in a database, probably GIS based. This database will be developed in the early stages of the assessment programme.
- 7.7 Proposals with respect to Further Implementation of the 1997 Act
- 7.7.1 Proposals for prioritising between catchments and between individual lengths of watercourse and for timescale are detailed in 7.1.1, 7.1.2 and 7.1.3 on the basis of which an assessment programme will be established.

- 7.7.2 Proposals for the frequency of assessment are detailed in 7.1.4.
- 7.7.3 Flood Prevention Schemes and Works of Maintenance will be proposed as appropriate when the need is identified and will be pursued when funding permits.
- 7.7.4 Subsequent biennial reports will demonstrate Aberdeenshire Council's discharge of its duties under the 1997 Act.
- 7.7.5 Proposals for liaison with neighbouring authorities are detailed in 7.5.1, 7.5.2 and 7.5.3.

8 <u>Interpretation of the Flood Prevention and Land Drainage (Scotland) Act 1997 by Aberdeenshire Council</u>

- 8.1 The phrase "assess all watercourses" is not clearly defined. The appendix to SOAEFD Circular 1/1997 states that Local Authorities are required to "undertake assessments of watercourses in their area to ascertain if the condition of any of them is such as to give rise to concern that there is a danger of flooding". Assessment is seen as the inspection of the watercourse (but not a systematic survey measuring profile, channel cross section etc) to identify and record degrading banks, low banks, blockages, potential for blocking, sources of potential blocking material or restrictive structures etc followed by the survey of these critical features once identified, collection and storage of data, leading to an appraisal of the flooding risk and the need for action. This is a working guide rather than a rigorous definition.
- 8.2 Circular 1/1997 also states that it is not necessary to visit all watercourses on the ground in any one year and that it is for the Local Authority to determine priorities in the light of local concern about flooding and its likely impact. The timescale and regime of inspection and assessment proposed in 7.1 have been determined in the light of information available to Aberdeenshire Council at the present time.
- 8.3 Non-agricultural land has been taken as meaning land which does not constitute agricultural land as in Section 86 of the Agriculture (Scotland) Act 1948. Land which is used for agriculture which is so used for the purposes of a trade or business or which is designated by the Secretary of State for the purposes of Section 86 including any land so designated as land which in the opinion of the Secretary of State ought to be brought into use for agriculture is therefore excluded.

No designation under Section 86 of the Agriculture (Scotland) Act 1948 shall extend to:

- (1) land used as pleasure grounds, private gardens or allotment gardens, or
- (2) land kept or preserved mainly or exclusively for the purposes of sport or recreation, except where the Secretary of State is satisfied that it's use for agriculture would not be inconsistent with it's use for the said purposes and it is so stated in the designation:

such land is therefore excluded also.

9 Funding

- 9.1 Aberdeenshire Council acknowledges the duty placed on Local Authorities with regard to the future maintenance of all watercourses which are likely to cause flooding of non-agricultural land and will consider appropriate funding to undertake regular maintenance works.
- 9.2 The Council also recognises the need for future flood prevention schemes through Flood Prevention Orders and engineered Works of Maintenance to minimise future flooding occurrences. These works could involve significant financial support and the Council will introduce and prioritise schemes within the capital and revenue programme of works.
- 9.3 To assist with the financing of future works, the Council will:
- 9.3.1 promote Flood Prevention Orders under the 1961 Act;
- 9.3.2 apply for Grant assistance towards the construction of future schemes;
- 9.3.3 make application for assistance under future Challenge Funding regimes;
- 9.3.4 request additional capital borrowing consents to fund schemes;
- 9.3.5 involve the private sector in contributions towards flood prevention schemes or schemes of maintenance where appropriate.
- 9.4 Where possible, Aberdeenshire Council will seek to recover reasonable costs from responsible parties whose inactivity may have given rise to works necessary for the prevention of flooding of nonagricultural land.

10 Conclusion

This is the First Biennial Report by Aberdeenshire Council under the Flood Prevention and Land Drainage (Scotland) Act 1997.

Signed Date 14 November 1997.

Iain Gabriel B.Sc, C.Eng, M.I.C.E., M.I.H.T. Director of Transportation and Roads Aberdeenshire Council

> MHT/LB/S/1/175 7 November 1997

ABERDEENSHIRE COUNCIL TRANSPORTATION AND ROADS

Printed on 05/11/1997

FIRST BIENNIAL REPORT : NOVEMBER 1997

THE FLOOD PREVENTION AND LAND DRAINAGE (SCOTLAND ACT) 1997

FIG. 1: EXTENT OF RIVER CATCHMENTS

FIRST BIENNIAL REPORT: NOVEMBER 1997

ABERDEENSHIRE COUNCIL TRANSPORTATION AND ROADS Printed on 05/11/1997

FIG. 2: GEOGRAPHIC AREA COVERED BY ABERDEENSHIRE COUNCIL

THE FLOOD PREVENTION AND LAND DRAINAGE (SCOTLAND ACT) 1997

ABERDEENSHIRE COUNCIL TRANSPORTATION AND ROADS

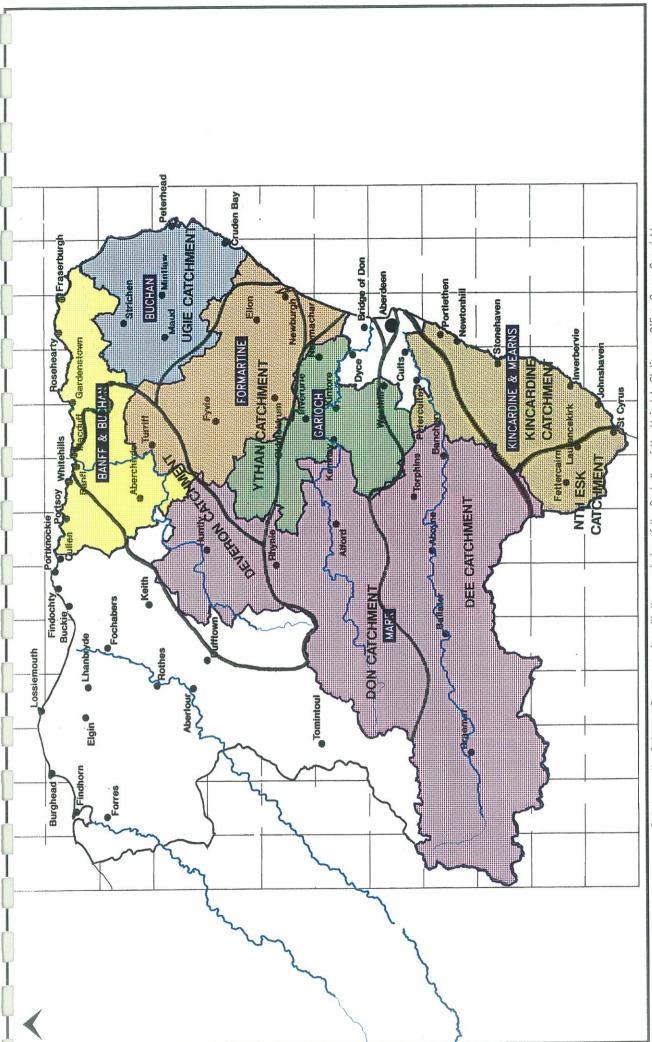
Printed on 05/11/1997

FIG. 3: ADMINISTRATIVE AREAS WITHIN ABERDEENSHIRE

THE FLOOD PREVENTION AND LAND DRAINAGE (SCOTLAND ACT) 1997

FIRST BIENNIAL REPORT: NOVEMBER 1997

Printed on 05/11/1997



Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office. Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence number LA 090221.

THE FLOOD PREVENTION AND LAND DRAINAGE (SCOTLAND ACT) 1997

FIRST BIENNIAL REPORT: NOVEMBER 1997

FIG. 4: ADMINISTRATIVE AREAS SUPERIMPOSED UPON CATCHMENTS

APPENDIX A

<u>CATCHMENT AREAS WITH MAIN WATERCOURSES, PRINCIPAL TRIBUTARIES AND SETTLEMENTS</u>

Catchment	Watercourse	Settlement (or district)
Deveron	River Deveron	Haugh of Glass
		Blairmore
		Huntly
		Milltown of Rothiemay
		Inverkeithny
		Turriff
		Banff
		Macduff
	Glenburn/Collonach Burn	(Longhill)
	River Bogie	Huntly
		Bridgend
	Water of Bogie	Gartly
		Rhynie
	River Isla	Nethermills
	Burn of Forgue	Inverkeithny
		Forgue
	Burn of Turriff	Turriff
	Idoch Water	Cuminestown
	Rosy Burn	Newton of Mountblairy
	Burn of Brydock	Mill of Brydock
Ugie	River Ugie	Inverugie
		Peterhead
	North Ugie Water	Strichen
		Fetterangus
		Hythie
		Cuttyhill
	South Ugie Water	New Deer
		Maud
		Old Deer
		Stuartfield
		Mintlaw
		Longside
	Water of Fedderate	Bonnykelly
		Oldwhat
	Burn of Ludquharn	Longside
Ythan and Coastal	River Ythan	Ythanwells

Catchment	Watercourse	Settlement (or district)
Ythan and Coastal continued		Logie Newton
		Kirkton of Auchterless
		Mains of Towie
		Inverythan
		Fyvie
		Woodhead
-		Methlick
		Ellon
		Waterton
		Kirkton of Logie Buchan
		Newburgh
	Tifty Burn	Tifty
	Fordoun Burn	Rothienorman
	Little Water	(Burneno)
	Black Burn	(Bellmuir, Gowanwell)
	Ebrie Burn	(Blackhill of Fortrie)
 	Yowlie Burn	Mirton of Ardlethen
	Bronie Burn	Littlemill of Esslemont
		Pitmedden
		Udny Green
	Burn of Forvie	(Forvie)
	Tarty Burn	Tipperty
	Foveran Burn	Newburgh
Don	River Don	Strathdon
		Bellabeg
		Forbes Town
		Waterside
		Glenkindie
		Towie
		Kildrummy
		Bridge of Alford
		Montgarrie
		Alford
		Keig
		Pitfichie
<u></u>		Monymusk
		Kemnay
		Burnhervie
		Port Elphinstone
		Inverurie
		Kintore
		Hatton of Fintray
		Cothall

Catchment	Watercourse	Settlement (or district)
Don continued	Allt Tuileach	(Dunandhu)
	Burn of Loinherry	Loinherry
	Cock Burn	Cock Bridge
	Delavine Burn	(Delavine)
	Burn of Tornahaish	(Tornashaish)
	Conrie Water	(Culfork)
	Ernan Water	(Glen Ernan)
	Water of Carvie	(Birkford)
	Water of Nochty	(Glen Nochty)
	Deskry Water	(Deskry)
	Water of Buchat	(Glen Buchat)
	Kindie Burn	(Pitcandlich)
	Socach Burn/Long Burn	(Culfork)
	Leochel Burn	Muir of Fowlis
	Suie Burn	Montgarrie
		Tullynessle
	Ton Burn	(Dalriach)
	River Urie	Inverurie
		Drimmies
		Inveramsay
· ·		Pitcaple
		Whiteford
		Mill of Carden
		Old Rayne
		Pitmachie
Dee	River Dee	Braemar
		Balnaut
		Easter Balmoral
· · · · · · · · · · · · · · · · · · ·		Bridge of Muick
		Ballater
		Dinnet
		Aboyne
		Kincardine O'Neil
		Banchory
		Crathes
	Geldie Burn	(Geldie)
	Bynack Burn	(Bynack)
	Derry Burn	(Glen Derry)
	Lui Water	(Glen Lui)
	Ey Burn	(Inverey)
	Corriemulzie Burn	(Linn of Corriemulzie)
	Quoich Water	(Glen Quoich)
	Clunie Water	Braemar
	Callater Burn	(Glen Callater)

Catchment	Watercourse	Settlement (or district)
Dee continued	Feardar Burn	(Inver)
	Gelder Burn	Invergelder
	Girnock Burn	Littlemill
	River Gairn	(Glen Gairn)
	River Muick	(Glen Muick)
	Tullich Burn	Milton of Tullich
	Pollagach Burn	(Dinnet)
	Water of Tanar	(Glen Tanar)
	Burn of Canny	Bridge of Canny
	Water of Feugh	(Feughside)
		Strachan
	Bo Burn	(Crathes)
	Burn of Sheeoch	Kirkton of Durris
Kincardine Streams	Bervie Water	Glenbervie
		Drumlithie
		Inverbervie
	West Burn of Builg	Drumtochy Forest
	Burn of Luchray	Drumtochy Forest
	East Burn of Builg	Drumtochy Forest
	Maxie Burn	Drumtochy Forest
	Forthie Water	(Candy)
	Cowie Water	Rickarton
		Stonehaven
	Cowton Burn	(Cowton)
	Carron Water	Kirkton of Fetteresso
		Stonehaven
	Burn of Muchalls	Bridge of Muchalls
		Muchalls
North Esk	River North Esk	Northwater Bridge
		Marykirk
	Luther Water	(Howe of the Mearns)
	Dowrie Burn	(Howe of the Mearns)
	Cauldcots Burn	Fettercairn
	Black Burn	(Howe of the Mearns)
	Devilly Burn	(Howe of the Mearns)
	Ducat Water	(Howe of the Mearns)
	Burn of Balmakelly	(Howe of the Mearns)