

ABERDEENSHIRE COUNCIL

FLOODING
IN
ABERDEENSHIRE

SEVENTH BIENNIAL REPORT

THE FLOOD PREVENTION & LAND DRAINAGE (SCOTLAND) ACT 1997

NOVEMBER 2009

Flooding in Aberdeenshire

SUMMARY REPORT

As required by the Flood Prevention & Land Drainage (Scotland) Act 1997, Aberdeenshire Council publishes a report on flooding every two years to inform Aberdeenshire Residents. The last report was published in November 2007. This, the seventh Biennial Report covers the period from 1st November 2007 to 1st November 2009 inclusive.

Three events towards the end of the reporting period caused the majority of the flood damage over the two year period and resulted in internal flooding to an estimated 350 properties. These events are reported in more detail within the main report.

A number of local flood events recorded over the last two years were due to local land or road drainage systems being overwhelmed by the intensity of rainfall. In most cases, improvement action was agreed in conjunction with the various parties involved. Frequently, the responsibility lay with individual land owners to carry out these improvements.

Coastal flooding and erosion are ongoing issues in Aberdeenshire. Coastal slope instability has been an issue principally at Stonehaven (Bervie Braes) and Pennan although minor landslips have also caused concern at Newtonhill, Banff, Boddam and Cruden Bay.

Road drainage improvements where required have been included in annual road maintenance programmes, prioritised against other demands. Basic maintenance work has been carried out on watercourses where to do so would significantly reduce the likelihood of properties being flooded. Similarly, maintenance has been undertaken on coastal defence assets to maintain their integrity. A scheme to prevent coastal erosion and reduce the risk of coastal flooding was installed at Johnshaven under the Coast Protection Act 1949.

Other improvements are planned, some on a large enough scale to require formal flood prevention orders either through existing legislation or through the new procedures in the Flood Risk Management (Scotland) Act 2009 when the relevant sections come into force (expected late 2010).

The report briefly details all of the flooding incidents reported to Aberdeenshire Council since November 2007. The locations of flooding tabulated are deliberately vague to avoid unnecessary concern and possible blight. Any member of the public who has a legitimate interest may come into the Council Office at Carlton House, Stonehaven and look at the flood records for any particular location. Alternatively, by prior arrangement, some records

can be made available for inspection at any local Aberdeenshire Council Office. Contact details are given at the end of the report.

Aberdeenshire Council have been active participants in the SCOTS Flooding Group and continue to lead on the North East Scotland Flood Liason Group. The Council are also participating in EU funded projects aimed at improving the understanding as to how land managers can assist with managing flood water (Local Lead Partner for AQUARIUS) and assisting on flood warning effectiveness project (UR FLOOD).

Many of the opportunities to carry out flood prevention work on river systems also provide opportunities for improving natural habitat, water quality and biodiversity, and vice versa. Aberdeenshire Council is therefore continuing to work in partnership with agencies such as SEPA, SNH, Scottish Water and the Salmon Fishery Boards including through active participation in the Dee Catchment Management Plan. Flood alleviation schemes utilising natural floodplains, are being progressed in Fettercairn, Aboyne and Tarland. Aberdeenshire Council are also participating in River Restoration projects at Marykirk and the Upper River Dee which have potential for flood alleviation benefits.

ABERDEENSHIRE COUNCIL

SEVENTH BIENNIAL REPORT - NOVEMBER 2009

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1. Reason for Report

- 1.1 This report specifies the measures which Aberdeenshire Council consider necessary to undertake flood risk management on non-agricultural land within Aberdeenshire. This report is published as required by the Flood Prevention & Land Drainage (Scotland) Act 1997.
- 1.2 This report details:
- (1) All the flood events which have occurred since the publication of the Sixth Biennial Report;
 - (2) All the measures which Aberdeenshire Council have taken to prevent or mitigate flooding since publication of the Sixth Biennial Report;
 - (3) All further measures which Aberdeenshire Council propose to take to prevent or mitigate flooding.
- 1.3 This report is based on a review of all the information which is available to Aberdeenshire Council at the present time and the proposed actions considered necessary arising from that review. As it is intended primarily to inform Aberdeenshire Residents, the use of technical terms has been kept to a minimum. Nevertheless, technical terms are unavoidable in a report which is essentially technical. Synonyms have generally been defined within the text where first encountered. Please refer to Appendix B at the back of the report for a glossary of terms used in the text.

2. Flood Events in Aberdeenshire between November 2007 and November 2009

- 2.1 The general weather pattern over the two year period covered by this biennial report has been variable with relatively long dry periods and some periods of prolonged rainfall, primarily in the late summer / autumn. Heavy and prolonged rainfall in late October / early November 2009 led to the most widespread and serious flooding across Aberdeenshire for many years.
- 2.2 Flood events which occurred in Aberdeenshire during the period 1st November 2007 to 2nd November 2009 are generally tabulated by river catchment in Appendix A. See Appendix C for details of community locations and river catchments. The most serious flooding occurred during the period 21st October to 2nd November 2009. It is estimated that around 350 properties were flooded internally over this two week period spread over around 60 separate locations. At most locations the number of properties flooded was relatively small (less than 10) however at Stonehaven and Huntly an estimated total of 140 properties were flooded. The depth of flooding in properties varied from a few centimetres to around 1.5 metres in the worst affected properties.
- 2.3 It is worth noting that of all the flooding problems reported which affected property, most related to land or road drainage problems; the majority of the remainder related to watercourses. Of particular concern is the high number of incidents of properties being flooded from runoff from adjacent farmland. There are a relatively small number of incidences of coastal flooding but both coastal and river bank erosion have caused problems at some locations especially in small rivers and burns which were mostly affected by the high flows at the end of the reporting period. Coastal landslips have also been a prominent feature towards the end of the reporting period and these are covered in more detail in Section 3.10 of this report.
- 2.4 Incidents of flooding reported to Aberdeenshire Council were investigated and assessed. The locations of flooding tabulated are deliberately vague to avoid unnecessary concern. Any member of the public who has a legitimate interest may come into the Councils Office at Carlton House, Stonehaven and look at the flood records for any particular location. Alternatively, by prior arrangement, some records can be made available for inspection at any local Aberdeenshire Office.
- 2.5 Aberdeenshire Council has adopted an internal Performance Indicator (PI) to measure the percentage of flood reports which are investigated within 10 working days of having been reported. Since inception in early 2005 and up until the 1st November 2009, the PI for investigation of flood incidents has consistently been 100%. The target has not been met for the period following 1st November 2009 due to the

unprecedented volume of problems and this will be reported in the next biennial report.

3. Action Taken by Aberdeenshire Council under the Flood Prevention & Land Drainage (Scotland) Act 1997 since November 2007

3.1 Assessment of Watercourses

The systematic inspection and assessment of watercourses has continued. Main river channels and principal tributaries have all been inspected and an interim flood risk assessment made. A geomorphological assessment of most of the main rivers has also been carried out. In summary, the overall progress to date with the first inspection and assessment is approximately 97% complete. Locations and features which were assessed as being to some degree likely to flood have been subject to regular follow-up inspections since.

3.2 Discussion with Regulatory Bodies

3.2.1 The North East Flood Liaison & Appraisal Group (NESFLAG) is now well established as the forum for discussion and resolution of issues relating to the impact of development on flooding and vice versa.

3.2.2 In addition to discussion within the Flood Appraisal Group, the close working relationship developed between Development Control Officers and the Flood Alleviation Team within the Council and Officers of SEPA has continued.

3.2.3 Ad-hoc liaison meetings are held with the river fishing control bodies in Aberdeenshire.

3.2.4 Discussion with Officers of neighbouring councils will continue through occasional meetings to exchange information and share best practice primarily through active participations in the SCOTS Flooding Group.

3.3 Flood Warning, River Gauging and Monitoring

3.3.1 Aberdeenshire Council continues to measure watercourse levels at various locations throughout Aberdeenshire. This monitoring is used to gather data on watercourse response to rainfall events. A new flood warning system has been fitted to a culvert at Portsoy which has the potential for flooding.

3.3.2 The existing SEPA gauges are located on the main river channels and some principal tributaries. Funding of £1 million was announced in September 2007 for SEPA in conjunction with local authorities to develop a new flood warning scheme for the North East of Scotland.

This will cover the Dee, Don, Deveron and North Esk rivers. The flood warning system for the main rivers is due to come online in February 2010. There has been a request issued to SEPA by Aberdeenshire Council to consider opportunities for improved flood warning at Stonehaven and discussions on this are ongoing.

- 3.3.3 Detailed beach plan surveys were also undertaken at three locations where longer term data on beach behaviour will be required in order to inform long term decision making on managing future coastal flood risk.

3.4 **The Dee Catchment Management Plan**

Further to the designation of the River Dee Catchment as an SAC (Special Area of Conservation), the Dee Catchment Management Plan was published. Subgroups were set up to implement the recommendations of the plan and Aberdeenshire are leading on the Flows subgroup which considers issues related to runoff, flooding and low flows. Further information on this can be found at www.theiverdee.org.

3.5 **Works of Maintenance by Aberdeenshire Council**

- 3.5.1 Works of Maintenance have been carried out in many locations where to do so would significantly reduce the likelihood of flooding. The demand for such works inevitably exceeds the available funding. A simple system of assessing schemes by a point score method was devised some time ago to establish relative priorities. This system takes account of flood frequency and social factors. It has been reviewed recently and is considered reasonable and workable.
- 3.5.2 Whenever possible, “soft engineering” methods have been utilised in Works of Maintenance. Hydraulic and climatic conditions often control the methods which may be adopted. However, Aberdeenshire Council proceeds generally on the basis of a presumption for soft engineering methods unless conditions dictate otherwise. The Controlled Activities Regulations (CAR) by SEPA also heavily favour soft engineering erosion control and flood alleviation measures where appropriate. Further information on these regulations and their implications for flood protection schemes can be found at www.sepa.org.uk.
- 3.5.3 Works of maintenance or minor improvement have been carried out at the locations listed below:

Aboyne
Alford
Banff
Balmedie
Fettercairn
Gardenstown

Inverbervie,
Macduff
Marykirk,
Peterhead
Philorth
Stonehaven

3.6 Flood Studies

It is often necessary to carry out a flood study in order to obtain a comprehensive understanding where the mechanism of flooding is complex. Several consultants have been commissioned from time to time for specific studies. The hydraulic models generated have been used to quantify the flood risk and to test possible solutions in order to identify the optimum solution. In addition to those flood studies already carried out as detailed in the sixth biennial report, flood studies have been carried out at the following locations:

Burn of Cauldcotts, Fettercairn
Ythan Estuary, Newburgh
Tarland Burn, Tarland and Aboyne
Johnshaven (coastal flood / erosion assessment)
Extreme coastal water levels assessment
Coastal landslip studies at Stonehaven and Pennan

Where appropriate, the studies will generate cost benefit analyses which will be used to justify proposals for Flood Protection Schemes and Coast Protection Works.

3.7 Johnshaven Coast Protection Works

Properties and the road at Beach Road, Johnshaven were being threatened by coastal erosion. The erosion, if left unchecked would have also lead to an increase in flood risk to a number of properties. Following investigations and a public meeting, a 100 metre long rock revetment was installed at a total cost of £101,000. This will provide long term benefits to residents in terms of reduced risk from flooding and erosion.

3.8 Flood Alleviation Works at Whinnyfold, Cruden Bay and Alford

Aberdeenshire Council completed a flood relief scheme at Whinnyfold, Cruden Bay at a cost of £12,000. A number of properties were being flooded on a frequent basis. A flood alleviation scheme, also costing £12,000, was completed to prevent repeated flooding to properties in Alford.

3.9 Landslips

- 3.9.1 Following major mudslides at Pennan in August 2007, which resulted in the inundation of a number of properties, the Scottish Government agreed in December 2008 to fund £500,000 of a £600,000 scheme to reduce the risk of a repeat occurrence. This scheme is currently being developed and it is anticipated that the works will be implemented during the summer of 2010.
- 3.9.2 Concerns have existed for a number of years about the stability of the Bervie Braes, Stonehaven. The Braes are privately owned but a public road runs across the slope and approximately 65 houses are located at its base, many of them Council owned. As a result of heavy rainfall on 1 November 2009 a localised area of road edge and embankment failed causing material to be washed down towards the harbour, affecting private properties. Options for stabilising the wider slope had already been examined and a request is currently with the Scottish Government for assistance to fund a major remediation project.
- 3.9.10 Over the last two years localised landslips have also occurred at Newtonhill, Banff, Boddam and Cruden Bay. With the exception of Banff, the slips have all occurred on private land. In each case the cause has been a combination of water run off or seepage from above acting on overly steep coastal slopes. The Council has provided limited technical advice on each occasion. As a general rule, it will only undertake remedial action if it owns the land, its assets are affected or where it has in some way contributed to the problem.

4. Further Action Proposed by Aberdeenshire Council under the Flood Prevention & Land Drainage (Scotland) Act 1997 and the Flood Prevention Act 1961

4.1 Further Works of Maintenance

It is recognised that regular maintenance can contribute significantly to the prevention or mitigation of flooding. Aberdeenshire Council therefore propose to carry out further Works of Maintenance under the Flood Prevention & Land Drainage (Scotland) Act 1997 to reduce the likelihood of flooding where a significant risk has been assessed. Such works will range in size from clearing debris which blocks the watercourse to minor engineering works to provide flood protection or to improve hydraulic efficiency. The works will be prioritised within the available budget to address the most serious issues.

4.2 Flood Studies

Aberdeenshire Council propose to commission flood studies whenever necessary to better understand the mechanism of flooding. Studies will be undertaken at Stonehaven (Carron), Huntly (Meadow Burn / Deveron), Portsoy (Soy Burn), Marykirk (in conjunction with restoration funding from SEPA).

4.3 Inspection and Assessment of Watercourses

Inspection and assessment of watercourses will continue as required by the Flood Prevention & Land Drainage (Scotland) Act 1997.

4.4 Flood Protection Schemes

Authorisation will be sought for Flood Prevention Schemes which are beyond the scope of Works of Maintenance. Schemes are currently proposed on the Cauldcotts Burn at Fettercairn, and the Tarland Burn at Aboyne and Tarland. It is likely that flood alleviation schemes will also be drawn up in Huntly and Stonehaven subject to the outcome of the flood studies.

4.5 Flood Alleviation Works at Boddam, Peterhead

The problem caused by surface water coming off the Trunk Road at Boddam and flooding domestic property has advanced to the stage where agreement from Scottish Water has been obtained recently to undertake the necessary connections to the surface water sewer of the former RAF Buchan site, and the adjacent Army Cadets' property. It is intended that this scheme is progressed in partnership with Transport Scotland / BEAR who are providing a financial contribution.

4.6 Coast Protection Works

Coast Protection Works at Scotstown, Banff will be progressed to strengthen and repair damage to the existing seawall.

4.7 Liaison with Neighbouring Authorities

The need to ensure that neighbouring authorities are aware of significant development proposals is recognised. The North East Scotland Flood Appraisal Group serves to allow data and advice to be shared. Flood studies, Works of Maintenance and Flood Prevention Schemes are being and will continue to be jointly promoted as appropriate.

4.8 Public Awareness

4.8.1 There is still much to be done to ensure that members of the public are fully aware of all the issues relating to flooding and its causes. This includes educating riparian owners where possible of their responsibilities for both bank maintenance, and not disposing of garden waste into the watercourse, which invariably leads to blockages downstream.

4.8.2 Aberdeenshire Council are also currently progressing methods to best educate homeowners of their responsibilities for maintenance of their own sustainable urban drainage systems (SUDs).

4.9 Flood Warning & River Gauging

The supplementary river level gauges and rainfall gauges on un-gauged tributaries will continue to provide data which is analysed statistically to provide estimates of the 100 year and 200 year return period river flow events. As time goes by and more data is collected, these estimates will be reviewed and will become increasingly reliable. A review of the Council's river gauges will also be undertaken to take account of the recent installations by SEPA as part of the NE flood warning scheme and the recent flooding history. Discussions with SEPA will be instigated to assess the viability of a flood warning scheme for the River Carron in Stonehaven.

4.10 The Aberdeenshire Flood Action Network

Aberdeenshire Council will encourage and support other community groups who are at risk of flooding from watercourses who wish to form their own Flood Action Networks.

4.11 Flood Risk Management (Scotland) Act, 2009

Aberdeenshire Council will fulfil their new statutory duties under the Flood Risk Management Act 2009 and gratefully acknowledge the

intention of Government to provide additional funding for the new flood risk planning role. It is likely however that any potential works arising from the broadening of duties will compete for the funds which were previously earmarked for the management of watercourses and coastline. The Council will therefore continue to prioritise works to meet its statutory duty to act towards reducing overall flood risk but will not be able to address all flooding issues in all areas.

5 Funding

- 5.1 The funding allocated to Flood Prevention in Aberdeenshire Council's Revenue Budget has allowed reasonable progress to be made in the inspection and assessment of watercourses and for some Works of Maintenance to be carried out. It is clear that the need for further Works of Maintenance will be identified as the assessment of watercourses continues. It is also clear that, by its very nature, maintenance work is in most cases repetitive. It is evident therefore that the current level of funding must be at least maintained for the foreseeable future.
- 5.2 The financial consequences of flood damage have traditionally been met by property insurance. The Association of British Insurers has made it clear that they will not continue to provide blanket cover against flooding as a matter of course. Insurance premiums can be expected to increase significantly for flood-prone property and may in some cases be refused. It would appear that they take into account the degree to which councils are pro-active in flood alleviation when assessing insurance risk. It is therefore to the benefit of residents that Aberdeenshire maintain a reasonable level of funding for flood protection.
- 5.3 Where appropriate, Aberdeenshire Council will seek to recover reasonable costs from parties who have responsibility and whose inactivity may have required the Council to carry out works to prevent flooding of non-agricultural land.
- 5.4 It is noted that there is no longer central Government grants available to promote specific capital schemes for flood and coast protection. It is also noted that once existing confirmed schemes in Scotland have been completed the funds that were formerly available for capital grants will be distributed to Scottish local Authorities on an overall flood risk based approach as part of the block grant.

6 **Contact Point**

Formal enquiries arising from this report should be addressed to Philip McKay, Head of Roads and Landscape Services, Harlaw Way, Inverurie, AB51 4SG, or e-mail <Philip.mckay@aberdeenshire.gov.uk> or via the Councils web site.

Informal enquiries should be made to Willie Murdoch, Projects Manager, tel. 01467 628092 or e-mail <William.murdoch@aberdeenshire.gov.uk> or via the Councils web site.

7 Conclusion

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

Signed.....

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Director of Transportation & Infrastructure
Aberdeenshire Council

November 2009

APPENDIX A

**TABLE OF FLOOD EVENTS RECORDED IN ABERDEENSHIRE
1st NOVEMBER 2007 – 1st November 2009**

APPENDIX B

GLOSSARY OF TERMS USED IN THE TEXT

SEPA

The Scottish Environment Protection Agency – a government agency tasked mainly with controlling pollution of land and water throughout Scotland and, significantly in the context of this report, also tasked with river flow gauging and river flood warning.

SNH

Scottish Natural Heritage – a government agency tasked mainly with the protection of ecology throughout Scotland.

GIS

Geographical Information System – a computerised mapping system on which data can be displayed by its location and accessed for reference.

Catchment

River Catchment – the area which drains into a river. The term can be applied to an entire river system from the mouth of the river estuary or to an individual tributary river.

Riparian

An adjective meaning on or of river banks. A riparian owner is an individual who owns the bank of a river.

APPENDIX C

TABLE OF CATCHMENT AREAS WITH MAIN WATERCOURSES,
 PRINCIPAL TRIBUTARIES AND SETTLEMENTS

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 Forge	Inverkeithny	
		Forge	
	Burn of Turriff	Turriff	
	Idoch Water	Cuminestown	
	Rosy Burn	Newton of Mountblairy	
	Burn of Brydock	Mill of Brydock	
Ugie	River Ugie	Inverugie	
		Peterhead	
		Strichen	
	North Ugie Water	Fetterangus	
		Hythie	
		Cuttyhill	
	South Ugie Water	New Deer	
		Maud	
		Old Deer	
		Stuartfield	
		Mintlaw	
		Longside	
	Water of Fedderate	Bonnykelly	
		Oldwhat	
		Longside	
Ythan and Coastal	River Ythan	Ythanwells	
		Logie Newton	
		Kirkton of Auchterless	

Catchment	Watercourse	Settlement (or district)
		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
		Monymusk
		Kemnay
		Burnhervie
		Port Elphinstone
		Inverurie
		Kintore
		Hatton of Fintray
		Cothall
	Allt Tuileach	(Dunandhu)

Catchment	Watercourse	Settlement (or district)
	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 Nocht	(Glen Nocht)
	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
		Pitcable
		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)
	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 Sheecho	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)
	Dowie 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)