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The Highland Council Consultancy Unit Design Team 3 Brora

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1. Introduction

In March 1997 the introduction of the Flood Prevention and Land Drainage (Scotland) Act 1997 instigated changes to the responsibilities and duties of Local Authorities in Scotland.

This Act amended the Flood Prevention (Scotland) Act 1961 and repealed sections of the Land Drainage (Scotland) Act 1930 and the Land Drainage (Scotland) Act 1941.

In respect of this Act the flooding referred to is the flooding of land, not being agricultural land. Flooding of agricultural land falls outwith the requirements of the Act.

The implications on The Highland Council of this Act impose the following additional requirements:-

- a) **Assessment of Watercourses**, from time to time for the purpose of ascertaining whether any such watercourse is in a condition likely to flood.
- b) **A Duty to Maintain Watercourses,** which are in a condition likely to cause flooding, or where works would substantially reduce the likelihood of such flooding.
- c) **Notification of Local Authorities outwith the Area**. Where it appears to The Highland Council that any watercourse in the area is in a condition which is likely to cause flooding, outwith the area, the Council shall notify the local authority for the area in which that land is situated.
- d) **Reports** shall be published, at two year intervals.

In recognition of these requirements the Highland Council prepared and implemented a Flood Prevention Policy, a copy of which is included in Appendix A of this report.

This report is published in accordance with reporting requirements of the Act identified in paragraph 1.d above.

Previous reports were published in November 1997 and November 2000.

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2. Reporting Requirements of the Flood Prevention and Land Drainage (Scotland) Act 1997

The Act states that each local authority in Scotland shall prepare and publish a report specifying:-

- a) The measures which they consider that they require to take to prevent or mitigate the flooding of land in their area.
- b) The measures which they have taken since the date of publication of their previous report to prevent or mitigate the flooding of such land.
- c) All occurrences of flooding of such land since the publication of their previous report.

This report has been prepared to meet the reporting requirements of the Act, and has been subdivided into the three reporting headings specified above.

3. Measures Required to Prevent or Mitigate the Flooding of Non Agricultural Land

3.1 Introduction

In recognition of the impact of flooding on commercial and residential properties coupled with the new responsibilities placed on to the Highland Council as a result of the Flood Prevention and Land Drainage (Scotland) Act 1997, measures to prevent or mitigate flooding are being addressed on a number of fronts.

One issue being addressed is the control of the location and nature of future developments. Careful consideration of flooding and the potential impact on developments in respect of all Planning Applications and future developments has been included in the recently implemented Highland Structure Plan. The Highland Structure plan will also feed into and influence future revisions of the Local Plans within the Highland Area.

The National Planning Policy Guideline NPPG7 Planning and Flooding also requires the Planning Authority to consider flood risk in both Structure and Local Plans.

Aside from policy implementation there are the reactive measures needed to address flooding events at locations which are known problem/at risk areas.

Known at risk areas vary significantly in size and impact, and as such differing solutions are identified. These vary from schemes where significant investment and capital build is necessary and Flood Prevention Orders are required to permit construction, down to minor maintenance works to alleviate localised flooding issues.

These strategies are further considered below.

3.2 Implementation of the Highland Council Structure Plan

The Highland Council's Structure Plan constitutes the Council's strategic land use planning framework. The Highland Council's Structure Plan became operative on the 26 March 2001.

When considering sustainable development it is fundamental that the risk from natural hazards is evaluated. To reduce the potential of flooding of future developments and to limit development in flood risk areas the Structure Plan addresses Natural Hazards and more specifically Flooding.

The section relating to Natural Hazards of the Structure Plan, see Appendix B, includes the following proposals:-

Proposal NH1 Flood Consultation Areas

Local Plans will identify areas with a perceptible risk of flooding with assessment of development proposals within these areas for compatibility with flood risk.

Proposal NH2 Flood Appraisal Group

The Council will establish a Flood Appraisal Group to provide a coordinated approach to flood management.

Proposal NH3 Integrated Catchment Management Plans

The Council will support integrated catchment management plans.

A three year project is ongoing on the River Spey with the aim of including, as an objective, the integrated management plan for this catchment.

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3.3 Local Plans

The Council will require development proposals, in all but exceptional circumstances, to comply with the guidance contained in the Sustainable Urban Drainage Systems (SUDS) Design Manual for Scotland and Northern Ireland, produced by the Sustainable Urban Drainage Scottish Working Group and the framework for an agreement drawn up by COSLA and the Water Authorities. Development proposals will be assessed for any requirement to provide related attenuation measures and where necessary, remedial works associated with existing drainage systems. There will be a strict presumption against development not associated with the open space functions of the "green" corridors adjoining rivers and burns as identified in the Local Plan, to avoid jeopardising their potential for disposal or attenuation of surface water.

Flood Risk

Development proposals within areas known to be at risk from flooding will be assessed for their sensitivity according to the following hierarchy:

HIGH (e.g. sheltered housing, hospitals, emergency services, major public venues)

MEDIUM (e.g. housing development) LOW (e.g. golf course, car parks)

There will be a presumption against high sensitivity developments unless an exceptional need can be demonstrated. Proposals will be considered high risk if they pose an unacceptable threat to public safety, may cause pollution if flooded or may give rise to inordinate public expenditure on flood prevention works. The costs of providing necessary flood prevention works as a result of proposals will be met by developers whether on or off site and regardless of the level of sensitivity.

Medium and low sensitivity developments will be assessed against the following criteria: Developers must demonstrate that any new building can be adequately protected from flooding and, where appropriate, remedial measures to alleviate the flood risk have been taken. Evidence is provided that there is no adverse impact on the natural characteristics of the watercourse;

Any such protective / alleviation measures will not involve The Council in inordinate public expenditure.

Developers must employ the use of best management practices in the disposal of surface water runoff.

Layout and building design must take account of the need to ensure proper evacuation procedures.

The Council supports preparation of Integrated Catchment Management Plans for the main rivers in the Plan area. This will enable flood appraisal and management in the context of wider development and land use activities. The establishment of a Flood Appraisal Group involving partner agencies and other interests will facilitate a coordinated approach to projects and programmes, and advise on river-related works which do not require planning permission, consistent with a National Code of Practice currently being prepared by the Scottish Executive.

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3.4 Major Flood Prevention Schemes

In response to known flood risk areas The Highland Council is currently appraising a number of flood prevention/alleviation schemes, for progression of statutory consents and future implementation, subject to the availability of finance. Schemes currently being evaluated are detailed below.

3.4.1 Aviemore Flood Prevention. (Programmed for 2001/2002)

The Dalfaber Road area of Aviemore is prone to flooding. A report in 1992 prepared by consulting engineers stated that records kept by one of the occupiers of the affected buildings identified 13 flooding events in 18 years. Three houses and the Old Bridge Public House are directly affected.

The proposals for the project require that the properties be protected by the construction of an earth flood bank some 900m long at an estimated cost of £450,000. Consideration is being given to cost effective mechanisms to implement these proposals.

A Draft Flood Prevention Order(FPO), required to permit construction of flood protection schemes, received objections. The scheme is yet to proceed to Notice of Intention to Develop(NID) the planning approval process of The Highland Council or final submission of the FPO due to the objections received and financial constraints.

3.4.2 Kingussie Flood Prevention. (Programmed for 2004/2005)

The areas in Kingussie which are prone to flooding from the River Gynack include the upper section of Spey Street, part of the B970 from Kingussie to Ruthven Bridge, the High School, the Railway Bridge and adjacent sections of the track and the marginal ground along both banks of the river.

The proposals include increasing the capacity of the River Gynack by enlarging the cross-section and gradient of the River. The cost, including protection works to structures is estimated at £450.000.

The scheme is currently being re-evaluated and a revised Flood Prevention Order is under consideration.

3.4.3 Acharacle Flood Prevention

A flood prevention scheme is being designed to mitigate the risk of flooding at Moss Side.

With the area being part of a Site of Special Scientific Interest (SSSI) and a potential Special Protection Area consideration is being given to an environmental assessment and discussions are currently in progress with regard to developing a scoping study to determine the extent of the Environmental Assessment(EA). Following preparation of the Environmental Assessment the scheme development will move onto the formal Flood Prevention Order and Notice of Intention to Develop submissions.

Currently flood monitoring instrumentation is in place to record river flows, loch water levels and rainfall. This data will be used in the design of a cost effective solution to assist in solving the flooding problems.

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3.4.4 Inverness Flood Prevention

In recent years there have been increasing problems where the burns draining the catchment area to the south west of Inverness meet developed land. The burns concerned are the Lochardil Burn, Ault na Skiach Burn and Mill Burn plus their tributaries.

Consultants HR Wallingford were commissioned to undertake an audit of previous technical reports and make recommendations for immediate action.

HR Wallingford have recommended that the resistance to flow through the urban area should be reduced and arrangements are being put in hand to implement these measures as soon as finance permits. The measures will include removal of silt and other existing obstructions, clearance of vegetation and strengthening of vulnerable burn edges.

HR Wallingford further confirmed that a diversion to Holm Mains Burn would be the best long term drainage strategy. It is envisaged that sufficient flow would remain in any existing watercourses to maintain dilution of disposal from downstream developed areas, prevention of stagnant pondings and to preserve amenity value and local diversity.

Excess flows in flood conditions would be permitted to spill into an alternative artificial watercourse and taken to a discharge point on the Holm Mains Burn.

Additional work would be required to increase the safe channel capacity of Holm Mains Burn, particularly adjacent to property and at its confluence with the River Ness.

It will be necessary for the Council to promote, and have confirmed, a Flood Prevention Order prior to any works taking place.

The Consultants, Parkman, are continuing the study of the Millburn and Alt na Skiah Burn catchments. The work involves the preparation of a model which will aid in the development and optimisation of the scheme. On completion of these investigations and studies a Flood Prevention Order will be prepared and promoted.

Preliminary estimates indicate that the project is likely to be in the region of £3M.

3.4.5 Glencoe

One cottage, garages, car park and gardens suffer from flooding.

A draft Flood Prevention Order was prepared in 1991 but not published. This scheme has not been progressed since the last flood report in 2000.

3.4.6 Fort William, Caol

A scheme was prepared to prevent flooding of Caol and Lochyside. A draft Flood Prevention Order has been prepared but not published. This scheme has not been progressed since the last flood report in 2000. This area continues to be monitored.

3.4.7 Inverness Ness Bank

As identified in the previous flood report, objections to the proposed scheme to protect several properties and the road were received. This scheme has not been progressed since the last flood report in 2000.

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3.4.8 Drumnadochit, River Enrick

Following flooding on the River Enrick The Highland Council commissioned the consulting engineers Halcrow Crouch to assess the flooding risks.

This assessment included:

- a) A review of the 1990 flood study with identification of changes during the last decade.
- b) An inspection of the valley from Corrimony to Urquhart Bay.
- c) Consultation with the River Enrick Riparian Committee.

The report concluded that the last decade has seen an increase in the number of floods and that the development of a flood warning system is a good way of managing flood risk.

The report also made recommendations for the short and medium term. These recommendations include the clearing of tree debris, rip rap protection, monitoring of structures, monitoring of erosion, with the recommendation that further feasibility studies and flood risk assessments be carried out.

Funding is being pursued to allow implementation of the recommendations.

A joint project involving The Highland Council, landowners and riparian owners commissioned a study by an independent consultant to assess the River Enrick catchment. A Catchment Management Plan in accordance with The Highland Council's Structure Plan is being developed to fully consider and advise on the future management of this catchment.

3.4.9 Drumnadrochit, River Coiltie

Following two flood events on the River Coiltie where properties were affected by significant bank erosion. The Highland Council commissioned the consulting engineers Mott MacDonald to examine what measures could be taken to prevent further erosion taking place.

The assessment was to:

- a) Examine the preventative work already undertaken,
- b) Examine and identify the flood risk locations between the Borluim Bridge and Upper Lewiston.

The study, now complete, made recommendations which The Highland Council is programming to implement over the forthcoming years.

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3.5 Minor Flood Prevention Measures

In addition to the major works previously identified, it is recognised that minor works can have a significant impact on the reduction of flood risk. The following minor schemes have been identified and implementation shall be subject to availability of finance.

3.5.1 Balmoral Road – Portree, Isle of Skye

Occasional flooding of a garden on Balmoral Road is continuing. A video survey of the piped watercourse identified problems with partial blockages, broken pipes and obstructions caused by poorly made connections.

Evaluation of options with estimates shall be submitted for consideration in respect of funding the required maintenance works.

3.5.2 Blaven Park – Portree, Isle of Skye

An open ditch has been infilled and a garden shed constructed on the line of the old watercourse by a householder. The reduced capacity has resulted in flooding of a neighbours garden and garage.

A survey has been undertaken and options/costings are being considered.

3.5.3 Garve, Ross-shire

The river is flooding and causing water to back up.

The solution has been established as lowering of the river outlet at the East end of Loch Garve. The works are awaiting the availability of finance.

3.5.4 Murray Terrace, Smithton, Inverness

Primary and secondary culvert screens with alterations to the access are proposed to Smithton Burn.

3.5.5 Murray Road, Smithton, Inverness

Primary and secondary culvert screens with alterations to the access are proposed to Smithton Rurn

3.5.6 Ferntower Avenue, Culloden, Inverness

Tree felling operations have increased the flood risk, this coupled with the ongoing construction of an adjacent housing development prompted a watercourse assessment to be undertaken. Culloden North Burn is to be cleared and culvert dimensions surveyed, prior to the installation of primary and secondary culvert screens.

3.5.7 Millburn Court, Inverness

To lower the water level in the Mill Burn, the old distillery spillway and weir gates shall be demolished and removed with the bed regraded.

3.5.8 Caulfield Road, Inverness

Primary screens to Tower Brae Burn are proposed.

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3.5.9 Redburn Avenue/forestry Road, Culloden, Inverness

Primary and secondary screens to Culloden Burn are proposed.

3.5.10 Sir Walter Scott Drive, Inverness

An estimated 100 tonnes of accumulated material from the box culvert on Mill Burn is to be removed and disposed of. Primary screens are proposed.

3.5.11 Keppoch Road, Culloden, Inverness

On Culloden Burn and Culloden Burn North, there are two box culverts, around 50 tonnes of deposited material is required to be removed and disposed of, primary screens are then proposed for the culverts. The watercourse channel also requires to be regraded.

3.5.12 Boswell Road, Inverness

Primary screens to Mill Burn West are proposed.

3.5.13 Stevenson Road, Inverness

Primary screens to Mill Burn West are proposed.

3.5.14 Miller Street, Inverness

Primary screens to Mill Burn West are proposed.

3.5.15 Sir Walter Scott Drive, Inverness

Primary screens to Druid Burn are proposed.

3.5.16 Caulfield Road, Inverness

Replacement of existing triple culvert on Tower Brae Burn with a single box culvert is proposed.

3.5.17 Ulbster, Caithness

Following notification of a flooding event an assessment of the unnamed watercourse was undertaken. It was concluded that the overgrown vegetation from the culvert outfall downstream severely restricts the flow of water, this results in the culvert being unable to discharge all the flow resulting in water backing up and flooding the garden of an adjacent property.

It is proposed to clear out the unnamed watercourse downstream of the A99(T) culvert at the old Post Office.

3.5.18. Grange Road, Fort William, Lochaber

Two properties, Dunfally and Fassnahuile, are at risk from flooding due to susceptibility of adjacent gullies to blockage, the low kerb upstand and the fall to the properties. The works required to minimise flood risk is the improvement of the drainage system coupled with the increase in the kerb upstand.

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3.5.19 Access to High Bridge, Spean Bridge, Lochaber

The existing culvert at this location has insufficient capacity in flood flows resulting in backing up of flood waters and inundation of the access resulting in damage. Agreement has been reached with the affected house owner who will undertake the culvert improvements if the materials are supplied by the Highland Council.

3.5.20 Ardgour Memorial Hall, Corran, Lochaber

The ground around the hall becomes waterlogged in times of wet weather. It will be necessary to do an investigation and survey of existing ground levels and drainage facilities. Drainage rectification/improvement works will then be identified to address the problem.

4. Measures Taken to Prevent or Mitigate the Flooding of Non Agricultural Land Since November 2001

4.1 Implementation of the Flood Prevention Policy

Following the Roads and Transport Committee approval of the Flood Prevention Policy on the 11 June 1997, this policy has been implemented throughout the Highland Council Area. The policy is included as Appendix A of this report.

The preparation of the second Biennial 'Flood' Report, published in November 2000, identified inconsistencies in the reporting of flood incidents across the Highlands.

To address this identified problem guidance was issued through the biennial report on the definition of a flood, to clarify to compilers the trigger for implementation of flood reporting procedures.

A thorough review of the requirements of the 'Act' has been undertaken by the Highland Council, to ensure both compliance with the Act and also ensure a consistent approach to implementation by the Area Roads and Transport Managers of the eight Areas of the Highland Council Area.

National guidance is currently unavailable, so the review initially involved the appraisal of reporting procedures undertaken by the Local Authorities throughout Scotland, held by the Scottish Executive. Best practice from these reports was established and implementation guidance prepared and circulated.

The completed document contains clarification of responsibilities, legal advice, standardisation of approach and reporting and funding application issues.

Guidance on the referencing/scheduling of watercourses, requirement for an initial desk top assessment and prioritisation of watercourses together with identification of the related assessment regimes are contained therein. Examples of the reference schedule and assessment check chart are included as Appendix C.

An example of a watercourse assessment is included as Appendix D.

In addition to the assessment of watercourses, there is also the requirement and standardisation of Flood Reporting. See Appendix E.

The implementation guidance is a live document and regular coordination meetings have been held and are programmed, involving representatives from each Area, to report on progress and implementation together with reappraisal of implementation and standardisation processes.

Research is currently ongoing to assess the potential of utilising the Highland Council's Geographical Information System (GIS), to aid in assessment procedures and the digitisation of records.

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4.2 Emergency Planning

The Highland Council have an Emergency Planning Unit whose responsibility it is to plan for emergency events and also co-ordinate resources in reaction to emergencies. Flooding is covered and co-ordination of response to flooding events occurs.

An emergency plan in respect of flooding has been developed from evaluation and appraisal of the effectiveness in responses to previous flood events.

The emergency plan is triggered on identification of the possibility of a flood from the Scottish Environment Protection Agency (SEPA) in respect of their monitoring system. Warnings would be issued by Emergency Planning directly to Roads & Transport duty staff and a flood support group would convene at The Highland Council, Emergency Operations Room, Inverness.

This group is drawn from:

- a) The Highland Council
- b) SEPA
- c) Police
- d) Fire Service, and
- e) HM Coastguard, if applicable.

The object of these parties in meeting is to alert relevant bodies to the flood risk, establish availability of resources and implement a coordinated response, with the aim of minimising and managing the impact of any flooding.

All relevant information would be available to this group. The bulk of the information would be obtained from river telemetry, however, additional information will be obtained from weather forecasts, rainfall, lying/melting snow, observers, tide tables, tidal surge data and historical information from previous events.

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4.3 National Helpline

A development that came in to force on 1 November 2001 is that of a "Floodline" this is a telephone Helpline, where members of the public can telephone to obtain information on the state of flooding or the conditions of watercourses and rivers in their local area. It is based on a similar system , operated by the Environment Agency, which has been running in England and Wales for the last two years.

The warning element is based on one or more of the following conditions being announced during television and radio weather broadcasts and programs, note Inverness and Nairn are used as an example:

- A "Flood Watch (flooding possible) has been issued for the Inverness and Nairn area "
- A "Flood Warning (flooding expected) has been issued for the Inverness and Nairn area "
- \mathbf{A} " Severe Flood Warning (severe flooding expected) has been issued for the Inverness and Nairn area "

The "All Clear (there are no longer any Flood Watches or Flood Warnings) has been issued for the Inverness and Nairn area."

The National "Floodline" number is 0845 988 1188

It should be recognised that the helpline information is based on the telemetry system (remote flow monitoring) operated by SEPA. There is a limited number of telemerty sites throughout the Highlands and these are restricted to major catchments only.

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4.4 Works

4.4.1 Flood Alleviation Maintenance Works

The Highland Council is divided into 8 Areas, each administered by an Area Roads and Transport Manager. Flooding events are managed by the relevant Area Roads and Transport Manager.

It is the role of the Area Roads and Transport Manager to initially assess the flooding event and take such emergency measures as deemed appropriate. Often flood events are localised and no residential or commercial properties are affected. Where the cause of the flooding is established and remedial measures are of minimal costs then these are undertaken.

Works that fall into this category are gulley emptying, offlet cutting, removal of vegetation, removal of debris and the like. These works are usually undertaken as an emergency response.

Where flooding events are known to re-occur, local procedures are in place to implement signing, sand bagging and the like at times of impending flood or during flood events.

Due to the minor nature of these floods the reporting of these events are not routinely logged.

4.4.2 Minor Reported Works Relating to Flooding

4.4.2.1 Drumdevan Road, Inverness

Watercourse and bank maintenance to the Lochardil Burn, at the rear of numbers 27 to 39 Drumdevan Road have been undertaken. These works were completed to alleviate a known flood risk area.

4.4.2.2 Junction of Balloan and Culduthel Road, Inverness

The culvert on the watercourse Alt na Skiah was cleaned out. The existing box culvert was extended and the inlet increased in length.

4.4.2.3 Inverness Southern Distributor, Inverness

The Millburn approach channel and culvert screen was cleaned out where the burn passes beneath the Inverness Southern Distributor.

4.4.2.4 Culduthel Avenue, Inverness

Part of the existing stone culvert to Lochardil Burn (Culduthel Channel) was excavated and removed and converted into an open watercourse. A primary screen was installed and maintenance was undertaken to a remaining section of the existing collapsed stone culvert.

4.4.2.5 Blar Mhor, Fort William, Lochaber

Ditch cleared of debris accumulation and vegetation growth by a tracked excavator.

4.4.2.6 Achintore Road, Fort William, Lochaber

Following a flooding incident, an assessment on site identified the cause of the flooding as a blocked culvert screen. The Culvert screen was cleaned and the main trunk road swept to remove accumulated debris.

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4.4.2.7 Police Station, Fort William, Lochaber

A blocked culvert screen resulting in the backing up of flood waters causing water to overspill, flooding the west end of the High street and the A82, the culvert screens were cleared during the flood event.

4.4.2.8 Swimming Pool, Fort William, Lochaber

A blockage to the culvert screen, caused the diversion of the flow, causing flooding to the Swimming Pool Access and blocking the A82 Trunk Road. Clearing of the culvert screen allowed the flood water to dissipate.

4.4.2.9 Kiel (A861), Lochaber

The burn burst its banks causing washout and undermining of the carriageway, this resulted in the road being closed to HGV traffic for 24 hours. The emergency works undertaken included the rock infill of the washout area and carriageway reconstruction, together with strengthening works to the watercourse to prevent a reoccurrence.

5. Flooding Events of Non Agricultural Land Since November 1997

5.1 Reported Flood Events

All occurrences of flooding of non agricultural land recorded by The Highland Council since the publication of the previous report is contained in Appendix E.

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APPENDIX A

ROADS AND TRANSPORT FLOOD PREVENTION POLICY

APPENDIX B

EXTRACT FROM THE HIGHLAND COUNCIL STRUCTURE PLAN NATURAL HAZARDS

APPENDIX C

WATERCOURSE REFERENCE SCHEDULES & ASSESSMENT CHECK CHART EXAMPLES

WATERCOURSE REFERENCE SCHEDULE (To be reviewed and updated as required)

AREA: INVERNESS

Reference No.	Watercourse	Location	Origin Grid Ref.	Outfall Grid Ref.	Priority	Comments	Date File Opened
I/1	River Ness	Weirs at Dochfour to Moray Firth	2612 8395	2660 8470	3	Known flooding at Ness Bank. High river levels and high tides known to cause flooding at Douglas Row.	Ongoing
I/2	Holm Burn	Loch Ashie to River Ness	2638 8359	2644 8422	2	Propping of Holm Bridge on the B862 has been modified and is now less susceptible to flooding.	July 2001 Photographs only
I/3	Lochardil Burn	Balmore of Leys to Lodge Road, Inverness	2668 8406	2679 8432	1	Flooding of 5 houses several times in last four years, Drumdevan Road.	May 2001 Photographs only
I/4	Slackbuie	Lower Slackbuie to 11 Green Drive, Inverness	2672 8421	2669 8428	1	2 houses flooded opposite Green Drive.	July 2001 Photographs only
I/5	Ault na skiah	East of Leys castle to River Ness	2687 8412	2665 8441	1	Known flooding of 12 Lodge Road.	July 2001 Photographs only
I/6	Druid Burn	Druid Temple to 20 Heather Road, Inverness	2688 8421	2680 8437	1	Flooding of Sir Walter Scott Drive/Old Edinburgh roundabout due to culvert blockages.	July 2001 Photographs only
I/7	Mill Burn West	Parks to rear of 28 Grebe Avenue, Inverness	2690 8426	2680 8436	1	Known flooding to several houses once in last 6 years.	July 2001 Photographs only
I/8	Mill Burn	Milton of Leys to Moray Firth	2698 8418	2684 8459	1	Houses at end of Diriebught Road flooded several times over the years.	July 2001 Photographs only

ROUTINE FLOOD ASSESSMENT CHECK CHART

Watercourse Ref	Watercourse	Assessment Requirement	YEAR:										2001	
		1	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
C1	Dunbeath Water Portormin Rd	Biennial												
C2A	Wick River Safeway Car Park	Annual												
C2B	Wick River Distillery Lade	Annual												
C3	Castetown East (Unknown)	Biennial												
C4	Castletown West (Unknown)	Biennial												
C5A	Thurso River (Thurso)	Annual												
C5B	Thurso River (Gerston)	Biennial												
C5C	Thurso River (Braal)	Biennial												
Key: Ass	essment du	ie and date:		A	ssessmo	ent con	nplete						_	

Note: All assessment records shall be filed in the appropriate Watercourse Reference File.

APPENDIX D

ASSESSMENT EXAMPLE



WATERCOURSE ASSESSMENT RECORD

Watercourse:	Wick River
Watercourse Ref:	C2B Pulteney Distillery Lade
Section under assessment:	
From: To:	3195,9677 3202, 9682
Date:	5 October 2001
Assessment Officer:	I Moncrieff
Reason for Assessment:	Annual inspection
Observations: (Note this to include comment on all:- a Structures/culverts	The lade appears heavily overgrown with vegetation. The stilling pond upstream is overgrown and the outfall sluice gate has collapsed. However the burn does flow past the remains of the gate freely.
b Debris/Location/Nature c Vegetation Growth)	The culvert beneath Roxburgh Road is approx. running 50% full after heavy rain (although heavy it wasn't considered to be the annual rain fall event).
	Screen at the distillery is free of debris.
Recommendations:	Lade should be monitored closely. Any works will need permission of distillery as they abstract water.

APPENDIX E

REPORTED FLOODING OCCURRENCES NOVEMBER 2000 TO NOVEMBER 2001



RECORDING FORM: (Mark all applicable options)				
Location of Flood:	B871 Syre to Kinbrace			
Water Course Name/Ref:	S/2/01			
Grid Reference:	271700 E 940715 N			
Description of Flood:	Flooding across A836 in peat depressions up to 200mm deep			
Date/Time of Start/Duration of Flood:	05/02/01 / 0800 / 2 day			
Threat to People and Properties? (Please give details)	Road passable with care			
Source of Notification: Name: Address: Tel No:				
Works Undertaken: (Please give details)	Temp signs erected			
Works Required:	Light weight fill required to lift road section			
Does the site have a history of flooding? (Please give details)	Problem area in low lying peat depression			
Recording Officer: Date Completed: Comments:	D Bishop			

Note:

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	c all applicable options)
Location of Flood:	A949 Ospisdale
Water Course Name/Ref:	S/3/28
Grid Reference:	271622 E 889502 N
Description of Flood:	Flooding across A949
Date/Time of Start/Duration of Flood:	19/08/01 / 0430 / 1 day
Threat to People and Properties? (Please give details)	Flooding across A949 up to 750mm at side of road. Still passable single lane
Source of Notification: Name: Address: Tel No:	
Works Undertaken: (Please give details)	Temp signs erected
Works Required:	
Does the site have a history of flooding? (Please give details)	
Recording Officer: Date Completed:	J P Mackay
Comments:	Further investigation and level survey required.

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	call applicable options)
Location of Flood:	A836 Lairg Dairy
Water Course Name/Ref:	S/4/01
Grid Reference:	258223 E 906707 N
Description of Flood:	Flooding across A836 which has frozen over
Date/Time of Start/Duration of Flood:	10/12/00 / 0700 / 1 day
Threat to People and Properties? (Please give details)	Flooding of garden in dairy
Source of Notification: Name: Address:	
Works Undertaken: (Please give details)	Temp signs erected
Works Required:	
Does the site have a history of flooding? (Please give details)	
Recording Officer: Date Completed:	R Mackay
Comments:	Requires replacement drainage with new connection to road surface water system

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	k all applicable options)
Location of Flood:	A836 Lairg Dairy
Water Course Name/Ref:	S/4/01
Grid Reference:	258223 E 906707 N
Description of Flood:	Flooding across A836 which has frozen over
Date/Time of Start/Duration of Flood:	02/02/01 / 0600 / 1 day
Threat to People and Properties? (Please give details)	Flooding of garden in dairy
Source of Notification: Name: Address:	
Works Undertaken: (Please give details)	Temp signs erected
Works Required:	
Does the site have a history of flooding? (Please give details)	Previous incident before christmas
Recording Officer: Date Completed:	R Mackay
Comments:	Requires replacement drainage with new connection to road surface water system

Note: O

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)				
Location of Flood:	A836 Lairg Dairy			
Water Course Name/Ref:	S/4/01			
water Course Name/Rei:	5/4/01			
Grid Reference:	258223 E 906707 N			
Description of Flood:	Flooding across A836			
Description of Flood.	1 looding deross 11050			
Date/Time of	05/06/01 / 1800 / 1 day			
Start/Duration of Flood:				
Threat to People and	Flooding of garden in dairy			
Properties?				
(Please give details)				
Source of Notification:				
Name:				
Address:				
Tel No:				
Works Undertaken:	Temp signs erected			
(Please give details)				
Works Required:				
Does the site have a history	Problem with interface between field drain and dairy garden flooding down			
of flooding?	on to main road.			
(Please give details)				
Recording Officer:	R Mackay			
Date Completed:				
Comments:	Requires replacement drainage with new connection to road surface water system			
	System			

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)			
Location of Flood:	U244 Oykel at Inveran		
Water Course Name/Ref:	S/4/02		
Grid Reference:	246134 E 901288 N		
Description of Flood:	Spate flow on Oykel closing the U244		
Date/Time of Start/Duration of Flood:	07/09/01 / 0700 / 1 day		
Threat to People and Properties? (Please give details)	Road Closed no property affected		
Source of Notification: Name: Address: Tel No:			
Works Undertaken: (Please give details)	Temp signs erected		
Works Required:			
Does the site have a history of flooding? (Please give details)	At regular intervals		
Recording Officer: Date Completed:	R Mackay		
Comments:	none		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Diriebught Road, Inverness	
Water Course Name/Ref:	Millburn	
Grid Reference:	NH 789 453	
Description of Flood:	Sewer surcharged with heavy rainwater onto carriageway, approx 15 inches deep.	
Date/Time of Start/Duration of Flood:	26/1/01, 0600hrs 2 hrs	
Threat to People and Properties? (Please give details)	Slight	
Source of Notification: Name: Address:		
Works Undertaken: (Please give details)	Road closed. Road closed and Flood signs placed on carriageway. Ongoing Nuttalls sewer scheme.	
Works Required:	Ongoing	
Does the site have a history of flooding? (Please give details)	3 rd time in 12 months	
Recording Officer: Date Completed:	D Sellick 26/01/01	
Comments:		

Note:

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Marl Location of Flood:	Culduthel Road, Inverness
Location of Flood.	Culdudici Road, Hivelijess
Water Course Name/Ref:	N/A
Grid Reference:	NH 665 421
Description of Flood:	Road flooded to a depth of approx 12 inches because the submersible pumps in tanks on Inverness Royal Academy grounds packed in.
Date/Time of	26/01/01, 0600hrs
Start/Duration of Flood:	4 hrs
Threat to People and	Slight
Properties? (Please give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Phoned Education Department on call electrician to sort out problem.
(Please give details)	
Works Required:	
Does the site have a history	3 rd time in 12 months
of flooding?	
(Please give details)	
Recording Officer:	D Sellick
Date Completed:	26//01/01
Comments:	
Comments:	

Note:

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Marl	k all applicable options)
Location of Flood:	Green Drive, Inverness
Water Course Name/Ref:	N/A
Grid Reference:	NH 668 428
Description of Flood:	Both sides of road about 100metres north of Scout Hall, both sides of road.
Date/Time of Start/Duration of Flood:	26/01/01, 0600hrs
Threat to People and Properties? (Please give details)	Low
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	Gullys on either side of road cleaned out, water drained away.
Works Required:	
Does the site have a history of flooding? (Please give details)	2 nd time in 12 months
Recording Officer:	D Sellick
Date Completed: Comments:	26/01/01

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



DECODDING FORM: (Mor	s all applicable antions)
RECORDING FORM: (Marl Location of Flood:	4 Rhuarden Court
Location of Flood:	
	Grantown on Spey
Water Course Name/Ref:	Kylintra Burn
Grid Reference:	302851/828024
Description of Flood:	Water flowing from field at rear of property into garden and threatening to
Date/Time of	enter conservatory.
Start/Duration of Flood:	11/02/01 Alerted at 1625hr
Start/Duration of Flood:	
Threat to Doonle and	Water cleared by next morning. Garden flooded, threat to conservatory.
Threat to People and Properties?	Garden moded, threat to conservatory.
(Please give details)	
(Flease give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Sandbags placed to divert flow.
(Please give details)	
W. 1 D . 1	
Works Required:	The culvert under Rhuarden Court requires replacing with a large diameter to prevent water backing up.
	to prevent water backing up.
Does the site have a history	Yes, there are ongoing discussions with the housing scheme developer to
of flooding?	replace the culvert before the road is adopted by the Council.
(Please give details)	
Recording Officer:	I Dyce
Date Completed:	12/02/02
Comments:	

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	k all applicable options)
Location of Flood:	Lochside of Lochindorb Road (U280)
	Granton on Spey
Water Course Name/Ref:	Lochindorb
Grid Reference:	2978/8363
Description of Flood:	Loch level rose sufficiently high to affect the road resulting in closure.
Date/Time of	8/11/00
Start/Duration of Flood:	Road closed at 1130hr
	Road reopened at 0730hr 13/11/00
Threat to People and	None
Properties?	
(Please give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Road Closed signs areated
(Please give details)	Road Closed signs erected
Works Required:	None
•	
Does the site have a history	No
of flooding?	
(Please give details)	
Recording Officer:	I Dyce
Date Completed:	13/11/00
Comments:	

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Elm Cottage Ulbster	
	Caithness	
Water Course Name/Ref:	Unkown	
Grid Reference:	3320, 9406	
Description of Flood:	Garden flooded to a depth of 300mm following prolonged heavy rainfall because the adjacent property had increased the depth of the mill pond without planning consent.	
Date/Time of Start/Duration of Flood:	2/10/01 Duration unknown	
Threat to People and Properties? (Please give details)		
Source of Notification: Name: Address:		
Tel No:		
Works Undertaken: (Please give details)	No works undertaken to date – 9/10/01	
Works Required:	Clear out vegetation and debris from burn down stream of culvert.	
Does the site have a history of flooding? (Please give details)	Yes, burn previously cleared out, details not recorded	
Recording Officer: Date Completed:	I Moncrieff 9/10/01	
Comments:		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Kintra, A82 Achintore Road, Fort William		
NN09228 72842		
Choked culverts, gullies choked by debris from the burn which runs through the garden of Kintra.		
01/10/01 am		
Yes, burn overspilling		
Residents from Kintra cleaned culvert mouth. Bear Scotland informed.		
Culvert replacement, maintenance of the burn.		
Occasional		
I Bruce-Low		
1/10/01		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	call applicable options)
Location of Flood:	A82 Achintore Road, Gantocks
Water Course Name/Ref:	Seafield gardens
Grid Reference:	NN 09228 72842
Description of Flood:	Overspill from pipes grids
Date/Time of	01/10/01 am
Start/Duration of Flood:	01/10/01 1111
Threat to People and	Yes, pedestrians, vehicles, houses
Properties?	
(Please give details) Source of Notification:	
Name:	
Address:	
Address.	
Tel No:	
Works Undertaken:	Fire Brigade/DLO cleaned grid. A82 swept by BEAR. Sandbags delivered.
(Please give details)	
Works Required:	Maintenance of grid
Works required.	Transcending of gird
Does the site have a history	
of flooding?	
(Please give details)	
Recording Officer:	I Bruce-Low
Date Completed:	01/10/01
Comments:	A82 culverts replaced increased in size.

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Perth Place Fort William	
Water Course Name/Ref:		
Grid Reference:	NN 09951 72646	
Description of Flood:	Choked gully and overspill from burn.	
Date/Time of Start/Duration of Flood:	01/10/01 am	
Threat to People and Properties? (Please give details)	Damage to garden	
Source of Notification: Name: Address: Tel No:		
Works Undertaken: (Please give details)	Sandbags offered.	
Works Required:	Build up low point in burn may help. Maintenance of gully.	
Does the site have a history of flooding? (Please give details)		
Recording Officer: Date Completed: Comments:	I Bruce-Low 01/10/01	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Woodend	
	Nevis Bridge	
	Fort William	
Water Course Name/Ref:		
Grid Reference:	NN 11586 74194	
Description of Flood:	Drainage system not coping with water coming off the hills.	
Date/Time of Start/Duration of Flood:	01/10/01	
Threat to People and	Yes	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Sand bags requested and issued.	
(Please give details)	bund bugs requested and issued.	
(Freuse give details)		
Works Required:		
Does the site have a history		
of flooding?		
(Please give details)		
Recording Officer:	P Donaldson	
Date Completed:	01/10/01	
Comments:		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Lundy Gardens	
	Inverlochy	
	Fort William	
Water Course Name/Ref:		
Grid Reference:	NN 1150 7458	
Description of Flood:	Blocked gullys	
Date/Time of	01/10/01	
Start/Duration of Flood:		
Threat to People and	Yes	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Sandbags requested and issued	
(Please give details)		
Works Required:		
Does the site have a history		
of flooding?		
(Please give details)		
Recording Officer:	P Donaldson	
*	01/10/01	
Comments:		
Date Completed: Comments:	01/10/01	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Grange Road Lochaber	
Water Course Name/Ref:		
Grid Reference:	NC 09585 73126	
Description of Flood:	Blocked gullies, water in back door.	
Date/Time of	02/10/01	
Start/Duration of Flood:	10.45	
Threat to People and Properties? (Please give details)	Yes	
Source of Notification: Name: Address:		
Tel No:		
Works Undertaken: (Please give details)	Sandbags issued, gullies cleared.	
Works Required:		
Does the site have a history of flooding? (Please give details)	No	
Recording Officer:	D Matheson	
Date Completed:	02/10/01	
Comments:		

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	call applicable options)
Location of Flood:	Grange Road
	Fasnahuille
Water Course Name/Ref:	
Grid Reference:	NN 09767 73335
Description of Flood:	Overspill from gullies, water running over low kerbs and into house.
Date/Time of Start/Duration of Flood:	01/10/01
Threat to People and Properties? (Please give details)	Yes, water damage to property and also into Cruachan Hotel grounds.
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Sand bags offered, gullies cleaned.
(Please give details)	Sand bags offered, guines cleaned.
Works Required:	Improve drainage system, raise kerbs.
Does the site have a history of flooding? (Please give details)	Occasional
Recording Officer:	I Bruce-Low
Date Completed:	01/10/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Rear of Fort William Police Station	
Water Course Name/Ref:		
Grid Reference:	NN 09974 73620	
Description of Flood:	Grids choked, water overspilling wall, flooding West End High Street and A82	
Date/Time of	01/10/01 – 0820hrs	
Start/Duration of Flood:	02/10/01 – 1400hrs	
Threat to People and Properties?	Yes, property and road users	
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken: (Please give details)	Cleared debris and gravel from culvert grating.	
Works Required:		
Does the site have a history	Yes	
of flooding?		
(Please give details)		
Recording Officer:	D Matheson	
Date Completed:	01/10/01	
Comments:		

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	RECORDING FORM: (Mark all applicable options)		
Location of Flood:	St Mary's Primary School		
Location of Flood.	Fort William		
	Port William		
Water Course Name/Ref:	Road drainage system, Victoria Road.		
Grid Reference:	NN 103 740		
Description of Flood:	Water from Victoria Road cascading down through school grounds		
Date/Time of	01/10/01 am		
Start/Duration of Flood:			
Threat to People and	Yes, potential damage to school property		
Properties?			
(Please give details)			
Source of Notification:			
Name:			
Address:			
Tel No:			
Works Undertaken:	Gully covers cleared of leaves and debris.		
(Please give details)	Guily covers cleared of leaves and debits.		
(Freuse give details)			
Works Required:	Routine maintenance		
Does the site have a history	No		
of flooding?			
(Please give details)			
Recording Officer:	C Strong		
Date Completed:	08/10/01		
Comments:			

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Argyll Terrace	
	Fort William	
Water Course Name/Ref:		
Grid Reference:	NN 099041 73379	
Description of Flood:	Culvert from Wigtown Place discharging into an open pond	
Date/Time of	01/10/01	
Start/Duration of Flood:		
Threat to People and	Yes	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Sandbags issued	
(Please give details)		
Works Required:		
Does the site have a history	Yes	
of flooding?		
(Please give details)		
Recording Officer:	P Donaldson	
Date Completed:	01/10/01	
Comments:		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Swimming Pool Access/Glen Nevis Place, A82	
Water Course Name/Ref:		
Grid Reference:	NN 10982 74259	
Description of Flood:	Over spill of water from chocked grids and burns diverting natural water course. Road closed by Police.	
Date/Time of Start/Duration of Flood:	01/10/01 9am	
Threat to People and Properties? (Please give details)	Yes to properties	
Source of Notification: Name: Address:		
Tel No: Works Undertaken: (Please give details)	Emergency works to clean grids	
Works Required:	Diverting burns	
Does the site have a history of flooding? (Please give details)	Yes, grids becoming blocked	
Recording Officer: Date Completed: Comments:	I Bruce-Low 01/10/01	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Parade Gardens		
High Street		
Lochaber		
NN 10392 74099		
Gullies and gratings blocked by leaves and bark from gardens		
01/10/01 – 0345hrs		
02/10/01 – 1700 hrs		
Yes, in particular to MacKay's shop.		
Gullies cleared and sand bags issued		
Yes		
D Matheson		
01/10/01		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Pobs Drive		
	Corpach		
	•		
Water Course Name/Ref:	Pobs – Farrow – Guiseach – A830		
Grid Reference:	NN 094 771		
Description of Flood:	Water course overflowed, ran down footpath and into garden of No. 15.		
Date/Time of	01/10/01 am		
Start/Duration of Flood:			
Threat to People and	Potential damage to footpath and garden at No 15		
Properties?			
(Please give details)			
Source of Notification:			
Name: Address:			
Address.			
Tel No:			
Works Undertaken:	Owner of No. 14 encouraged to clear debris from water course in their		
(Please give details)	garden		
Works Required:			
Does the site have a history	Occasionally		
of flooding?			
(Please give details)			
Recording Officer:	C Strong		
Date Completed:	03/10/01		
Comments:			

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Access track to Highbridge		
	Spean Bridge		
Water Course Name/Ref:	Spann Errege		
2112			
Grid Reference:	NN 200 816		
Description of Flood:	Watercourses overloaded. Culvert unable to carry water.		
Date/Time of Start/Duration of Flood:	01/10/01 am		
Threat to People and Properties? (Please give details)	Access track (dry bound) damaged, off CS2		
Source of Notification:			
Name:			
Address:			
Tel No:			
Works Undertaken: (Please give details)	None		
Works Required:	Replace single 400mm dia culvert with 2 no. 400mm or 450mm. Mr Duff offered to do the work if materials are supplied.		
Does the site have a history	No previous history known to THC but Mr Duff says it happens from time to time.		
of flooding? (Please give details)	time.		
Recording Officer:	C Strong		
Date Completed:	09/10/01		
Comments:	The land around the Bards Cottage, Highbridge, including the access track is in council ownership, Mr Duff has right of access and maintenance responsibility for the access track.		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	c all applicable options)
Location of Flood:	Ardgour Memorial Hall
Water Course Name/Ref:	
Grid Reference:	NN 004 633
Description of Flood:	Grounds around Hall become waterlogged in very wet weather.
Date/Time of Start/Duration of Flood:	General
Threat to People and Properties? (Please give details)	
Source of Notification: Name: Address: Tel No:	
Works Undertaken: (Please give details)	None as yet
Works Required:	Investigation, then gullies and grounds drainage improvements
Does the site have a history of flooding? (Please give details)	Aggravated by new access road to new school opposite.
Recording Officer: Date Completed: Comments:	C Strong 02/04/01

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	all applicable options)
Location of Flood:	Kiel (A861)
	2m north of Ardgour
Water Course Name/Ref:	
G:1D C	NN 015 650
Grid Reference:	NN 015 658
Description of Flood:	Burst bank of burn.
Description of Flood.	Road closed to HGV traffic for 24 hrs
Date/Time of	01/10/01 – 1100hrs
Start/Duration of Flood:	02/10/01 – 0930hrs
Threat to People and	None
Properties?	
(Please give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Rock infill, compaction of carriageway.
(Please give details)	
Works Required:	Yes
1	
Does the site have a history	No
of flooding?	
(Please give details)	
Recording Officer:	A MacIntyre
Date Completed:	01/10/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	k all applicable options)
Location of Flood:	Pine Grove
	Fort William
Water Course Name/Ref:	
Grid Reference:	NN 10657 73327
Description of Flood:	Burn culvert over spill has caused damage to hill track footway playing field.
Date/Time of	
Start/Duration of Flood:	
Threat to People and	Not known
Properties?	
(Please give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Cleaning of culvert mouth.
(Please give details)	
Works Required:	Maintenance of burn and culvert
Does the site have a history	Not known
of flooding?	
(Please give details)	
Recording Officer:	I Bruce-Low
Date Completed:	01/10/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Grange Road	
	Fort William	
Water Course Name/Ref:		
Grid Reference:	NN 09690 73244	
Description of Flood:	Choked gully	
r		
Date/Time of	01/10/01	
Start/Duration of Flood:		
Threat to People and	Overspill into garden	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Clean out gully	
(Please give details)		
Works Required:	Maintenance	
•		
Does the site have a history	No known	
of flooding?		
(Please give details)		
Recording Officer:	I Bruce-Low	
Date Completed:	01/10/01	
Comments:		

- On completion please ensure:
 Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Renfrew Place	
	Fort William	
Water Course Name/Ref:		
water Course Name/Ref:		
Grid Reference:	NN 09754 72644	
Description of Flood:	Gullies overflowing down driveway and flooding house and garage, sand bags offered.	
Date/Time of	01/10/01	
Start/Duration of Flood:		
Threat to People and	Yes, damage to property	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Gully system cleaned out	
(Please give details)		
Works Required:	Maintenance	
Does the site have a history	No known	
of flooding?		
(Please give details)		
Recording Officer:	I Bruce-Low	
Date Completed:	01/10/01	
Comments:		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Marl	k all applicable options)
Location of Flood:	A863 at Caroy
Water Course Name/Ref:	
Grid Reference:	NG 1305 8435
Description of Flood:	Culvert blocked. Flooding to main A863 at Caroy.
Date/Time of	30/08/01
Start/Duration of Flood:	24 hrs
Threat to People and Properties? (Please give details)	Threat to people, incident verging on road closure.
Source of Notification: Name: Address:	
Tel No: Works Undertaken: (Please give details)	Signs erected
Works Required:	Ditching and drainage works have been carried out.
Does the site have a history of flooding? (Please give details)	No
Recording Officer: Date Completed:	R Blain 30/08/01
Comments:	

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Marl			
Location of Flood:	Achmore, Skye & Lochalsh		
Water Course Name/Ref:			
Grid Reference:	NG 1856 8336		
Description of Flood:	Accumulation of water from hillside built up on road and flowing along road.		
Date/Time of Start/Duration of Flood:	02/09/10		
Threat to People and Properties? (Please give details)	Water flowing into private road access then past private house.		
Source of Notification: Name: Address:			
Works Undertaken: (Please give details)	None		
Works Required:	Drainage maintenance		
Does the site have a history of flooding? (Please give details)	Yes in last year or so		
Recording Officer: Date Completed:	R Blain 02/09/01		
Comments:			

Note: On com

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Mr Evans	
	Knott	
Water Course Name/Ref:		
Grid Reference:	NG 1383 8537	
Description of Flood:	Surface water ponding around the frontage to Mr Evans' house.	
Date/Time of	29/10/01	
Start/Duration of Flood:	1600hrs	
Threat to People and	Low threat to property	
Properties?		
(Please give details)		
Source of Notification:		
Name:		
Address:		
Tel No:		
Works Undertaken:	Investigation	
(Please give details)		
Works Required:	None	
Does the site have a history	Yes, but works previously undertaken to channel across road.	
of flooding?		
(Please give details)		
Recording Officer:	R Blain	
Date Completed:	29/10/01	
Comments:		
	l .	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Rhenetra A87 Trunk Road	
Water Course Name/Ref:		
Grid Reference:	NG 1423 8515	
Description of Flood:	Threat of flooding to road and garden	
Date/Time of Start/Duration of Flood:	29/10/01 pm	
Threat to People and Properties? (Please give details)	To road and garden	
Source of Notification: Name: Address:		
Tel No: Works Undertaken: (Please give details)	Signs erected and sandbags on road to divert water	
Works Required:	Investigation and drainage maintenance	
Does the site have a history of flooding? (Please give details)	Yes	
Recording Officer: Date Completed:	R Blain 29/10/01	
Comments:		

Note: On cor

- Map of flood location is attached
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- File on Flood Report File



RECORDING FORM: (Mark	k all applicable options)
Location of Flood:	Ardvasar Hotel
Water Course Name/Ref:	
Grid Reference:	NG 1635 8025
Description of Flood:	Seepage of water into Hotel's laundry porch
Date/Time of Start/Duration of Flood:	30/10/01
Threat to People and Properties? (Please give details)	None
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	Sand bags issued
Works Required:	None
Does the site have a history of flooding? (Please give details)	Not in past 10 yrs
Recording Officer: Date Completed:	R Blain 30/10/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Tower House		
	Camuslongart		
Water Course Name/Ref:			
Grid Reference:	NH 88 27		
Description of Flood:	Water running off hill, overloading road side ditch and flowing over road and into property		
Date/Time of	19/09/01		
Start/Duration of Flood:	10.44am		
Threat to People and Properties?	Yes, to property and garden		
(Please give details)			
Source of Notification:			
Name:			
Address:			
Tel No:			
Works Undertaken:	Investigation		
(Please give details)			
Works Required:	Clean out ditch and culvert mouth – later undertaken as emergency works		
Does the site have a history of flooding? (Please give details)	1st reported occurrence, Mrs MacRae said this has happened before.		
Recording Officer:	R Blain		
Date Completed:	19/09/01		
Comments:			

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)	
Location of Flood:	On road at Tarlogie	
Water Course Name/Ref:		
Grid Reference:	275739 883484	
Description of Flood:	Flooding of road outside Mr Manson's property	
Date/Time of Start/Duration of Flood:	25/07/01	
Threat to People and Properties? (Please give details)	None	
Source of Notification: Name: Address: Tel No:		
Works Undertaken: (Please give details)	None	
Works Required:	Resurfacing and drainage. New house developer has not installed drainage.	
Does the site have a history of flooding? (Please give details)	Yes, since houses were built	
Recording Officer:	I Hay	
Date Completed:	25/07/01	
Comments:		

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	RECORDING FORM: (Mark all applicable options)		
Location of Flood:	School Road, Connon Bridge		
Water Course Name/Ref:	Eil Burn		
Grid Reference:	254542 855072		
Description of Flood:	Gardens flooded		
Date/Time of	31/10/01		
Start/Duration of Flood:	7.55am, overnight rain		
Threat to People and	Threat to gardens		
Properties?			
(Please give details)			
Source of Notification:			
Name:			
Address:			
Tel No:			
Works Undertaken:	New drainage system being installed to reduce volume of water.		
(Please give details)			
Works Required:	New drainage system		
Does the site have a history	Yes		
of flooding?			
(Please give details)			
Recording Officer:	I Hay		
Date Completed:	31/10/01		
Comments:			

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)
Location of Flood:	Craig Road
	Dingwall
	(Near Motorway Tyres, 'The Craig')
Water Course Name/Ref:	
Grid Reference:	255218 859573
Description of Flood:	Pond beside gully
Date/Time of Start/Duration of Flood:	28/05/01
Threat to People and Properties? (Please give details)	Threat to pedestrians
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	All gullies cleared out.
Works Required:	Repairs to drainage system, additional manholes.
Does the site have a history of flooding? (Please give details)	Yes
Recording Officer:	I Hay
Date Completed:	28/05/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)
Location of Flood:	Alness Industrial Estate
Water Course Name/Ref:	
Grid Reference:	265256 869380
Description of Flood:	Damage to property by flooding
Date/Time of Start/Duration of Flood:	05/07/01
Threat to People and Properties? (Please give details)	Yes
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	None
Works Required:	Keep manhole in W. Munro's yard clean
Does the site have a history of flooding? (Please give details)	Yes
Recording Officer: Date Completed:	I Hay 05/07/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	call applicable options)
Location of Flood:	On road at Smithy Cottage, Hilton, Balmuchy Road
Water Course Name/Ref:	
Grid Reference:	287143 877122
Description of Flood:	Ponding caused by blown soil from fields.
Date/Time of Start/Duration of Flood:	12/07/01
Threat to People and Properties? (Please give details)	Yes to people and vehicles
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	Soakaway
Works Required:	Drainage repairs
Does the site have a history of flooding? (Please give details)	Yes
Recording Officer: Date Completed:	I Hay 12/07/01
Comments:	

Note:

- Map of flood location is attached
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- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	Saltburn	
	Invergordon	
	Near Traffic Lights	
Water Course Name/Ref:		
Grid Reference:	272266 869559	
Description of Flood:	Water on road, splashes during heavy rain	
Date/Time of Start/Duration of Flood:	16/05/01	
Threat to People and Properties? (Please give details)	Yes	
Source of Notification: Name: Address:		
Tel No:		
Works Undertaken: (Please give details)	None	
Works Required:	New pipe to sea	
Does the site have a history of flooding? (Please give details)	Yes	
Recording Officer:	I Hay	
Date Completed:	16/05/01	
Comments:		

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark all applicable options)		
Location of Flood:	On road near school	
	Tore	
Water Course Name/Ref:		
water Course Ivalle/Ref.		
Grid Reference:	260000 852642	
Description of Flood:	Culvert flooded	
Date/Time of Start/Duration of Flood:	13/03/01	
Threat to People and Properties? (Please give details)	None	
Source of Notification: Name: Address:		
Tel No:		
Works Undertaken: (Please give details)	Cleared culvert	
Works Required:	None	
Does the site have a history of flooding? (Please give details)	Yes	
Recording Officer:	I Hay	
Date Completed:	13/03/01	
Comments:	Subject to insurance claim	

Note:

- Map of flood location is attached
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- File on Flood Report File



RECORDING FORM: (Mark	(all applicable options)
Location of Flood:	Mill Street
200000000000000000000000000000000000000	Dingwall
	8
Water Course Name/Ref:	
Grid Reference:	254363 859121
Description of Flood:	Flooding in garden
Date/Time of	27/08/01
Start/Duration of Flood:	
Threat to People and	Yes
Properties?	
(Please give details)	
C CNI ('C' ('	
Source of Notification: Name:	
Address:	
Address.	
Tel No:	
Works Undertaken:	Drain installed in a garden to carrier in road
(Please give details)	
Works Required:	New drain
Does the site have a history	Yes
of flooding?	
(Please give details)	
Recording Officer:	I Hay
Date Completed:	27/08/01
Comments:	

Note:

- Map of flood location is attached
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- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)
Location of Flood:	Loanmore
	Gairloch
Water Course Name/Ref:	
Grid Reference:	NG 785775
Description of Flood:	Erosion of road, flooding from new development
Date/Time of Start/Duration of Flood:	18/10/01
Threat to People and Properties? (Please give details)	Yes, into property
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	None yet
Works Required:	Drainage on new development
Does the site have a history of flooding? (Please give details)	No
Recording Officer:	I Hay
Date Completed:	18/10/01
Comments:	D Chisolm to sort out with developer, Les Buchan

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)
Location of Flood:	Ord Terrace
	Strathpeffer
Water Course Name/Ref:	
Grid Reference:	247847 857619
Description of Flood:	Water coming out of embankement
Date/Time of	30/10/01
Start/Duration of Flood:	2.55
Threat to People and	Yes, to property
Properties? (Please give details)	
(Flease give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	French drain installed along hedge of 'The Hollow' connected to a gully.
(Please give details)	
Works Required:	Connection to manhole and drainage system
Does the site have a history	Yes
of flooding?	
(Please give details)	
Recording Officer:	I Hay
Date Completed:	30/10/01
Comments:	

Note:

- Map of flood location is attached
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- File on Flood Report File



RECORDING FORM: (Mark	call applicable options)
Location of Flood:	Feddon Hill/Killen Road
	Fortrose
Water Course Name/Ref:	
Grid Reference:	272570 856776
Description of Flood:	Water flooding down Feddon Hill/Killen Road onto High St, Fortrose. Cloudburst, fields flooded, soil and mud flowed over retaining wall on to road blocking gullies.
Date/Time of	30/10/01
Start/Duration of Flood:	16.10
Threat to People and	Yes
Properties?	
(Please give details)	
Source of Notification:	
Name:	
Address:	
Tel No:	
Works Undertaken:	Remove silt and mud from road
(Please give details)	
Works Required:	Burn & gullies to be kept clean
Does the site have a history	Yes
of flooding?	
(Please give details)	
Recording Officer:	I Hay
Date Completed:	30/10/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File



RECORDING FORM: (Mark	x all applicable options)
Location of Flood:	Garden House Brae, Strathpeffer
Water Course Name/Ref:	
Grid Reference:	248201 857888
Description of Flood:	Water running on to Garden House Brae
Date/Time of Start/Duration of Flood:	15/12/01
Threat to People and Properties? (Please give details)	Yes, danger to road users
Source of Notification: Name: Address:	
Tel No:	
Works Undertaken: (Please give details)	S Bruce contacted landowner at Park Farm
Works Required:	Farmer needs to collect water and take to ditch at Park Road.
Does the site have a history of flooding? (Please give details)	Yes
Recording Officer:	I Hay
Date Completed: Comments:	15/12/01
Comments:	

Note:

- Map of flood location is attached
- File on Watercourse Reference File
- File on Flood Report File