

## **APPENDIX E**

### **REPORTED FLOODING OCCURRENCES NOVEMBER 2003 TO NOVEMBER 2005**

(Note the following is a summary of the information collated for each flooding incident)

**Badenoch & Strathspey**

<b>Date</b>	19/08/04
<b>Location</b>	Anaboard Burn U280 Lochindorb
<b>Description</b>	Floodwater at Anaboard 2 bridge making road impassable
<b>Work Undertaken</b>	Road closed signs erected
<b>Work Required</b>	No
<b>History of flooding?</b>	No

<b>Date</b>	06/01/05
<b>Location</b>	Milton Burn Craig na Gower Avenue, Aviemore
<b>Description</b>	Water from blocked culvert flooded garden of 8b Craig na Gower Avenue, house at risk from flooding
<b>Work Undertaken</b>	Temporary culvert arrangement at Aviemore Highland Resort Consortium site, removed by contractor
<b>Work Required</b>	Trees and debris from Milton Burn require to be cleared and new culvert constructed at Aviemore Highland Resort
<b>History of flooding?</b>	Yes, previous problems at similar location. New culvert should alleviate flooding.

<b>Date</b>	06/01/05
<b>Location</b>	Gynack Burn C46 Spey Street, Kingussie
<b>Description</b>	Floodwater at Spey Street Bridge making road impassable, all properties on Gynack Street, Spey Street and Kingussie High School threatened
<b>Work Undertaken</b>	Sandbags placed to divert flow and road closed signs erected
<b>Work Required</b>	Significant volume of sediment and debris build-up in invert requiring to be cleared
<b>History of flooding?</b>	Yes, major flooding in February 1990

**Badenoch & Strathspey**

<b>Date</b>	07/01/05
<b>Location</b>	River Spey U220 Garvamore, Coul Farm
<b>Description</b>	Floodwater on U220 at Coul Farm making road impassable
<b>Work Undertaken</b>	Road closed signs erected
<b>Work Required</b>	No
<b>History of flooding?</b>	Yes, occasional minor flooding of road when Spey Dam control gates opened

**Caithness**

<b>Date</b>	08/01/04
<b>Location</b>	C16 Brown Trout Hotel, Watten
<b>Description</b>	Road drainage incapable of carrying away surface water. Water flooded into hotel driveway. Two inches of water lying against gable end
<b>Work Undertaken</b>	
<b>Work Required</b>	Footway improvements extended to include hotel frontage. 25mm drop kerbs will reduce risk of water running into property. Drainage to be investigated
<b>History of flooding?</b>	Yes, persistent problem with road drainage

<b>Date</b>	21/10/04
<b>Location</b>	C18 The Crescent, Glengolly – the gardens of numbers 9,10,11,12
<b>Description</b>	The field slopes down to the gardens on 3 sides and the gardens slope towards the field, with the heavy rain over night, water could not drain away fast enough, threat to houses 9,10,11,12 and garden sheds and greenhouses
<b>Work Undertaken</b>	Kevin Mackay, Thurso foreman, arranged to get 2 pumps to put out the water into a surface drain in the road
<b>Work Required</b>	
<b>History of flooding?</b>	No

**Caithness**

<b>Date</b>	21/10/04
<b>Location</b>	C20 Kirkhill farm house
<b>Description</b>	Surface water from the road flows down the road, down the farm track and then runs past the house, threatening to flood it
<b>Work Undertaken</b>	No works undertaken today
<b>Work Required</b>	Offlets cleaned out as well as ditches that divert the water, so it continues further along the road, instead of going into the ditch that passes the farm house
<b>History of flooding?</b>	The farm road had been eroded/scoured out in places by heavy rain a few weeks before the incident

<b>Date</b>	22/10/04
<b>Location</b>	C17 Fullerton, Janetstown
<b>Description</b>	Water could not get through the culvert below the road fast enough, water backed up and flooded the corner of 2 fields as well as 2 feet of water at bottom end of the garden, flooded right up to driveway, 6 inches of water on the public road for about 30 metres
<b>Work Undertaken</b>	No
<b>Work Required</b>	Cleaning of ditches and possible culvert replacement
<b>History of flooding?</b>	No

<b>Date</b>	12/01/05
<b>Location</b>	River Thurso C5A Riverside Road, Thurso
<b>Description</b>	Flooding of houses and businesses due to the river being in spate and an unusually high tide
<b>Work Undertaken</b>	Sandbags issued to properties affected
<b>Work Required</b>	Wall/bunding to prevent river from bursting its banks again
<b>History of flooding?</b>	Site has flooded in the past when similar conditions have been present

**Caithness**

<b>Date</b>	12/01/05
<b>Location</b>	Wick River C2A Wick riverside
<b>Description</b>	Combination of sustained heavy rainfall, a high water and storm surge, caused some flooding to the corner of Somerfield's carpark and extensive flooding to the adjacent public park
<b>Work Undertaken</b>	Sandbagging to the Norseman Hotel and Somerfield
<b>Work Required</b>	No, prevention will require detailed scheme
<b>History of flooding?</b>	Area known to flood under similar circumstances

<b>Date</b>	Exact date unsure, approximately 4 weeks earlier
<b>Location</b>	C21 Smithy Cottage, Ulbster
<b>Description</b>	Dog kennels and barn flooded to a depth of 200/300mm due to excessive amounts of water in the ditch behind the house. Flooded out onto the A9 trunk road as well, causing a hazard to drivers
<b>Work Undertaken</b>	
<b>Work Required</b>	A ditch in a neighbouring field needs to be cleaned out and a breached section repaired to keep water going to loch rather than running down to Smithy Cottage
<b>History of flooding?</b>	General area has a history of flooding, usually water passes behind Smithy Cottage and floods downstream, ditch/pipe at Smithy Cottage must have restricted flow this time

<b>Date</b>	Unknown
<b>Location</b>	C19 Roadside House, Scarfskerry
<b>Description</b>	The outbuildings had several inches of water in them, the owner had a small diameter pump running for two weeks to try and keep the level down and the house was at risk of being flooded
<b>Work Undertaken</b>	Trial hole to establish if culvert (stone built) had collapsed. A pipe was taken from a roadside manhole back to the culvert and also immediately after breaching the culvert and allowing the water to get away, the outbuilding started to drain
<b>Work Required</b>	Works have been completed, culvert was joined into the pipe from the roadside ditch and runs okay
<b>History of flooding?</b>	No

**Caithness**

<b>Date</b>	Unknown
<b>Location</b>	C22 Oakdean, Cowpark Lane, Halkirk
<b>Description</b>	Road drain outside property is choked causing the garden to flood up to 12" deep and also causing threat to electrical substation
<b>Work Undertaken</b>	Replaced polychannel with gully and connected to SW drain
<b>Work Required</b>	No further action
<b>History of flooding?</b>	The property was built within a natural depression and may be subject to further flooding not caused by the road surface water

**Inverness**

<b>Date</b>	03/07/04
<b>Location</b>	Redburn Avenue, Culloden
<b>Description</b>	Short term torrential rain resulted in burn overflowing through gardens. Solum of number 49 affected by water, plus two garages belonging to numbers 38 and 40
<b>Work Undertaken</b>	Large box culvert obstructed by flood prevention works being carried out. Obstruction removed by excavator – cleared the problem
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

<b>Date</b>	03/07/04
<b>Location</b>	Moray Park Avenue, Culloden
<b>Description</b>	Stone culvert overflow at house number 79. Flow through gardens, garages and drives of numbers 99, 101 and 103. May have entered solum of number 101. (Short term torrential rain)
<b>Work Undertaken</b>	Sand bags placed to divert flow; culvert under road by number 79 jet cleaned; debris removed from road
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

**Inverness**

<b>Date</b>	20/08/04
<b>Location</b>	22 Hazel Avenue, Culloden
<b>Description</b>	Water flowing off road toward property (the lowest point in a cul-de-sac), through garden and threatening to enter foundations of house
<b>Work Undertaken</b>	Gullies and drainage system tested and cleaned. It is possible that there was a partial blockage causing the gully to overflow
<b>Work Required</b>	It is unclear why this gully has proved ineffective on a number of occasions over the years during periods of heavy rainfall. Situation to be monitored. Options to raise the kerb levels and/or regrade the driveway may be effective alternatives should the problem re-occur
<b>History of flooding?</b>	Yes

<b>Date</b>	21/10/04
<b>Location</b>	Moray Park Avenue, Culloden
<b>Description</b>	Stone culvert overflow at house number 79. Flow through gardens, garages and drives of numbers 99, 101 and 103
<b>Work Undertaken</b>	Stone drain in numbers 79 and 99 exposed where it had been disturbed and reconstructed with cement bag walls and concrete slab soffit during electric cable laying for housing development. Slabs cracked/broken/collapsed. Invert covered by 100mm thick mat of roots, allowing blockages of silt, gravel and detritus. As much root as possible was removed, and the culvert was jet-cleaned to improve culvert capacity
<b>Work Required</b>	This is immediately downstream of the length of stone culvert exposed during extension to house at number 79. A length of approximately 5m was involved. It would be most appropriate to by-pass the stone culvert completely, as root blockage appears to be quite widespread
<b>History of flooding?</b>	Yes

<b>Date</b>	07/01/05
<b>Location</b>	C29 River Glass
<b>Description</b>	River Glass overflowed at various locations onto Mauld Bridge – Kerrow Brae Road
<b>Work Undertaken</b>	Road closed for duration of inundation. This used to happen frequently, but in recent years has been controlled by hydro dam discharges
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

**Inverness**

<b>Date</b>	12/01/05
<b>Location</b>	51 Stuart Street, Ardersier
<b>Description</b>	Drainage outfall submerged by high tide and tidal surge. Flooding in Stuart Street depth approx. 100mm, some of which entered property
<b>Work Undertaken</b>	Sandbags placed by DLO at number 51 and other locations advised by concerned residents on same side of road
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

<b>Date</b>	12/01/05
<b>Location</b>	River Ness 10 Huntly Place, Inverness
<b>Description</b>	Bank of River Ness overtopped by combined high flows and tidal surge. Roads were inundated, and water entered property. Owner/occupier complained of sewage contamination
<b>Work Undertaken</b>	Sandbags used in attempt to stem overflow from river over a considerable length. Recommended contact with Scottish Water re sewage contamination
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

<b>Date</b>	13/08/05
<b>Location</b>	Harbour Road, Inverness
<b>Description</b>	Heavy rainfall threatened flooding of car showroom (Bannerman Seat)
<b>Work Undertaken</b>	Sandbags provided and placed across doors to car showroom
<b>Work Required</b>	
<b>History of flooding?</b>	Yes



**Inverness**

<b>Date</b>	20/08/05
<b>Location</b>	B9006 The Paddocks, by Croy
<b>Description</b>	Water ponding on road in heavy rain. Splash from passing vehicles is causing significant damage to private boundary wall. (Problem notified by landowner)
<b>Work Undertaken</b>	New gully installed on road, discharging to new soakaway made in adjacent field, with the agreement of the landowner
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

<b>Date</b>	22/10/05
<b>Location</b>	20 Moray Park Avenue, Culloden
<b>Description</b>	Water overflowed from old stone culvert following short duration heavy rain (notified by landowner)
<b>Work Undertaken</b>	Inspected for cause of event (inconclusive)
<b>Work Required</b>	This overflow occurred downstream of the recently realigned culvert at Moray Park Avenue. It is suspected that there is a partial blockage of the culvert by detritus. There are no facilities available to properly clean this length of culvert, and it would appear necessary to construct a further length of realigned culvert to divert water (except for small base flow) past the problem area
<b>History of flooding?</b>	Yes

**Lochaber**

<b>Date</b>	19/01/04
<b>Location</b>	Glenborrodale, Foresters Cottage
<b>Description</b>	Culvert could not cope with volume of water. Threat to outbuildings only
<b>Work Undertaken</b>	Ditching
<b>Work Required</b>	Jetting culvert
<b>History of flooding?</b>	No

**Lochaber**

<b>Date</b>	19/01/04
<b>Location</b>	Glenborrodale, Achleek
<b>Description</b>	Burn overflowed, rear of house and water entered unoccupied house, also landslide
<b>Work Undertaken</b>	Cleared landslide on 20/01/03
<b>Work Required</b>	By landowner only
<b>History of flooding?</b>	No

<b>Date</b>	19/01/04
<b>Location</b>	River Moidart East Lodge, Glenmoidart
<b>Description</b>	River Moidart burst its banks and flood water entered property
<b>Work Undertaken</b>	No
<b>Work Required</b>	No
<b>History of flooding?</b>	Yes

<b>Date</b>	19/01/04
<b>Location</b>	Loch Shiel Cultalla, Acharacle
<b>Description</b>	Flood water from Loch Shiel threatening unoccupied property
<b>Work Undertaken</b>	Sand bags issued
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

**Lochaber**

<b>Date</b>	19/01/04
<b>Location</b>	Loch Shiel Moss, Acharacle
<b>Description</b>	Overflow of Loch Shiel threatening neighbouring properties
<b>Work Undertaken</b>	Sand bags issued
<b>Work Required</b>	As per previous recommendations
<b>History of flooding?</b>	Yes

<b>Date</b>	19/01/04
<b>Location</b>	River Moidart Laundry Cottage, Glenmoidart
<b>Description</b>	Flood water from River Moidart threatening but did not enter house
<b>Work Undertaken</b>	No
<b>Work Required</b>	No
<b>History of flooding?</b>	No

<b>Date</b>	19/01/04
<b>Location</b>	River Moidart Glenmoidart Road
<b>Description</b>	River Moidart burst its bank, threatening neighbouring properties
<b>Work Undertaken</b>	Road closed
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

**Lochaber**

<b>Date</b>	19/01/04
<b>Location</b>	Kenacarra/Old Mill, Kinlochmoidart
<b>Description</b>	Water overflow from burn, water entered properties
<b>Work Undertaken</b>	No
<b>Work Required</b>	Tenants carrying out work to burn
<b>History of flooding?</b>	No

<b>Date</b>	19/01/04
<b>Location</b>	Loch Shiel Pier Road, Acharacle
<b>Description</b>	Loch Shiel overflowed, resulting in closure of the road
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

<b>Date</b>	19/01/04
<b>Location</b>	River Shiel Dorlin, Acharacle
<b>Description</b>	Flood water from the River Shiel, resulting in closure of the road
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

**Lochaber**

<b>Date</b>	19/01/04
<b>Location</b>	A861 Kinlochmoidart Bridge
<b>Description</b>	Road closed due to collapse of bridge, abutment wash out
<b>Work Undertaken</b>	
<b>Work Required</b>	Replacement bridge
<b>History of flooding?</b>	

<b>Date</b>	19/01/04
<b>Location</b>	Camuschoirk, Strontian private bridge
<b>Description</b>	Bridge washed away
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

<b>Date</b>	11/01/05
<b>Location</b>	A861, B8043, B849, B8007, B8008 Traigh, Inverie Knoydart, Isle of Muck, B863 Invercoe, Cuil Bay, West Bay car park Mallaig
<b>Description</b>	Storm damage with damage to roads and associated structures
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

**Lochaber**

<b>Date</b>	16/08/04
<b>Location</b>	F Connell (B8044) Gobsheallach Acharacle PH36
<b>Description</b>	Heavy rain – swollen burn – local flooding, flooding of ground floor of property (150mm)
<b>Work Undertaken</b>	Sand bags, pumping out of water (fire brigade) hand machine (360) dig burn
<b>Work Required</b>	Check road culvert when water level drops
<b>History of flooding?</b>	No

<b>Date</b>	12/09/04
<b>Location</b>	Summit View, Banavie
<b>Description</b>	Water entering garage – blocked drain
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	No

<b>Date</b>	20/09/04
<b>Location</b>	Loch Shiel Cultalla, Acharacle
<b>Description</b>	Loch Shiel overflowed and threatened unoccupied property
<b>Work Undertaken</b>	Sand bags still there from last time
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

**Lochaber**

<b>Date</b>	20/09/04
<b>Location</b>	Loch Shiel Moss Road, Acharacle
<b>Description</b>	Flooding of loch due to rainfall threatened 3 properties on Moss Road
<b>Work Undertaken</b>	Road flooding signs erected, continual monitoring
<b>Work Required</b>	
<b>History of flooding?</b>	Yes

<b>Date</b>	20/09/04
<b>Location</b>	Loch Shiel Pier Road, Acharacle
<b>Description</b>	Loch Shiel overflowed resulting in closure of the road
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

<b>Date</b>	08/01/05
<b>Location</b>	Glen Nevis, by the hostel
<b>Description</b>	Road flooded
<b>Work Undertaken</b>	Flood signs erected
<b>Work Required</b>	Debris blocking culvert – requires machine and lorry
<b>History of flooding?</b>	

**Lochaber**

<b>Date</b>	09/01/05
<b>Location</b>	22 Lundy Road, Inverlochy
<b>Description</b>	Resident stated that water and sewage was 2" deep in his garden and threatening to enter property
<b>Work Undertaken</b>	Issued 20 sandbags
<b>Work Required</b>	
<b>History of flooding?</b>	

<b>Date</b>	10/01/05
<b>Location</b>	Black Parks Road (not council), and Soldier's Bridge
<b>Description</b>	Dangerously high water levels
<b>Work Undertaken</b>	Due high water and in the interest of public safety, a request to close the above was requested. Signs were erected
<b>Work Required</b>	
<b>History of flooding?</b>	

<b>Date</b>	10/01/05
<b>Location</b>	C52 Brackletter Road
<b>Description</b>	Flooding near water treatment plant
<b>Work Undertaken</b>	Road closed signs erected
<b>Work Required</b>	
<b>History of flooding?</b>	



**Lochaber**

<b>Date</b>	Unknown
<b>Location</b>	Acharacle area, Moss Road
<b>Description</b>	Flooding on Moss Road
<b>Work Undertaken</b>	
<b>Work Required</b>	
<b>History of flooding?</b>	

**Nairn**

<b>Date</b>	07/01/05
<b>Location</b>	Auldearn Burn U397 Balmakeith Park, Nairn
<b>Description</b>	Flood water adjacent to Balmakeith Park, Nairn putting houses at risk from flooding
<b>Work Undertaken</b>	Sand bags placed as a precaution to divert water
<b>Work Required</b>	Sediment and debris build up in invert requiring to be cleared
<b>History of flooding?</b>	No

<b>Date</b>	12/01/05
<b>Location</b>	River Nairn C68 Harbour Street, Nairn
<b>Description</b>	Floodwater adjacent to Harbour Street, Nairn, putting houses at risk
<b>Work Undertaken</b>	Sandbags placed as a precaution to divert flow
<b>Work Required</b>	No
<b>History of flooding?</b>	Yes, occasional flooding of road and properties when combined conditions of high tides, atmospheric surge and long durations of heavy rainfall occur. Flood occurred 25 <sup>th</sup> December 1999 flooding Shore Inn, Sun City Market and one house property