ABSTRACT
This report provides an update on the progress which has been achieved to date on sites affected by flooding incidents, particularly those in Autumn 2009 on the sites which have been listed in previous Committee Report No’s 51/10 and 601/10, and measures adopted to improve the management of such flood risk in light of changes introduced by the Flood Risk Management (Scotland) Act 2009.

1 RECOMMENDATION
1.1 It is recommended that the Committee:

(i) notes the current position (to the end of August 2011) with regard to those sites known to have previously suffered flood problems during the specific flood events which occurred across the council area over the period from September to December 2009;

(ii) notes the management changes to implement the new duties for assessment of flood risk under the Flood Risk Management Scotland (Act) 2009;

(iii) instructs the Head of Roads to report future significant relevant flooding incidents and events to future committees, prior to the preparation and adoption of Local Flood Risk Management Plans under the Flood Risk Management (Scotland) Act 2009; and

(iv) approves the virement of £100,000 on a one-off basis from the underspend within the 2011/12 Planning & Transport Private Sector Housing Grant budget, as set out in the Financial Implications section of the report, to augment the Roads Division budget for dealing with the effects of flooding/weather events on the road network during 2011/12.

2 INTRODUCTION
2.1 Exceptional rainfall was experienced across the UK and in particular Angus in the autumn of 2009 with two major events on 3 and 4 September and on 1 November. Committee Report Nos 51/10 and 601/10 were considered by this committee at their meeting in January and August 2010 respectively. These reports detailed the problems experienced and investigations and works undertaken. This current report provides a final update to the committee on the progress which has been achieved to date, and measures adopted to improve the management of flood risk in light of changes introduced by the Flood Risk Management (Scotland) Act 2009.

3 BACKGROUND
3.1 During the period from September to December 2009 there were numerous flooding incidents, including road flooding, garden ground flooding and inundation of properties. The Roads Division compiled a database which had some 600 reports recorded, noting that many of these reports were in respect of the same event through the period with some properties experiencing several flooding incidents over the autumn period. During that period Roads Division deployed staff and resources through Tayside Contracts including the provision of some 2,000 sandbags.
4 CURRENT POSITION

4.1 Over the period since December 2009, there have been further flooding incidents, some of which occurred at the sites already identified, as well as at others. In 2011, Roads Maintenance has responded to a number of exceptional weather events starting with high winds in May and followed by numerous heavy rain falls throughout the summer months. This report provides an update to committee for flooding events up to August 2011.

4.2 There is anecdotal evidence that the historic predictability of the flooding incidents in terms of location and effects is changing. There have been a number of newly reported flooding locations, which may be new or the effects have become such that they are now being reported. All of these incidents have been dealt with through investigation, identifying and implementing measures as appropriate, by the staff of the Roads Division following the process detailed in Report 601/10. These measures have ranged from minor emergency works to more significant interventions, which may have been added to proposals for future capital funding.

4.3 The database of flooding incidents has been maintained and updated over this period, and is currently being revised to meet best practice guidance and therefore the requirements of the Flood Risk Management (Scotland) Act 2009.

4.4 Under Section 18 of the Flood Risk Management (Scotland) Act 2009, where it has been assessed that a body of water gives rise to a risk of flooding of land and the council considers that clearance and repair works would substantially reduce that risk, the council must prepare a schedule of clearance and repair works.

4.5 Clearance and repair works are works that consist of any or all of the following:

(i) removing obstructions from a body of water;

(ii) removing things that are at significant risk of becoming such obstructions;

(iii) repairing artificial structures which form part of the bed or banks of a body of water.

4.6 A local authority shall carry out the works described in a schedule prepared by it under section 18 if it considers carrying out the works will contribute to the implementation of current measures described in any relevant local flood risk management plan. Recognising that the Local Flood Risk Management Plans for Angus will not be drafted until December 2014, it is considered that the implementation of current measures will be those identified in the database of flooding incidents. These actions could be of a maintenance nature and be classified as revenue expenditure, however, in more complex situations these measures may require more detailed review, involving studies, surveys and research of the flood sites to determine appropriate action, contributions and responsibilities of the council and third parties. Where the council has responsibility, funding for structural and non-structural measures will need to be identified. Current Roads Division budgets can accommodate some measures but more significant costs will be subject to identifying and obtaining necessary funding. The majority of these measures will be managed at an operational level by the Roads Division staff, however, for funding of specific structural and non-structural measures bids will be made through the normal capital budget setting process or subject to specific future reporting.

4.7 The council no longer has a duty under the repealed Flood Prevention (Scotland) Act 1961 to publish a report specifying the measures which are considered to be required to prevent or mitigate the flooding of land in their area. This obligation for publication will be met through the preparation of Local Flood Risk Management Plans for Angus. These Plans will include a summary of the objectives and measures, as well as an implementation part that must include a description of how the current measures are to be implemented.

4.8 The current position on the outstanding sites identified previously in Report No’s 51/10 and 601/10 are presented in Appendix 1.
5 PROPOSALS

5.1 It is proposed that future significant flooding incidents and events shall be reported to committee as appropriate, prior to the preparation and adoption of Local Flood Risk Management Plans under the Flood Risk Management (Scotland) Act 2009.

6 RISK

6.1 This report does not require any specific risk issues to be addressed.

7 FINANCIAL IMPLICATIONS

7.1 As indicated above, current Roads Division budgets can accommodate some implementation measures. However, the clean-up operations, investigations and subsequent improvements to mitigate the risk of future flooding that are likely to be required following recent flood events cannot be fully contained within the current revenue budget allocation for such events.

7.2 Based on the recent emergency works; frequent out of hours responses to the numerous flood events by the council and its contractors; to make provision to accommodate the ongoing investigations to the causes and identification of possible mitigation measures; and to allow such mitigation measures to be progressed, it is currently estimated that this would lead to a projected budget overspend of circa £100,000.

7.3 The committee is therefore asked to approve the use on a one-off basis of £100,000 of unspent resources from within the 2011/12 Private Sector Housing Grant budget within Planning & Transport (report 557/11 refers) to provide additional budget to progress these flood related issues. It is recognised that there is an outstanding policy related matter with regard to Private Sector Housing Grant, but notwithstanding any potential policy changes it is anticipated that a significant underspend will arise in 2011/12. If approved this sum will be vired from the Planning & Transport Division to the Roads Division in 2011/12 only.

7.4 Other more significant costs for particular interventions will be subject to identifying and obtaining necessary funding through the council’s budget setting process and will be subject to a specific report to the appropriate committee in due course.

7.5 The staff costs for the upkeep of the database of flooding incidents and other obligations under the Flood Risk Management (Scotland) Act 2009 identified in this report are already allowed for in the existing Roads Division revenue budget.

8 HUMAN RIGHTS IMPLICATIONS

8.1 There are no human rights implications arising from this report but it is noted that any proposal to take remedial action to mitigate the risk of flooding may have potential implications for property owners and occupiers and their rights under the Convention may need to be considered accordingly at that time.

9 EQUALITIES IMPLICATIONS

9.1 The issues dealt with in this report have been the subject of consideration from an equalities perspective as required by legislation. An equalities impact assessment is not required.

10 ANGUS COMMUNITY PLAN AND SINGLE OUTCOME AGREEMENT

10.1 This report contributes to the following local outcome contained within the Angus Community Plan and Single Outcome Agreement 2011-2014:

- Communities in Angus are safe, secure and vibrant
CONSULTATION

11.1 The Chief Executive, Director of Corporate Services, Head of Finance, Head of Law and Administration, Director of Education and Director of Neighbourhood Services were consulted in the preparation of this report.

CONCLUSION

12.1 Works continue to address routine maintenance issues and to carry out small drainage schemes identified by flooding across Angus in Autumn 2009. These works are being coordinated by utilising the database of flooding incidents, which includes further sites that have been subject to flooding incidents since 2009 and forms part of the council’s duties to assess flood risk under the Flood Risk Management Scotland (Act) 2009.

12.2 Future reporting of significant flooding incidents and events will be made as appropriate, prior to the preparation and adoption of Local Flood Risk Management Plans under the Flood Risk Management (Scotland) Act 2009.

ERIC S LOWSON
DIRECTOR OF INFRASTRUCTURE SERVICES

NOTE:

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information), were relied on to any material extent in preparing this Report:

- Report No 601/10 - Autumn Flood Events – Follow up Interim Report - Infrastructure Services Committee – 24 August 2010
- Report No 51/10 - Autumn Flood Events – Follow Up - Infrastructure Services Committee - 18 January 2010
The list is based on that which was reported to Committee in August 2010. Previously ‘closed’ investigations have not been included and sites that have been subject to further flooding incidents have been ‘reopened’. ‘Property flooding’ refers to internal or building flooding, unless otherwise stated as ‘external’, which relates to driveways, gardens etc.

**Arbroath Area**

**A2 Kirkton Road, Flooding into the Millennium Forest area and Millfield Place – (ONGOING)**

**Problem**

Flooding of open public area, road and garden areas of properties on Millfield Place (18 – 21) occurred on both events in the last quarter of 2009. Water overtopped from a local drainage ditch at the location where it becomes culverted.

**Progress**

Culvert clearance works undertaken and trash screen fitted. Soakaway also to be constructed.

**A4 A933 Cairnie Lodge area – (REOPENED)**

**Problem**

During the heavy rainfall in August 2011 flooding occurred at Cairnie Lodge on the A933. The flooding was attended by the Road Supervisor and sand bags were supplied to limit the damage caused by the events.

**Progress**

The system is to be jetted and surveyed with CCTV. A gas pipe has been located cutting through the drain, which is to be removed. The manhole upstream of the property is to be relocated and a new trash screen installed.

**A5 A933 Woodville Lodge – (REOPENED)**

**Problem**

Flooding in areas during Summer 2011 event caused by blockage to drain.

**Progress**

Ongoing clearance of the drain required and new trash screen to be fitted.

**A7 A92 Geordie’s Burn, Elliot – (UPDATE)**

**Problem**

The A92 suffered localised flooding during the November 2009 storm event, which may have been due in part to the trash grill at the culvert to Geordie’s Burn being blocked with litter blown from the adjacent industrial estate and Retail Park.

**Progress**

The trash grill is inspected on a monthly basis by the local Roads Supervisor. Private third parties have installed a culvert in this section.
A8 A92 Montrose Road / Grampian Gardens Area – (REOPENED)

Problem

Flooding occurred during August 2011 and was noted as partly due to surface water coming from the direction of Bearfauld. The flood waters resulted in localised road flooding and property flooding.

Progress

A clean-up operation was undertaken in the affected area in 2009. A drainage scheme including the construction of new drains, pipes and surfacing works has now been undertaken at Bearfauld to alleviate the problem. However, further flooding was experienced in August 2011, which is under investigation. Proposed development in the area may contribute to a solution.

A9 Letham Grange and associated roads – (UPDATE)

Problem

During both incidents in the last quarter of 2009, flooding occurred in the Letham Grange area which included the golf course, surrounding roads, external property flooding and some minor internal property flooding of garages and outhouses. The flooding incidents made some of the local roads impassable particularly in the vicinity of Letham Grange Golf Course. The incidents occurred as a result of the heavy rainfall and high water levels in the Brothock Burn as it flows through the golf course. Further non-property flooding was experienced in August 2011.

Progress

Investigations into these incidents are ongoing and have been given significant recent attention. Clearance of culvert blockages and CCTV surveys have been undertaken. A plan of action is being developed to identify responsibilities and actions of all parties.

A10 A933 Colliston - (COMPLETE/REOPENED)

Problem

Flooding occurred during both events in the autumn of 2009, the September flooding resulted in internal property flooding and the November incident in external property and localised road flooding.

Progress

A scheme involving the provision of an additional pipe to enable extra drainage to the field culvert has been constructed. Currently carrying out additional work on gullies from original scheme.

A11 The Den, Letham - (UPDATE)

Problem

The area was affected by localised flooding during both autumn 2009 events. Incidents of road and internal and external property flooding have been reported by residents and emergency services. Further flooding incidents of the road, threatening properties has been reported in 2011.

Progress

The roads surfacing scheme partially implemented is still to be completed when Scottish and Southern relocate underground their cables which are currently overhead. A meeting was held with the Community Council to discuss the flooding, and a detailed catchment analysis is currently being undertaken.
A14 Auchmithie Village - (CLOSED)

Problem

This location was affected by the flood events of September and November 2009. Localised flooding of the C47 road at the junction with Millbank occurred which resulted in large deposits of mud and debris on the surface. An area of road approximately 100m in length was affected with an estimated depth of water in the region of 0.3m.

Progress

Clearing up works and jetting of road drainage pipes and gullies has taken place to improve the situation. Scheme to install additional drainage designed and let.

A15 Station Road, Colliston – (ONGOING)

Problem

During both incidents in the last quarter of 2009 flooding occurred in this location with surface water reportedly coming from nearby fields. These incidents are most likely related to the flooding incidents at Letham Grange (ref A9) and will require investigating as part of this.

Progress

Since the events, the ditches have been cleaned out to maximise their potential capacity. This will need further research as part of the Letham Grange (A9) investigation to ensure the problem has been fully assessed.

A21 Brothock Flood Prevention Scheme – (ONGOING)

Problem

The existing Brothock Water Flood Prevention Scheme was identified as requiring investment to improve the level of flood protection offered. Consultants have previously carried out a feasibility study to review possible upstream storage locations for the flood waters.

Progress

The review of the Brothock FPS is now part of the Arbroath Flooding Strategy. The draft strategy is nearing completion and will be reported separately to future Infrastructure Services Committee. The following additional incidents were identified since the original committee report was produced and reported in the previous report:

A22 Redford to Carnoustie Road, Burnhead Farm – blocked culvert cleared - (COMPLETE)

Brechin and Area

B1 B966 Inchbare – (ONGOING)

Problem

Two incidents have been recorded at this location, the first being overland flows from farmland causing agricultural property flooding and the second being localised road flooding.

Progress

The first incident of overland flows has been resolved and dealt with as a private matter. The second incident requires further investigation and possibly a remedial works scheme depending upon findings.
B2 B966 Gannochy – Dalbog Junction – (ONGOING)

Problem
Localised flooding of the public road occurred. It is likely that heavy rain caused silt and debris from surrounding land to block the road gullies.

Progress
Gullies cleaned and drainage system working.

B3 B9134 Old Aberlemno Road – Broomknowe Farm – (CLOSED)

Problem
Flooding of the public road occurred during both events.

Progress
Sections of drainage pipe replaced and a new manhole constructed.

B7 Wishop Burn overspill – (ONGOING)

Problem
Localised flooding was reported during the extreme events. The flooding appears to have been caused by overland flows.

Progress
Further research is necessary.

B8 B966 by Golf Course – (CLOSED)

Problem
Localised flooding of the public road occurs from surrounding land.

Progress
The road has been overlaid to raise the surface levels, and the Golf Club have installed a new drain. These measures have improved the situation.

B9 Glenogil Crossroads – (ONGOING)

Problem
Localised flooding occurred due to heavy rainfall at the above named junction washing silt into ditches resulting in a lack of capacity.

Progress
Possible ditch clearance work to be undertaken.

B10 River Street Brechin – (ONGOING)

Problem
There is an ongoing potential flooding problem in this area. The road area did not flood during the later part of 2009 although river levels on the river South Esk were fairly high on occasions.
Progress

A flood prevention scheme is currently being progressed and is the subject of separate reporting to committee.

**B12 Ramsay Street, Edzell – (ONGOING)**

Problem

Various localised flooding events have been reported in this area during the 2009 events.

Progress

Further investigation work is to be undertaken.

**B15 East Mill Road, Brechin – (ONGOING)**

Problem

Localised flooding occurred during the extreme events of 2009.

Progress

Improvement works have been implemented.

The following additional incidents were identified since the original committee report was produced and reported in the previous report:

- **B16 Westcot, Pitkenney** – external property flooding – ditches need to be regularly cleaned - (CLOSED)
- **B17 Ledmore Cottage, Menmuir** – external property flooding - ramp to be constructed - (ONGOING)
- **B18 B966 Keithock House** – road flooding - drainage scheme to be investigated - (CLOSED)

**Carnoustie, Monifieth and Area**

**C2 Lochty Burn, Carnoustie High Street - (ONGOING)**

Problem

During the two flooding events in 2009 severe flooding occurred, affecting the public road and local business premises. During the later event the grill at the inlet to the culvert suffered from collapse due to the intensity of flows.

Progress

A new grill has been installed at the culvert entrance. In addition a damaged wall at the culvert entrance has been rebuilt. The culvert capacity requires reviewing and should it be assessed that capacity is an issue an option to manage overland flows will be reviewed.

**C4 Links Parade - (ONGOING)**

Problem

During the flooding incidents of 2009 Links Parade suffered flooding on the public road and required sand bags to be delivered along dwelling boundaries to stop water ingress. It is believed that the flood water may have occurred as a result of flooding from the Lochty burn through the underpass at Fox Street in combination with flooding from the Barry Burn as it passes through the golf course downstream of the railway line.
Progress

In addition to the measures required associated with the Lochty burn in respect of the eastern end of Links Parade, consideration will require to be given to the propensity for flooding from the Barry burn downstream of the culvert through the railway embankment as it might affect the western end of Links Parade.

C5 Barry Burn area - (ONGOING)

Problem

Both of the Autumn 2009 events resulted in localised flooding, with the main flooding in the Ravensby Road area. This stretch of the Barry Burn in recent years has had additional flood prevention measures undertaken, including raising the level of the embankments, dredging of the channel and the installation of non-return valves.

Progress

An unused outfall has been blocked off by Scottish Water which should stop the majority of flows from backing up the system and flooding the public road. Scottish Water has been asked to maintain their outfalls along the affected stretch. Engineering & Design Services (Roads Division) are progressing a number of measures as reported to committee and are to consider the longer term catchment solutions to limit the need for future dredging as has been specifically prescribed by SEPA.

C6 A930 Batties Den - (ONGOING)

Problem

During extreme events, such as those seen in the last quarter of 2009, the public road suffers from localised flooding in this area. The cause is unknown but conjectured to be as a result of the volume of water.

Progress

An initial site visit has been undertaken but given the minimum risk to property damage this site will be investigated at a later stage. In the meantime permanent warning signs have been erected showing the flooding hazard.

C8 A930 Conchies Corner to Monifieth Golf Course - (UPDATED)

Problem

Localised flooding occurs along this length of road. The Road Supervisor has attended during flooding incidents. The Road Supervisor has reviewed the area and noted that the area could benefit from the provision of additional drainage.

Progress

A scheme has been proposed to resurface the road and add drainage in the area. This scheme will be progressed subject to the availability of funding and prioritisation, and may be subject to a future Route Action Plan scheme. In the meantime permanent warning signs have been erected showing the flooding hazard.

C9 Milton Place, Monifieth – (UPDATED)

Problem

During both flooding incidents the Dighty burn breached its banks and caused localised flooding resulting both in road flooding in the cul-de-sac and property flooding.
Progress

Hydraulic modelling by Dundee City Council for the Dighty burn catchment has been completed and the results are being reviewed with a view to developing proposals for flood protection works.

C10 A92 road at Ardownie and Muirdrum – (ONGOING)

Problem

The A92 was closed due to flooding during both autumn 2009 events and was dealt with by BEAR (Scotland) Ltd on behalf of Claymore Roads Ltd who are the road operating company.

Progress

Discussions with BEAR have taken place and the consultants, ARUP have been appointed by Claymore Roads Ltd to review the adequacy of the original drainage design and construction provided as part of the A92 project.

The following additional incidents were identified since the original committee report was produced and reported in the previous report:

C13 Caesar Ave/Maule St – scheme implemented. Roads and Scottish Water investigating - (CLOSED)
C14 Scryne Hall Cott, East Scryne – new gulley installed - (CLOSED)
C15 B9127 at Kirkbuddo corner by B978 Junction – field drainage no longer a problem - (CLOSED)
C16 “Glenisla”, U314, Kellas – maintenance scheme ongoing (ONGOING)
C17 Wallace Street, Carnoustie – gulleys installed - (COMPLETE)

Forfar and Tealing Area

F2 A94 Jericho to Hayston – (UPDATE)

Problem

Localised flooding occurred during the events in the autumn of 2009 on the public road.

Progress

New drainage installed.

F3 Tealing and Surrounding Area– (CLOSED)

Problem

Various flooding incidents occurred during both events in autumn 2009. Tealing and surrounding areas suffered from property and road flooding due to the volume of water exceeding the capacity of existing drainage systems. There were various localised problems with silt and debris being washed off surrounding land into drainage systems.

Progress

Various drainage works undertaken.
F4 Bridgefoot – (ONGOING)

Problem

Two flooding incidents have occurred at this location during the extreme events of 2009. The main incident resulted in property flooding on Grant’s Wynd.

The second incident was localised road flooding. This has been investigated where a drainage outfall was submerged due to the level of flood water.

The Road Supervisor attended both incidents and sandbags were deployed as required.

Progress

The Grant’s Wynd incident occurred due to flood water becoming trapped by a garden wall. The owner has now installed a gate which will allow water to flow past their property.

The localised road flooding was due to a surcharged outfall pipe. Due to the position of property and the local topography there are limited options for a solution to this problem. Warning signs will therefore be erected when flooding is deemed to be a hazard by the local Road Supervisor.

It was noted during investigations that there is a penstock / sluice gate downstream which could restrict the capacity of the drainage system and which is in private ownership. The use of this needs to be established for future events.

F5 Flocklones, Liff – (ONGOING)

Problem

Localised flooding occurred at this location. The local Road Supervisor attended the incident which possibly resulted from lack of capacity in the piped system in combination with the burn breaching its banks.

Progress

Works have been undertaken in the past to clear access to the pipes which are beneath a private access. Appropriate consents and or wayleaves may be required to enable the provision of larger pipes, if required. Legal Services pursuing landowner.

F6 B9113 Clockbriggs – (ONGOING)

Problem

Flooding of the public road and nearby property occurs during extreme events. During both incidents in 2009 the loch level increased and caused flooding through surcharging of the road ditch.

Progress

Initial investigations have taken place but due to the complex interaction between watercourses and the loch further investigations are needed. A possible scheme has been suggested to raise the finished road level and this needs to be further considered. In the meantime warning signs will be erected by the local Road Supervisor when hazardous conditions are anticipated.

F8 Pressock – (ONGOING)

Problem

During the September event localised flooding occurred. Water appeared to be running off the fields and the volume of this was causing the flooding.
Progress

Further investigation is needed to determine fully the source of the flooding and check the existing drainage arrangements.

**F10 Muirhead – (ONGOING)**

**Problem**

Localised road flooding occurs in the vicinity of the police station.

**Progress**

Further investigation is needed to establish the sufficiency of existing drainage and if required an upgrade scheme will be promoted.

**The following additional incidents have been identified since the original committee report was produced:**

**F12 B9127 just off A90 near Kinettles** – road flooding reported - (CLOSED)

**F13 Arkaig, Dronley, Dundee** – drainage scheme needed to provide additional road gullies – reviewed and not now required (CLOSED)

**F14 Carter Haugh Cott, Mains of Kinettles, Forfar** – external properties and road can flood when burn rises – investigation needed - (ONGOING)

**F15 Rowan Burn Cottage** – road flooding reported. Investigation and work undertaken at Cotton of Lownie - (CLOSED)

**Kirriemuir and Area**

**K2 C22 into U378 Junction, South of Kirriemuir, West of Ballindarg** – (CLOSED)

**Problem**

Flooding occurred within the public road during the flood events in the last quarter of 2009.

**Progress**

Soakaways installed.

**K3 C22 North of above Junction** – (CLOSED)

**Problem**

During the events in the last quarter of 2009 localised road flooding occurred in this location.

**Progress**

Soakaways installed.

**K4 A926 from Ruthven Crossroads to U384** – (CLOSED)

**Problem**

During the events in the last quarter of 2009 localised road flooding occurred at this location.

**Progress**

Soakaways installed.
K6 A928 outskirts of Kirriemuir footway collapse – (UPDATED)

Problem

The events in the autumn of 2009 caused the local footway at the above location to collapse.

Progress

A scheme to reconstruct the public footway is being awarded to Tayside Contracts.

Montrose and Area

M2 Ferryden, Usan – (CLOSED)

Problem

There is an historic issue relating to flooding in this area from farm land adjacent to private properties with various meetings held in the past with members of the public, councillors and staff from Angus Council. During the events in September and November of 2009 further incidents occurred due to surface water runoff from adjacent fields. This is considered to be a private issue.

Progress

Ongoing discussions with local residents continue to take place. Officers met with representatives from the Community Council and have agreed to offer design input regarding the possible construction of a ditch to a piped outfall subject to land entry for construction of the ditch, capacity of the pipe system, Scottish Water agreement to enter their system, and community contributions being negotiated and facilitated by the Community Council. No response from Scottish Water.

M3 West Terrace Church Road, Ferryden – private ownership - (CLOSED)

Problem

Ground water flooded properties following the initial rainfall events in the autumn of 2009 flowing downstream from farmland located uphill of the properties.

Progress

Discussions have taken place with local residents as part of M2 above. As there is no watercourse or road drainage involved there is no appropriate council intervention available. This is considered to be a private matter.

M5 A92 Rossie Braes and Bridgend Garage – (CLOSED)

Problem

During both of the major events in 2009 localised flooding was recorded at this location with excessive runoff creating flooding problems for a local garage. The local Road Supervisor has attended this location and provided support.

Progress

A recent road scheme included drainage measures.

M7 U473 Gightyburn Bridge – (CLOSED)

Problem

During the November 2009 event the wing wall and embankment to the bridge collapsed.
Progress

Emergency repairs were made and permanent reconstruction of the wing wall and embankment has been undertaken.

**M10 B965/U473 Junction – (ONGOING)**

**Problem**

Localised road flooding occurred during the heavy rainfall in the autumn events of 2009. Flood waters were constrained by existing boundary walls.

**Progress**

Further options are being considered as the ground is not suitable for soakaways.

**M15 U445 Farnell Lodge – (CLOSED)**

**Problem**

Property – garage flooding from woods and fields to the rear.

**Progress**

This is considered to be a private issue, a matter for the resident.