

## **EAST AYRSHIRE COUNCIL**

**DEVELOPMENT SERVICES COMMITTEE : 24 OCTOBER 2000**

**PROGRAMME OF FLOOD PREVENTION MEASURES 2000/2001**

### **Report by Director of Development Services**

#### **1 PURPOSE OF REPORT**

- 1.1 To update Members on the flood prevention measures which it is planned to undertake during the current financial year.

#### **2 BACKGROUND**

2.1 At the Committee meeting of 6 June it was reported that following the major flood event in Kilmarnock in December 1999 the Scottish Executive had made an additional allocation of £500,000 towards the Council's programme of flood prevention measures. The report outlined the main action proposed. This included the completion of projects at Glenfield, Stoddards and N S MacFarlane within Kilmarnock, the preparatory work for flood prevention schemes for works at the Riccarton Bridge area of Kilmarnock, Crookedholm and a flood water retention scheme at the confluence of the Cessnock Water and the River Irvine, together with an allocation for smaller projects elsewhere in the Irvine Valley and in the southern part of East Ayrshire.

2.2 In recent weeks severe rainfall, particularly on 11 September, has caused difficulties in a number of locations, mainly in the southern part of East Ayrshire. The occasions causing most concern were:

- the Glaisnock Water over-topped its banks in the vicinity of Greenholm Road, Cumnock
- A blockage in a culvert carrying a watercourse away from Barony Road, Auchinleck was blocked causing extensive flooding in the Auchinleck area
- The Water of Coyle over-topped within Drongan
- The Primpton Burn over-topped its banks within Dalrymple
- A culverted watercourse at Doonbank Crescent, Patna became blocked placing at risk adjacent properties

2.3 The factory occupied by Barony Universal and Nightingale House Nursing Home in Auchinleck were both flooded. Whilst flood waters stopped short of properties elsewhere a wide range of properties would have been affected if the river levels had been a little higher.

- 2.4** Barony Road, Auchinleck and the Greenholm Road area in Cumnock were already the subject of investigation. Other known problem areas within the southern part of East Ayrshire include Moss Road, Dalmellington, Glaisnock Road, Cumnock, and the Barshare area of Cumnock, and in the northern part of East Ayrshire the Burn Anne, Galston and the Simons Burn in Shortlees, Kilmarnock.

### **3 REVISED PROGRAMME FOR 2000/2001**

- 3.1** It is proposed to allocate the funds available from the Scottish Office, together with a contribution from the Council's own capital programme as follows:

Completion of projects (Glenfield, Stoddard, N S MacFarlane)	£170,000
Preparatory work for flood prevention schemes at the Riccarton Bridge area, Crookedholm, and Cessnock Water/River Irvine flood water retention scheme (this is a reduction from the estimates in June of £300,000)	£170,000
Reconstruction of culvert at Barony Road, Auchinleck	£50,000
Reconstruction of a retaining wall and repairs to riverbank structures at Greenholm Road, Cumnock	£50,000
Miscellaneous schemes (outlined in Annex), maximum £15,000 each	£70,000
Programme co-ordination	£50,000
<b>Total</b>	<b>£560,000</b>

- 3.2** Further details of the work currently planned are outlined in an Annex. It should be noted that all these schemes relate to watercourses or non-routine drainage work on public roads. Flooding issues relating to other Council properties including housing are not included in this programme of measures. The Council's powers to carry out flood prevention measures on private property are limited. Primary responsibility for protecting private property from flood rests with proprietors. The Council has only assisted private property owners through public schemes benefitting a number of properties, and through assistance to major employers.

#### **4 FINANCIAL IMPLICATIONS**

- 4.1 The measures proposed can be funded within the Council's current allocation for flood prevention measures within the capital programme of the Development Services Committee.

#### **5 LEGAL IMPLICATIONS**

- 5.1 The legal implications are set out in para 3.2 above.

#### **6 RECOMMENDATIONS**

- 6.1 It is recommended that the Committee approve the revised programme of flood prevention measures for 2000/2001 outlined in paragraph 3.1 above.

**Stephen Chorley**  
**Director of Development Services**

**10 October 2000**

**SC/JR**

#### **BACKGROUND PAPERS**

**Nil**

For further information on the contents of this report contact Stephen Chorley, Director of Development Services, on 01563 576011

**Implementation Officer Stephen Chorley**

**EAST AYRSHIRE COUNCIL****FLOOD MITIGATION MEASURES 2000/2001**

**Glenfield, Queen's Drive, Kilmarnock:** Work designed to protect the Glenfield Works. This project forms part of the flood prevention programme approved three years ago for the River Irvine through Kilmarnock. The work is to be carried out by Glenfield themselves with contributions from East Ayrshire Council and Scottish Enterprise Ayrshire. The contract has now been let and work is expected to take place over the next few months.

**N S MacFarlane:** Project involves reinforcement and replacement of existing flood prevention walls. It represents an extension of work carried out by N S MacFarlane two years ago. The work will result in an enhanced level of flood protection to the N S MacFarlane works and the immediate surrounds. This project will result in upgraded flood defences from the Victoria Bridge to the southern side of the Glencairn Industrial Estate. N S MacFarlane will carry out the works themselves with contributions from East Ayrshire Council and Scottish Enterprise Ayrshire. Work is expected to be carried out within the next few months.

**Crookedholm and Riccarton Areas – Flood Prevention Schemes:** A commitment to carry out flood prevention works at Crookedholm was made in the originally approved flood prevention programme for the River Irvine through the Crookedholm and Kilmarnock areas. It has proved difficult to find cost effective solutions to the flooding problems within the Crookedholm area. The scheme now to be prepared will provide an embankment to the rear of the houses on the east side of the Main Road. Consideration will also be given to localised mitigation measures on the west side of the Main Road. This will provide a significant reduction in flood risk, although further measures may require to be considered at some time in the future for the west side of the main road. In order to carry out the required work, which will take place on private property, a full flood prevention scheme under the Flood Prevention Act will be required. Consultants have been appointed to carry out the preparatory work for a flood prevention scheme over the next six months.

In the December 1999 flood event the River Irvine over-topped its banks adjacent to the Riccarton bridges in Kilmarnock. This had been anticipated in the original flood risk assessments on which the programme of flood prevention measures was based. The works proposed would complete the upgrading of flood defences from the area referred to above to tie in with the flood defences installed under previous phases of the current programme at the confluence of the Kilmarnock Water and River Irvine. This scheme will also require a full flood prevention scheme since it involves constructing defences

on privately-owned land. Consultants have been retained to carry out the preparatory work along with the preparation of the flood prevention scheme for the Crookedholm area.

It is expected that the flood prevention schemes will have been submitted to the Scottish Executive by April 2001. Implementation of the measures required will depend on acceptance of the scheme by the Scottish Executive and further funding being made available by the Executive.

**Cessnock Water, Galston – Flood Prevention Scheme:** This scheme would provide the capacity for retention of flood waters at high river levels within the area of the confluence of the Cessnock Water with the River Irvine. The scheme has the potential to enhance the effectiveness of flood prevention measures within the Crookedholm and Kilmarnock areas to prevent flooding at higher river levels, and could avoid a requirement to protect a number of other areas not included in the current flood prevention programme. The engineering works required will involve reconstruction of the embankment around the area together with sluice arrangements. The embankments will require to be constructed to full reservoir standards. The scheme was proposed in the original flood prevention scheme for the River Irvine. Construction will require a full flood prevention scheme since the land is privately owned. Consultants will be appointed within the next few weeks to undertake the preparatory work. Implementation will depend on acceptance of the scheme by the Scottish Executive and the provision of additional funding.

**Stoddard – Residual Contribution:** A major scheme to provide flood protection to Stoddard's Riverside Works was carried out a year ago. Residual costs include improvements to the drainage arrangements and retentions.

**Simons Burn, Shortlees:** There has been a history of flooding within the Shortlees area because of the lack of capacity in the culverted Simons Burn from Shortlees to the River Irvine. Work was carried out last year to clear the culvert of silt and other debris. This has proved effective in recent flood events. It is proposed, however, to commission further technical studies on the capacity of the culvert to handle flood water in worse events than have occurred to date. Depending on the scale of work required further Scottish executive funding may be required.

**Burn Anne, Galston:** Localised flooding from the Burn Anne took place in the December 1999 flood event. The immediate cause of flooding was blockages at Bridge Street by tree branches brought down by the burn when in spate. A screening arrangement to help to reduce the probability of such blockages will be carried out. A further study will also be commissioned to investigate the potential for over-topping of

the burn in more serious events than hitherto encountered. Depending on the scale of work required further Scottish executive funding may be required

**Barony Road, Auchinleck:** Flooding of the Barony Universal Plant at Auchinleck took place in early September. The cause was blockage of an adjacent culvert by debris combined with a partial collapse of the culvert. Immediate remedial work was carried out to the culvert. The culvert now requires to be reconstructed to accommodate the burn which flows through it. The work will be carried out by the end of the year. Discussions will be held with the owners of the land on a possible contribution to the cost.

**Nightingale House Nursing Home, Main Street, Auchinleck:** The Nightingale House Nursing Home has suffered flooding on two recent occasions during extremely heavy rainfall. It is believed that flooding was largely attributable to the blocked culvert at Barony Road (see above). There is concern, however, that there may be other culverted watercourses in the vicinity which have exacerbated the problems at Main Street. CCTV surveys of all the culverts in the area will be undertaken to establish whether there are other blockages. Depending on the scale of work required further Scottish executive funding may be required.

**Greenholm Road Area, Cumnock:** During a recent high water event in the Glaisnock Water a gabion wall (made up of stones within wire cages) was undermined and washed away. Tender documents are currently being drawn up for a contract to reconstruct this wall. At the same time dredging of the river and any essential repair work to existing bank structures will be carried out. A further study will be commissioned to investigate the potential for the Glaisnock Water to over-top its banks in worse flood events than have occurred to date. This will consider the capacity of the existing culvert through the town centre, and the requirement for flood prevention barriers along the banks.

**Glaisnock Road, Cumnock:** In recent high rainfall events the drainage on Glaisnock Road has proved inadequate with resultant flooding of properties. The scheme will involve modifications to kerbing and road drainage arrangements.

**Barshare Area, Cumnock:** Continued difficulties have been encountered with the drainage system within the area. Work has been carried out to improve the gullies and drainage system within the public roads. The effectiveness of this work is being monitored and further work will be carried out if required.

**Coyle Avenue, Drongan:** Flooding took place at Coyle Avenue in Drongan early in September. This resulted from the Water of Coyle over-topping its banks. Improved embankment along the one side of the burn would prevent such an occurrence in the future.

**Moss Road, Dalmellington:** The Moss Road, Dalmellington floods in heavy rainfall as a result of over-topping of the Muck Water. Prevention of flooding will require raising the level of the road and reconstruction of the bridge over the Muck Water. The feasibility study proposed will consider design options and costs. Implementation of this project may require additional funding beyond the Council's own resources.

**Doonbank Crescent, Patna:** In recent heavy rainfall a culverted watercourse adjacent to Doonbank Crescent and the railway line surcharged resulting in flooding of adjacent properties. It is proposed to carry out investigations on the course of the culverts affected, their capacity and whether there are any blockages. Until this work has been carried out the remedial work required is unknown.

**Primpton Burn, Dalrymple:** Primpton Burn over-topped its banks in early September. A number of properties were close to being flooded. Although such events have not occurred for many years over-topping in the future could put at risk numerous properties. Immediate remedial work to repair embankments has been carried out. It is proposed to undertake a feasibility study on the levels of water which may be expected with high rainfall in the future and possible prevention measures. The study will be carried out by the end of the financial year. It is likely that major construction works would be required to prevent future flooding, which would require additional funding from the Scottish Executive.

<b>AGENDA</b>
---------------