

PERTH AND KINROSS COUNCIL**Strategic Policy & Resources Committee – 22 November 2012****FLOODING IN COMRIE****Report by the Executive Director (Environment)**

This report sets out the proposed flood mitigation measures and associated costs for Camp Road area of Dalginross, Comrie following the recent flood events of 27 August and 19 November 2012.

1. RECOMMENDATION(S)

The Committee is asked to:-

- i) Note the measures proposed to mitigate flooding from the Water of Ruchill to the Camp Road area of Dalginross.
- ii) Allocate up to £1.032M from reserves to support the works at Dalginross.
- iii) Instruct the Executive Director (Environment) to continue dialogue with the Scottish Government in relation to a funding contribution to offset the Council's contribution.

2. BACKGROUND

- 2.1 Comrie is sited at the confluence of three significant watercourses, all of which have caused flooding in the past. These rivers are the Earn, the Lednock and the Water of Ruchill. Recent flooding incidents, however, have all emanated from the Water of Ruchill. Overtopping of the Ruchill has led to flooding of Dalginross, most notably in 1993, 1997 and twice in 2012.
- 2.2 There is an existing flood scheme at Dalginross which was constructed in the 1960s. This does not however offer sufficient mitigation to deal with current events.
- 2.3 In recent years, the Council engaged consulting engineers Mouchel to carry out a flood study for the whole of the Comrie catchment area which recommended a new £13M flood protection scheme to offer protection from flooding from any of the three rivers.
- 2.4 Given the magnitude of such a scheme, and its place in national and local priorities, it would take many years to develop and implement and would not address the immediate risk of flooding to Dalginross.

3. RECENT FLOODING EVENTS

3.1 On 27 August 2012, Dalginross flooded from the Water of Ruchill. About 60 properties are understood to have been affected. Since that event the Council have been working closely with Community representatives, SEPA and local land owners in order to find solutions to alleviate the flooding problems.

3.2 Action carried out since the August event includes:-

- A sandbag store was set up in the local Fire Station.
- Road gullies were cleared in and around affected areas of Dalginross on both public and private roads in order to improve drainage.
- Vegetation has been cleared from the Fey Burn and culvert and the flood embankments are being strimmed.
- Works to remove fallen trees from the bed and banks of the Water of Ruchill will commence shortly.
- Potholes in Camp Road have been repaired and debris has been removed.
- Following an application to SEPA, approval has been given for the removal of the gravel bar at the bend in the Water of Ruchill (where the river burst its banks). This is aimed at reducing the pressure on the eroded bank.
- Consulting engineers were commissioned following the August event and have now concluded hydraulic modelling work on potential measures to address flooding at Camp Road.
- SEPA have announced a flood warning system for the Water of Ruchill at Comrie
- A new gate is being installed at the end of Camp Road to allow the Fire and Rescue Service easier access to the upper field to pump away flood water.
- Discussions have taken place with the local landowners about their involvement in mitigation measures.

3.3 More severe flooding occurred on 19 November 2012 and although the exact details are still being analysed, it is understood that potentially up to 150 properties may have been affected.

3.4 The Council's response to this latest incident is continuing but during the event:-

- Council staff supplied over 3000 floodsax and 1000 sandbags to local businesses.
- An emergency small flood wall (bund) was placed over the Camp Road drive.
- 30 Council staff were deployed to site with pumping and lifting equipment to assist in the recovery process.
- An emergency relief centre was set up to deal with displaced residents.
- Staff continue to be on site to support the local community.

- 3.5 The purpose of this report is to present a programme of works arising from the consulting engineers recommendations.

4. PROPOSALS

- 4.1 While there may not currently be resources available to implement a full flood protection scheme for the wider Comrie area, there are a number of measures which can be put in place in the short term to mitigate the recent flooding patterns in Dalginross. The following measures are proposed:-

4.2 Flood Defences at Dalginross

- 4.2.1 Following further hydraulic modelling work requested after the August 2012 event, Consulting Engineers Mouchel have developed a localised scheme to address the immediate risk to the Dalginross area. This consists of raising each end of the driveway to the private property 'Tomnagaske' to tie in with existing flood defences and high ground. It also includes removing a section of the existing flood embankments along the driveway in order to allow flood water to flow across the driveway unimpeded. Road access to the property would be maintained across the flood defences by the creation of raised ramps.
- 4.2.2 A small flood wall (or bund) closer to the Water of Ruchill adjacent to the Roman Fort will also be constructed. While this will not prevent flooding, it is predicted to delay the onset of water entering the field next to Dalginross by up to 2.5 hours (in a 1 in 25 year flood event), thereby providing the community with a greater period of warning. At present the onset of flooding occurs rapidly with little or no warning.
- 4.2.3 In the recent flood events, flood water has escaped from a bend in the Water of Ruchill upstream of Dalginross. At this point the river is trying to change its course and during these flood events a gravel bar has formed on one river bank with erosion on the opposite bank. This erosion has lowered ground levels in the area and has created an increased risk of flooding in the future.
- 4.2.4 It is considered that removing the gravel bar down to a level just above the river bed will take the pressure off the eroded river bank. A licence application (under the Water Environment (Controlled Activities) Regulations (Scotland)) has been submitted to SEPA to allow removal of the gravel bar. Approximately 3000 tonnes of material would have to be removed. SEPA confirmed on 21 November that the gravel bar can be removed on an emergency works basis. Work is due to start on this operation on Friday 23 November water levels permitting.
- 4.2.5 The eroded section of river bank now extends to approximately 200m. Mouchel are considering options for erosion protection measures in this area.

- 4.2.6 The proposed works above will be implemented under the powers contained within the Flood Risk Management (Scotland) Act 2009. The Council will use its emergency powers to enhance the flood defences at Camp Road, the bank strengthening and the other works required.
- 4.2.7 All of the above measures are subject to the relevant landowners formal consent and it should be noted that discussions with them to date have been favourable.
- 4.2.8 It should also be noted that the above proposals will only mitigate flooding from the Water of Ruchill to the Dalginross area. It will not address the remaining flood risks which exist for Comrie and Dalginross from the River Earn and the River Lednock, which would be addressed in the larger scheme.

5. CONSULTATION

- 5.1 The Chief Executive, the Head of Finance, the Head of Democratic Services and the Head of Legal Services have been consulted in the preparation of this report.

6. RESOURCE IMPLICATIONS

- 6.1 The estimated costs for the above measures are as follows:-

Proposed Measure	Estimated Cost
Works to enhance and repair flood defences at Camp Road	£295k
Small wall/bund at Roman Fort	£25k
Clearance of vegetation from Fey Burn and flood embankments	£5k
Removal of trees and debris from Water of Ruchill	£45k
Gravel Bar removal	£54k
Erosion protection measures	£600k
Re-stock sandbag store	£8k
Total	£1,032k

- 6.2 It is recommended that the Council allocate up to £1.032M from reserves to support the works at Dalginross. The Executive Director (Environment) will continue dialogue with the Scottish Government in relation to a funding contribution to offset the Council's contribution.

7. COUNCIL CORPORATE PLAN OBJECTIVES 2009-2012

- 7.1 The Council's Corporate Plan 2009-2012 lays out five Objectives which provide clear strategic direction, inform decisions at a corporate and service level and shape resources allocation. They are as follows:-

- (i) A Safe, Secure and Welcoming Environment
- (ii) Healthy, Caring Communities
- (iii) A Prosperous, Sustainable and Inclusive Economy
- (v) Confident, Active and Inclusive Communities

8. EQUALITIES IMPACT ASSESSMENT (EqIA)

- 8.1 An equality impact assessment needs to be carried out for functions, policies, procedures or strategies in relation to race, gender and disability and other relevant protected characteristics. This supports the Council's legal requirement to comply with the duty to assess and consult on relevant new and existing policies.
- 8.2 The function, policy, procedure or strategy presented in this report was considered under the Corporate Equalities Impact Assessment process (EqIA) with the following outcome:
- i) Assessed as **not relevant** for the purposes of EqIA

9. STRATEGIC ENVIRONMENTAL ASSESSMENT

- 9.1 Strategic Environmental Assessment (SEA) is a legal requirement under the Environmental Assessment (Scotland) Act 2005 that applies to all qualifying plans, programmes and strategies, including policies (PPS).
- 9.2 The matters presented in this report were considered under the Environmental Assessment (Scotland) Act 2005 and no further action is required as it does not qualify as a PPS as defined by the Act and is therefore exempt.

10. CONCLUSION

- 10.1 Dalginross has been severely affected by flooding on 27 August and 19 November 2012.
- 10.2 Following the first event immediate action was taken and, in conjunction with the local community, proposals were developed to mitigate flooding in the Camp Road area of Dalginross. If funding is agreed, these measures will be implemented as a matter of urgency.

**JIM VALENTINE
EXECUTIVE DIRECTOR (ENVIRONMENT)**

Note

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) were relied on to a material extent in preparing the above report.

PKC – Roads and Transport Committee – 11 December 1996, Rural Communities - Flood Prevention

PKC – Roads and Transport Committee – 20 October 1999, Rural Communities Flood Prevention Schemes

PKC – Roads and Transport Committee – 22 November 2000, Flooding at Almondbank – Reappraisal of Flood Defence Options

PKC – Roads and Transport Committee – 24 January 2001, Rural Communities Flood Prevention Schemes Update

PKC – Enterprise and Infrastructure Committee – 1 December 2004, Rural Communities Flood Prevention Schemes

PKC – Enterprise and Infrastructure Committee – 24 October 2007, Flood Mitigation Schemes and Flood Studies

PKC - Environment Committee - 30 January 2008, Biennial Report on Flood Prevention Responsibilities 2007

PKC - Environment Committee - 4 November 2009, Biennial Report on Flood Prevention Responsibilities 2009

PKC – Environment Committee – 27 January 2010, Flood Risk Management (Scotland) Act 2009

PKC – Environment Committee – 21 March 2012, Biennial Report on Flood Prevention

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