

PERTH AND KINROSS COUNCIL**Environment Committee – 20 March 2013****GREENLOANING FLOOD MITIGATION SCHEME****Report by Depute Director (Environment)**

This report recommends that the proposed flood mitigation scheme on the Millstone Burn in the Allandale Crescent area of Greenloaning is not taken forward as the scheme fails to meet the Scottish Government's economic criteria. The report also recommends that no further investigations into flooding at this location should be undertaken.

1. RECOMMENDATIONS**1.1 The Committee is asked to:**

- (i) Agree that the proposed flood mitigation scheme to address localised flooding from the Millstone Burn to the Allandale Crescent area of Greenloaning is not taken forward as the scheme fails to meet the Scottish Government's economic criteria.
- (ii) Agree that it is not appropriate to undertake any further investigations into flooding at this location.

2. BACKGROUND

- 2.1 Flooding occurred in the Allandale Crescent area in August 2004 when the Millstone Burn burst its banks. Flooding affected the Allanbank Inn as well as six houses on Allandale Crescent.
- 2.2 Perth and Kinross Council subsequently engaged term consulting engineers, Mouchel, to investigate the flooding and produce a flood study. Mouchel's final report of December 2006 concluded that a flood mitigation scheme could be economically justified and recommended enhancements to the existing embankments along the Millstone Burn as well as raising access bridges and service pipes.
- 2.3 The consultant's findings were reported to the Council's Enterprise and Infrastructure Committee on 24 October 2007 (Art 631). The Committee agreed to the promotion of a flood scheme, subject to the availability of finance.
- 2.4 In May 2009 when funding became available, Perth and Kinross Council engaged current term consultants, Halcrow, to develop the existing flood study into an outline design in sufficient detail to allow the flood scheme to be submitted and approved in accordance with the requirements of the Flood Risk Management (Scotland) Act 2009.

- 2.5 The Flood Risk Management (Scotland) Act 2009 provides local authorities with discretionary powers to promote new flood mitigation schemes. However, the Council is required to have regard to the economic impact of exercising its functions under this legislation. Only those schemes which can be shown to meet the Scottish Government's minimum economic criteria are implemented. The cost of flood damage prevented over time must be greater than the cost of building the flood defences, i.e. they must achieve a benefit/cost ratio of greater than 1.0.
- 2.6 Halcrow developed and updated the previous Mouchel flood study into a more comprehensive investigation of the flooding issues in the area. This was required to support the promotion of a formal flood scheme and included a re-evaluation of the catchment hydrology, a more detailed hydraulic model (based on more topographical survey data), consideration of other potential options to mitigate flooding and a re-assessment of costs and flood damages in accordance with updated national guidance.
- 2.7 Halcrow's final report considered the following scheme options, as shown in Appendix A:
- 2.8 **Option 1:** Flood relief channel - this option involves the construction of a high flow diversion weir with 350 linear metres of flood relief channel to the rear of 14 Allandale Crescent to divert flood water away from the Millstone Burn and into the adjacent field and towards the Allan Water via a new culvert. The proposed scheme cost (including design, construction, supervision and optimism bias) is estimated at £498,164.
- 2.9 **Option 2:** Flood wall and embankments - this option would involve the construction of 110 linear metres of flood embankments and 60 linear metres of flood walls along the banks of the Millstone Burn, extending from the Network Rail Bridge to the road culvert beneath Allandale Crescent. In addition, one road access bridge and two footbridges would require to be raised or removed. The proposed scheme cost is estimated at £1,646,953.
- 2.10 **Option 3:** Localised raising of walls and river bank – this option consists of minor works to the existing embankments along the Millstone Burn to remove any localised gaps and reduce localised flooding particularly at the road access bridge to 19 and 20 Allandale Crescent and around the Allanbank Inn. The proposed scheme cost is estimated at £99,806.
- 2.11 The benefit/cost ratios for all of the identified options fall below the Scottish Government's criterion which requires a minimum value of 1.0. Of the three options considered, Option 2 is the only scheme that provides the standard of protection required. Options 1 and 3 would only provide a limited standard of flood protection to some or all properties at risk of flooding.

The cost/benefit scores for the three options are:

Option 1 – 0.8

Option 2 – 0.4

Option 3 – 0.5

- 2.12 The conclusions of the consultants report were communicated to residents at a public meeting on the 18 February 2013. The residents expressed their concerns at the conclusions of the report and the implications of future flooding problems to their properties as a result of a scheme not being economically viable.

3. PROPOSALS

- 3.1 In view of the fact that the consultants report has demonstrated that the Greenloaning Flood Mitigation Scheme is not economically viable, it is proposed that no further work should be undertaken.

4. CONSULTATION

- 4.1 The Head of Legal Services, the Head of Democratic Services and the Head of Finance have been consulted in the preparation of this report.
- 4.2 A short presentation was held on the 18 February 2013 in Greenloaning attended by a Councillor and residents in order to communicate the conclusions of the report and provide advice where required.

5. RESOURCE IMPLICATIONS

- 5.1 There are no resource implications arising directly from the recommendations in this report.

6. COUNCIL CORPORATE PLAN OBJECTIVES 2009-2012

- 6.1 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. This report relates to the following Objectives:-

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

7. EQUALITIES IMPACT ASSESSMENT (EqIA)

- 7.1 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.
- 7.2 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 **relevant** and actions taken to reduce or remove the following negative impacts:
- (ii) The effects and aftermath of flooding could have a greater impact on mobility impaired, sight impaired or blind people or learning disabled people, children, the elderly and infirm, pregnant women or nursing mothers in relation to adverse psychological, physical and health impacts.

7.3 The following actions have been taken to mitigate negative impacts:

- (i) On-going inspection, assessment and clearance and repair works to reduce the flood risk on the Millstone Burn will continue as necessary.
- (ii) Public meeting to raise awareness of flooding amongst residents.
- (iii) Provision of self help flooding information to residents with regard to property flood products and private action that could be taken to raise walls and river bank levels locally.

8. STRATEGIC ENVIRONMENTAL ASSESSMENT

8.1 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).

8.2 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.

9. CONCLUSION

9.1 The Council's term consultants are to stop work on the Greenloaning Flood Mitigation Scheme as the proposed flood defences cannot be economically justified.

**BARBARA RENTON
DEPUTE 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 – Enterprise and Infrastructure Committee – 1 December 2004 – Rural Communities Flood Prevention Schemes (Art 864)

- PKC – Enterprise and Infrastructure Committee – 30 November 2005, Biennial Report on Flood Prevention Responsibilities
- PKC – Enterprise and Infrastructure Committee – 24 October 2007 – Flood Mitigation Schemes and Flood Studies (Art 631)
- 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 (Art 557)
- PKC – Environment Committee – 21 March 2012, Biennial Report on Flood Prevention (Art 142)

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Option 2 - Flood
Embankments/walls and Bridge
raising

Option 1 - Flood Relief Channel

Option 3 - Proposed minor
alterations to localised low
spots

This plan is prepared for the purpose of showing the proposed alterations to the flood relief channel and bridge. It is not a final design and should not be used for construction purposes. The plan is subject to the approval of the relevant authorities. The plan is prepared by the relevant authorities and is subject to their approval. The plan is prepared by the relevant authorities and is subject to their approval. The plan is prepared by the relevant authorities and is subject to their approval.