

Report

11

Report to:	Enterprise Services Committee
Date of Meeting:	19 March 2013
Report by:	Executive Director (Community and Enterprise Resources) Executive Director (Finance and Corporate Resources)

Subject:	Approach to Flood Risk Management
----------	--

1. Purpose of Report

1.1. The purpose of the report is to:-

- ♦ provide an overview of the Council's approach to Flood Risk Management

2. Recommendation(s)

2.1. The Committee is asked to approve the following recommendation(s):-

- (1) that the contents of the report be noted
- (2) that approval is given to appoint an additional Engineering Officer to assist with the delivery of the approaches outlined in this report

3. Background

- 3.1. The principle of climate change is now generally accepted and it is becoming clear from recent experience within South Lanarkshire and across the rest of the country that the risk of flooding is continuing to increase. Flooding can arise from multiple sources such as rising water levels from watercourses, from surface water run off from adjacent land as a result of heavy rainfall or from blockages in existing drainage infrastructure.
- 3.2. Rainfall intensity also appears to be increasing resulting in higher flood risk and there is an increasing frequency of severe weather events throughout the year. The impact of such changes in climate is expected to continue to be experienced on the road and wider transport network as well as by commercial and residential properties.
- 3.3. Multiple locations across the Council are currently at risk of severe flooding, affecting the inside of residential properties and commercial premises. These incidents causes major damage to property and belongings, risk to health and serious stress and inconvenience to residents and proprietors.
- 3.4. Improved infrastructure is required to reduce flood risk at these locations with current known priorities at Viking Terrace in East Kilbride, Fairhill Avenue, Leys Park, Chatelherault Crescent, Russell Street in Hamilton and Hill Street in Douglas. In total around 100 properties are affected by flooding at these locations.

- 3.5. In addition there are areas in Cambuslang, Cathkin Braes and Symington where the risk of large scale flooding issues is currently present or expected to increase following climate change predictions.
- 3.6. In order to manage and address these existing and developing issues the Council, through Roads and Transportation Services, has developed certain approaches and procedures. These are outlined in this report.

4. Response to Flooding

- 4.1. The document "Response to Flooding" has been produced and was recently updated during October 2012. The purpose of this document is to bring together in one document a comprehensive list of locations liable to flood in South Lanarkshire. A copy of the Response to Flooding document is available in the Members Library for review.
- 4.2. The document is a Roads and Transportation Services operational document and sets out the level of action required at various priority locations to manage the risk of flooding and the scenarios which could trigger these actions. The document is reviewed on an on-going basis and updated as required.
- 4.3. There are three situations which trigger the Response to Flooding procedures:
- Forecasted rainfall greater than 5mm per hour and/or 25mm in a 24 hour period;
 - Head of Roads & Transportation Services and/or Flood Risk Management Officer instructs the Duty Manager to invoke scouting system due to local weather conditions;
 - SEPA provides a Flood Warning on the River Clyde.
- 4.4. Weather forecasts are reviewed daily at 0700hrs, 1200hrs and 1900hrs. The Duty Manager will then invoke the Response to Flooding procedures should any of the above scenarios be met.

5. Scouting Procedures and Culvert Clearance

- 5.1. Section A of the Response to Flooding document outlines the locations to be 'scouted' on a continual basis during a heavy rainfall forecast. Eleven sites across South Lanarkshire are covered by 'scouting' arrangements.
- 5.2. When heavy rainfall is forecast, flood scouts are tasked with visiting each site regularly during the forecast period to ensure the main culvert grill and secondary trash screens are clear of debris. If debris is too large to remove manually, then appropriate mechanised plant is requested to attend.
- 5.3. Telemetry equipment has also been installed at several locations which provide information on the water levels with alarms being triggered when water levels reach specified height limits. A daily photograph of the main culvert screen can also be captured with photographs being triggered manually as required to provide instant information on the water level and screen condition.
- 5.4. Section B of the document outlines the culvert locations which are to be cleaned during the day ahead of a heavy rainfall forecast. A further twenty six locations are covered by these arrangements.

6. Watercourse Assessment

- 6.1. Section C of the Response to Flooding document details five locations along the River Clyde which remain at risk from flooding and which may require attention in the event of extended heavy rainfall. During periods of heavy rainfall SEPA monitoring stations are reviewed by Roads and Transportation Services officers on a regular basis to assess whether further action is necessary.
- 6.2. Section D of the document lists a further twenty three specific sites which Flood Risk Management officers inspect on a regular basis as part of the watercourse assessment programme, and Section E sets out the proposed watercourse inspection programme for the period between 2012 and 2015.

7. Road Gullies

- 7.1. Section F of the Response to Flooding document outlines the road gully locations which are to be checked during a heavy rainfall forecast. These sites have been identified from previous experience and local knowledge.
- 7.2. The forty seven high risk gully locations detailed in Section F are also specified for more frequent gully cleans and are typically cleaned four times a year. All remaining gullies on the road network are cleaned annually as part of our cyclical maintenance. A number of years ago gullies were routinely cleaned twice a year; however in response to requirements for efficiency savings this has been reduced to once a year.
- 7.3. During certain heavy rain events flooding can still be experienced in some places. Despite our ongoing response to flooding one of the major problems we face is leaves blocking gullies. Regretfully, while the council does sweep leaves in the autumn season to help prevent such problems, it is impossible to totally prevent this problem of nature.
- 7.4. On other occasions given the sheer volume of rain some surface water and older sewer / drainage systems simply do not have the capacity to cope with the volume of water and flooding can occur for short periods.

8. Responding to Flooding Enquiries

- 8.1. Routine day to day flooding or drainage problems affecting the road or footway network are generally dealt with by the respective Roads Area Manager. Significant flooding issues, planned watercourses maintenance projects and larger scale improvement projects are dealt with by the specialist Flood Risk Management Section.
- 8.2. During flooding events Roads and Transportation Services regularly receive enquiries from Elected Members, residents and commercial proprietors with regards to flooding directly affecting their properties or the road and footway network.
- 8.2. Where the inside of residential properties or commercial premises is affected, or at significant risk, assistance and advice is normally given either through the provision of sandbags, the deployment of pumping equipment and where necessary operatives being sent to clear any blockage. Where the road network is affected attempts are made to clear the cause of the problem using pumping equipment, however, where this is not possible the road or footway can be temporarily closed.

- 8.3. Roads and Transportation Services' focus and primary responsibility is to ensure that the road and footway network remains open and free from flooding and that the risk of flooding to the inside of residential and commercial properties is minimised.
- 8.4. Following, and occasionally during, flooding events we are increasingly being asked to assist with investigating and solving other flooding problems e.g. flooded garden areas or flooding associated with Scottish Water sewers or private drainage or infrastructure problems. Unless the cause of the problem is linked to the road and footway network or from land owned by the Council we are not able to allocate any significant resources to dealing with flooding issues of this nature.
- 8.5. While we will continue to offer some initial advice and investigation, due to available resources and increasing flood risk priorities and responsibilities, our resources require to be focused where they are needed the most.

9. Development Control

- 9.1. Roads and Transportation Services are regularly consulted on planning applications to ensure developers are taking due cognisance of the flood risk implications of their developments, building outwith floodplains and are managing surface water in accordance with the principles of Sustainable Urban Drainage Systems. This approach will minimise the risk of future flooding issues arising from or within these developments.
- 9.2. For certain types of development we require Flood Risk Assessments and Drainage Assessments to be submitted by the developer, certified and independently audited to ensure that the flooding and drainage implications have been fully assessed and infrastructure required is designed and constructed to the appropriate standards. Details and responsibility for future maintenance is also confirmed and recorded as part of this development control process.

10. Strategic Flooding

- 10.1. As well as the above operational and reactive approach to managing flooding the Council also participates in a number of strategic and regional forums tasked with managing flood risk across a wider catchment area.
- 10.2. The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) was set up following the urban floods in 2002 to provide a holistic approach to managing surface water to reduce flood risk, unlock development potential and improve water quality. The Council are represented on the Steering and Technical Groups of MGSDP. Involvement in the MGSDP provides a regular platform for the Council to discuss and resolve flooding and drainage issues with Scottish Water, SEPA and Glasgow City Council.
- 10.3. On 26 November 2007, the EC Floods Directive came into force and was transposed into Scots Law on 26 November 2009 as the Flood Risk Management (Scotland) Act 2009. Its initial requirement was to produce preliminary flood risk assessments by December 2011. Hazard and flood risk maps require to be completed by December 2013 and Flood Risk Management Plans by December 2015. While responsibility for delivering these requirements lies with the Scottish Environment Protection Agency (SEPA), Community and Enterprise Resources, through Roads and Transportation Services, continue to be heavily involved with the process.

- 10.4. As outlined in the paper to Executive Committee of 21 November 2012 the Council is one of 10 local authorities who form the Clyde & Loch Lomond Local Flood Risk Management District (CaLL LFRMD) which has been set up in response to the requirements of the Flood Risk Management Act. We are involved as part of this group to develop Flood Risk Management Plans and provide information to SEPA to assist with national flood risk assessments and mapping of water bodies etc. The Council is also involved with the Tweed Local Flood Risk Management District and management arrangements will soon be agreed.
- 10.5. We also have a significant role in supporting the multi-agency incident response for flooding from the River Clyde. This involves attending the Council's Emergency Management Team and collaborating with other agencies prior to and during serious incidents.

11. Employee Implications

- 11.1. An Enterprise Resources Committee report on the Flood Risk Management Act dated 28 October 2009 indicated the potential impact on finance and resources, potentially requiring additional staff, consultancy costs to undertake specialist modelling work and increased workload associated with accessing, clearing, surveying and assessing watercourses.
- 11.2. At present the Flood Risk Management Section consists of the following:-
- 1 x Team Leader, Grade 4 Level 5
 - 3 x Engineering Officer, Grade 3 Level 8
 - 1 x Assist Engineering Officer, Grade 2 Level 4
 - 1 x Assist Engineering Officer, Grade 2 Level 3/4
- 11.3. To date experience has resulted in the following workload associated with the Flood Risk Management Act:-
- Providing SEPA with data to prepare flood risk assessments
 - Responding to Scottish Water regarding flood risk from sewerage system
 - Preparing maps of bodies of water via the Detailed River Network
 - Assessing bodies of water to create a schedule of clearance and repair
 - Providing SEPA with data to prepare flood hazard maps and flood risk maps
 - Attending the Local Flood Risk Management Plan Districts
 - Preparing potential flood protection schemes for future investment.
- 11.4. These are new duties and a legal responsibility, however, our ability to deliver them, progress improvement projects and to secure external funding is now being compromised due to the increasing frequency and severity of flooding events outlined earlier in this report. This can tie up officers not only on the day of the event, but for several weeks or months following the event. This ultimately has an impact on routine work such as Planning Applications, routine maintenance activities and preparation of capital improvement projects.
- 11.5. There is also a need to ensure that officers are appropriately skilled and experienced to fully assess and develop improvement projects to manage flood risk and to secure much needed external funding. Considering the above it is proposed that a new Engineering Officer post, within the Flood Risk Management team, is created at Grade 3 Level 8.

Post Title	Current No of Posts	Proposed No of Posts	Grade/ Level	SCP Range	Hourly Rate	Annual Pay	Total Cost (including on costs)
Engineering Officer	3	4	Grade 3 Level 8	75/80	£18.60 -£20.03	£33943 - £36553	£45978

12. Financial Implications

- 12.1. The approaches outlined in this report are currently funded from existing Council Revenue budgets and supplemented by ring fenced Government funding of just over £150k provided for the implementation of the Flood Risk Management Act. However, it is clear that these budgets are being put under pressure and if climate change predictions continue to be realised the budgets may be insufficient in the future.
- 12.2. There is also an increasing need to provide new infrastructure and investment at currently known priority locations and several projects have been put forward for consideration as part of the Council's next 3 year Capital Programme commencing in 2014/2015.
- 12.3. Further priority sites for investment will also emerge over the next 3 years and it is estimated that circa £500k per year will be required. This investment represents the small to medium scale projects potentially deliverable by the Council over the next 3 years.
- 12.4. Larger scale strategic projects also continue to be developed for the Cambuslang, Cathkin Braes and Symington areas of South Lanarkshire where the risk of large scale flooding issues is currently present or expected to increase following climate change predictions. Some 350+ properties are at risk in these areas along with several commercial premises. Projects emerging from these exercises will be put forward for larger scale funding likely to be ring fenced for projects emerging from the Local Flood Risk Management Plan (developed by CaLL LFRMD). The level of funding available is not yet known, but it is likely that any successful scheme will require a percentage share from the Council. Previous funding streams for these type of projects have provided 80% funding from the Scottish Government with the Council funding the other 20%.
- 12.5 The new Engineering Officer post will be funded from existing Revenue streams currently supplemented with ring fenced government funding provided for the implementation of the Flood Risk Management Act. This funding will continue into 2013/2014 and is expected to continue in future years, although this is not yet confirmed.

13. Other Implications

- 13.1. There are no risks associated with this report.

14. Equality Impact Assessment and Consultation Arrangements

- 14.1. There is no consultation proposed as part of this paper.
- 14.2. This report does not introduce a new policy, function or strategy or recommend a change to an existing policy, function or strategy and therefore, no impact assessment is required.

Colin McDowall
Executive Director
(Community and Enterprise Resources)

Paul Manning
Executive Director
(Finance and Corporate Resources)

4 March 2013

Link(s) to Council Objectives/Values

- Improve the road network and influence improvements in public transport
- Develop a sustainable Council and Communities
- Improve the quality of the physical environment
- Improve community safety

Previous References

Executive Committee 21 November 2012, Local Flood Risk Management Plan Districts Governance Arrangements

Enterprise Committee 28 October 2009, Flood Risk Management (Scotland) Act 2009

List of Background Papers

- Response to Flooding document

Contact for Further Information

If you would like to inspect the background papers or want further information, please contact: - Colin Park, Roads and Transportation

Ext: 3653 (Tel: 01698 453653)

E-mail: colin.park@southlanarkshire.gov.uk