

**REPORT TO: FLOOD ALLEVIATION SUB-COMMITTEE ON 16 AUGUST 2006**

**SUBJECT: ELGIN FLOOD ALLEVIATION SCHEME – OPTIONEERING RECOMMENDATIONS**

**BY: DIRECTOR OF ENVIRONMENTAL SERVICES**

**1. Reason for Report**

- 1.1 To inform the Sub-Committee of progress on the development of the Elgin Flood Alleviation Scheme, outlining key issues studied during the Optioneering Phase and to recommend actions that should be implemented to allow continued effective development of the scheme.
- 1.2 This report is submitted to the Sub-Committee in terms of Section D (23) of the Council's Administrative Scheme relating to the functions of the Council under the Flood Prevention (Scotland) Act 1961 as amended by the Flood Prevention and Land Drainage (Scotland) Act 1997.

**2. Background**

- 2.1 The Sub-Committee of 30 November 2005 (para 9 of the Minute refers) approved the Project Execution Plan, which programmed submitting both planning application and Flood Prevention Order in August 2007.
- 2.2 The meeting of the Moray Council on 15 March 2006 (para 24 of the Minute refers) approved the proposed change of scope to Elgin Flood Alleviation Scheme to focus attention on flood risk from the River Lossie through urban Elgin, which shortened the programme. The flood team is currently developing the proposals for the Elgin Flood Alleviation Scheme with the intention of submitting both a planning application and a Flood Prevention Order in June 2007.
- 2.3 The Sub-Committee of 30 November 2005 (para 9 of the Minute refers) approved the Project Execution Plan, which set out four key drivers that would influence development of the scheme:
  - Effective flood alleviation for the community of Elgin as soon as possible
  - Obtain all necessary consents and approvals
  - Value for Money and Affordability

- Minimise and manage health and safety risks in design, investigation, construction, operation and maintenance
- 2.4 The Project Execution Plan also listed key issues and opportunities that must be addressed during the design phases to manage risks to scheme deliverability. These key issues and opportunities include:
- Contaminated land
  - Scottish Water
  - Impacts of the scheme on areas and infrastructure with historic interest
  - Removal of residential and commercial properties
  - Proposals for the area downstream of Elgin
- 2.5 The aim during the optioneering phase of the scheme development has been to:
- Increase value for money and affordability without compromising the effectiveness of the scheme and / or
  - Manage identified risks to increase cost certainty and the likelihood of obtaining the required consents and approvals
- 2.6 There has been good progress since the Project Execution Plan was approved on 30 November 2005. There are, however, areas where progress could be improved. This report summarises the current situation and recommends specific actions to improve progress in those areas that threaten the successful delivery of the scheme.
- 2.7 A report on the proposals for improving the bridges on Tyock Burn will be submitted to the meeting of the Environmental Services Committee on 27 September 2006.

### **3. The Proposals**

#### **Engineering Proposals**

- 3.1 A review of the current situation in the Sheriffmills area revealed changes since the initial scheme proposals were drafted in 2004. Planning consent has been granted for a new garden centre, with conditions that the developer constructs appropriate flood defences to defend that development. In addition, the Caravan Park at Sheriffmills is now largely redundant and the owner has plans to relocate his business. It is therefore proposed that no work should be carried out in the Sheriffmills area, reducing the capital cost of the scheme by £50,000 without affecting the numbers of properties protected. A proposed redevelopment of the site should be required to construct flood protection measures.
- 3.2 It is proposed that the Category B listed wall on the river frontage at the Mansion House Hotel should be raised. Both Historic Scotland and the owner of the Mansion House Hotel have confirmed that this proposal is acceptable in principle.
- 3.3 Following the optioneering process in the Borough Briggs area, it is proposed that the existing A941 New Bishopmill Bridge should be retained. This proposal has the following implications:

- The capital cost of the scheme is reduced by approximately £3 million
  - Disruption during the construction phase of the flood alleviation scheme is reduced
  - The numbers of properties protected by the scheme is not affected
  - The proposed new flood defences immediately upstream of the bridge will increase in height by approximately one metre to about 3.5 metres high immediately upstream of the bridge. The impact of this increase in height will gradually reduce to zero at the Mansion House Hotel where the flood defences will be around 1.7m high.
- 3.4 The proposal to replace Old Bishopmill Bridge with a new footbridge has been reviewed in response to concerns raised by Historic Scotland, who consider that Old Bishopmill Bridge, a Category B listed structure, is a valuable historic asset that adds to the townscape. Investigations have shown that the bridge would require significant alteration to be made compatible with the flood alleviation proposals and that these alterations cannot be achieved without changing the aesthetics and characteristics of the bridge, which would detract from the historic asset value of the bridge. Historic Scotland will have to be convinced that we have examined all appropriate alternatives before demolition of the old bridge is allowed.
- 3.5 A pedestrian survey has shown that Old Bishopmill Bridge is well used, with an average of 450 people crossing the bridge per day during the survey period. It is proposed that the existing Old Bishopmill Bridge should be demolished and be replaced with a new footbridge that is compatible with the flood alleviation proposals. This proposal does not change the estimated capital cost of the scheme.
- 3.6 The optioneering process in the Cathedral area has revealed that stakeholders have very different expectations and priorities for the area. There is a general acceptance that the area is an important asset for the community of Elgin that should be preserved as far as possible. There is also a general acceptance that the requirement to provide effective flood alleviation means that change is inevitable. However, there are different and often contradictory expectations when considering the relative importance of mature trees and natural river banks when compared to land take and the effect on property.
- 3.7 It is proposed that every effort should be made during the forthcoming design stages to minimise disruption and damage to the following:
- the Cathedral;
  - Brewery Bridge;
  - Pans Port;
  - the residential properties to the south of Grampian Road, at Kingsmills Court and Cathedral Court; and,
  - Johnstons of Elgin's factory and warehouses to the north of the river.
- 3.8 It is proposed that the following principles should be adopted during the design of the flood defences in this area:
- Within the constrictions identified in paragraph 3.7, all works will be developed to provide a river corridor that is as natural as possible.

- An island will be created between the river and the flood relief channel near the Cathedral and, as far as possible, the mature trees will be retained. The dimensions of the island will be determined during Design Stage 1 (Outline Design).
  - Pansport Bridge will be reconstructed on a similar alignment to the current bridge and a temporary bridge will be located immediately downstream of the current bridge to maintain traffic flows during construction.
  - A permanent body of water will be retained in the river and flood relief channel near the Cathedral.
  - A new footbridge will be constructed over the flood relief channel.
  - Johnstons of Elgin's mill lade intake will be closed and an alternative means of flushing water through the mill lade will be provided in lieu.
- 3.9 It is anticipated that the adoption of these principles will allow a balance to be reached between the conflicting stakeholder demands. This proposal does not change the estimated project cost.
- 3.10 It is proposed to construct of flood relief channel to the south of the river, which will not include a river crossing in the location of the Old Railway Bridge. A pedestrian survey has shown that the Old Railway Bridge is used infrequently, with an average of 11 people crossing the bridge per day during the survey period. This proposal reduces the estimated capital cost of the scheme by £0.5 million.

### **Contaminated Land**

- 3.11 The cost of investigating and remediating contaminated land within Elgin is the biggest single risk identified to delivery of the Elgin Flood Alleviation Scheme. An allowance of £14 million was included in the 2004 appraisal scheme best estimate of £95 million for contaminated land investigation and remediation and the associated risk.
- 3.12 Since 2004, the legislation and guidance surrounding contaminated land investigation and remediation has changed. In addition, the Scottish Executive has raised concerns about the possible inappropriate use of grant funding under the grant aid available for flood alleviation.
- 3.13 The Project Execution Plan stated that the successful management of the contaminated land issue relied upon strategic decisions being taken in a timely fashion to manage the risks associated with this element of the works.
- 3.14 Significant progress has been made in investigating the contaminated land issues in recent months. The potentially contaminated sites within the footprint of the flood alleviation proposals within urban Elgin have been identified and the Council's Contaminated Land Team has produced Phase 1 desk studies. In addition the Council decision to amend the scope of work along the Tyock Burn (The Moray Council meeting on 15 March 2006, para 24 of the Minutes refers) reduced the number of potentially contaminated sites affected by the scheme.

- 3.15 There are 44 sites that require further investigation and probable remediation in addition to the three sites that are currently being remediated under separate grant funding allocations from the Scottish Executive.
- 3.16 A recent review of the possible costs associated with investigation and remediation of the 44 sites under consideration indicates that the previously estimated £14 million remains a reasonable estimate. However, before Phase II investigations are undertaken, the uncertainty associated with this figure is considerable. There are still issues to be resolved over the approach to contamination in relation to engineering proposals associated with flood alleviation. It is proposed that the issue regarding contaminated land remediation be discussed with the Scottish Executive to reduce the risk of work being ineligible for grant.

### **Surface Water Drainage**

- 3.17 The overall effectiveness of this scheme also relies on improvements to the drainage system that are the responsibility of Scottish Water. Scottish Water has recently confirmed its commitment to working with the Moray Council and have obtained funding to investigate the existing drainage systems within Elgin. Scottish Water is expected to confirm its programme for delivery of their assessment of the existing drainage system and the effects of the proposed flood alleviation scheme shortly. It is proposed that Scottish Water's programme and any effects that this may have on delivery of the Elgin Flood Alleviation Scheme should form the subject of a future report to the Sub-Committee.

### **Consultation and Communication**

- 3.18 The Elgin Flood Alleviation Scheme is the single largest flood alleviation scheme to be promoted in Scotland to date. It is also the largest civil engineering project within Moray and affects a large number of individuals, businesses and groups. The Project Execution Plan stated that "a successful and timely delivery of the Elgin Flood Alleviation Scheme will depend upon a robust and thorough consultation and communication strategy explaining the scheme benefits to the community and stakeholders".
- 3.19 The project team liaises with statutory stakeholders such as SEPA, SNH and Historic Scotland as and when required. There is also an ongoing dialogue with residents that live in Elgin and the surrounding areas who have particular concerns about the proposals for flood alleviation within Elgin. The team also consults with individual landowners affected by particular proposals as the scheme develops.
- 3.20 However, there are benefits to a more proactive communication and consultation strategy, engaging the local community and stakeholders as well as the wider community. A comprehensive consultation and communication plan covers:
- Consultation to ensure that stakeholders and the community are involved in and are aware of scheme development;
  - Compensation and estates issues including:

- Informing land owners and occupiers of the effect the flood scheme proposals will have on their property, the proposed mitigation measures and their entitlement to compensation.
- Communication with land owners and occupiers who may be displaced as a result of the scheme and wish to relocate to alternative premises.
- Communication issues including the effective use of newsletters, public meetings, media interaction and website; and,
- Obtaining feedback to inform development.

3.21 It is therefore proposed that a comprehensive consultation and communication plan is formulated and implemented by October 2006 to engage stakeholders throughout scheme development.

#### 4. **Financial Implications**

4.1 The Special Meeting of the Moray Council on 25 February 2004 (para 6 of the Minute refers) approved Option 2 – Flood Walls and Embankments as the preferred scheme to alleviate and manage the flood risk in Elgin at an estimated cost of £75 – 114 million.

4.2 The meeting of the Moray Council on 15 March 2006 (para 24 of the Minute refers) approved the proposed change of scope to Elgin Flood Alleviation Scheme to focus attention on flood risk from the River Lossie through urban Elgin, which reduced the estimated cost to £67 – 100 million.

4.3 The combined effect of the proposals outlined in paragraphs 3.1, 3.3 and 3.10 is to reduce the estimated cost of the scheme by £3.5 million to £63.5 – 96.5 million.

4.4 The proposals in this report do not affect the estimated operation and maintenance costs of the scheme.

4.5 The estimated costs referred to in this report relate to the cost estimates prepared at the beginning of 2004. In order to maintain a consistent approach changes to the estimated costs have been calculated using the same 2004 base data.

4.6 Inflation in the construction industry has averaged 6% per annum since 2003. There have also been significant changes to the proposals for the Elgin Flood Alleviation Scheme in the last 6 months. It is proposed that the construction cost estimates and cost risk analysis are reviewed once the proposals for dealing with additional flood risk downstream of Elgin are identified in October 2006. This review will include all changes to the planned scope of work and inflation.

#### 5. **Staffing Implications**

5.1 The proposal to seek clarity with regard to contaminated land remediation will require time from the staff of the Moray Council Contaminated Land Team and the Royal Haskoning contaminated land experts. It is anticipated that the existing staff of the Moray Council Contaminated Land Team can manage this task in addition to their current workload. However, if this cannot be accommodated, a report will be submitted to the appropriate Committee.

**6. Environmental Implications**

6.1 Environmental implications formed part of the evaluation process at the Appraisal Stage.

**7. Sustainable Development Implications**

7.1 In accordance with the Water Environment and Water Services (Scotland) Act 2003, the Council has a duty to promote sustainable flood management.

**8. Corporate Development Plan**

8.1 The Corporate Development Plan 2004 – 2007 states that providing effective flood alleviation schemes is a priority.

**9. Consultations**

9.1 Lorraine Paisey, Principal Accountant, has been consulted and the comments received incorporated in this report.

9.2 Alasdair McEachan, Senior Solicitor (Commercial and Conveyancing), has been consulted and the comments received incorporated in this report.

9.3 The Principal Planning Officer (Development Control) has been consulted and the comments received incorporated in this report.

9.4 The Principal Environmental Health Officer (Contaminated Land), has been consulted and the comments received incorporated in this report.

9.5 The Head of Estates Services, has been consulted and the comments received incorporated in this report.

9.6 The Senior Engineer (Traffic), was involved in optioneering workshops that considered traffic issues.

9.7 SEPA, SNH, Historic Scotland, Elgin Angling Association, Lossie Salmon Fishery Board, Decora, Johnstons of Elgin and the Mansion House Hotel were all involved in a workshop that considered proposals in the Borough Briggs and the Cathedral areas.

**10. Recommendations**

**10.1 It is recommended that:**

- **The scheme should not include work in the Sheriffmills area;**
- **The existing New Bishopmill Bridge should be retained with new flood defences immediately upstream of the bridge increasing in height by approximately one metre;**
- **Old Bishopmill Bridge should be demolished and replaced with a new footbridge;**

- **The following principles should be adopted when developing engineering proposals in the Cathedral area:**
  - **Within the constrictions identified all works will be developed to provide a river corridor that is as natural as possible.**
  - **An island will be created between the river and the flood relief channel near the Cathedral and, as far as possible, the mature trees will be retained. The dimensions of the island will be determined during Design Stage 1 (Outline Design).**
  - **Pansport Bridge will be reconstructed on a similar alignment to the current bridge and a temporary bridge will be located immediately downstream of the current bridge to maintain traffic flows during construction.**
  - **A permanent body of water will be retained in the river and flood relief channel near the Cathedral.**
  - **A new footbridge will be constructed over the flood relief channel.**
  - **Johnstons of Elgin's mill lade intake will be closed and an alternative means of flushing water through the mill lade will be provided in lieu.**
- **There should not be a river crossing over the flood relief channel to the south of the river in the location of the Old Railway Bridge.**

**10.2 It is proposed that the issue regarding contaminated land remediation be discussed with the Scottish Executive to reduce the risk of work being ineligible for grant.**

**10.3 It is recommended that a further report is submitted to the Flood Alleviation Sub-Committee when Scottish Water's programme for delivery of its assessment of the drainage system in Elgin is received.**

**10.4 It is recommended that a comprehensive consultation and communication plan is formulated and implemented by October 2006.**

**10.5 It is recommended that the construction cost estimates and cost risk analysis are reviewed once the proposals for dealing with additional flood risk downstream of Elgin are identified in October 2006. This review will include all changes to the planned scope of work and inflation.**

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Background Papers:

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