

NATIONAL TECHNICAL ADVISORY GROUP ON FLOODING ISSUES

GUIDANCE SUB-GROUP – REPORT FOR 23 SEPTEMBER 2004 NTAG MEETING

Purpose

1. The purpose of this paper is to provide the National Technical Advisory Group on Flooding Issues (NTAG) with a third progress report from the Guidance Sub-Group.

Background

2. The Sub-Group met on 21 January, 25 May and 8 September 2004. The current membership is detailed in Annex A, and Alan Burdekin chairs the meetings.

3. This Sub-Group is set up by NTAG to advise the Scottish Executive via the main NTAG on the preparation of technical guidance for local authorities taking forward flood prevention schemes under the Flood Prevention (Scotland) Act 1961. The Sub-Group considered where appropriate that existing DEFRA guidance would be the starting point, updating and adapting it to allow for a Scottish perspective.

Feedback from last meeting on 8 September 2004

4. Members discussed and agreed the Guidance Outline attached at Annex B. They also discussed a title for the document, agreeing that the term ‘guidance’ was suitable. Members suggested 2 possible titles: ‘Developing Statutory Schemes for Flood Risk Management,’ and ‘Guidance for Development of Flood Prevention Schemes for Local Authorities.’

5. Jim Hutchison gave an update on DEFRA’s revisions to PAGs 3, 5 and 6. PAG 6 was of particular interest because there is no statutory driver for post project evaluations in Scotland. Members however considered them to be valuable exercise.

6. Members discussed the draft outlines of Chapters 1, 2 and 3 prepared by Peter Bolton, in particular how far local authorities should be encouraged to take a strategic approach and also adding additional guidance on drainage systems and new developments. These outlines are attached at Annex C.

7. The group discussed the 1:100 minimum standards for schemes as detailed in the *Economic Appraisal* chapter and Alan Burdekin explained the reasoning behind the policy decision for this limit. Members agreed that Peter Bolton’s second draft of the *Approaches to Risk* chapter was an improvement on the DEFRA guidance. Members agreed that both chapters were appropriate.

8. Finally, Members discussed the issue of technical guidance for sustainable flood management, and considered whether specific guidance is necessary if the overall guidance is written with sustainable flood management in mind. Training on the guidance was also discussed, in particular the role FLAGS might play here. It was noted that DEFRA uses its website and road shows to roll out this type of training. Members also discussed the use of workshops and possibly a conference for disseminating training on the guidance.

Recommendation from that meeting to take to NTAG on 23 September 2004

9. The Sub-Group recommends that NTAG should:
- consider Chapter 5 (*Economic appraisal*) and forward any final comments to Peter Bolton and Secretariat by 30 September; a final draft will be completed by the end of October;
 - consider Chapter 6 (*Approaches to risk*) and forward any final comments to Peter Bolton and Secretariat by 30 September; a final draft will be completed by the end of October;
 - agree the outline for Chapters 1 (*Introduction and overview*), 2 (*Statutory process*) and 3 (*Strategic considerations*);
 - agree that the Executive (Planning Division) should consider the role of FLAGs in disseminating new guidance, and
 - consider how all new guidance available might be presented during next year's Flood Awareness Week.

Review of Guidance Sub-Group output.

Outputs

10. A contents outline of the guidance has been produced (see Annex B). The Sub-Group recognises the importance of encouraging local authorities to take a more strategic approach to flood risk management and this will be reflected in the guidance.

11. Second drafts of chapters 5 and 6 have been prepared by Peter Bolton based on DEFRA PAGs 3 and 4 respectively.

12. An outline of the first 3 chapters of the guidance has been produced (see Annex C) and these are now ready to be written.

Next Steps

13. The Sub-Group proposes that the next steps in the preparation of Guidance should be:
- 1) Peter Bolton takes on board comments from Members and completes Chapters 5 and 6;
 - 2) a draft of chapters 1, 2 and 3 is written in line with the outlines produced;
 - 3) an outline for chapter 4 (*Design standards*) is produced;
 - 4) how post project evaluations should be carried out is considered, while monitoring DEFRA's progress on PAG6;

- 5) how *risk to life* might be presented in the guidance is considered. (This is a follow up on John Riddell's paper (NTAG2004(16)));
- 6) appropriate methods of training need to be discussed, and.
- 7) the Executive should consider how the role of FLAGs might be adapted to help disseminate new guidance.

Conclusions

14. Members are invited to:

- Discuss and agree the recommendations made at paragraph 9;
- note the outputs in paragraphs 10 to 12;
- agree the next steps in paragraph 13, and
- consider whether the Sub-Group should resume, and in what form, if NTAG continues beyond 2004.

NTAG Secretariat
September 2004

THE NATIONAL TECHNICAL ADVISORY GROUP ON FLOODING ISSUES

**MEMBERSHIP OF THE NATIONAL TECHNICAL ADVISORY GROUP ON
FLOODING ISSUES – GUIDANCE SUBGROUP**

Chair

Alan Burdekin, Scottish Executive

Members

David Wilson, Scottish Water
June Graham, SEPA
Peter Bolton, Consultant
John Riddell, Consultant
Adam Olejnik, COSLA
Jim Hutchison, DEFRA
Stan Irvine, Scottish Executive
Tom Harvie-Clark, Scottish Executive
Jonathan Chapman, EA

Secretariat

Debi Garft, Scottish Executive (Air, Climate and Engineering Division)
Chris Birt, Scottish Executive (Air, Climate and Engineering Division)

**NTAG Secretariat
September 2004**

NATIONAL TECHNICAL ADVISORY GROUP ON FLOODING ISSUES

LATEST GUIDANCE OUTLINE FOR 5 AUGUST MEETING: ITEM 9

1. **Introduction and overview** – custom guidance required highlighting partnership working.
2. **Statutory process** – Scotland specific guidance explaining the 1961, 2003 etc Acts required (including applying for a SEPA license) as well as the planning process. With a flow chart.
3. **Strategic considerations** – custom guidance required which will cover mapping and hydrometric issues and sustainable flood management.
4. **Design standards** – this volume should be supplemented by the Babbie Report findings on climate change. Also to include section on *consequences of failure and risk to life*.
5. **Economic appraisal** – to be taken from DEFRA guidance PAG 3.
6. **Approaches to risk** – to be taken from DEFRA guidance PAG 4.
7. **Environmental appraisal/impacts** – based on DEFRA guidance PAG 5. (This volume is to be updated by DEFRA in the near future.)
8. **Social appraisal** – new guidance required.
9. **Project prioritisation methodology** – new guidance required.
10. **Post-Project Evaluation** – The DEFRA guidance PAG 6 on post-project evaluation has still to be published. Its relevance to Scotland will be considered later.

**FLOOD DEFENCE PROJECT APPRAISAL GUIDANCE
OUTLINE CHAPTER 1 - INTRODUCTION AND OVERVIEW**

Introduction

- Foreword (by Minister?)
- Short historical perspective – recent floods (Scotland, England and Wales, Europe), trends, properties at risk, climate change, amount spent, number of schemes, grant aspects.
- Recognise distress, disruption and dangers associated with flooding. Flooding can arise from many sources, and there are many parties with an interest. Brief arrangements (role of Scottish Executive, Local Authorities, SEPA, Scottish Water, individuals (cover insurance aspects?) etc).
- Importance recognised by the Scottish Executive. Ad Hoc Committee of Ministers set up in 2002 (give remit). National Flooding Framework and Statement of Commitments (4 “A”s). National Technical Advisory Group and 3 Sub-Groups (give terms of reference and details of membership for each group – annexes?).
- NTAG work has resulted in the guidance manual dealing with project appraisal. Comprises [10] chapters:
 - Chapter 1 introduces project appraisal and provides guidance on combining the different issues in succeeding chapters.
 - Chapter 2 outlines the main statutory provisions and processes relevant to the promotion of flood prevention schemes by local authorities.
 - Chapter 3 considers the strategic implications of sustainable flood management and flood risk maps. It provides a definition of sustainable flood management and sets out a framework for a strategic, catchment based approach.
 - Chapter 4 [Design Standards].
 - Chapter 5 identifies methods for valuing costs and impacts in monetary terms, and sets out a recommended decision process based on economic values.
 - Chapter 6 encourages the proper consideration of risk issues.
 - Chapter 7 [Environmental Appraisal].
 - Chapter 8 [Social appraisal]
 - Chapter 9 [Project Prioritisation Methodology].
 - Chapter 10 [Post Project Evaluation].
- Guidance reflects recent changes in legislation (eg sustainable flood management; river basin management plans; biodiversity duty); latest research (eg by Babbie - climate change; by Defra - quantification of distress and other intangibles); best practice (Defra guidance, and updates); and revised Treasury Green Book.
- Caveats.

Overview

- Project appraisal - define - the process of identifying and evaluating options, and selecting the one that most closely meets the objectives of the project (expand objectives).
- Project planning and strategic framework: provide diagram showing link between large-scale planning; strategy development; scheme appraisal; implementation and management; post project monitoring and evaluation.
- The appraisal process (define, develop, compare, and select); iterative nature; purpose; credible evidence aspects.
- The appraisal report – discuss purpose and objectives (provide outline format of a typical report).
- How to use the manual - read as a whole – each chapter concentrates on specific aspects of the appraisal process but is cross-referenced where appropriate. Different projects may place different emphasis on particular aspects of appraisal. Provide diagram/flow chart showing link between different aspects and stages of appraisal.
- Way ahead - Important feature of integrated appraisal process is the need to consult stakeholders at all stages of scheme development and implementation. Strategic approach. Methods of partnership working. Link to the duty to adopt an integrated approach by co-operating with each other (Section 2, WEWS(S) Act 2003)?
- Current research and initiatives. Other developments. Future reviews of guidance. National targets?

FLOOD DEFENCE PROJECT APPRAISAL GUIDANCE OUTLINE CHAPTER 2 - STATUTORY PROCESS

Simply outline the main statutory provisions. Alternatively, keep this detail to annexes, and confine the body of the text to a description of the main statutory steps involved in promoting a flood prevention scheme under section 4 of the 1961 Act (referencing it to the appropriate statutory provisions in the annexes).

- Define objectives and identify scheme options, consistent with strategic plans, sustainable flood management objectives and principles, (and future river basin management plans).
- Develop scheme options, in consultation with stakeholders, through integrated appraisal process (technical assessment, economic appraisal, risk assessment, environmental assessment).
- Compare options.
- Select preferred option.
- Produce appraisal report.
- Obtain council approval.
- Design in sufficient detail to obtain necessary consents (planning, SEPA(?), others).
- Make scheme in accordance with 1961 Act procedures.
- Advertise details of scheme.
- Apply to Scottish Ministers for confirmation of scheme.
- Appeal provisions.
- Publicising details of confirmed scheme, and arrangements for questioning validity.
- Construct scheme.
- Post project evaluation.

ANNEX(?)

Flood Prevention (Scotland) Act 1961

- Section 1- purposes of powers (applying to land other than agricultural land).
- Section 2 - powers of local authorities covered and qualified by section 1.
- Section 3 - supplementary provisions as to powers of local authorities.
- Section 4 - flood prevention schemes – *made* by local authorities, *confirmed* by Scottish Ministers. Deal here with the First Schedule (provisions which may be incorporated in flood prevention schemes), and the Second Schedule (provisions as to confirmation, coming into operation and validity of flood prevention schemes).
- Section 4A - Duty of local authorities to assess watercourses - inserted by 1997 Act (see below).
- Section 4B - Duty of local authorities to maintain watercourses – inserted by 1997 Act (see below).
- Section 6 - Byelaws.
- Section 6A - Duty of local authorities to publish reports – inserted by 1997 Act (see below).
- Section 7 - Acquisition of land.
- Section 8 - Powers of entry.
- Section 9 - Provision and obtaining information.

- Section 10 - Unjustified disclosure of information
- Section 11 - Compensation.
- Section 12 - Contributions to and by local authorities.
- Section 13 - Financial provisions (including details of grant scheme).
- Section 14 - Crown rights.
- Section 15 - Interpretation.

Flood Prevention and Land Drainage (Scotland) Act 1997

- Section 1 - Duty of local authorities to assess watercourses (inserts section 4A, 1961 Act).
- Section 2 - Duty of local authorities to maintain watercourses (inserts section 4B, 1961 Act).
- Section 3 - Duty of local authorities to publish reports (inserts section 6A, 1961 Act).
- Sections 4 to 9 – mention by heading only, or omit?

Water Environment and Water Services (Scotland) Act 2003

- Section 1 – The purpose is to provide for protection of the water environment including, among other things, contributing to the mitigation of the effects of floods.
- Section 2 – Scottish Ministers, SEPA and the responsible authorities must, among other things, promote sustainable flood management, and act in the way best calculated to contribute to the achievement of sustainable development. They must also, so far as is practicable, adopt an integrated approach by co-operating with each other, to co-ordinate the exercise of their respective powers.
- Sections 10 to 16 – River basin management plans. Duty on Scottish Ministers and every public body to have regard to plans.
- Section 20? – Water use licences.

Nature Conservancy (Scotland) Act 2004

- Section 1 – duty on every public body in exercising their functions to further the conservation of biodiversity.

Other relevant statutory provisions, EU Directives etc?

FLOOD DEFENCE PROJECT APPRAISAL GUIDANCE OUTLINE CHAPTER 3 - STRATEGIC CONSIDERATIONS

Introduction:

- Recent changes in legislation - for example, the duty to promote sustainable flood management, the future requirement to have regard to river basin management plans, and the biodiversity duty – may have implications for authorities as regards their strategies for flood management and flood alleviation.
- To assist authorities with the development of appropriate policies, this chapter provides guidance on sustainable flood management, in terms of its definition, objectives, principles and performance indicators. Strategic and practical aspects are discussed. It also considers flood risk maps, in terms of their purpose, coverage, use, availability, and likely local and strategic impacts.
- It is for each authority to consider how best to bring these issues together and relate them to other flood/river activities; in particular, how to link them to any other high level plans and policies (for example, structure plans) and to their existing flood management activities (such as, maintenance, biennial reports, provision of flood prevention schemes, FLAGS).
- However, one method might be to adopt a strategic, catchment based, approach, and this aspect is also discussed. Guidance is given to assist authorities in deciding whether a strategic approach is necessary, and to help with the considerations and procedures for producing a strategy plan.

Sustainable flood management:

- Background.
- Definition.
- Objectives.
- Principles.
- Performance indicators.
- Practical considerations eg how to ‘connect’ the project appraisal process to SFM.
- Strategic implications – how to link with other policies and plans.

Flood risk maps

- Background.
- Purpose, use.
- Coverage, limitations.
- Availability.
- Practical considerations – including local/public concerns, and how to handle.
- Strategic implications – planning, maintenance, management, scheme provision.

Strategic approach

Reasons for taking a strategic approach may include the following:

- It enables a long-term (50 years?) view to be taken, consistent with sustainable flood management considerations.
- It provides a bridge between high level policies and plans (eg sustainable flood management, structure plans) and existing activities (eg biennial reports, maintenance and management, flood prevention schemes, FLAGS), enabling issues to be integrated and considered in a more structured way.
- It encourages proactive management. Work can be planned and prioritised better if assets and standards are reviewed regularly at a strategic level.
- It provides a framework for wide ranging appraisals which take all key issues into account, thereby improving the decision-making process and leading to more balanced solutions.
- It avoids the potential for duplication of effort, and could therefore reduce the level of information required for the appraisal of individual schemes.
- It encourages partnerships with stakeholders/interested parties (eg other local authorities, Scottish Water, SEPA, Scottish Executive, environmental groups, business and community sectors etc).
- It promotes sustainability through strategic thinking and planning.
- It enables risk and sensitivity to be assessed at the widest possible level (eg for changes in climate, planning policy, or investment policy) (Chapter []).

Situations where a strategic approach may be desirable:

The guidance is not advocating a blanket production of strategy plans. However, for a particular catchment or sub-catchment, a strategic approach may be beneficial in the following circumstances:

- Where there is advantage in considering problems and solutions in the longer term and over a wide geographical area.
- Where there is a hydraulic or process connection between physically separate works.
- Where there is physical interconnection between benefit areas (eg where flood risk areas are contiguous).
- Where several smaller problems can be considered in an integrated way, and where common interests could be dealt with jointly.

- Where environmental or other impacts extend beyond the immediate area of a scheme.

Producing a strategy plan (ie catchment management plan):

- A plan, if required, and its cost, should be appropriate to the scale of the problem. Some plans may be brief, others may need to be detailed.
- Plan development will comprise various stages – scoping, consultation, data collection, research, environmental and economic studies etc leading to compilation of the plan.
- Identify key issues, without presupposing solutions or outcomes – consider links to other policies and plans (including sustainable flood management policy); establish boundaries and time frame; review current data; evaluate do-nothing option (Chapter []); identify opportunities and constraints.
- Establish strategic aims and objectives – eg develop policy for future flood risk management of a defined urban area.
- Develop strategy – gather data; identify options that address the objectives; develop strategic options; conduct environmental appraisal (at an appropriate level of detail); consider risks and sensitivity; evaluate costs/benefits; consult stakeholders.
- Select the preferred strategic option(s) for the catchment or sub-catchment under consideration.
- Compile the plan (specify the contents of a typical plan).

Implementing the strategy

- Obtain council approval for the strategy.
- Phase the plan, where appropriate.
- Identify any interim actions.
- Review strategy periodically.

Examples

- Provide actual or hypothetical strategic examples – fluvial flood risk management for an urban area; estuary management for flood alleviation; coastal area at risk from sea and river flooding?