FLOODING ISSUES ADVISORY COMMITTEE

AVOIDANCE SUB-COMMITTEE PROGRESS REPORT NOVEMBER 2006 FIAC MEETING

Purpose

1. The purpose of this paper is to provide the Flooding Issues Advisory Committee (FIAC) with a progress report from the Avoidance Sub-Committee.

Background

2. The Sub-Committee has met four times, on 8 September 2005, 1 December 2005, 2 March 2006 and 10 August 2006. The current membership is detailed in Annex A, and Jim Conlin, of Scottish Water, chairs the meetings.

3. This Sub-Committee is set up to discuss sustainable flood management and identify best practice and to discuss how catchment flood management planning might link into the river basin management planning process.

Feedback from the last meeting on 10 August 2006

EC Floods Directive

4. Members discussed the draft EC Directive and agreed that although it could be amended significantly and become more onerous it was encouraging that we did not have to start from scratch in Scotland. The Directive is likely to be passed by summer 2007 and we would then have 2 years to transpose the directive to Scots law.

River Basin Management Plans (RBMP) and Catchment flood management planning

5. Members considered a discussion paper from Charles Ainger (copy attached at Annex B). They discussed options for the type of organisation needed to implement catchment flood management plans and whether plans should be taken forward in parallel or as a subset to WFD plans. Members agreed that we had an opportunity to start from scratch and get the best model for Scotland and that it was important to allow for maximum community engagement in the process. Although the option of running catchment flood management plans as part of the WFD process by a 'virtual' organisation at catchment level seemed to be most likely it was agreed that all options should be considered. It was also agreed that we must not lose sight of the importance of protecting lives and therefore it was important that any work is linked to the final objectives and principles for sustainable flood management.

6. The RBMP Linkages Working Group met again on 22 September at the University of Dundee to discuss all the options proposed and to present a best option to FIAC. Charles Ainger and Alan Werritty will feedback details at the FIAC meeting.

Sustainable flood management

7. The sustainable flood management consultation will be released soon. Interactive workshops will take place during the consultation period.

Sustainable flood management and land use

8. Mike Donaghy took on board comments from FIAC Members and has revised paper FIAC2006(5) - *Sustainable flood management and land-use*. The paper now makes it clear that land use measures should be viewed as part of a portfolio of responses to flood risk management. Members agreed that it is important that lowering flood risk is an objective of rural land use policy in Scotland and opportunities in the Scottish Rural Development Programme to encourage flood risk reduction through land use measures must not be lost. Also rural land use solutions should be included in flood prevention option assessments and should be viewed as complimentary rather than alternative to more engineered solutions.

9. Members agreed that we now need clear examples of what each land use solution can achieve, cost etc. It is hoped that the Mountain Environment flood planner and reports from the measures piloted on the River Devon would give some data. Also work planned by the Tweed Forum at a catchment level will provide valuable data in time.

Other issues

10. Members were concerned about the apparent omission of responses on flooding issues in the summary of responses to the rural development plans consultation.

Next steps

11. A further meeting is arranged for 23 November 2006 at Victoria Quay to further discuss links between catchment flood management planning and RBMPs, including a presentation from the Tweed Forum. The sustainable flood management consultation will also be discussed.

Conclusion

12. **Members are invited to note the above.**

FIAC Secretariat
October 2006

Annex A

FLOODING ISSUES ADVISORY COMMITTEE

AVOIDANCE SUB-COMMITTEE MEMBERSHIP

Membership

1. **Jim Conlin, Scottish Water - Chair**
2. Carolyn Girvan, Climate Change and Air Division, SE
3. Prof. Charles Ainger, MWH UK Ltd
4. Mike Donaghy, Scottish Environment LINK
5. Dr. Roy Richardson, SEPA
6. John Hood, FBRD, SEERAD
7. Andrew Smith, Homes for Scotland
8. Iain Mathieson, NFU Scotland
9. John Smith, Royal Town Planning Institute in Scotland
10. Stephen Tingle, Renfrewshire Council
11. Prof. Alan Werritty, University of Dundee
12. Dr. Jonathan Chapman, Environment Agency
13. Arthur Philp, Norwich Union
14. David Rae, Forestry Commission
15. Phil Boon, SNH
16. Hugh Claydon, Forestry Commission
17. Morag Garden, Scottish Water

FIAC Secretariat
October 2006

Annex B

Catchment Strategy Planning for Sustainable Flood Management
Discussion paper for FIAC Avoidance Committee 10/8/06

Background and Purpose
This working paper has been drafted as a result of the discussion of four papers presented at the 2 March 2006 FIAC Avoidance Sub-Group:

4**: Catchment Flood Management Plans; an EA summary** – describing the EA's approach to CFMPs for flood management. This is a formal framework, separate from the WFD's RBMPs, executed by the EA, which [unlike SEPA in Scotland] has formal responsibility for all flood risk management in England and Wales. The discussion also noted that getting such planning right needed time for a learning process [eg. lessons from Shoreline Management Plans].

5: **River Basin Management Plans; a SEPA perspective** – describing SEPA's plans for implementing the RBMPs required by the WFD. This demonstrated that SEPA currently planned to focus its limited energy and resources initially almost entirely on the water quality aspects, and not on the flood management aspects. It envisaged integrated working including flooding issues, as intended by WEWS 2003, only in the second cycle of WFD implementation [dates?]

6: Update on the Executive's involvement in River Basin Management Plans – recording the latest SE thinking. This emphasised the WESW 2003 integration of WFD and Sustainable Flood Management intent. [??]

7: Sustainable Flood Management and Land Use - paper FIAC2006(5); feedback from FIAC meeting on 23 February – emphasised the relevance, opportunities and risks in integrating rural land use planning, and the Rural Development Plan (RDP) 2007-2013, with WFD and catchment flood management.

These papers highlighted Scotland's intent on WFD and SFM integration, in spite of having diverse responsibility structures [SEPA and LAs, etc]; and the strong interaction with rural and urban planning. Sub-group members had concerns about how this could actually be implemented. The minutes noted:
"10. John Smith (JS), CA, AW, KF, and Mike Donaghy (MD) volunteered to draft a discussion paper on how we can make the important links that need to be made in RBMP process to be taken to FIAC later this year." This was Action Point 2.

This group held a brainstorming meeting on 21st April, which identified these issues and concerns:
1. Linkages between SEPA, FIAC and SFM
2. The relationship between FLAGs and AAGs
3. WEWS Section 16
4. CAR on a strategic level
5. Timetabling
6. EU Flooding directive and the 2nd RBMP cycle
7. Sustainable Dev integration and conflicts
8. Strategic structure (Top Down/Bottom up)
9. Delivery and enforcement

10. Local development plan links to RBMPs
11. The Big Picture
12. The SFM duty
13. Roles and designations under RBMPs
14. Buy in (Scottish Water)
15. Responsibilities (including FIAC)
16. Funding structures
17. Adhering to WFD principles
18. Existing Best Practice
19. The Aims of SEPA
20. The 2nd RBMP cycle

Q1. Are there other issues and concerns that must be taken into account?

The purpose of this paper [by CA] is now to:

- Bring together the key issues to be considered
- Suggest, at high level, some choices that need to be made for policy, possible options, and constraints and criteria for those choices.
- Suggest possible next steps to take things forward.

1. Drivers for catchment wide, strategic flood management planning

The drivers now are:

- **Common sense:** consideration of the geography and science of the causes and influences on flooding risk and consequences immediately shows potential benefit from taking a catchment wide and strategic approach.
- **Sustainable Flood Management (SFM):** the SE draft policy on SFM states that its intent is to: "Ensure that links are made between flood management, Development Plans (urban and rural), River Basin Management Plans and Coastal Zone Management Plans, Strategic Environmental Assessments, Scottish Biodiversity Strategy and plans to conserve the natural heritage." (Extract from the purpose of SFM, paper FIAC2006(6) Annex A para 14).

  Further, the SFM Principle 1 (Strategic Approach) states:

  "**1 – Strategic Approach:** SFM should reflect a strategic approach both nationally (across Scotland) and locally (within River Basin Management Plans) (1), with phasing where appropriate (2). It should take account of the 2003 Act principles of co-ordinated management to achieve relevant objectives for all water bodies (3), and the planning policy contained in SPP7 (4). It should use strategic environmental assessment and sustainability appraisal as they are introduced into Scottish methodology (5)"

- **The WFD and WESW 2003:** ***[add in the key wording?]***

- **The draft EU Flooding Directive:** this was adopted in plenary in June 2006. It requires Member States to, on a 'River Basin District level':
  1. undertake flood risk assessment;
  2. use this to designate river basins;
  3. prepare flood risk maps;
  4. prepare flood risk management plans [by 22/12/2015 latest] and then implement them;

5. co-ordinate plans for trans-national waters across national boundaries. All these must be available for public access.

(From HG's briefing note, for Scotland, for recent WFD UK-wide meeting).

Definition: ***we suggest that 'Catchment Strategy Planning' is characterised by:***

- A catchment-wide (or equivalent coastal zone) coverage
- A long-term view, including 'Foresight' type prediction and uncertainty management
- Optimal combination of all types of 'measures', including all options from 'prevention' to 'end of pipe treatment' (in WFD terminology); ie. the SE's 'Four As' for flooding: Awareness, Avoidance, Alleviation, Assistance.
- Integration with other relevant plans and policies.

Timescales: the practical opportunities and choices to be made are partly dependent on understanding the actual timescales, over which the interacting policies take place – from 2006 to 2015, at least. They need to include CAR, Guidance, SFM legislation, WFD cycles, EU Directive, RDPs, at least.

Q2. Can we sketch these out now?

Stakeholders: **there are many stakeholders; the key ones, for this discussion, are:**

Level 1:

- ***Scottish Executive*** *– at policy level: the SE controls, sets policy for, partly funds, and directs all the key players at level 2. Therefore the SE has the power to set this up in the way that best satisfies its objectives.*

Level 2:

- **SEPA:** with two roles*: (1) responsible for the water quality aspects of WFD; (2) with several duties involved in flood management
- LAs: **with (at least) two roles*: (1) with powers to implement flood alleviation works; (2) responsible for urban planning and control of land use**
- SE: **various departments responsible* for rural planning and control of land use and agriculture**
- Scottish Water: **with two roles*: (1) responsible for combined sewers and sewer flooding alleviation; (2) responsible for pollution interactions with rivers and coasts**

*These roles can of course be changed by legislation.

Q3. Are there other key Stakeholders, at this level?

Level 3: **all the others we can think of, and have identified within FIAC discussions.**

2. Tasks involved in catchment strategic planning for flood management

The first task involves defining catchments (or 'basins') and their sub-divisions. Then for each one, the main tasks involved are:

Information	Planning	Implementation
▪ Collection ▪ Analysis ▪ Prediction (incl. modelling)	▪ Strategies ▪ Options ▪ Choice criteria	▪ Management ▪ Monitoring ▪ Control
▪ Information management ▪ QA and Updating ▪ Providing access	▪ Stakeholder involvement ▪ Strategies and Options evaluation	▪ Execution ▪ Operation and maintenance ▪ Stakeholder liaison

▪ Stakeholder liaison	▪ Decision-making	
13. Notes		
Two types of information: ▪ generic catchment data – geographic, environmental, social, economic ▪ flooding-specific data	Integrating with other planning: ▪ urban ▪ rural ▪ WFD ▪ Other policies – SD, BioD..	Involves interactions on '4 As': ▪ Awareness ▪ Avoidance ▪ Alleviation ▪ Assistance

These tasks cover and coincide with the requirements of the draft EU Directive.

Q4. Are these sufficient for the choices involved here? Are there any others, still at high level?

The key challenge for the SE and all stakeholders, then, is *how to set up to get these tasks carried out in the most 'effective' – in its widest sense – way?* Key issues and questions around this will influence or constrain what options are worth considering, and how they are compared. Some of these are:

- Optimising the use of all '4 As' in *implementation* (rather than just Alleviation) already *requires* collaboration between several different stakeholders, who really could not be combined into one new statutory organisation, because flooding is only part of their responsibility. (eg: the discussion at the 15/6 FIAC on SEPA's awareness campaign)
- Similarly, any new single organisation solution for flood management will still have to integrate with urban and rural planning roles – which again could not be combined into one new statutory organisation, because flooding is only one aspect of planning.
- So – how could the tasks be split between different organisations? How many different ways? Is there some minimum combination of key tasks, which must be within one organisation, to ensure consistency, focus and continuity? (eg. maybe, the 3 information management tasks, all the planning tasks, and all the implementation management tasks?)
- Which current responsibilities, available skills, and resources best fit each task?
- What existing or planned roles are there for handing all the *generic* information about a geographical area? How do these this interact with or constrain options for the *flooding specific* information? Should the latter be treated as just a sub-set of the former?
- How do the current responsibilities overlap, miss-match or fit together geographically: AAGs, FLAGs, LAs, etc? (SEPA and ScW cover all Scotland, so OK?)
- What is the balance of 'duties' [must do this], 'powers' [may do this], and 'contributions' [must contribute to this] needed? The coming EU Directive implies that, by then, some organisation(s) must have a *duty* for the key actions it lists?
- Could we trust a 'virtual' organisation of individual organisations collaborating, to deal effectively with flooding? (Eg. Parrett Catchment Partnership, in England; other partial egs. in Scotland). Could a *duty* be allocated to such an organisation, and how would it have to be incentivised and/or regulated, to be effective?
- What other successful 'models' of organising to do this are there, that we could learn from – EA; Holland; Scandinavia: others?

Q5. What other key high level constraints or questions are there?

Q6. What answers can we give to any of the questions above?

3. Consideration of Options for linking WFD, flooding management and urban and rural planning

There are two choices to be made, which are interlinked:

- **The framework:** whether to make catchment strategy planning for flood management (1) a separate framework, to run alongside the WFD RBMPs (as in England), or (2) integrated as a sub-plan under WFD RBMPs.
- **The structure:** what organisational structure, resources and funding to use, to carry out the chosen framework.

The draft EU Flooding Directive does *not* pre-determine either of the choices above. It uses specific language – 'prepare flood risk management plans' etc – but it states that: "..Member States may integrate the flood risk management plans into the RBMPs" (Section 3, para 2, lines 9, 10, of document SEC(2006)66).

Q7. Can we confirm that this is correct; and do we agree that these are the choices?

The options available for each of these choices are as follows; and the issues and questions raised in 3 above are all relevant, in comparing them.

The framework		
F1	A separate framework for flooding management, in parallel with WFD plans [RBMPs]	As in England. Would require legislation. NB: an outline of this was included in the first draft of Chapter 3 of the 'Guidance' document.
F2	Executing flooding management plans as a sub-set of the WFD RBMPs	Any examples from elsewhere? ***Might not require legislation?*** NB: several aspects of this are covered in informal guidance in the final draft of Chapter 3 of the 'Guidance' document.
The structure		
S1 a	A single organisation, for each catchment, charged with the duty to carry out the activity – **convert SEPA to this role**	As the EA, in England. ***Would require legislation.***
S1 b	A single organisation, for each catchment, charged with the duty to carry out the activity – **convert LAs to this role**	Any examples from elsewhere? Would require legislation. Could be evolved from trials with S2a?
S1 c	A single organisation in each catchment – **set up a new one**, to cover *all* drainage and flooding responsibilities	Any examples from elsewhere? ***Would require legislation.***
S2 a	A 'virtual' organisation in each catchment, requiring collaboration between several stakeholders to cover flooding responsibilities	***As at present – no legal change?*** ***Eg: Parrett Catchment Partnership, England; some best practice emerging***

		in Scottish LAs
S2 b	A virtual organisation, with one 'lead' party charged with a *duty* to organise it and do it.	***Any examples from elsewhere?*** ***Would require legislation.*** Could be evolved from trials with S2a?

Initial observations are:

- In England, the flooding framework is *separate* from WFD, even thought the single responsible organisation is *the same* – the EA. In contrast, the 'minimal change' option for Scotland would be *exactly the opposite*, combining F2 and S2: an *integrated* framework, to be carried out by *separate* but collaborating organisations.
- These two extremes may be seen as reflecting very different paradigms [world-views]. The first is a top-down, 'machine' model, driven by *legislation*; the second is a bottom-up, 'complex system' model, which would have to be *incentivised* – mainly by conditionality of funding? Which paradigm, or what combination, best matches the SE's government philosophy? Which will most likely encourage the innovation needed for effectiveness?
- For S2a or S2b, the most obvious candidates for informal or formal leadership are the LAs. Choice of S1a or S1c would dis-empower the LAs.
- Therefore, the structural choice must reflect SE's wider intent on empowering, or reducing, the roles of LAs. This will need to consistently reflect other policy choices, particularly on handling other new sustainable development issues.
- Considering timescales, and SEPA's challenges with implementing WFD, option S1a would not be able to be up and running for several years. Options 1b, 1c and 2b would also be delayed by the need for legislation. The only way to make early progress, within the first WFD cycle, is to 'experiment' with F2 and S2a.

Q8. Are there any other real options (at high level - there will be detailed variations)?

4. Criteria for choice between options

The key criteria for deciding between options could include:
Effectiveness *in operation*:

- Minimum interfaces across boundaries?
- Most closely matching existing accepted (and public-trusted?) roles?
- Best justified by other(s) similar experience or models?
- Most likely to fit the emerging SE policies and government structures trends?
- Least costly?

Best matching relevant SFM Principles:

[The other SFM Principles are 'neutral' on these choices.]

2 – Responsibilities: All stakeholders (1) should be actively engaged in and share responsibility for achieving SFM….

5 - Multiple Benefits: SFM should seek opportunities for multiple benefits….

6 – Openness: The whole process of developing a scheme should be transparent (1)...

7 – Democracy: SFM should promote effective community engagement (1). Decisions should be taken at the local level, as far as possible…

8 – Simplicity: Implementation of sustainable flood management should be understandable (1), aim for ease of delivery (2), and promote continual learning (3) and sharing of knowledge (4).
Easiest change:

- Most closely matching existing roles, skills and resources?
- Quickest to change to?
- Easiest to experiment with, to build up best practice?
- Most acceptable, politically?

Q9. Are these the right choice criteria?
Q10. Are some of them more important than others – how would be combine them?

5. Interim comments and 'next step' recommendations

There is attraction in testing out the 'minimal change' option of combining F2 and S2a. It is the only option combination that can be tried out immediately, without legislation change, in parallel with SEPA's implementation of the WFD first cycle. Lessons could be learnt, in time to change the framework, legislation and structure, to fit the final choice, in time to fit with both the WFD 2nd cycle, and the timing of the EU Directive.

(a) SE should identify best practice stakeholders in 3 [?] selected catchments, and set up trials of the F2 + S2a options, with strategy funding conditional upon working in an agreed way, to both develop best practice, and to feed back answers to specific questions about other options, for long term decision-making.

This paper aims to start creating a 'playing field', on which the choices to be made can be set out, and all stakeholders can contribute to the choices considered, and the decisions made. The SE, as the sole 'Level 1' stakeholder, is of course in the driving seat, and is the final decision-maker. To help them manage the process, the propositions made above need to be questioned, refined and strengthened - see Q1 to Q9 above.

(b) SE should itself comment on the propositions in this paper; and should seek FIAC (and other relevant?) comments, to (i) confirm that such choices will have to be made; and (ii) improve the decision-making framework it sets out.

More detailed work is needed (but not to get buried in detail!), by those with the right knowledge, on clarifying the interactions and implications of the various options considered, so that assessment of the options, and the resulting decisions, are informed by appropriate knowledge.

(c) SE should engage appropriate people, to flesh out sufficient detail to allow appreciation of the key implications of the options, and assess them against the choice criteria.

(Charles Ainger, Version 1, 3/8/06)