

Adapting to Changing Coastlines and Rivers

Making Space for Water: Strand SD2 Taking forward a new Government strategy for flood and coastal erosion risk management.

Developing a Broader Portfolio of Options to Deliver Flooding and Coastal Solutions

Executive Summary

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Executive summary

This Preliminary Report presents the work to date on the SD2 Project of Making Space for Water: Taking Forward a New Government Strategy for Flood and Coastal Erosion Risk Management - Developing a Broader Portfolio of Options to Deliver Flooding and Coastal Solutions. The purpose of the project is to develop a portfolio of possible options that could be implemented by operating authorities (OAs) in England to progress shoreline and catchment flood management plans (SMPs; CFMPs). The report examines contextual elements like sustainability, wellbeing and human rights and, although written with both shoreline and catchment management in mind, concentrates on coastal contexts. It is set within the framework of existing institutional arrangements and pays particular attention to the problems when and where SMP/CFMP policy options are not acceptable to either or both OAs and local communities.

It should be noted that the views expressed in the report are those of the research team and, while this research has been commissioned by Defra, the publication of it does not imply any change in policy.

Research methodology

The research is based on:

- Literature and legal review;
- Workshops in North Norfolk, Happisburgh and with the Local Government Association;
- An interview and questionnaire survey;
- CIWEM/ODPM conference on the consultation document for PPS25, Development and Flood Risk (ODPM. 2005b);
- The research team's background knowledge.

The sustainability agenda

Sustainable development, and associated sustainability principles, must be central to any approach to coastal or fluvial risk management; it provides the context for policy and decision making. Delivering sustainable shorelines and catchments will be challenging; clear thinking and guidance are needed and a radical shift in governance may be required. However, the sustainability agenda offers opportunities for innovation. Supporting this, although it has not realised its potential, the local authority well-being powers and related community strategies could contribute to the delivery of more integrated local solutions to risk management.

Progressing SMPs and CFMPs

This preliminary report presents the first ideas on how SMP/CFMP policy options can be progressed for coastal and estuarine sites which may prove problematical. These are tabulated in substantial Appendices to the main report. It is emphasised that there is no single mechanism for progressing SMP2s / CFMPs but a series of interconnected, interacting pre-requisites:

- Integrated long term planning, including provision for interim uses;
- Information access, sharing, exchange and public involvement;
- Mechanisms to respond to blight problems.

The omission of any of these elements will cause progress to stumble. Neither will there be a single solution, or package of mechanisms, for progressing SMP2/CFMP strategic defence options; each area will have its own site or area-specific problems and, therefore, own potential ways forward.

It is too soon to comment on CFMP policy and implementation. Although positive changes have been adopted for SMP2 preparation, it is clear that progressing preferred options will not necessarily be straight forward. It is likely that options seen as providing protection and security (i.e. those that propose new, or the upgrading of existing, works) will be accepted by local communities and can be implemented with relative ease. Others, where no active intervention or managed realignment are proposed, may be less acceptable, particularly if this is interpreted by local people as a reversal of previous option, policy or decision making and brings with it substantial potential local adverse impact:

- Uncertainty;
- Stress and other health issues;
- Economic and social blight;
- Loss of community spirit;
- Mistrust of authority;
- Legal and political challenge.

In such contexts, OAs may not feel able to adopt the plan in the interests of the community or communities that they serve, so progress in reaching the formal establishment of strategic options through various management and development related activities is stymied. Locations where this may occur have been termed 'crunch' sites. In both these contexts and where there is agreement and acceptance of policy options, there is a range of common barriers to progress:

- Staffing issues;
- Lack of awareness of other systems with which risk management may interact;
- The limits of professional interaction;
- The system of governance for making decisions for the long term;
- The marginality of the issue of risk for most of the population in the majority of LA administrative areas.

Progressing SMP/CFMP policy options through other LA activities

There are a number of ways that risk could be incorporated into other LA activity so that SMP2 / CFMP options can be progressed by other than the direct undertaking of works (including for managed realignment) or monitoring. However, they require initial LA acceptance and adoption of SMPs/CFMPs. In particular, the following areas of LA involvement could be addressed:

- The town and country planning system;
- Community strategies;
- Local Strategic Partnerships.

The contribution of the town and country planning (TCP) system, including at regional level, is increasingly recognised as being fundamental to ensuring that future risk is not exacerbated by inappropriate development. Mechanisms include:

- Identifying risk areas and developing suitably adjusted policies (which may include for time limited, interim uses, perhaps as an integral element of time-dependent option change);
- Making appropriate development control decisions;
- Developing area action plans with the local community and other stakeholders;
- Identifying land for displaced development/communities;
- Engaging the local community in debate about responding to risk.

The proposed PPS25, *Development and Flood Risk*, should assist in flood risk contexts and the expected transfer of coast protection powers to the Environment Agency should provide for a more integrated approach.

Risk should also be incorporated into community strategies, though the possibility of some arrangement for sub-area plans should be examined as a means to give risk the priority in local debate that it requires to get proper attention. Local Strategic Partnerships may have a role in raising the profile and public awareness of risk, in promoting interim uses which sustain local community vitality and viability in the short term, and in ensuring that LA policies do not place future populations at greater risk. Examination of TCP and community planning opportunities suggest that much can be done within existing institutional arrangements to progress sustainable shorelines and river basins. Nonetheless, these opportunities already exist in current local democratic structures. However, these operate on short timescales for both political office and the time horizons of TCP plans and documents so they may not be the best decision making frameworks to achieve sustainable, long term, futures. It may be that Local Strategic Partnerships will be able to facilitate consideration of, particularly, coastal futures over the longer term or that opportunities for dealing with the longer term become apparent through the provisions of the forthcoming Marine Bill and ICZM strategy. The related consultation documents may be reviewed as part of ongoing work on SD2.

The preparation of general coastal strategies by LAs provide a clear mechanism for examination of shoreline management issues in a more strategic context. Strategies prepared by coastal partnerships can offer similar opportunities.

Information access, sharing, exchange and public involvement

Effort is needed to improve information exchange and sharing between the wide ranges of stakeholder groups contributing to, and affected by, risk management policy. As well as SMP/CFMP preparation, both TCP and community plan making offer opportunities for public debate on risk issues; there would be benefit in rationalising the burgeoning extent of community involvement sought in public policy making. In all types of plan preparation, stakeholder (including the public) involvement should be early and continuous. Involvement should be such that it can be effective; if a public body has no room to

manoeuvre, there is little point in involving the wider community. There seems merit in coastal communities discussing their futures with officers of both operating authorities and the local planning authority or regional planning body before SMP2s are commissioned; such discussion needs highly skilled facilitation backed up by scientific expertise and requires long and careful nurturing. This requires community capacity-building to ensure that participants have a secure grounding in the issues and have real cognition of the risk that applies to their community. Such capacity building should be complemented by education programmes for community leaders like teachers, vicars, youth leaders and so on. However, the need for capacity building is not limited to the public; officers, councillors and others associated with risk, development and property need to acquire skills, to network more widely and to be better at accessing a wider range of information.

Mechanisms to respond to blight problems

If LAs fail to adopt an SMP2 formally because of its considerable and extensive blighting effect, an impasse on progressing strategic options through other plans may result. Where it is perceived that there has been a change of public policy, either as stated or as implied by past decisions to provide defences, or because there is a change of strategic option between SMP1 and SMP2, because there are defence structures in place which are to be abandoned, removed or not maintained in the interests of sustainable shorelines/catchments, there is widespread feeling that the negative external effects that benefit the wider public should not have to be borne by individuals in the local community. The various arguments that have been proposed to support the provision of financial assistance in such circumstances are reviewed. These arguments are: for loss of individual human rights; for ethical reasons; to compensate for the economic costs of no active intervention, such as permanent and unrecoverable loss of land, property, access and public amenity; to buy space or sediment in the public interest; for other practical reasons; or to give human beings the same priority as natural habitats. Assistance might come from:

- Public sector land acquisition;
- Assistance for property value foregone;
- Through systems of property insurance and assurance.

Various sources of potential funding have been identified, including from:

- Some form of betterment of protected land and property;
- A specific national fund;
- A carbon levy based adaptation fund;
- Flood and coastal defence funding;
- Marine aggregate taxation;
- Neighbouring European Union countries ultimately benefiting from local sediment yield due to ongoing, and probably accentuated, erosion;
- General taxation;
- As a charge on the Crown Estate;
- The town and country planning system;
- Via private funding partnerships;
- By utilising local flood defence levies.

There are a number of difficulties or disadvantages with most of these, not least their realisation; however, each may have merits that justify further examination. Whatever the source of funding and whatever the mechanism, if such assistance can be granted, it must be seen to be transparent, easy to operate and fair.

Relating to other strands of Making Space for Water Framework

This work links closely to other work strands being developed under the Making Space for Water Framework. Its information on barriers will feed into SD1, Barriers and Incentives to Delivery of Environmental and Social Benefits; work to date has proved complementary. Other material will feed into SD3 to 5 (Guidance on Risk Management) and SD6 (Stakeholder and Community Involvement). There is also some overlap with the consultation exercise on PPS25, Development and Flood Risk, which contributes to Project SD8 (Land Use Planning). Any subsequent research will need to carefully consider these linkages.

Conclusion: a preliminary framework highlighting potential key approaches and tools for implementation

The table below presents a framework to facilitate the development of the adaptation 'tool kit'. It identifies key approaches and tools which have the potential for further exploration to facilitate the implementation of SMP/CFMP policy options in difficult coastal/fluvial risk contexts. These approaches have been developed from the long list of potential approaches.

The table identifies ‘essential elements’, along with a range of key ‘facilitating mechanisms’ enabling the implementation of the ‘essential elements’. Although some supporting aspects may seem peripheral to solving the immediate issues for difficult coastal/fluvial risk sites, without these, it could be difficult to deliver long-term, sustainable and integrated solutions. The key challenge is to provide a framework for the future within the context of changed behaviour in relation to climate change.

Within the key ‘facilitating mechanisms’, there are some specific tools, for example, the risk area management plans and the well-being power, which require immediate consideration. These have the most potential for promoting a sustainable and integrated approach to adaptation.

It is important to stress the inter-related nature of all the elements within the table. There is no simple ‘one-stop’ solution to difficult coastal/fluvial risk situations. It should also be stressed that the framework requires further refinement and research before it can be developed into a ‘tool kit’ for OAs. However, the key elements, which have the potential to provide interim solutions to difficult coastal/fluvial risk sites, are highlighted in bold. It is suggested that Phase 2 of the SD2 research focuses on such elements.

Table 1: Key potential tools for adaptation

KEY TOOLS¹	Key sub-components
Essential elements	
Facilitating relocation	<ul style="list-style-type: none"> – Housing for displaced persons – Planned relocation of services / infrastructure before ‘knee jerk’ emergency solutions applied – Mechanisms to relocate people/communities
Improving resilience	<ul style="list-style-type: none"> – Include resilience measures in Building Regulations – Increase maintenance sums to delay defence failures – Community or individuals provide temporary/ interim defences to buy time
Adopting interim uses	<ul style="list-style-type: none"> – Maintain confidence in (vitality of) coastal settlements threatened by recession / flooding – Policies that cover withdrawal of services to avoid perceived abandonment
Modifying / controlling future uses within risk zones	<ul style="list-style-type: none"> – Strict use of development control – Interim uses to be sought
Facilitating mechanisms	
Emergency and risk planning	<ul style="list-style-type: none"> – Risk Area Management Plans – Supported by emergency integrated plans
Town and Country Planning system	<p>Use planning process, as appropriate, to:</p> <ul style="list-style-type: none"> – Provide emergency / interim policy to cover gap until new TCP policies (integrated with community policies) can be adopted – Support interim uses <p>Facilitate relocation of those dispossessed of property by physical processes by, where appropriate:</p> <ul style="list-style-type: none"> – Developing policies allowing roll-back landward of properties and communities – Identifying land for relocation of assets – Possibly relocating whole communities inland – Applying rigid ‘no development’ policies – Ensuring that planning permissions in risk areas state “At owner’s risk’ or “Area will not be defended <p>Application of:</p> <ul style="list-style-type: none"> – Time-limited consents – S106 agreements, e.g. to protect against future demands for defence – Article 4 Directions to avoid exacerbating risk to existing properties – Exceptions policies to apply to designated areas to allow local relocation by displaced persons / businesses – Coastal buffer / risk zones – Set back lines in spatial plans – Area Action Plans <p>OA objection to local development documents not incorporating SMP policy</p>

¹ Text in bold represents immediate, short-term requirement for crunch locations

Table 1: continued

Well-Being Power	<ul style="list-style-type: none"> - Use of the local authority well-being power to promote sustainable approaches to coastal/fluvial risk management - Supporting use of: <ul style="list-style-type: none"> - Local Strategic Partnerships - Local Area Agreements - Community strategies/plans - Well-being / quality of life indicators - Local neighbourhood renewal strategies - Investigation of potential future funding sources
Adaptation Funds	<p>Adaptation funded through local area agreements</p> <p>Positive means to assist people adopt mitigation measures to adapt to change</p>
Land / property acquisition & purchase	<p>Land / property acquisition</p> <ul style="list-style-type: none"> - Public acquisition of land/property (communities) by Govt, LA, OA or EA - Acquisition and lease back - Land transfer incentives <p>Purchase options:</p> <ul style="list-style-type: none"> - Purchase properties at risk (could be sale + lease back) - Purchase land in broader context - Time limited compensation system – a once and for all payment available over, say, 10 years
Property search mechanisms	<p>Instability, erosion and flood risk to be included in property searches</p>
Assurance or insurance mechanisms ²	<p>Insure properties/businesses / land at risk</p> <p>Possibilities to consider:</p> <ul style="list-style-type: none"> - Compulsory buildings insurance for all - Compulsory state insurance for erosion, recession and flood risk - State indemnity for erosion, recession and major flood risk funded by compulsory payments from insurance companies - Assurance against known risk - Catastrophe bonds
Key supporting arrangements	
Integration of policy	<p>Integration of</p> <ul style="list-style-type: none"> - Science into policy - Policy from national to regional and local levels, including risk areas - Across levels of governance - Between risk management policy and delivery policy in e.g. town and country planning, particularly local development frameworks and regional spatial strategies; nature conservation, community planning - Through process from strategic planning, to risk management and emergency planning - All stakeholder input, including the public - Temporal dimensions so short-term decisions do not preclude long term solutions
Modified organisational arrangements	<p>Options include:</p> <ul style="list-style-type: none"> - Specific body, e.g. development corporation, to address multidisciplinary issues in threatened communities - Formal partnerships between LAs and EA - Voluntary groups of LAs for coastal units associated with 'crunch' location - Voluntary groups for the coast, encompassing local communities
Community engagement aspects	<ul style="list-style-type: none"> - Public bodies to engage in discussion with local community - Specific help for community including help lines & counselling - Community consultation, including clear stakeholder engagement strategy - Long-term scenario setting, visualisation techniques, decision games
Financial supporting arrangements	<p>Financial assistance for loss and relocation associated with business and property loss</p> <p>Contingency funds to relocate fractured infrastructure</p> <p>Options:</p> <ul style="list-style-type: none"> - Designation of risk management areas - Assistance to property owners to relocate and for property loss - LA mediate 'soft' loans / mortgages for interim occupation of property

² These mechanisms will take considerable time to develop and so are not included as an immediate solution

Table 1: *continued*

Further supporting aspects	
Improved strategic thinking / integration	Improve strategic thinking and decision making, particularly in LAs
Improved planning and policy linkages	<ul style="list-style-type: none"> – Align all plans/policies to ensure consistent context for adaptation to change – With particular reference to SMP/CFMPs: – Align LDF and SMP/CFMP policy – Link SMPs/CFMPs to Community Plans
Delivery of a fine-tuned SMP process	<ul style="list-style-type: none"> – Implementation of guidance relating to the sustainability and strategic environmental assessment of SMPs/CFMPs – OAs and LA to engage in pre-SMP/CFMP futures debate
Improved TCP process	<ul style="list-style-type: none"> – Review and updating of PPG20
Improved information and information management for the delivery of sustainable adaptation mechanisms	<p>In the context of existing guidance:</p> <ul style="list-style-type: none"> – Maintain a sound science on coastal and fluvial risks – Continued inclusion of environmental and socio-economic data and information to guide development of SMP/CFMP – Continued dissemination of information on coastal and fluvial risks to other relevant stakeholders, policy and decision-makers