

By: Mr R Gough, Cabinet Member for Regeneration and Supporting Independence

To: County Council – 13 March 2008

Subject: **FLOOD RISK MANAGEMENT IN KENT**

Summary: To receive and comment on the report of the Select Committee on Flood Risk Management in Kent

Introduction

1. The Environment and Regeneration Policy Overview Committee convened a Select Committee for a short period in the summer of 2007 to gain a broad overview of the current situation regarding the management of flood risk in the County.

Terms of Reference

2. The terms of reference for the Select Committee Topic Review were to:-
- (1) To gain an overview of sustainable flood risk management in Kent in light of current Government policy on funding.
 - (2) To gain an overview of action taken since 2001 to minimise flood risk to the residents of Kent (with reference to recommendations of KCC 2001/2006 review).
 - (3) To gain an overview of issues relating to planning control, flood resilience and flood risk in Kent and consider local planning authority roles in influencing planning decisions.
 - (4) To consider what action or initiative by Kent County Council could lead to greater flood protection and resilience for Kent residents.
 - (5) To consider what action or initiatives might benefit Kent residents in terms of preparedness and emergency planning for flood events; and
 - (6) To make specific recommendations on the topic of flood risk management for Kent County Council and partner organisations.

Floods in the Summer of 2007

3. (1) While the Review was at the planning stage in June 2007, unprecedented intense rainfall caused unseasonal flooding. Parts of Kent were affected but the most devastating and severe floods occurred in other parts of the country, ie Gloucestershire and Rotherham, and tragic loss of life occurred. These floods highlighted several important issues, not least they served to illustrate to the Select Committee that flooding can happen at any time, in any season, with enough severity to overwhelm defences.

(2) The flood severity was so great that immediately following the events two reviews were instigated: the Pitt Review by Government and the Environment

Agency Review of the Summer Floods 2007. The interim findings of these reviews need to be taken into account fully for agreeing action in Kent. Summaries of each are contained within the papers for the meeting. Short presentations will be made of these two reviews.

Executive Summary

4. (1) The executive summary of the Select Committee's report is attached for all Members of the County Council. If you wish to see a full copy of the report then please contact Angela Evans on (01622) 221876 or e-mail her at angela.evans@kent.gov.uk. Copies are available in the Information Point and in the Members' lounge.

(2) The Select Committee has suggested a range of steps that can be taken to contribute to the overall reduction in flood risk and the better management of it. It is absolutely crucial that we follow guidance and take care where we site a new development so we can maintain defences to a good standard, incorporating a margin for climate change impacts; use sustainable drainage systems and put in place measures to make buildings more flood-proof and communities more resilient. More importantly, it is essential that we do not take our eye off the ball and become complacent about flooding. We must retain a constant focus on flood risk in Kent, and pull together expertise at all levels. The Select Committee suggests oversight is provided by a standing flood risk committee and multi-level involvement is secured through Flood Liaison Advice Groups which bring together experts including those in the local community.

(3) The Select Committee recognised that in an environment of tight budgetary control we will need to constantly ask ourselves:

'What are the potential costs of not taking a particular action?'

(4) The Select Committee recommends that the Government give much greater priority to flooding, by ring-fencing funding and ensuring that important schemes are not delayed.

(5) The risk of sea flooding is very real and it is acknowledged that a repeat of the set of conditions leading to flooding in 1953 could have dire consequences.

(6) It is therefore of the utmost urgency that we take action to ensure that people are aware of the risk, aware of what is being done to protect them and what they can do for themselves, and that our flooding, planning and warning systems are both comprehensive and flexible enough to ensure everyone's safety.

Recommendation

5. I commend the motion as set out in the summons to the meeting of the County Council.

Mr R Gough

Cabinet Member for Regeneration and Supporting Independence

Flood Risk Management in Kent

Select Committee Report

2007



Executive Summary

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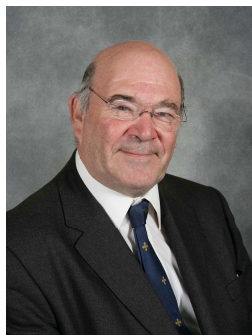
Executive Summary

1.1 *Committee membership*

The Select Committee consisted of eight Members of the County Council: five Conservative; two Labour and one Liberal Democrat.



Mrs Sarah Hohler



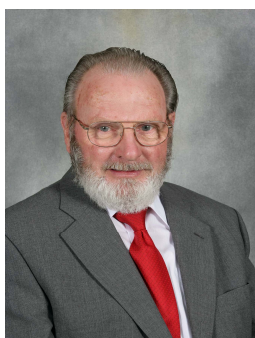
Mr Godfrey Horne



Mr Ivor Jones



Mr Richard King



Mr John Muckle



**Mrs Paulina
Stockell**



Mr Martin Vye



**Mr Frederick
Wood-Brignall**

1.2 *Terms of Reference*

- To gain an overview of sustainable flood risk management in Kent in light of current government policy and funding
- To gain an overview of action taken since 2001 to minimise flood risk to the residents of Kent (with reference to recommendations of KCC's 2001/2006 Reviews)
- To gain an overview of issues relating to planning control, flood resilience and flood risk in Kent and consider local planning authority roles in influencing planning decisions
- To consider what action or initiatives by KCC could lead to greater flood protection and resilience for Kent residents

- To consider what action or initiatives might benefit Kent residents in terms of preparedness and emergency planning for flood events
- To make specific recommendations on the topic of flood risk management for Kent County Council and partner organisations.

1.3 Evidence gathering

The Select Committee were resourced for a three and a half month period over the summer and during this period gathered evidence through desk research and received oral and written evidence from range of stakeholders including local councils, the Environment Agency, DEFRA, Kent Highways Service, Southern Water and Natural England. A list of witnesses who attended Select Committee hearings is given as Appendix 1 and a list of those submitting written or supplementary evidence is at Appendix 2.

1.4 Visits

Members undertook visits to a number of sites representing different aspects of flood risk management. A one day itinerary included visits to the Isle of Sheppey (Elmley and Warden Point); Ingress Park in Greenhithe and the Leigh Barrier south of Tonbridge.

1.5 Glossary of terms and acronyms

ACE	Association for Consultancy and Engineering
ADA	Association of Drainage Authorities
CAP	Common Agricultural Policy
CFMP	Catchment Flood Management Plan
CLA	Country Land & Business Association
CIRIA	Construction Industry Research and Information Association
COW	Critical Ordinary Watercourse
CPA	Compulsory Purchase Act (2004)
CPRE	Campaign to Protect Rural England
CSO	Combined Sewer Overflow
Culvert	Covered structure that conveys a flow under a road, railroad or other obstruction. Culverts are mainly used to divert stream or rainfall runoff to prevent erosion or flooding on highways.
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment Food and Rural Affairs
EA	Environment Agency
Enmainment	Designating a critical ordinary watercourse as a main river
EU	European Union
FLAG	Flood Liaison Advice Group
FRA	Flood Risk Assessment
GIS	Geographical Information System
GOSE	Government Office for the South East
GPS	Global Positioning System
Hereditaments	Property that can be inherited
HLT	High Level Target
KFRS	Kent Fire & Rescue Service
IDB	Internal Drainage Board
IT	Information Technology
KCC	Kent County Council
KHS	Kent Highway Services
KRF	Kent Resilience Forum
LDA	Land Drainage Act
LDD	Local Development Documents
LDF	Local Development Framework

LGA	Local Government Association
MAFF	Ministry of Agriculture, Fisheries and Food (now DEFRA)
MOD	Ministry of Defence
MSW	Making Space for Water
NAO	National Audit Office
NE	Natural England
NFCDD	National Flood and Coastal Defence Database
NFU	National Farmers Union
NGO	Non-Governmental Organisation
OFWAT	The Office of Water Services
OW	Ordinary Watercourse (any watercourse not a main river)
Pluvial	Relating to rainfall
RFDC	Regional Flood Defence Committee
Riparian	Relating to the banks of a river
RSS	Regional Spatial Strategy
SEERA	South East England Regional Assembly
SFRA	Strategic Flood Risk Assessment
SMP	Shoreline Management Plan
SSSI	Site of Special Scientific Interest
Soakaway	Structure to collect rainfall from a catchment area prior to discharge into surrounding soil
SUDS	Sustainable Urban Drainage System
Swale	A grassed depression which leads surface water overland to a storage or discharge system, typically using the green space of a roadside margin. (Source: EA)
SWG	Severe Weather Group
UNECE	United Nations Economic Commission for Europe
WFD	Water Framework Directive

1.6 Introduction

- a) The Environment and Regeneration Policy Overview Committee convened a Select Committee for a short period in early summer to gain a broad overview of the current situation regarding the management of flood risk in the county. Kent has one of the longest coastlines of any English county¹ with many important coastal settlements, a rich and varied landscape with 28,500 hectares of designated conservation sites and a good deal of key infrastructure on low-lying land. Over 70% of Kent comprises agricultural land hence its fame as the 'Garden of England'. Kent has two of the major growth areas in the south east region: Ashford and Thames Gateway and numerous smaller growth areas which are likely to undergo intense development. Substantial sections lie in flood risk areas and, despite earlier Select Committee recommendations, pressure for house building may mean that some development in these areas goes ahead. Effective flood risk management is clearly a key component of Kent communities if they are to be sustainable into the future.
- b) Sustainable flood management has been defined in many ways including that which:

'provides the maximum possible social and economic resilience against flooding, by protecting and working with the environment, in a way which is fair and affordable both now and in the future'

*Source: Scottish National Technical Advisory Group, 2004
(Flood Issues Advisory Committee)*

- c) While the review was at the planning stage in June 2007, unprecedented intense rainfall caused unseasonal flooding. Parts of Kent were affected but the most devastating and severe floods occurred in the south west midlands and tragic loss of life occurred. These floods highlighted several important issues, not least they served to illustrate to the Committee that flooding can happen at any time, in any season and with enough severity to overwhelm defences.

'Few, if any, surface water systems would have coped with the intensity or duration of rainfall experienced in other parts of the country; we in Kent were very fortunate to have escaped.'

Source: I.D. Oliver, Romney Marsh Area Internal Drainage Board, written evidence

¹ 217km

- d) However, bouts of heavy rainfall have continued to affect Kent, overwhelming drainage systems and causing flooding, particularly in Folkestone, Hythe and Whitstable. Media coverage has provided a graphic background to this review and while we need to acknowledge that no defences can provide absolute protection from flooding, and no individual in this country has the absolute right to be defended against flooding, we are reminded both that there are numerous sources of flooding and that an effective emergency response is required to deal with any eventual flooding and its aftermath.
- e) Some flooding is avoidable with intelligent forward planning and adequate funding. Many of the recent floods have been exacerbated by ageing drainage systems which cannot cope and 'flash floods' following heavy rain have become a familiar and unwelcome sight. Clearly, funding must be made available to update these systems and all new developments must incorporate sustainable drainage with integral flood storage to avoid increasing runoff and adding to flood risk downstream. Failure to invest now will inevitably lead to increased costs later on, both in human and economic terms. It is essential to plan for the long term, factoring in increased risk of flooding due to the effects of climate change. Where there cannot be a total avoidance of risk, there are a number of options for building flood resilience into new properties and a growing flood protection industry that, if developed, could save homeowners, businesses and government alike, millions in lost revenue, insurance claims and distress.
- f) It is worth restating that in terms of climate change impacts, it is evident that past experience is no longer a good indication of what is likely to happen in the future.
- g) Although the Environment Agency has responsibility for the bulk of flood risk management, KCC has a number of roles and functions principally as a drainage body and highway authority, but also in relation to environmental management, strategic and emergency planning. The county council can also make a key contribution to flood risk management by performing a number of 'non-structural' actions for example by raising public awareness of flood risks and helping to publicise what is being, and could be, done to mitigate against them.
- h) Other KCC Select Committees have reported on topics relevant to this review in 2001 (Flooding in Kent), in 2005 (Water and Wastewater, particularly in Ashford) and in 2006 (Climate Change). The recommendations of the Climate Change Report are currently being progressed and KCC has appointed a Project Manager to ensure that climate change is factored in to all future business plans. As the 2001 review took place in the wake of serious flooding, the majority of its recommendations related to the emergency response at the time. This Select Committee has taken a fresh look at flood risk management in Kent and while there was insufficient time to follow up on each of the earlier recommendations in detail, they were borne in mind throughout this review.

- i) For flood risk to be managed effectively in future it will be necessary to take account of flooding from all sources: fluvial (river), pluvial (rainfall)/flash flooding, groundwater, as well as drainage (including sewerage related) and, most importantly for Kent, the risk of flooding from the sea. Currently responsibility for various types of flooding lies with a number of different agencies and while there is in most cases a high level of co-operation between them there is the potential for confusion and delay both in the normal course of events and during emergencies. Responsibility for different aspects of drainage and flood risk management is highly complex and, for example, around 200 organisations have a management interest in sea defence and coastal protection.²
- j) The majority of funding for flood risk management comes from the government. However competing demands within the Department for Environment and Rural Affairs (DEFRA) have impacted adversely on funds available over the past two years and although, following recent floods, some of the 'lost' funds will be reinstated, there has clearly been an impact on the progress of plans, defence schemes and essential maintenance.
- k) Having heard from a range of stakeholders the Committee are confident that progress has been made in terms of structural flood defence since the serious flooding in the county in 2000/2001. It will be necessary to retain a focus on the topic and secure adequate funding in order to ensure that these advances are not lost and that the excellent relationships and co-ordination between partner organisations are maintained and enhanced.

1.7 Summary of Recommendations³

Organisational Responsibilities

R1 That KCC look into setting up and resourcing a permanent Flood Risk Committee, in partnership with District Councils, to monitor: organisational changes affecting the management of flood risk in order to minimise the effect of such changes; the KHS gully clearance programme; non-structural means adopted by KCC and District Councils to reduce flood risk, and the Environment Agency's progress on proposed flood defence works as well as maintenance of existing defences.

Funding for Flood Defences

R2 That there should be adequate, ring-fenced, direct government funding for flood risk management to provide a more transparent system which will reassure the public that vital plans, strategies and flood defence work will not be compromised by competing demands within DEFRA or elsewhere.

² Institute of Civil Engineers (2001) Land Drainage and Flood Defence Responsibilities

³ Those recommendations the Select Committee see as most important are in bold type.

R3 That KCC should lobby the government to consider re-designating the flood management arm of the Environment Agency as a dedicated flood risk agency as well as giving the EA a strategic overview of all types of flood risk.

R4 That KCC promotes the further development of an Engineering Consultancy led by Canterbury City Council Engineers to disseminate good practice and offer training/ apprenticeships to build a practical skills-base and retain local knowledge/expertise in flood risk management.

Flood Risk Management plans

R5 That KCC supports development in brownfield and other areas subject to the rigorous application of site specific sequential and exception tests of Planning Policy Statement 25 (PS25).

R6 That KCC oversee the development of further sub-regional flood risk assessments, based on river catchments, and undertakes to monitor this development.

R7 That KCC ensures that its Environment and Waste Team are sufficiently resourced to enable them to: develop a county-wide coastal policy; maintain their oversight of Shoreline Management Plans (SMPs) to promote consistency across the county; and raise public awareness of plans.

R8 That KCC should lead on the co-ordination of work with landowners and other agencies to identify options for the funding of changed land-use or buy-out to ensure that plans to achieve more naturally functioning flood plains and coastline in Kent are arrived at equitably.

R9 That KCC works in partnership with the EA to ensure that River Basin Management planning is fully integrated with existing Catchment Flood Management Plans (CFMPs) and with regard to SMPs.

R10 That Kent Highway Services (KHS) and the EA seek to reconstitute Flood Liaison Advice Groups (FLAGS) in Kent (ideally catchment based), with representation from the insurance industry and local communities.

Urban Development, Drainage and Design

R11 That KCC instigates discussions between local planning authorities, Southern Water and others on the feasibility, benefit and cost implications of using non-return valves/sealed sewage systems in all new developments and existing developments where sewage flooding is proven to be a problem and requiring it to be a condition of planning consent.

R12 That KCC promotes the use of sustainable drainage systems (SUDS) throughout Kent with over-attenuation of surface runoff, guided by best

practice adopted by Canterbury and Ashford councils and findings of the integrated urban drainage pilots.

R13 That Kent planning authorities adopt the requirement for Drainage Impact Assessments for all new developments, following the Canterbury model.

R14 That the Fire & Rescue Service are included as an active partner in the planning process for new developments.

R15 That the Kent Design guide is revised to include information on mitigating flood damage and makes reference to innovative designs for the future, such as floating homes.

R16 That KCC lobbies government to produce a set of Building Regulations for use in flood risk areas so that planners are supported by increased but nationally consistent obligations to assist developers with a high level of flood proofing/mitigation.

R17 For KCC to work in partnership with the EA to publicise actions householders can take to increase the flood resilience of their homes.

R18 That KCC specifically allocate funding to enable the proposed road gully cleansing work to go ahead without delay and, where necessary, to enable the condition and capacity of highway drainage systems to be improved and the location of gullies and their characteristics to be recorded on GPS. That the KHS winter maintenance budget is readjusted to become an extreme weather budget.

R19 That KCC works in partnership with local authorities, the police and traffic wardens to inform the public about road drainage cleansing activities to address the issue of vehicles obstructing gullies and delaying vital works.

Condition of Kent Flood Defences

R20 That the government should urgently consider the EA's request for funding to enable vital works to proceed at Jury's Gap, Camber.

R21 That the EA should encourage the input of local authority and Internal Drainage Board (IDB) experts on local strategies and schemes and that IDBs gain representation on the Southern Regional Flood Defence Committee (RFDC) in order to optimise the benefit to be gained from local knowledge.

R22 That the EA develop and implement a phased rolling programme of maintenance to include 'low risk' areas (in collaboration with the Kent Internal Drainage Boards).

R23 That the EA prioritise clearance of waterways in the Romney Marsh Area.

Emergency Planning

R24 That the Kent Resilience Forum (KRF) Severe Weather Group (SWG) audit and promote the development of emergency plans/specific flood plans for at risk areas in liaison with the Environment Agency and develop and generic flood plan for Kent.

R25 That the government consider placing a duty (with funding) on the Fire & Rescue Service to respond to a flood emergency and further considers designating FRS as the lead body in charge of a flood incident.

R26 That the Kent Resilience Forum Severe Weather Group formulate and publicise an action plan in relation to flooding to raise public confidence in Kent's preparedness for flood events and consideration should be given to merging the SWG with the Flood Warning Planning Liaison Group to reduce duplication and avoid confusion as part of a wider streamlining of the group structure within the Resilience Forum.

R27 That KHS should send officers to work alongside local district colleagues in an emergency situation.

R28 That the Environment Agency, through its chairmanship of the KRF Severe Weather Group, should ensure there is a systematic survey of critical infrastructure (location and flood defences) and through the SWG promote work with utility companies to ensure supplies can be protected and maintained during flood emergency situations.

R29 That the Severe Weather Group liaise with partners in the Kent Resilience Forum and east coast authorities to formulate an emergency response plan for an extreme coastal event and, given the risk to life and property from sea flooding, assess whether the current warning system and communication processes are adequate or whether a siren system should be acquired for Kent, and that people are educated about what to do when they receive a flood warning.

Raising Public Awareness

R30 That KCC support the Environment Agency in raising flood risk awareness (including the appointment and training of flood wardens and to ensure that vulnerable people are identified and supported in emergency situations) via town and parish councils and similar community groups.