



Report of Scrutiny Commission
(Flooding Within Leeds)

Inquiry into Flooding within Leeds

Date of Publication: April 2006

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SESSIONAL EVIDENCE

Commission Members:

Cllr Leadley (Chair)
Cllr Golton
Cllr Hollingsworth
Cllr Hyde
Cllr E Nash
Cllr Schofield

Reports and Publications Submitted

- Report of the Director of Development department on session 1 information, dated 16th August 2005, including:
 - Water Asset Management Working Group Terms of Reference
 - Water Asset Management Working Group Action Plan for Improved Council Water Asset Management and Emergency Response
 - Draft Policy on Maintaining Water Resources and Responding to Flood Incidents: A Guide for Council Departments
 - The Council's Legal Responsibilities Relating to Water Management
 - Overview of Council Water Responsibilities
- A variety of media articles regarding flooding
- A presentation from Yorkshire Water
- Information and photographs submitted by residents from Temple Newsam, Churwell and Otley
- Planning Policy Guidance (PPG) 25 'Development and Flood Risk' by the Office of the Deputy Prime Minister
- Sustainable Drainage in Leeds supplementary guidance number 22
- Information and photographs submitted by a resident living on Whitebridge Avenue, Halton, Leeds
- An article on flooding from the Yorkshire Evening Post newspaper dated 25th October 2005
- Information from the Environment Agency - 'West Yorkshire Flood Planning and Response Working Group, Flooding CONOPS v3.2'
- Presentation from Senior Hydrographic Surveyor, British Waterways
- Report of the Director of Corporate Services dated 2nd December 2005 'Briefing Note re Insurance Aspects of the Effects on Leeds City Council of Recent Flooding in Parts of Leeds'
- Press release from the Association of British Insurers dated 11th November 2005 'Insurers new pledge on flood insurance could benefit up to 100,000 more homeowners at risk of flooding'
- Association of British Insurers Statement of Principles of the Provision of Flooding Insurance

- Association of British Insurers Statement of Principles on Flood Insurance - Questions and Answers Briefing
- Association of British Insurers 'Strategic Planning for Flood Risk in the Growth Areas – Insurance Considerations' dated July 2004
- Association of British Insurers Review of Planning Policy Guidance Note 25: Development and Flood Risk consultation response, dated October 2004
- Association of British Insurers 'Safe as Houses' Manifesto, dated April 2005
- An account of flooding around Farnley Wood Beck from Mr Franklin, a resident (Churwell)
- Extract from the Inspector's report on the UDP

(copies of the written submissions are available on request to the Scrutiny Support Unit)

Witnesses Heard

- Jean Dent, Director of Development
- Cllr Andrew Carter, Executive Board Member
- Mr David Sellers, Principal Engineer (Land Drainage), Development department, Leeds City Council (LCC)
- Mr Richard Davies, Head of Risk and Emergency Planning, Corporate Services, LCC
- Mr Jeremy Houseley, Area Manager West, Yorkshire Water
- Cllr David Blackburn, Ward Member for Farnley and Wortley
- Mr Parker, resident of Kirkdale Terrace, Leeds
- Mrs Thompson, resident of Gledhow Valley Road area, Leeds
- Mr Calvert, Chair of Friends of Gledhow Valley Woods, resident of Gledhow Valley Road, Leeds
- Mr Michael Ashworth, Planner, Development Department, LCC
- Mr Willis, resident of Gildersome, on behalf of Gildersome Parish Council
- Mr David Wilkes, Area Flood Defence and Water Resources Manager, Environment Agency
- Mr Laurie Waterhouse, Senior Hydrographic Surveyor, British Waterways
- Mr Frank Morrison, Insurance Manager, Corporate Services
- Mr Franklin, resident of Old Close, Churwell, Leeds
- Mr David Feeney, Head of Planning and Economic Policy, Development Department, LCC
- Mr Matt Crossman, Natural Perils Advisor, Association of British Insurers

Dates of Scrutiny

- 16th August 2005 – Scrutiny Commission meeting
- 28th September 2005 – Scrutiny Commission meeting
- 26th October 2005 – Scrutiny Commission meeting
- 29th November 2005 – site visits
- 2nd December 2005 – Scrutiny Commission meeting
- 15th February 2006 – Scrutiny Commission meeting
- 27th March 2006 - Scrutiny Commission meeting

Site Visits

- Visits to sites in Leeds which have been affected by flooding, including:
 - The Dunhills
 - Wykebeck Valley Road
 - Old Close, Churwell
 - New Lane, Drighlington

Report of Scrutiny Commission (Flooding Within Leeds)

Inquiry into Flooding Within Leeds

1.0 CHAIR'S FOREWORD

At Leeds City Council's Annual General Meeting in May 2005, three Scrutiny Commissions were set up as outriders of the Overview and Scrutiny Committee, to look at matters which cut across the structure of the Council and its departments; the first commission was authorised to investigate flooding in Leeds.

This topic had entered the news on 12th August 2004 when houses in the Wyke Beck catchment in East Leeds were overtaken by a flash flood. A storm followed many days of rain when soils became so soaked that the ground could not take any more, causing rapid run-off; 2004 had one of the wettest Augusts ever recorded.

A few days later on 16th August, much of Boscastle in Cornwall was swept away when a rainstorm stood for some hours over the small, steeply-graded catchment which drains down to Boscastle Harbour. Locally and nationally incidents drew attention to flash flooding, which may be a symptom of climate change. With global warming, there will be more energy in the atmosphere, making it more turbulent and unstable. Sometimes there will be locally arising rainstorms of unusual intensity.

Another remarkable incident took place in Leeds on 3rd May 2005, when, following an exceptionally wet April, a belt of intense rain, no more than about a mile wide fell from Drighlington in the west through Gildersome, Morley, Churwell, Beeston and Hunslet to the Wyke Beck catchment in East Leeds; some houses there were flooded for the second time in less than a year.

Leeds Metropolitan district covers about 550 square kilometres of the foothills of the Pennines, rising from about 10 metres (30 ft) above sea level at Fairburn Ings in the south east, to 330 metres (1000 ft) at Hawksworth Moor in the north west. Its territory is generally undulating. Flat lands are insignificant; water courses and sewers rely mostly on gravity, with little need for pumping. Both the River Aire, which passes through the city centre, and the Wharfe, which forms most of the northern boundary of the district, have narrow floodplains in which some properties are noted by the Environment Agency as being at risk of major river flooding. Parts of Otley are flooded quite frequently by the Wharfe, though the Aire has not overflowed in the city centre since 1946.

Most recent flooding in Leeds has been at pinch points in the more steeply graded catchments of tributaries of the major rivers. Such floods are not easily forecast with accuracy, though lists of places known to be at risk have been drawn up so that particular care can be taken. When flooding happens in towns, sewers are overwhelmed and houses are filled up with more or less diluted sewage. Because of this, clearing up amounts to much more than cleaning and drying; furniture, carpets, fitted kitchens, wall plaster and suspended wooden floors have to be thrown out. Restoration of a home can take more than six months and can cost £10,000 to £30,000.

There are more than 300,000 postal addresses in Leeds, of which no more than a couple of thousand are recognised as being at risk of major river or flash flooding; perhaps up to a thousand homes have actually been flooded within the past 20 years. This means that

flooding in Leeds is manageable; on the other hand, its limited occurrence might lead to neglect through perceived lack of importance.

Neglect may have had the upper hand between 1997, when much of the City Council's land drainage work was taken up by Yorkshire Water, and the August 2004 floods. By then, the City Council Land Drainage section had shrunk to six technical officers with one administrative assistant and a discretionary works budget for 2004/05 of £20,000 to cover the whole of Leeds.

Since August 2004, much has been done within the Council to deal with problems caused or highlighted by flooding, to revive the Land Drainage section, to re-appraise its overall approach to water management, and to commit revenue and capital expenditure to avoid future flooding.

Nationally, the Department for Environment, Food and Rural Affairs (Defra), Office of the Deputy Prime Minister (ODPM), and Environment Agency (EA), have been active in recognising the increased risk of flooding, giving emphasis to major river and coastal flooding linked to rising sea levels. Some attention has been given to flash flooding, no doubt underlined by Boscastle, but, the balance is rather different in Leeds, where weighting is towards flash flooding. Even that might change if the Aire flooded at-risk areas such as the central bus station, Marsh Lane, and low-lying parts of Holbeck and Hunslet to the south which are built up and within the theoretical high risk flood plain.

Our Commission has looked both within Leeds and nationally, taking note of what has been done since the summer of 2004, and what is planned for the future. We have been reassured by what is going on, but we are conscious of the need to avoid relaxation, which might be a temptation if we were without floods for a few years.

Our work has gone forward from a more or less forensic account of the first Wyke Beck incident prepared by the former City Services Scrutiny Board. Yorkshire Water made its own reports on both Wyke Beck occurrences, and some of the policy context was explored by the former Development Services Scrutiny Board during the winter of 2004/05. Many of our recommendations are to do with refinement of City Council policy, and the Council's relationship with Government departments and agencies and Yorkshire Water. Even so, we have concluded that national legislation will be needed to deal with the anachronism of riparian ownership in built up areas - fragmented ownership of watercourses and fragmented maintenance liability are impractical and untenable.

Our Commission has been well supported by Council officers, by external technical witnesses, and by members of the public who have given written, verbal and pictorial accounts of the flooding of their own homes; twice in less than a year in parts of the Wyke Beck catchment. Commission Members thank them all for the time and attention which they have devoted to the inquiry.

Cllr Leadley (Chair)

(A summary of the evidence considered in arriving at our conclusions is presented at Appendix 1.)

2.0 THE SCOPE OF THE INQUIRY

2.1 The purpose of the Inquiry is to make an assessment of and, where appropriate, make recommendations on the following areas:

- The practical measures being put in place in the short and medium term to mitigate and respond to flooding incidents and to ease the anxieties of local residents.

This Inquiry will include an assessment of:

- The background to the Leeds flooding incidents, highlighting those common factors identified as contributing to the cause of the flooding and the actions planned as a result, including issues which are relevant across the city, such as:
 - increasing levels of run-off surface water due to non-porous surfaces
 - capacity of water courses
 - factors under the control of Yorkshire Water
 - identifying areas of Leeds where flooding is likely under similar circumstances
- The relevance of meteorological information and possible climate changes on future planning
- The Council's Sustainable Drainage Guide (including alternative drainage methods such as balancing ponds)
- The role of the Local Development Framework
- The development of a 'watercourse management service' to deliver maintenance and emergency response to Council-owned water courses¹, including:
 - resources to be allocated
 - how this service will be delivered
- The development of a policy setting out the Council's role regarding flooding incidents
- Partnership working arrangements with Yorkshire Water
- The role of Land Drainage in inspecting water courses
- The establishment of adequate records, particularly of the city's drainage systems and other Council owned water assets and plans to upgrade and maintain these

¹ Although this specifically highlights Council owned watercourses, the inquiry will also include contributions from the Environment Agency and Yorkshire Water regarding their ownership and responsibilities.

- The various roles of departments and the allocation of responsibilities, including:
 - issues around riparian ownership
 - issues around enforcement
- The statutory and regulatory responsibilities of the authority in relation to water assets
- Private sewers and private riparian ownership including culverts

3.0 THE BOARD'S CONCLUSIONS AND RECOMMENDATIONS

- 3.1 Even with the best efforts of all who work in land drainage and flood defence, there will be weakness if there is lack of co-ordination. Nationally and locally, awareness is growing of the need for close co-operation, and the City Council is represented on the Regional Flood Defence Committee. Such work must continue.

RECOMMENDATION 1

There should be whole river catchment joint bodies to co-ordinate water management, land drainage and flood defence work carried out by Environment Agency, district councils and Yorkshire Water and British Waterways.

- 3.2 Following flooding in recent years, there is willingness to have close working between drainage agencies. Commission Members found evidence of some neglect before August 2004 flooding in Leeds and are anxious that it should not happen again, especially if there is no exceptional rainfall for a few years.

RECOMMENDATION 2

There should be close liaison between Environment Agency, Yorkshire Water and City Council and British Waterways to assess the cumulative effects of all new building and individual effects of major developments on sewer and land drainage.

- 3.3 Until 1997 City Council Land Drainage maintained sewers as agent of Yorkshire Water and held district wide plans of underground drainage, including culverts. Since then, Yorkshire Water have kept up plans of sewers which no longer show culverts. If the City Council's plans of culverts were published on the internet they would be on the same footing as those of underground pipes and cables published by the utility companies. This would reduce risk of damage to unsuspected culverts.

RECOMMENDATION 3

As the City Council is the only body which holds full records of culverted watercourse within its area, these should be placed on the Internet to be complementary to similarly published plans of underground pipes and cables

similarly published by utility companies. These records should be kept up to date.

- 3.4 Unadopted sewers, some of which have lengthy networks and carry large amounts of effluent, are found in some parts of Leeds and are practically and financially difficult to deal with. If they cannot be adopted, there should at least be accurate records to show their extent and how they are linked to the rest of the drainage system.

RECOMMENDATION 4

Records should be made and kept of private sewers not adopted by Yorkshire Water, which do not appear on their Statutory Sewer Maps. These might be made by the Environment Agency or by City Council Land Drainage acting as its agent.

- 3.5 Damage to culverts is caused sometimes by contractors laying, renewing or repairing underground utilities. As well as lesser damage and blockage, cases are known of pipes which cut through culverts on the level, causing at least partial blockage, such as the gas main in Gildersome Town Street. As there is no formal monitoring or reporting, such occurrences may go undetected for some years before being revealed by flooding.

RECOMMENDATION 5

Those working on underground utilities or carrying out other excavations should be pursued by the City Council if they cause culverts or watercourses to be damaged or blocked, to ensure that remedial work is done. Information should be exchanged between City Services Highways division and Land Drainage, with Highways doing the initial monitoring.

- 3.6 Lengths of natural watercourse, whether open or in closed culverts, usually belong to adjoining landowners, often to the mid-line where a watercourse forms a property boundary. Such landowners are therefore 'riparian owners' who are legally responsible for clearance and maintenance of their part of the watercourse, often a length of no more than a few yards and only to the middle of the channel. Especially in urban areas, this leads to fragmentation which is impossible to co-ordinate and beyond the physical or financial means of property owners.

RECOMMENDATION 6

National government should acknowledge that the historic system of riparian ownership is untenable and unworkable in built-up areas, especially where ownership is fragmented. New legislation should be introduced to place all riparian ownership in designated built up areas, whether above ground or culverted, into the hands of drainage boards administered either by district councils or the Environment Agency. It would be unreasonable to expect the City Council unilaterally to take responsibility for all riparian matters within all or part of its area without supporting national legislation or financial means. We recommend that the Chair should write on behalf of Members of the

Commission to the ODPM and DEFRA, with copies to Leeds Members of Parliament to ask that appropriate legislation be drafted.

- 3.7 Water Asset Management does seem to have gone through a spell when it was looked upon as a lesser service which could be starved to allow greater support for what might be termed 'front line services'. This should not happen again.

RECOMMENDATION 7

Water Asset Management, co-ordinated by the Development department, should be recognised by the City Council as an important strategic service with manpower and budgets large enough to deal with the City Council's water assets, monitor planning applications and strategic development proposals, offer land drainage advice to others, and deal with drainage emergencies or selected problems on land outside the ownership of the City Council. Implementation of the Council's 33 point Water Asset Management Plan should continue with adequate budgets being allocated each year. The Water Asset Management Working Group should keep active, have a programme of work, identify the need for funding and report at least twice a year to Executive Board.

- 3.8 Commission Members noted that one of the worst effects of heavy rain was to overload old-style combined sewers in which foul and clear water mixed. Combined sewers are tolerated officially because of their established existence and often have emergency outfalls into beckes and rivers, which they pollute with foul water and sewage solids. Such outfalls are an obvious hazard to public health; their waters defile houses which they enter, and make cleansing harder and more costly than otherwise it would be.

RECOMMENDATION 8

Combined Sewer Outfalls (CSO) to water courses should be acknowledged as hazards to health, wildlife and amenity. Yorkshire Water should address this problem with urgency.

- 3.9 Only a few dozen paper copies of the current Sustainable Drainage notes were printed, largely for use within the City Council. Publishing only on the internet assumes that every interested party will have access to it. In practice this will not be so, and the notes as published cannot be downloaded legibly except with a good quality colour printer. This cannot encourage use. (See appendix 2 for the relevant extract from the Inspector's report)

RECOMMENDATION 9

Sustainable Drainage notes published by the City Council should be revised to match the accepted recommendations of the UDP Review Inspector, and be published on paper at reasonable cost, not just free on the Internet.

- 3.10 National guidance on flooding from ODPM and the Environment Agency is evolving quickly and will have to be built in to the LDF, possibly needing a number of revisions in successive drafts.

RECOMMENDATION 10

Work on the Local Development Framework (LDF) should outline clearly those areas at risk of flooding by the rivers Aire and Wharfe, and acknowledge the risk of less predictable though more localised flash flooding. Measures for dealing with those risks should be built into the LDF, which should cross refer to more detailed and specialised guidance and include the Strategic Flood Risk Assessment.

- 3.11 According to agreed procedures, once a CONOPS (Concept of Operations) emergency is declared the Police should chair the operation.

RECOMMENDATION 11

Officers should obtain clarity as to who and what will trigger CONOPS (Concept of Operations) planned multi-agency responses to flooding incidents. It seems that CONOPS works well when triggered, but it has not always been clear what had to happen to trigger it.

- 3.12 Much has been done to reduce future risk in places affected by the 2004 and 2005 flash floods, and ABI has clear guidance on flood insurance. Even so, owners, occupiers, brokers and insurers seem to have varying and often imperfect knowledge of local flood risk and ABI policy. This has led to widely varying quotations being made for properties at similar risk, from refusal to quote, through expensive offers with excesses of £10,000 or more to offers on more or less normal terms.

RECOMMENDATION 12

Clear advice and information should be available to owners and occupiers to maximise the likelihood of flood risk insurance being offered for any property at reasonable cost and level of excess. The City Council should give localised information on flood management to help those having difficulty with insurance due to past or potential flooding.

- 3.13 Although meant to warn of large scale flooding by sea or rivers, a flood warning system has been set up by the Environment Agency. This could be extended to give some warning of flash flooding by smaller water courses. Even half an hour would give time to take valued possessions upstairs, close air-brick covers, deploy sandbags, and shut down gas and electrical appliances. We would also suggest that advice given by the Council includes references to the use of permeable materials when creating hard standing in gardens.

RECOMMENDATION 13

City Council drainage advice leaflets should draw attention to the flood warning system set up by Environment Agency, which invites occupiers of property at risk to register to be warned by telephone, fax or pager when flooding is imminent. Warnings should also be given by the Environment Agency assisted by the Met Office when soil saturation has been reached, making flash flooding likely. Both the August and May 2005 flash floods were

caused by storms following weeks of heavy rain when soils became saturated, but the Commission acknowledge that flash flooding can occur when the ground is dry, causing excessive run off.

- 3.14 Members accepted that CONOPS would respond to major flooding and that Land Drainage would take the strategic lead in City Council Water Asset Management. Even so, they believed that special thought should be given to those who were helpless and homeless in the aftermath of a flood. We particularly wished to see arrangements in place for a telephone number to be publicised for such emergency events.

RECOMMENDATION 14

All departments of the City Council should do their best to help victims of flooding and that an appropriate telephone number be advertised for use in flooding emergencies. Any City Council department which becomes aware of flooded premises should inform Peace and Emergency Planning Unit without delay.

<p>Report Agreed by the Commission on.....</p> <p>.....Date.....</p> <p>Signed by the Chair of Scrutiny Commission (Flooding within Leeds)</p>

Report of Scrutiny Commission (Flooding Within Leeds)

Inquiry into Flooding Within Leeds

Summary of written and verbal evidence

1.0 INTRODUCTION

- 1.1 Whilst the localised flooding in areas of Leeds during 2004 and 2005 was the starting point for the inquiry, in establishing the Commission, Members sought to understand the strategic approach to flooding and water management on a wider scale. The inquiry therefore balances the input from national organisations, such as the Environment Agency, with the views and experiences of local residents affected by flooding. In setting a much wider scope than the flooding incidents, Members still wished to acknowledge the enormous disruption and distress caused by flooding over the past two years and that whilst it was important to understand this impact on residents, Members felt that the inquiry should deal with drainage, development and water management issues across the city as a whole.
- 1.2 The evidence received by the Commission is summarised below and a separate section is given over to the information provided by residents.

2.0 Synopsis of events

- 2.1 On 12th August 2004 houses in the Wyke Beck catchment in East Leeds were overtaken by a flash flood. On 3rd May 2005 the Wyke Beck catchment in East Leeds was flooded again, as well as areas of the Farnley Wood Beck, Farnley Beck and Millshaw Beck catchments.
- 2.2 The incidents highlighted a number of lessons to be learned both within the Council and more widely in terms of: (i) the resources available to maintain our assets and respond to flooding incidents; (ii) key players' understanding of their roles and responsibilities relating to water; and (iii) the level of co-operation in place between agencies with responsibilities for maintenance and enforcement around the drainage infrastructure (including becks, sewers, highway gullies and drains). In light of recent experiences and changes in flooding risks it is clear that there needs to be a step-change in our ability to respond to identified risks.
- 2.3 The cross-departmental Water Asset Management working group was established to draft and implement proposals to tackle flooding and flood risk across the Council. Proposals were made under a number of headings:
- Council policy
 - Watercourse maintenance and land drainage
 - Emergency response
 - Highways and street cleansing
 - Lakes, reservoirs and dams
 - Partnership working

- Work in specific locations such as Wyke Beck and Farnley Wood Beck, and
- Flytipping and enforcement.

- 2.4 The proposals were agreed by Executive Board and are in the process of being implemented, with many already completed. The Water Asset Management working group has proved a successful way to co-ordinate council work on drainage issues.
- 2.5 A draft policy on 'Maintaining water resources and responding to flood incidents' is due to be agreed by the Executive Board this summer, and the Director of Development has been appointed as 'Drainage Champion' for the Council. All watercourse management for the Council has been delegated to the Land Drainage section and additional staff and significant resources have been allocated for this work. A base budget allocation of over £1 million has been made for the 2006/07 municipal year for works associated with flooding.
- 2.6 In relation to particular locations of the city which have suffered flooding, we are pleased with the Council's rapid response to alleviate the flood risk, such as desilting work, clearance of overhanging shrubs and trees, installation of a trash screen, and modelling work to assess capacity and potential solutions.
- 2.7 The Environment Agency will take over enforcement powers for much of Wyke Beck and Farnley Wood Beck (on the lowest 2-300m) from April 2006. They will monitor the becks and have powers to undertake work necessary to alleviate flood risk on a discretionary basis.
- 2.8 Further detail is available throughout our summary of evidence and conclusions and from the evidence we received.

3.0 EVIDENCE AND DISCUSSIONS

16th August 2005

- 3.1 The Board received information on the Council's response following two serious flooding incidents in August 2004 and May 2005 and noted that a Water Asset Management Working Group had been established, at the Executive Board's request, to progress a number of recommendations. Members noted that these two flooding incidents were explained by unusually intense downpours and the inability of the drainage infrastructure to cope with the increased volumes of water. The Commission was informed that whilst the circumstances leading to the flooding on both occasions were rare (the Met Office reported that the storm in August 2004 had a 1 in 180 year frequency), it was acknowledged that the frequency and intensity of flooding in Leeds could well be increasing.
- 3.2 Members were informed that some major lessons had been learned after the two flooding incidents around resources available to maintain assets and respond to flooding, the key players' understanding of their roles and responsibilities and the need for co-operation between agencies.
- 3.3 The Commission received details on the terms of reference of the Water Asset Management Working Group, its make up and its work programme. It was noted that a number of 'far reaching' proposals were being advanced. Officers raised with

the Commission the challenges being faced in terms of resources, planning and understanding. It was noted that a wide range of organisations have responsibilities with regard to water assets and that the Council itself has a multiple role as a landowner. Members were informed that the Council no longer employed trained operatives to maintain watercourses, either as part of planned maintenance or in response to blockages. Officers informed the Commission that the proposals being pursued by the Working Group were aimed at addressing these issues.

- 3.4 Members noted the discussion on the proposals to ensure that there is a clear understanding at senior officer and Member level of the responsibilities of the Council, the need for these responsibilities to be set out in a policy statement and that the issue of drainage and water asset management is championed at Corporate Management Team (CMT). Members noted that further proposals aimed to ensure there were adequate training and resources available to maintain water assets and respond to incidents, that records were updated on to the Geographical Information System (GIS), that Land Drainage is given the appropriate technical resources to ensure new developments do not add to the overall flood risks and that a package of support be established to help communities understand and fulfil their responsibilities.
- 3.5 Members were informed of the proposals to enhance the emergency response to incidents, in line with the Civil Contingencies Act. These proposals cover the provision of a 24 hour response capability, agreeing roles and responsibilities with the Council's partners, that the sandbag resource is sustainable, the development of a 'Flood Mitigation Resource Pod' and exploring more effective ways to deal with flood-related inquiries, in conjunction with the Council's partners.
- 3.6 The Commission was informed of the role of street cleansing and highways. It was noted that 8 proposals had been set out around gully cleansing, risk based service planning, mapping of water assets which are part of the highway drainage infrastructure, and the capacity of highways drainage.
- 3.7 Members were informed that proposals had been set out to ensure that the Council is able to discharge its responsibilities regarding lakes, reservoirs and dams. These include mapping of assets on to the GIS, that they are subject to a risk assessment, that maintenance projects and contingency plans are in place and how such water assets can be better used for leisure activities.
- 3.8 The Commission noted that it was intended that partner organisations consider issues of joint concern as well as the sharing of data and the agreement of maintenance routines.
- 3.9 Members noted that steps are being taken towards the development of flood alleviation in the Wyke Beck area, York Road, Gipton and Colton. It was explained that the Council is able to take action to reduce the number of abandoned shopping trolleys and that new retail premises are examined at the planning stage.
- 3.10 Members discussed the role of the Water Asset Management Working Group and how the Council's responsibilities could best be discharged. It was noted that the key proposal was to give Land Drainage the resources to keep watercourses (excluding privately owned watercourses) clear and well maintained. Officers

informed the Commission that the Land Drainage team would expand in order to give more emphasis on input into planning applications and inspection.

- 3.11 It was also noted that the Environment Agency will be taking over flood defence responsibility for Wyke Beck, which will be designated as 'main river'. It was explained that the Environment Agency have already begun modelling Wyke Beck, though it was stressed that it was not guaranteed that a scheme would go ahead. Officers explained that there would be an analysis around the likelihood and projected frequency of flooding of Wyke Beck against the cost of a project. Members discussed the competition between regional schemes and the city centre and that whilst the Environment Agency would consider the Wyke Beck scheme it would be within the context of an existing priority list. It was noted that it would not be appropriate to become too focused on flash flooding and that main river flooding was a serious matter.
- 3.12 Officers explained that the recent flooding events in Leeds were the result of extremely heavy rainfall and were subject to investigation by Yorkshire Water and Leeds City Council and a number of lessons were highlighted aimed at improvements in the resilience of the drainage infrastructure. It was noted that the responsibility for drainage falls to a number of organisations (the Council, Yorkshire Water, Environment Agency, private land owners etc.) which leads to some confusion, particularly if residents need to contact the relevant authority. Officers also explained that the Council departments each have riparian ownership responsibilities.
- 3.13 It was explained that before 1997 there existed, within the Council, a pool of specialist operators able to inspect and maintain watercourses. Currently, the Council does not have this specialist labour, which includes the ability to respond to a flooding emergency. It was explained that the recommendations being progressed by the Working Group were aimed at dealing with these issues. It was emphasised that actions were proposed to deal with flytipping, sandbag deployment and highways gully clearing.
- 3.14 The EASEL project was discussed in terms of how it might affect the likelihood of flooding once developments were in place. It was noted that there was an opportunity to build in flood prevention measures and effective drainage into the project, providing a cost effective vehicle for ensuring drainage capacity was adequate (for example, using balancing ponds and other measures).
- 3.15 Members questioned whether infiltration drainage should be relied on to disperse rainfall and that the saturation levels of the soil should act as a forecaster of flash flooding. Officers explained that most of Leeds is on impermeable clay soil, so infiltration techniques were often not viable and other sustainable drainage techniques needed to be employed, such as balancing ponds. It was acknowledged that soil saturation levels were not currently routinely monitored. Officers emphasised that the best proactive action would be to diligently maintain the drainage infrastructure.
- 3.16 The relationship with Planning was discussed and Members were informed that most major applications are sent to Land Drainage, however currently there is a lack of resource to scrutinise applications in detail; the volume of applications makes this impossible. It was also stated that planning permission was not required

for hard surfacing that was taking place which increased run off and decreased infiltration. Members noted that in this sense, the planning route could only provide control over certain areas.

- 3.17 The Commission discussed the issue of riparian responsibilities and whilst it was accepted that there are legal responsibilities for private riparian owners to maintain relevant sections of the watercourse, the Council has used its permissive powers to undertake cleaning work which would be beyond the resources of individual householders. It was emphasised, however, that the Council is not taking over any of the riparian responsibilities from private householders. Officers also emphasised that in some areas, residents have been proactive in cleaning watercourses.
- 3.18 Members were concerned about the issue of riparian responsibilities and how aware members of the public of these responsibilities were when buying houses next to watercourses and how individuals could be supported in discharging these responsibilities. Officers suggested that a publicity campaign should be launched to explain what the responsibilities of the riparian owner are, with advice in which agencies were available to support them. Members were informed that only Land Drainage hold information on culverted watercourses and one of the proposed actions is that a more comprehensive list should be developed.
- 3.19 Members discussed the impact that water butts might have on run off rates. It was noted that should whole estates routinely collect rain water this would have a cumulative impact. It was stated that Yorkshire Water in the past had a campaign to encourage their use.
- 3.20 Members were informed that the action plan being progressed by the Water Asset Management Working Group would need around £1m. Members felt that this would be good value for money if the various actions helped to prevent further flooding.

28th September 2005

- 3.21 Members received information from Yorkshire Water which emphasised the developments in joint working with other agencies, including the Council. A Yorkshire Water representative discussed with the Commission the need to clarify the various agencies' responsibilities with regard to flooding, and promote an understanding of each other's practices. It was argued that this would help agencies to work together for the benefit of customers, particularly during flood conditions. It was noted that joint working practices had been successfully established in Sheffield, following flooding there in 2004 between Yorkshire Water, Sheffield City Council and the Environment Agency, and has proved to help avoid confusions around roles and responsibilities. It was noted that meetings had been held with Sheffield streetforce area maintenance teams and drainage engineers.
- 3.22 The Commission learned that Yorkshire Water has the role of collecting, treating and distributing water in Yorkshire – 1.24 billion litres per day. Yorkshire Water also maintains 40,000 miles of water and sewerage pipes. It was noted that the organisation is continuously working to improve sewerage systems in general and Combined Sewer Overflows (CSOs) in particular.
- 3.23 It was acknowledged that there was a need for flood management systems to be clear to customers and for them to know who was taking the lead. Members also

noted the importance of sustainable urban drainage and the Government's Code of Practice.

- 3.24 Members requested information on the combined sewers and whether there were plans to replace them. It was noted that combined systems were used widely and that ongoing improvements were being made to them, including the installation of trash screens. Members were particularly concerned that sewage had found its way on to streets and into houses during flooding incidents and that this made an already serious situation into a hazard to health.
- 3.25 The Yorkshire Water representative explained that a programme of improvements was in place and that dedicated teams were in place to deal with immediate situations, whilst longer term work was done with capital partners. It was pointed out that there was often confusion over what assets belonged to Yorkshire Water.
- 3.26 It was noted that Yorkshire Water has a development team which responds to planning application consultation requests. However, it was explained that the organisation is not a statutory consultee and opinions offered are not always taken on board.
- 3.27 Members learned that Yorkshire Water operate an escalation process which reacts to the Met Office warnings. A standby team is available and sensors feed back to the escalation teams, giving sewer readings in real time. It was acknowledged that more could be done to establish closer working with other agencies, particularly with regards to the sharing of information.
- 3.28 Members discussed the ground conditions which are problematic during rainfall. It was noted that as well as saturation, dry ground allows water to run off without soaking in, similar to the effect of tarmac or concrete surfaces.

26th October 2005

- 3.29 The Board considered prevention in terms of the planning regulations and guidance in place to promote sustainable drainage and prevent flooding incidents. Members examined the national planning guidance, published by the Office of the Deputy Prime Minister (ODPM) entitled 'Planning Policy Guidance 25 – Development and Flood Risk'. Members noted that the guidance states:
- The susceptibility of land to flooding is a material planning consideration
 - The Environment Agency had the lead role in providing advice
 - Policies in development plans should outline the consideration to be given to flooding issues (including the impact of climate change)
 - Planning authorities should apply the precautionary principle to flood risk, avoiding risk where possible and managing it where avoidance is not possible
 - Planning authorities should recognise the importance of functional flood plains and inappropriate development should be avoided
 - Developers should fund the provision and maintenance of flood defences required because of the development
 - Planning policies and decisions should recognise that flood risk and management should be applied on a whole-catchment basis and not just on flood plains.

- 3.30 The Commission also looked at the Council's Sustainable Drainage Guidance which provides information for developers on the use of sustainable drainage techniques, particularly for run off from hard surfaces and buildings. Members noted that amongst the techniques described were the collection and re-use of run off water, use of permeable surfaces, filter strips and swales (vegetative landscape features), infiltration devices and detention techniques (such as balancing ponds). The guidance states that drainage concepts should be agreed at the earliest possible stage in the planning approval process and that all major developments must demonstrate that a viable drainage strategy is proposed.
- 3.31 Members noted that the document is freely available on the Council's internet site and developers are directed to it at an early stage. This helps to make the Council's requirements clear and avoid delays later in the process.
- 3.32 Officers explained to the Commission that PPG 25 leaves the onus on local councils to take flood risk into account through the planning process and that Leeds City Council is undertaking this actively. The Sustainable Drainage Guidance documents adds to PPG25. Officers explained that PPG25 concentrates on developments on the flood plain, whereas in Leeds the problems occur with upstream developments which can create flooding problems downstream; not dealt with in detail by PPG25. Members learned that the EA have issued flood risk maps, splitting the city into zones according to flood risk (e.g. zone 2 is vulnerable to flooding between once in a hundred and once in a thousand years and zone 3 is vulnerable to flooding once in a hundred years or more frequently and is therefore high risk). PPG25 sets out provisions to be made for each zones. Members noted that the Environment Agency has provided detailed guidance on planning and development within the zones.
- 3.33 It was noted that Planning Officers consult with the Environment Agency and Land Drainage and that the standard advice from the Environment Agency is taken into account at an early stage of vetting of applications. Members also noted the provision of Grampian planning conditions whereby a developer is required to carry out works before the main development is carried out. Members were concerned that this type of condition needs to be enforced and that Grampian conditions be used more rigorously in areas that may be vulnerable to flooding.
- 3.34 Officers explained that money has been collected (usually as Section 106 contributions) to contribute towards flood defence and drainage work. Members noted that planning applications have been refused on drainage grounds. It was also stated that a planning panel would reject planning applications if they are on a flood plain (as mapped out by the Environment Agency). However, it was also noted that in certain parts of the country flood plains are built on as a matter of course, currently and historically, including Leeds.
- 3.35 Members noted that guidance has been provided by the Association of British Insurers to insurers providing terms to households where there was a risk of flooding and that flood cover will be provided to all households provided that they are protected to the Government's minimum standard of one in 75 years risk of flooding (at normal terms). Officers explained that the Council had been involved in helping residents demonstrate to the insurers that the storms affecting Leeds in 2004 and 2005 were rare enough to merit normal insurance coverage. However, it was recognised that some residents were already subject to high premiums after

having been flooded. This was discussed in further detail at the February meeting of the Commission.

- 3.36 Members discussed the Sustainable Drainage Guidance and noted that the primary audience is developers and the planning authority, aiming to offer advice on sustainable drainage and the requirements for the applications. Officers explained that developers are sometimes in the habit of stating on applications that they intend to drain into the public sewer (whether one exists or not) and the Council is now asking for more detailed information on drainage issues from developers. It was noted that infiltration should not be relied on by developers and officers explained that to insist on infiltration methods where they are unlikely to work would be counter productive and cause further flows into the foul water system. It was explained that storage (tanks and ponds) methods are most appropriate for Leeds.
- 3.37 It was re-emphasised that joint working between all the relevant authorities had been lacking in the past, however, it was the intention of the Council to work on communication and information sharing along with its partners to ensure that issues of capacity etc. were dealt with holistically and not in isolation. It was noted that joint forums were being established to develop these joint arrangements.

2nd December 2005

- 3.38 Members received information from the Environment Agency and held a discussion with the Area Flood Risk Manager. Members understood that the Environment Agency is a Government body, set up to protect and improve the environment in England and Wales by looking after the air, land and water. With regard to flooding, the Environment Agency has the role of warning people about the risk of flooding, for example through producing flood risk maps, and the role of reducing the flood risk from rivers and the sea.
- 3.39 The Commission received a presentation from the Area Flood Risk Manager and noted the zones of flood risk in Leeds, with 1700 properties in the city within the river Aire catchment area being at risk of flooding. It was noted that 19km of 'critical ordinary watercourses' including parts of Meanwood Beck, Farnley Beck, Farnley Wood Beck, Millshaw Beck and Wyke Beck (which are currently within the Council's remit), will be designated 'main river' in April 2006 and will therefore fall under the remit of the Environment Agency. Members were pleased to note that regular checks and maintenance work will be done on these watercourses (e.g. checks once per week in high risk areas). The Commission supported the Environment Agency's move to endeavour to clear debris from these becks when the origin of the debris is unclear.
- 3.40 Members also noted the publication of new proposals in the new year for work on the River Aire to protect the city centre from flooding. It was understood that funding must be used in the areas where it will make the most difference. In acknowledging that responsibility for supermarket trolleys lies with the supermarkets themselves, it was noted that the Environment Agency was putting pressure on the supermarkets to introduce trolley management systems which prevent the trolleys leaving the supermarket site and ending up in watercourses. It was stated that the system at ASDA near Wyke Beck appears to be working.

- 3.41 Information was also provided around the West Yorkshire Flood Planning and Response Working Group Concept of Operations (CONOPS) v3.2. The Commission learned that CONOPS is a plan for co-ordinating an effective multi-agency response to all types of flooding. The aims of CONOPS are to preserve and protect lives, mitigate and minimise the impact of the incident, inform the public and maintain public confidence, assist an early return to normality, and respond to all types of flooding.
- 3.42 It was explained that once flooding has been predicted and an alert is put in place, there are a number of stages which are followed in the plan – initial response, consolidation phase, response, recovery phase, and restoration of normality. During each stage, the emergency services (police, fire and rescue service, and ambulance service), the Environment Agency, the local authority, and Yorkshire Water have specific actions they must complete. The actions centre around partnership working, keeping others informed, making resources available and tackling the actual flooding and the problems it causes.
- 3.43 The Senior Hydrographic Surveyor from British Waterways attended the meeting to explain the role of British Waterways. The Commission learned that British Waterways is a public corporation, responsible for maintaining more than 2000 miles of canals and rivers in England, Scotland and Wales. It was noted that in Leeds, British Waterways is responsible for maintaining the Leeds-Liverpool Canal and the River Aire in terms of navigation. British Waterways has riparian responsibilities as owners of property near the river.
- 3.44 The Commission noted that in a situation of flooding, British Waterways has a number of roles:
- Recovery of damaged craft and debris and casualties
 - Removal of materials and dangerous substances
 - Provide craft for early warning and evacuation
 - Provision of maintenance craft
- 3.45 Members also noted that the organisation passes water away from canals quickly and safely, for example through closing flood gates and opening sluices.
- 3.46 Members are aware that Defra are currently carrying out consultation on their proposals for developing a new Government strategy for flood and coastal erosion risk management in England, entitled ‘Making Space for Water’. The proposals aim to:
- “Address the challenges and pressures of climate change, development and rising levels of risk and cost;
 - Address the messages from the Foresight Future Flooding report , and reflect the lessons learned from the flood events in the recent past;
 - Build on existing work to incorporate the principles of sustainable development and to reflect the government’s other priorities; and
 - Take an integrated and holistic approach to looking at all flooding and coastal erosion risks.”
- (Making Space for Water: Developing a new Government strategy for flood and coastal erosion risk management in England: A Consultation Exercise. 2004)

- 3.47 It was noted that the main themes of the consultation paper are risk management, strengthening the sustainable approach, planning and building (including measures to reduce flood risk through land-use planning), awareness (including flood warning systems and emergency responses), coastal issues and funding issues. Members were particularly interested in the proposals to introduce multi-agency plans to deal with flooding, which are legally binding on all the agencies involved.
- 3.48 The Commission noted the other arrangements in place between agencies and were pleased to hear that British Waterways works closely with the Council and the Environment Agency and is satisfied with the assistance it receives.
- 3.49 Following the flooding incidents in east Leeds, Members learned of the partnership working between the Council, the Environment Agency and Yorkshire Water to introduce both short term and long term measures to reduce flood risk. It was acknowledged that some elements of the partnership approach were stronger than others, for example, the Council and the Environment Agency working closely together to successfully negotiate the transfer of 19km of Becks to the responsibility of the Environment Agency.
- 3.50 Members met with Mr George Mudie MP to discuss some of the issues that had arisen for residents as a result of the flooding incidents across the city. The discussion highlighted concerns over the co-ordination of agencies and the lessons learnt particularly during the first major flooding incident in 2004. It was noted that improvements had been identified around the provision of sandbags and the ability for calls to be taken from members of the public. Mr. Mudie, MP described the nature of responsibility and that even though the Council may not have responsibility over all aspects of the flood risk or response to flooding, it was important that the local authority was there for people in an emergency.
- 3.51 Whilst Members were concerned about the ability of the various relevant authorities to co-ordinate, it was noted that another Scrutiny Board had covered the aspects of the immediate response to emergency situations, such as flooding and that further discussions would take place in the commission regarding the improvements made in the protocol to be followed by all agencies.
- 3.52 It was noted that an issue around gully cleansing had been raised and was a concern to residents and that the number of machines available to the Authority had risen from four to six.
- 3.53 The representative from the Environment Agency explained to the Commission that there existed a plan to enable co-ordination between agencies, but that it was recognised that a trigger point for each agency needed to be identified. Whilst the plan had been tested, there needed to be a clear definition of when such a plan needed to be activated. It was explained that the plan had been developed and refined since the two flooding incidents.
- 3.54 Members noted that more work had also been done to establish more resources for Land Drainage and that the work of the Water Asset Management Working Group would be discussed in more detail by the Commission.

15th February 2006

- 3.55 The Commission received information on the progress being made by the Water Asset Management Working Group (WAMWG) and received details of the work programme. It was noted that there are a number of main issues being dealt with by the WAMWG including developing Council policy, the maintenance of Council owned watercourse, lakes and dams, the emergency response in flood situations, highways and street cleansing, partnership working, issues around specific locations and flytipping enforcement.
- 3.56 Members learnt that a detailed protocol (CONOPS) has been developed to co-ordinate the response of various agencies in an emergency. It was noted that trigger points for different agencies have been described to ensure timely responses. Members were informed that enhancements had been made to the Council's ability to respond, including additional resources to respond to flooding incidents, new stocks of sandbags and equipment, the ability to mobilise emergency planning staff rapidly rather than relying on departmental staff and a greater capacity for handling out of hours calls through the new corporate contact centre.
- 3.57 It was noted that a number of 'hotspots' had been identified needing enhanced gully cleaning and highways drainage maintenance work. Members were informed that data is being gathered on all highway culverts and the drainage infrastructure and that this work would be a long term project. Where culverts are susceptible to flooding, links are being made with work on the Highways Asset Management Plan.
- 3.58 The Commission received information on the partnership working currently being fostered with regard to water and drainage management. It was noted that the Director of Development, representatives from Land Drainage and Emergency Planning meet regularly with representatives from Yorkshire Water and the Environment Agency and that a technical forum for practitioners of the Council, Yorkshire Water and Environment Agency is being developed.
- 3.59 The Board received updates on work being done in specific locations and it was noted that as the Environment Agency will become the flood defence operating authority in April 2006, a modelling exercise is being undertaken for Wyke Beck and that the Council will be making the appropriate links with this work and the EASEL regeneration programme. The Board noted that a major scheme is being carried out by Yorkshire Water for the Wyke Beck area. An enhanced inspection regime is also being put in place by the Council, along with the installation of a trash screen.
- 3.60 It was noted that improvements in drainage had been made by Learning and Leisure department in Gipton and Colton and that a modelling exercise is being undertaken at Farnley Wood Beck.
- 3.61 Members received information on the mechanisms in place to deal with flytipping associated with disrupting the flow of water courses. Members were particularly interested in the role of the Council and the Environment Agency in dealing with abandoned supermarket trolleys. Members learned that in December 2005 Executive Board approved a report from City Services to adopt legal powers under the Environment Protection Act and Clean Neighbourhoods Act to place more responsibility for abandoned trolleys upon their owners. The proposal went before full Council in January 2006 and will be in force in April. The Enforcement section

has made clear that it will prosecute persons caught flytipping in watercourses, providing evidence is sufficient to secure conviction. ASDA at Killingbeck now has a secure trolley system (with electronic wheel locking) to prevent these being removed from the site.. WAMWG has been advised that the requirement for secure trolley systems now forms part of the planning process for new developments.

- 3.62 The Commission learned that supermarkets have employed a private company to collect abandoned trolleys around the city. Whilst this initiative was welcomed, Members wished to stress the importance of the Environment Agency using their powers to prosecute supermarkets where trolleys are abandoned in water courses.
- 3.63 Members learnt that the WAMWG have developed a draft policy statement defining the Council's responsibilities for maintaining water courses, assessing and mitigating related risks and responding to flooding incidents. This is due to be discussed by the Executive Board in May 2006.
- 3.64 Officers discussed the progress being made by WAMWG on the specific actions detailed on the work programme. Members also discussed the Emergency Planning response to the flooding incidents in 2004 and 2005. It was noted that officers felt that a number of lessons had been learnt from the first incident which enabled a better response to the second incident, co-ordinated by the Peace and Emergency Planning Unit. Members were informed that further work was being done to raise the profile of the unit's role and that a visible presence would be established when responding to incidents, such as a mobile incident room to provide an even quicker local response. It was also noted that the CONOPS plan was now established that triggers were in place for each relevant agency.
- 3.65 Members received information on the Government response to the consultation document 'Making Space for Water'. It was noted that PPS 25 will replace PPG 25 and that the Environment Agency will be a statutory consultee for planning applications. Members learnt that one of the recommendations proposed is that each local authority should develop its own strategic flood risk assessment to inform all planning documents and development control. It is envisaged that developers can then be asked to contribute to flood and drainage work.
- 3.66 It was noted that there is a proposal that some areas in Leeds could be considered for DEFRA pilot studies where there are challenging flooding issues with the aim of finding innovative solutions.
- 3.67 Members discussed information previously received on the Council's insurance position and the guidance published by the Association of British Insurers (ABI), including the statement of principles on provision of insurance cover in areas of flood risk. Members raised the issue of the difficulties some residents had in arranging insurance after being affected by flooding. A representative from the Association of British Insurers explained that the guidance indicated that insurance would be provided where there is a less than 1 in 75 year risk of flooding. Flooding more frequent than this would require information on how flood risk was being mitigated, but insurance would be provided. For areas of significant flood risk, where there are no flood defence works planned, insurance companies would work on a case by case basis and wherever possible cover would be given. It was noted that the ABI do not cover levels of premiums or excesses and that these are at the discretion of individual insurance companies.

- 3.68 Members noted that the Environment Agency use the benchmark of 1 in 50 years to undertake flood protection schemes and it was suggested that insurance companies should also use this frequency for providing cover. The representative from ABI pointed out that for insurance companies this was a commercial decision and that it certainly did not preclude insurance cover being provided for properties with a 1 in 50 year risk of flooding.
- 3.69 Members also received information from the Council's Insurance Manager. The report explained that insurers who cover UK households against the risk of flood have become more concerned in recent years following an increasing incidence of flooding, i.e. rivers overflowing their banks or ingress from the sea. Insurers consult a flood database before insuring any property which may be at risk of flooding. The Environment Agency Flood Map is accessible on the internet.
- 3.70 The Commission learned that in the last two years, less than £50,000 has been paid out for storm claims (including claims for damage caused by high winds) under the Council's property damage policy. The properties affected were mostly schools. The Council's property damage policy has a large policy excess, and so the claims were met from Council funds. Members noted that external insurance is arranged to deal with catastrophe risks only as it is not economical for large organisations to arrange external insurance for lower cost higher frequency losses.
- 3.71 Officers explained that the Council does not insure against the risk of flood. However, there have been no major incidents of flooding affecting Council buildings in recent years. Members noted that the River Aire does not flood over a wide area so it is unlikely that arranging flood insurance would be of any benefit. It is also possible that those Council properties most at risk of flood would be excluded by insurers from any such cover arranged.
- 3.72 With regard to properties belonging to Leeds householders and businesses, Members learned that following the flooding in East Leeds, some claims were made against Leeds City Council, alleging that the Council failed to clear debris from watercourses or maintain drainage systems satisfactorily. It is believed that similar claims have been made against Yorkshire Water. A total of twenty seven claims, relating to flooding of premises, have been made against the Council in the last two years and are being handled by the Council's insurers. Members noted that all claims are being defended and no compensation has been paid.
- 3.73 The discussion highlighted that issue of providing information to insurance companies on the works being undertaken locally to mitigate flood risk. Whilst it was acknowledged that individuals need to contact their own insurance companies to provide information, Members felt that a more co-ordinated approach to the dissemination of information from the Council to affected households would prove helpful. It was also noted that the Environment Agency already provides information on properties and that the Council's information could be co-ordinated through the Environment Agency.
- 3.74 The Commission discussed the usefulness of flood resilient construction methods which were easier to put right when a flood had occurred, eg water resistant fixtures and fittings, and lessened the effects of flooding in a home. Members supported the use of such construction methods, especially in areas where there was a risk of

flooding. In terms of resilient repairs, Members noted that the ABI will be producing a fact sheet promoting their use, though this would not be prescriptive.

27th March 2006

- 3.75 The Commission discussed progress made in dealing with flooding with the Executive Member with responsibility for development, and the Director of the Development department. During the discussion, Members considered the most recent edition of the Water Asset Management Working group's Action Plan. The Executive Member assured the Commission that flooding issues were taken very seriously by the Council and that the proposals of the Water Asset Management Working Group (WAMWG) were progressing well, with many tasks (such as the purchase and deployment of new rapid sandbagging machines and installation of trash screens) completed. Members noted that the Council has made a joint bid (with the Environment Agency and Yorkshire Water) to Defra for funding to for pilot projects in relation to specific issues.
- 3.76 Members learned that the WAMWG aims to present a draft policy and update on flooding to the Executive Board in May 2006. The purpose of this policy is to clarify and define the scope of the Council's roles and responsibilities in terms of statutory duties and permissive powers in relation to maintaining water resources, assessing and mitigating the risks arising, responding to related flooding incidents and supporting the communities affected by these.
- 3.77 Members learned that £1 million had been included in the Council's base budget for 2006/07 for dealing with issues related to flooding and flood prevention in the WAMWG action plan, with £700,000+ being allocated to the Development department and £200,000+ being allocated to the City Services department.
- 3.78 The Commission were pleased to hear that advertisements for extra Land Drainage staff were currently about to be advertised. Members also supported the Council's achievement of providing additional training for planning officers on sustainable drainage issues to help identify any issues when planning applications for new developments are made. The need for planning officers to highlight potential flooding issues relating to planning applications to Plans Panel members was highlighted.
- 3.79 Members discussed the planning policies around developments in areas of flood risk with the Executive Member and officers. The Commission learned that existing and developing planning policy has provision for grey water recycling and the promotion of water butts and that this policy should be especially applied to new developments as part of a package of measures. In considering potential development in the Aire Valley, Members noted that any development in the Aire Valley would have to address sustainable development policies and would be limited by the capacity of the motorway. It was noted that the overall aim was to create and preserve natural wetlands and protect the area which is part of a flood plain. The area action plan will set the framework (including timing issues) for development in the Aire Valley and members of the Commission support this approach.

- 3.80 Members also discussed the demolition of unfit housing, both in Leeds and nationally. It was acknowledged that the Council would prefer to refurbish suitable properties rather than demolish them.
- 3.81 The Commission talked through the issue of riparian ownership of watercourses with the Executive Member for Development. All agreed that the current situation of riparian ownership is not satisfactory in terms of alleviating flood risk, and that a more co-ordinated approach was required. It was suggested that national legislation was needed to deal with riparian ownership and that the Council would consider any proposals made in national legislation.
- 3.82 The second part of the meeting focused on the development of Planning Policy 25 and the Strategic Flood Risk Assessment. Members noted that Planning Policy Guidance 25 is due to be updated and replaced with Planning Policy Statement 25 (PPS25). Consultation on PPS 25 ended in December 2005. Members noted that Leeds City Council commented on the PPS25 consultation, supporting the themes of the new PPS25, but with some concerns about the implementation of the new policy, eg the vulnerability test and the exceptions test, and application of these tests. It was hoped that these matters would be clarified when the new PPS 25 was published.
- 3.83 The Commission noted that PPS 25 includes proposals for requiring Strategic Flood Risk Assessments (SFRAs). The SFRA is assessed as part of the development control process. The purpose of a Strategic Flood Risk assessment is to identify:
- The areas at risk of flooding
 - Variations in the actual flood risk in a given area
 - The effect of the increase in surface water run off for potential developments.
- The Strategic Flood Risk Assessment will provide the evidence base for local planning guidance, and will be supported by more detailed local flood risk assessments.
- 3.84 Members learned that a project group has been established to commission a study for the Strategic Flood Risk Assessment that Leeds City Council is required to do, and that work with other local authorities and the regional assembly will take place before the study is commissioned.
- 3.85 The Commission learned that the current local planning framework - the Unitary Development Plan (UDP) - will be superseded by the Local Development Framework (LDF). UDP policies can be 'saved' for three years once the LDF is implemented. The LDF will be outcome orientated and will consist of a core strategy and a portfolio of planning documents.
- 3.86 Members discussed the culvert which runs under Gildersome village centre and has been partially blocked by a gas main. Residents had raised concerns about the timescale for remedial works by Transco. Land Drainage officers explained that the issue is being dealt with by Highways services in the City Services department, as they own the culvert. Members were informed that Transco are currently assessing options to deal with the partial blockage caused by works. Residents were referred to the Highways Officer dealing with the case for a more detailed update.

3.87 The Commission also received a recent article from the Yorkshire Post newspaper which explained that residents in flood risk areas could sign up to a free service which would give them a warning if flooding was expected imminently in a main river in their area. Members were supportive of the service and urged residents to sign up to it. It was highlighted that many people may not know that they were in a flood risk area, and that the service should therefore be publicised further. Officers explained that the warning service was most suitable for areas close to large rivers, but that it was very difficult to provide warning for flooding of small rivers and becks. Normal water levels would need to be established and any warning time would be negligible. However, the warning could also trigger an Environment Agency officer to do a site visit and assess the problem.

4.0 Evidence from Residents

4.1 Throughout the inquiry, residents affected by flooding were invited to present their experiences and views to the Commission.

4.2 A number of accounts were submitted to Members explaining the events during the flooding incidents in August 2004 and May 2005. Members noted that there were a number of key issues raised:

- The devastating effect on households of serious flooding, including damage to homes, loss of personal items and the distress of finding alternative accommodation, often for long periods of time.
- The feelings of insecurity and that further flooding could happen whenever there is a heavy rainstorm.
- The difficulty in contacting the emergency services or knowing the right agency to contact for immediate help.
- The perception that new developments had put too much strain on the drainage infrastructure.
- The issue of insurance once an area has been labelled a flood risk.
- The perception that agencies did not immediately take responsibility for the matter and that there is confusion over where this responsibility lies.

4.3 Members were also given photographs of the flooding of a number of homes illustrating the extent of the damage and the depth of the water.

28th September 2005

Wortley

4.4 Some residents attended the Commission meetings and presented verbal information. Cllr David Blackburn and Mr Parker attended the meeting on 28th September 2005 and raised the issue of drainage problems associated with Wortley and flooding on the Kirkdale estate. The residents emphasised the need to explicitly take drainage capacity into account when new developments are being planned. It was noted that extreme weather events leave some areas vulnerable and that in the residents' opinion the smaller scale flooding was as important as the larger scale incidents. Members noted that there was some criticism regarding the use of historical statistics in determining how often a storm will cause such flooding, particularly as two major events had occurred in a short space of time. This could be due to the effects of climate change. It was also emphasised that the blocking of

gullies and the erosion of banking contributed to the extensive flooding in Wortley. Residents raised the issue of silted sewers needing cleaning out. It was acknowledged that Yorkshire Water had responsibility for public sewers and were therefore responsible for ensuring there were no blockages. Members learned that residents felt strongly that more action needed to be taken and that this should be a co-ordinated approach from the relevant agencies.

- 4.5 Members noted that in some specific instances research was needed to establish who had the responsibility for the land and therefore the gullies and watercourses. Officers explained that it is an offence to interfere with watercourses, however if such an action is unreported it would be difficult to enforce. Officers indicated that it would be possible to look into the specific issues raised by the Wortley residents to identify how the watercourse had been affected. Members acknowledged that in some circumstances the blocking of watercourses can be done through negligence or ignorance of its status. Members recommended that the inquiry should include further details of the relevant enforcement activity.
- 4.6 Update as of 26th October 2005: Mr Parker explained that since the previous meeting, work had been done to clear out blocked ditches by Corus Steel. It was hoped that this would resolve the flooding problems, though Mr Parker thought that some accidental damage might have been done to land drainage pipes. Mr Sellers agreed to follow this up.

Gledhow Valley Woods

- 4.7 Mr Calvert, Chair of Friends of Gledhow Valley Woods, and Mrs Thompson, who lives on Gledhow Valley Road, attended the meeting on 28th September to give evidence with regard to flooding in the Gledhow Valley Road area. The Commission learned that Gledhow Beck, which was usually no more than a few inches deep, was liable to torrential flooding and pollution from Combined Sewer Outfalls (CSOs) several times a year.
- 4.8 Mrs Thompson explained that she felt that matters had been made worse by upstream building expanding hard surfaces, works carried out to the channel upstream, rubbish dumped in it by others, and poor clearance by City Council operatives or contractors. Members also understood that foul water pollution from CSOs was especially problematic. A photograph of a grille covering one outfall showed it almost sheeted over with trapped solids. Residents questioned whether this was a suitable screen to have at this point as it appeared to block very easily.
- 4.9 Residents also raised the issue of the maintenance of the balancing pond, which had been cleaned out in 1991, but not since that date. It was noted that new developments had meant that more surface water drains were emptying into the pond. Mrs Thompson highlighted the fact that the culvert running from the balancing pond came up to her boundary and the private bridge was in need of repairing.
- 4.10 In considering the issues raised by Mr Calvert and Mrs Thompson Members noted that riparian owners had onerous duties which might be beyond their means and out of scale with the value of their properties, particularly as debris built up from upstream. It was highlighted that residents do not always know which authority to contact when there is a danger of flooding, or when the watercourse appears to be dangerously blocked. In particular, it was noted that during the flooding itself,

residents could not get in touch with the Council and that the Fire Brigade were unable to help. Residents were critical of the amount of help that the Council provided at the time. It was noted that some of the water assets around the Gledhow Valley area belonged to the Water Authority and it was agreed that separate discussions should take place with the representative from Yorkshire Water.

- 4.11 Members wished to highlight the potential problem of too much volume being put into the drainage system, which was exacerbated by new developments. It was emphasised that joined up working needed to be established to ensure existing drainage systems were not overloaded.
- 4.12 With regard to planning issues, there were few if any means of controlling ad hoc hard surfacing of gardens for car parking and residents felt that new housing developments were putting pressure on existing drainage systems.
- 4.13 The Commission also noted that residents were concerned about the provision of, and promotion of, out of hours assistance with regard to flooding to ensure residents are able to quickly report an incident. Members requested further information on this issue which is included in the Water Asset Management Working Group work programme.

26th October 2005

Gildersome

- 4.14 A report was submitted by Mr Willis on behalf of Gildersome Parish Council. This explained that flooding had been caused in the centre of Gildersome over recent years, even after relatively light rainfall, for example in Town Street,. This appears to be from lack of capacity in storm drains and road gulleys. Recent work by Land Drainage had shown defects and blockages in the highway gully system which had been dealt with as far as possible, though some rebuilding might be needed. Mr Willis also explained that on 3rd May 2005, heavy and persistent rain caused flooding on Town Street and other places (this was supported by photographic evidence). Water was seen to be coming out of drainage inspection chambers. Mr Willis explained that properties with cellars on Town Street, The Green and Finkle Lane have suffered from water backing up in stormwater drainage systems and from ingress from raised ground water levels on a persistent basis over many years causing damage and inconvenience.
- 4.15 Representatives from both LCC Main Drainage, Highways and Yorkshire Water have been involved in helping to ascertain the reason for the flooding and the liability for the remedial work and investigative work is currently in hand in parts of the village. Mr Willis explained that currently the Council has appointed the contractor Duffy to carry out investigation work. This found that a culvert in the town centre was 95% blocked over its full length with silt and had collapsed in places. It was vacuum cleaned and jetted but Mr Willis was concerned that the culvert had not been maintained (there were no operable inspection chambers) and the problems would reoccur. Mr Willis suggested that the lack of inspection chambers on the culvert needed to be addressed as the culvert changes direction and level at various parts throughout its path. As such future maintenance can only be carried out if additional inspection points are constructed at all reasonable changes in line or level. Additional inspection points should also be considered where the culvert passes close to and in

some instances under properties if these properties are to be protected from water backing up at times of surcharge and from having their own foundations undermined by stormwater scouring its own path.

- 4.16 Mr Willis also explained that a gas main had been discovered blocking the culvert at right angles under Town Street, which blocked approximately 75% of the culvert's capacity.
- 4.17 The Commission learned from officers that the Council installed three new manhole access points to assess the problem and discovered that a culvert had been partially blocked by a gas main. Transco have accepted responsibility for the blockage. It is estimated that the gas main will cost £250,000 to divert so it no longer blocks the culvert. In the meantime, two smaller pipes have been installed under the gas main to ensure some flow of water. Work done so far would be costed and charged to Transco.
- 4.18 The Commission noted that this part of the culvert is the responsibility of Highways services and they are working with the utilities company to ensure the gas main is diverted as soon as possible. Members also noted that the cost of the work undertaken by the council has been added up and will be recharged to the utilities company.
- 4.19 Members learned that until 1997, when the City Council maintained sewerage maps, they showed underground watercourses, which helped to avoid damage to culverts when utility works were carried out. Since Yorkshire Water took over responsibility for maintaining the maps of the sewerage system from the Council, the maps no longer show the culverts. When statutory undertakers consult the maps before they do works, they therefore do not learn where the culverts are. Members suggested that it would be helpful for Yorkshire Water to consult the Council's sewerage maps including culverts when being consulted by statutory undertakers planning works.
- 4.20 Even when culverted, becks remained in riparian ownership, with all the legal, practical and financial difficulties which this entailed when co-ordinated maintenance or re-building were needed, especially where ownership was fragmented. Members considered how the culvert under Gildersome could be maintained in the future and agreed that this would be a very difficult task and would have to be undertaken using the Council's permissive powers, only in a very serious flooding risk situation. The Commission noted that once the blockage to the culvert is removed, the flood risk level may reduce.
- 4.21 The Commission suggested that the Council could consider introducing a policy to pursue / prosecute statutory undertakers where they cause blockages and increase flooding risks.
- 4.22 Update as of March 2006: The Principal Engineer, Land Drainage explained that Transco have accepted responsibility for the blockage of the culvert. Highways services owns the culvert, and a Highways Officer is taking the lead in liaising with Transco to find a solution. A number of options have been suggested and are being investigated for feasibility and cost. It is hoped to have the remedial work in place as soon as possible.

New Lane, Drighlington

- 4.23 Members discussed the communication between Land Drainage and planners when considering new developments, as in a development at New Lane, Drighlington, the houses flooded within a few weeks of being occupied. No objection had been made to the planning application for the site on the grounds of flood risk. This showed the need to have capacity in the Development department to identify planning applications which might raise drainage concerns, to raise with Land Drainage officers for their views. In turn, Land Drainage needed to have enough staff to give advice on selected applications. It would be helpful if members of the public passed on local knowledge of flooding when planning applications were advertised, though Land Drainage would need enough capacity to follow this up.
- 4.24 These houses were in a hollow drained by a culvert under Whitehall Road, which passed on an embankment. Partial blockage of the culvert had meant that it had not coped with the extreme rainfall on 3rd May 2005. As a highway culvert, it was owned by the City Council which was responsible for clearance and maintenance. Members noted that the flood risk at New Lane would be reduced if desilting works were done downstream. Members understood that this was planned, but were concerned to learn of difficulties in arranging access to do the works with the landowner. The Commission acknowledged that the Council had powers to legally enter the property to carry out the maintenance works if necessary, but agreed that an amicable approach was best, as far as possible.

Whitebridge Avenue, Halton

- 4.25 Additional information was also submitted by a resident of Whitebridge Avenue. This explained that she was worried about her home flooding every time it rained. It also described how during the 12th August 2004 flooding incidents, the beck which runs through her back garden rose by approximately 10 feet in 50 minutes, and spread through the house and front and back gardens. The water level in the house was 3 feet and the resident had to move out of her home for 5 months. The house was stripped out and everything replaced. Photos submitted by the residents showed the effects on her house and garden.
- 4.26 The resident explained that three weeks after she had moved back in, there was another major flood on 3rd May 2005 which caused the same problems and she had to move out again. Residents were not clear on the measures which had been taken to address the flooding problems and the impact of the new development of 450 homes nearby.
- 4.27 The resident explained that there are still problems with the value of homes, selling the homes, obtaining flood insurance and concerns that floods could happen again. The lady who submitted the evidence felt that the enormity of the effects of flooding were not recognised sufficiently for the impact they had on peoples' lives.
- 4.28 Update on Wyke Beck as of March 2006: The EA will become the flood defence operating authority (i.e. having responsibility for enforcement) on most of Wyke Beck in April 2006 and has engaged consultants to model the whole catchment to help determine whether further flood defence measures are required. In the meantime, an enhanced inspection programme has been put in place, including logging of inspections, and photographic recording and rigorous enforcement. A draft interim

report has been produced, although the final work will take a further 3 months. In January 2006 Yorkshire Water's Board approved a major scheme to reduce sewage flood risk at Wykebeck Valley Road. This will involve 'mothballing' the existing tank adjacent to Wyke Beck and constructing a much larger storage tank at the junction of Foundry Lane and Oakwood Lane. Construction work is expected to commence in March 2006. Land Drainage has implemented an enhanced inspection regime along the Wyke Beck and has installed a trash screen upstream of York Road on behalf of Learning and Leisure. Learning and Leisure has installed cut-off drains to intercept surface run-off at King George V playing fields at Gipton and the Chantry in Colton.

2nd December 2005

Churwell

- 4.29 Mr Franklin and Mr Leach of Old Close, Churwell attended the meeting and provided information on the flooding in their area. Mr Franklin also provided a map showing the planning restrictions in place upstream of Old Close from 1974 in the Farnley Wood Beck catchment.
- 4.30 Mr Franklin explained that Farnley Wood Beck flooded and caused significant damage to properties in the Old Close area on 3rd May 2005 which caused great distress and inconvenience to residents.
- 4.31 Mr Franklin submitted a report which explained the historical planning restrictions in place around the Farnley Wood Beck catchment area. It also explained the residents' concerns about the new housing development and the removal of a blockage in a long-disused railway embankment which had previously caused the embankment to act as a dam. Mr Franklin was concerned about the apparent lack of communication with residents about the measures put in place to alleviate the flood risk following the removal of the blockage (which was found to be dangerous) and the development of the new housing estate.
- 4.32 Regarding the informal dam, officers explained that there were plans to replace this with a formal one, but that once a detailed analysis was done, the plans were abandoned in 1990. The analysis revealed that the dam would have to be too big to be practicable and would have adverse effects. Subsequently, some work was done to increase the capacity of the beck in 2004 after the flooding – desilting, wall reinforcement, and extension of the culvert under Elland Road to prevent flytipping into the beck. Residents pointed out that the informal balancing pond had been removed and that developers were required to replace this. However, it is understood that the replacement was only designed to serve the new development.
- 4.33 The Commission discussed the capacity of the culvert downstream under Elland Road and upstream under the railway embankment. Members learned that a one tenth scale model of the beck between Old Close and Elland Road will be built to see what the capacity of the beck is and model potential measures to address flood risk. Members were reassured that residents will be kept informed of the results of the modelling exercise. Further work is subject to the outcome of the modelling exercise.

- 4.34 It was also clarified that the new housing development close by had permanent balancing ponds and other measures in place to ensure that the rate of groundwater flow off the site was no worse than flow from a greenfield site.
- 4.35 Update as of March 2006: Work has been done to increase the capacity of the beck. The Council has received tenders for the building of a one-tenth scale physical model of the beck at Churwell Hill in order to assess the residual flood risk and model potential measures to address flood risk. Further discussion is taking place with the Environment Agency and Yorkshire Water regarding the strategic issues affecting drainage in the Farnley Wood Beck catchment. Residents will be kept informed of the results of the modelling exercise.