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Foreword by the Chair of the Panel, Councillor Nick Grant and County Councillor Richard Chattaway

The floods that occurred in Delamere Road, Croft Pool and Sharratt Road on 13 December 2008 devastated the homes and lives of many people. As a scrutiny panel our concerns were getting to the bottom of this issue – why did flooding occur in this area, what actions did the authorities take in response, and what can be done to prevent it from happening again in the future.

Through a site visit and a select committee meeting, we gathered a significant amount of evidence from both the authorities involved, and the local residents, to help us arrive at a series of conclusions and recommendations which we believe are necessary to resolving the issue.

Our main conclusion was that some level of failure can be attributed to local agencies in both preventing and/or responding to this incident. In a number of cases, communication mechanisms broke down resulting in an uncoordinated response and a delay in getting much needed help to those affected by the flood waters.

Our recommendations are both short and long term: in the short term we want to see properties protected from flooding; and in the long-term we want to see a scheme implemented which supports the changing climate and helps prevent flooding from devastating the area again. At the same time the agencies involved are being asked to review and revise the way they work together and communicate with residents in times of emergency.

A number of lessons have been learnt on all parts in how this flood was dealt with, and the panel hopes that through the implementation of its recommendations, significant improvements can be made and future flooding incidents avoided.

Although as a panel we do not have any powers to enforce the recommendations, we will continue to monitor progress being made and put pressure on where necessary to ensure the best outcome for the residents.

We would like to take this opportunity to thank all those who have contributed to this scrutiny exercise, particularly the residents of Delamere Road, Croft Pool and Sharratt Road who provided us with invaluable accounts of the events which occurred on 13 December 2008.

1.0 Executive Summary

- 1.1 On Saturday 13 December 2008 following a prolonged period of rain during the morning, a number of residents in the Delamere Road, Croft Pool and Sharratt Road area of Bedworth experienced flooding of their gardens which, then encroached into the ground floor of their properties.
- 1.2 Between 13.00 pm and 17.58 pm that afternoon, calls were made to the Nuneaton & Bedworth Borough Council's (NBBC) Emergency Out Of Hours Service (EOOHS), to Warwickshire County Council's (WCC) Out of Hours Service, to the Fire and Rescue Service and the Police. All those contacted subsequently had Officers in attendance at the incident.
- 1.3 However, as a result of representations made by effected residents who clearly indicated dissatisfaction and concern regarding the level of service they received it was agreed, that a joint review of the incident by the Environment Overview & Scrutiny Panel (OSP) and three Warwickshire County Council Members (Cllrs R N Chattaway, J Haynes and F McCarney) would take place on 19 February 2009 at the Civic Hall, Bedworth. This was a full day event which saw approximately 50 local residents involved.
- 1.4 Prior to the meeting and in order to aid Members understanding of the situation on the ground, a site visit took place to view the Delamere Road/Croft Pool ditch and associated watercourses and their relationship to the flooded properties.
- 1.5 Also to assist the Members with the more technical information presented, regarding the watercourses and environment data, the services of an independent hydrologist were commissioned (Professor Carolyn Roberts

of Gloucestershire University) who joined the Panel as an expert co-opted member.

- 1.6 The aims and objectives of the review were as follows:-
 - To increase the faith of the residents that remedies have been put in place to prevent a re-occurrence of flooding into properties.
 - To ascertain what caused the flooding of properties on Saturday 13 December 2008.
 - To discover how the various services responded to the incident.
 - To ascertain what is required to prevent a re-occurrence and Improve partnership working in emergency and similar situations in future.
- 1.7 In order to gather the necessary evidence the Environment OSP requested that the following witnesses attend the meeting on 19 February 2009:-
 - Nuneaton & Bedworth Borough Council
 - Warwickshire County Council Emergency Planning Unit & Highways Department
 - Fire & Rescue Service
 - Warwickshire Police Service
 - Jephson Housing Association
 - Social Services
 - Environment Agency
 - Resident Representatives
- 1.8 Most of the agencies involved provided both written and verbal reports to the Environment OSP and answered the Member's questions during the

course of the day. The evidence presented at the event and in the reports, highlighted several areas of concern for the Environment OSP. These concerns, emergency planning, communications and mitigation of flood risk have provided the basis for the recommendations made in the report.

- 1.9 The local authorities acknowledged that the seriousness of the flooding had not been communicated effectively which, resulted in the initial response falling below the expectations of the local residents and adequate support and assistance not being promptly in place. There was agreement however, that once fully aware of the facts staff and services were mobilised quickly and effectively to the area and had continued to support residents as necessary.
- 1.10 The cause of the flood according to the Environment Agency data was as a result of prolonged and persistent rain falling on saturated and frozen land causing increased water levels in the river and watercourses in the area which, then backed up the ditch that runs along the A444 at the back of Croft Pool and Delamere Road.
- 1.11 Two residents representatives also gave evidence to the Environment OSP and 13 public speakers addressed the meeting to give their versions of events, how it had affected them personally and their concerns and fears of future flooding in the area.
- 1.12 The Members were very appreciative of the involvement and comments made by the residents of the Delamere Road area as it had highlighted the reality and devastation that such events have on people's lives.
- 1.13 It also assisted the agencies involved, to understand and focus on the needs of communities in such circumstances and what was required of them to improve their services and support in the future.

1.14 The recommendations put forward as a result of the review would, the Environment OSP believe, go someway to addressing both the concerns of residents and in alleviating the risk of further flooding.

2.0 Recommendations

- 2.1 The recommendations made as a result of this review have highlighted three main areas of concern:
 - i) Emergency Procedures
 - ii) Communication
 - iii) Mitigation of Flood Risk

The recommendations below are therefore listed within these corresponding groups.

Emergency Procedures

- a. the County Council's Emergency Planning Unit, in partnership with all relevant County Council departments, including Highways and Social Care, and partner agencies, including the Borough Council, Housing Associations, the Environment Agency and Severn Trent Water Authority, reviews its emergency planning procedures in relation to flooding. This review should be completed within 3 months and should include:
 - (i) the provision of a process to identify a single location for the coordination and dissemination of all information when an emergency occurs. (5.1.4)
 - (ii) provision should also be made for post-emergency co-ordination of support to affected residents/businesses until the matter has been resolved. (5.1.4)
 - (iii) revised procedures should include a process for identifying vulnerable residents; (5.2.3)

- b. the Borough Council fundamentally reviews its emergency out of hours service, including the provision of information on areas at risk of flooding and adequate training for staff on how to respond to flooding emergencies; (5.1.4)
- c. the Borough and County Councils work together to revise the policy on the use of all forms of semi-permanent and transient flood protection measures to be used in emergency situations; (5.1.5)

Communications

- d. Warwickshire Fire and Rescue Service reviews within a three month period its policy on the communication of and subsequent charging of residents for the use of high volume pumping equipment in an emergency; (5.3.4)
- e. the Environment Agency, in partnership with both the Borough and County Councils, works with residents in flood risk areas to help them prepare for emergencies and protect their properties if flooding occurs in the future. Information should include contact details of all relevant agencies plus advice on flood protection measures, anyone living within a flood plain to be routinely given a pack; (5.2.4)
- f. the County Council's Emergency Planning maps and databases of all agencies be updated with the latest flood risk areas and a single aligned communication process be developed for when flooding incidents occur. Residents, including housing associations, and businesses to be informed and provided with all necessary information/protection advice accordingly; (5.2.4 & 5.6.3)

g. Warwickshire County Council's Adult, Health and Community Services reviews its emergency response procedure in light of this incident and informs all customers of the relevant emergency number; (5.5.2)

Mitigation of Flood Risk

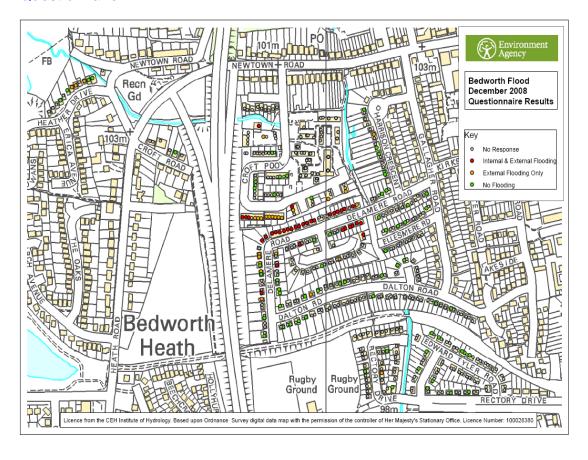
- h. the Strategic Director of Environment and Economy of Warwickshire County Council and the Environment Agency design a scheme to alleviate the risk of future flooding. A series of options should be presented, developed in consultation with local residents, each with a risk assessment and full cost-benefit analysis. Options should be presented to both the Borough Council and County Council's Cabinet within three months. Options should include consideration of sustainable drainage; (5.7.8)
- i. the Borough and County Councils work with the Environment Agency to explore options for short-term flood protection measures for properties at risk and consideration be given to the filling in as appropriate of the ditch alongside the A444 by Croft Road/Delamere Road, the provision of appropriate fencing to prevent access to the A444 and the building of a dwarf wall by the summer, 2009; (5.7.7)
- j. the Borough Council requests the Environment Agency to install at the earliest possible opportunity a gauge at an appropriate place on the River Sowe to enable better monitoring of water levels and that this area be then included within the Environment Agency flood warning system; (5.7.9)
- k. the Cabinets of both the Borough and County Councils give consideration to commissioning, in conjunction with the Environment Agency, an independent hydrologist's report on the sources of water, water courses, water tables, etc. within the area; and; (5.7.10)

I. the Environment Scrutiny Panel and the County's Community Protection Overview and Scrutiny Committee be asked to monitor progress against the recommendations, involving all residents accordingly.

3. 0 Background

- 3.1 In March 2007, following torrential rain, residents of Delamere Road, Bedworth, suffered a flood that originated from a blocked drainage ditch to the River Sowe. At that time, the residents received information from Environment Agency data, that flooding to this extent was likely once in approximately every 100 years. This prediction is currently at once in every 75 years.
- 3.2 On Saturday 13 December 2008 following a prolonged period of rain during the morning, a number of residents in the Delamere Road area of Bedworth experienced flooding of their gardens which, then encroached into the ground floor of their properties.

Plan below shows extent of Flooding identified by Environment Agency Questionnaire



- 3.3 Between 13.00 pm and 17.58 pm that afternoon, calls were made to the Nuneaton & Bedworth Borough Council's (NBBC) Emergency Out Of Hours Service (EOOHS), to Warwickshire County Council's (WCC) Out of Hours Service, to the Fire and Rescue Service and the Police. All those contacted subsequently had Officers in attendance at the incident.
- 3.4 However, as a result of the representations made by the affected residents who clearly indicated that they were dissatisfied with the level of service they received from a number of agencies, including the Borough Council, the Chief Executive of NBBC requested that a Joint Overview and Scrutiny Review be undertaken by the Environment Overview & Scrutiny Panel (OSP) together with several Members of Warwickshire County Council.

4. 0 Introduction

- 4.1 The initial meeting of the Environment OSP and the County Councillors nominated to the joint review (Cllrs R N Chattaway, J Haynes and F McCarney) took place on Monday 26 January 2009.
- 4.2 Where it was agreed that the review would be a full day event to take place on 19 February 2009 at the Civic Hall, Bedworth. The Civic Hall venue was chosen as it provided easier access for the local residents involved.
- 4.3 It was also agreed, to aid Members understanding of the situation on the ground, that a site visit would take place on the morning of the 19 February 2009 to view the Delamere Road/Croft Pool ditch and associated watercourses and their relationship to the flooded properties. (Photographs taken shortly after the flood were issued to accompany the visit Appendix A)
- 4.4 The review was scoped by the Members (Appendix B) and they agreed the aims and objectives of the review would be as follows:-
 - Aim is to increase the faith of the residents that remedies have been put in place to prevent a re-occurrence of flooding into properties.
 - To ascertain what caused the flooding of properties on Saturday 13 December 2008.
 - To discover how the various services responded to the incident.
 - To ascertain what is required to prevent a re-occurrence and improve partnership working in emergency and similar situations in future.

- 4.5 In order to achieve the aims and objectives set, the following issues would require investigation:-
 - Effectiveness of Emergency Planning Procedures
 - Role of the agencies and other services involved
 - Maintenance Cycles on waterways in area and work undertaken following the flooding of the area in 2007
 - Local Authority "Duty of Care"
 - Consideration of any long term effects for householders
- 4.6 The Members therefore requested that the following witnesses be requested to attend the meeting on 19 February to give evidence:-
 - Nuneaton & Bedworth Borough Council
 - Warwickshire County Council Emergency Planning Unit
 - Fire & Rescue Service
 - Warwickshire Police Service
 - Jephson Housing Association
 - Social Services
 - Severn Trent Water
 - Environment Agency
 - Resident Representatives
- 4.7 To make the information gathering more structured and to assist the witnesses in the type of information that the Environment OSP required a short list of initial questions was provided, to aid them in preparing briefing reports for submission prior to the meeting, as follows (this did not include the resident representatives who would present evidence they thought appropriate):-

- To provide a chronology/timeline of events between Saturday
 December 2008 pm and Monday 15 December 2008 am.
- Response of your organisation How, What, When?
- What resources did you deploy?
- What lessons have been learned?
- How will the risks be mitigated in future?
- Did all the services and partners work well together?

An additional question was asked of the Environment Agency

What maintenance has been undertaken in the last 3 years?

and of Severn Trent Water

- Are the drainage maps for this area adequate?
- 4.8 Following the meeting some further discussion took place and it was agreed that in order to assist the Environment OSP with the more technical information that may be presented regarding the watercourses and environment data, the services of an independent hydrologist should be sought. As a result Professor Carolyn Roberts of Gloucester University agreed to join the Panel as an expert co-opted member.
- 4.9 Prior to the commencement of the meeting however, Jephson Housing Association elected to present a verbal report based on the resident's views and concerns.
- 4.10 Severn Trent Water advised that it would not attend the meeting as it would not be able to add any evidence to the review. It had no responsibility on this occasion regarding the flooding incident and this had been acknowledged by the Environment Agency.

4.11 The meeting on 19 February 2009 was well attended with approximately 50 members of the public attending through the day, 9 of whom requested to speak to the meeting.

5.0 Evidence

5.1 Nuneaton & Bedworth Borough Council

- 5.1.1 The Environment Director of the Borough Council gave a report which covered a chronology of events in relation to the response from the EOOH service on 13 December 2008 and the subsequent response initiated by the Council in support of residents on 15 December 2008 to date. (Appendix C)
- 5.1.2 The Director acknowledged that the seriousness of the incident had not been fully appreciated initially by the EOOH, as the flood water rose very quickly. However, as soon as more calls started to come in the Duty Supervisor had attended site to evaluate the situation, the sandbags available were distributed and liaison was undertaken with the other emergency services and residents.
- 5.1.3 The EOOH is primarily an out of hours repairs service for council tenants.

 Broader issues such as flooding are covered by a number of statutory agencies including the County Council, Police, Fire & Rescue, Environment Agency and the Water Authority.
- 5.1.4 The Borough Council's initial response had been limited as the procedures had not been fully enacted. Lesson have been learned however, and as a result the Chief Executive is keen to receive the recommendations made by this OSP in order that they can feed into a review of the emergency procedures to ensure that improvements are made in relation to communications, liaison between agencies and emergency escalation to the relevant Council Officers. (Rec. 2.1 a i&ii 2.1b)
- 5.1.5 Some criticism has been received regarding the number and distribution of sandbags on this occasion. Not having a statutory duty to supply/distribute

sandbags, the Council only keeps a limited supply of filled sandbags and these were distributed within the area. However, given the swiftness of the flooding and the high levels of the water the sandbags did little to help the residents in Delamere Road. Therefore the feasibility, numbers and distribution of sandbags will have to be reviewed in more detail and consideration given to possible alternatives. (Rec. 2.1c)

5.1.6 On Monday 15 December 2008 when the Chief Executive and Corporate Directors were made aware of the severity of the flooding incident full assistance was provided to the residents including Environment Health Officers, Housing Officers, Social Services and so on to assist and support residents as much as possible.

5.2 Warwickshire County Council Emergency Planning Unit & County Highways

- 5.2.1 The Emergency Planning Manager provided a report on behalf of the Emergency Planning Unit and the County Highways Department both of whom had Officers in attendance on 13 December 2008. (Appendix D)
- 5.2.2 The Emergency Planning Manager and the NBBC Duty Supervisor were one and the same person on this occasion and it was explained that on 13 December 2008 no severe weather or flood warning was issued for the Nuneaton & Bedworth area although river watches were in place for areas in the south of the County.
- 5.2.3 On arriving at the site the Officer liaised with the Fire & Rescue Service to ascertain what the situation was at that time. He was advised that residents had arranged alternative accommodation, that there were no vulnerable residents and the Jephson Housing Association were already attending to their tenants in Croft Pool. The incident was not therefore an

emergency requiring the enactment of the emergency plan as the normal day to day services were able to cope with the situation. (Rec. 2.1a iii)

5.2.4 The incident had however hightlighted the need for greater clarity with regard to communications and the passing of information between Officers and services. As well as the service and information passed on to the public. (Rec. 2.1e & 2.1f)

5.3 Fire & Rescue Service

- 5.3.1 The Warwickshire Fire & Rescue Service provided a report giving an overview of the situation at Delamere Road, Bedworth on 13 December 2008 and gave details of the operational response given by the Fire Service. (Appendix E)
- 5.3.2 As part of its response Fire Officers carried out an inspection of the ditch and drains to ascertain whether there were any obvious obstructions or blockages preventing the water from getting away. None were found.
- 5.3.3 It had not been possible on this occasion to use the pumps to get water out of the properties. Initially because the water levels were rising quickly and there was nowhere to pump the excess water to and latterly because following peak levels the water rapidly drained away.
- 5.3.4 When asked about charges for the Fire Service attending a flood the Fire Officer explained that some residents may have been advised that if the water in their property was as a result of a domestic flood then they may be charged £200 for the Fire Service attending. This was standard procedure. On this occasion however, this was not a domestic flooding incident ie: not caused by an internal burst pipe or similar, therefore no one was charged a fee. (Rec. 2.1d)

- 5.3.5 Residents had raised concerns that the fire fighters in attendance were retained fire fighters and may not have had the training and experience of the full time officers. The Fire Officer explained that all retained fire fighters were fully and adequately trained and that of the 4 tenders in attendance in the area on 13 December 2008 only 1 had retained fire fighters on board.
- 5.3.6 There was also a suggestion that a Fire Engine had left the scene because it had run out of fuel. Again the Officer advised that the tender had left the scene as its work was done and it may be required elsewhere. Tenders can be refuelled on site if necessary they do not have to leave an incident.

5.4 Warwickshire Police Service

- 5.4.1 The Warwickshire Police provided a timeline of events for 13 December 2008. (Appendix F)
- 5.4.2 They provided the Environment OSP with information on how they would deal with traffic problems in this type of situation by using diversion signs to take traffic away from flooded areas.
- 5.4.3 The Officer also provided information on how flood warnings were issued to the Police from the Environment Agency and the procedures within the force that the determined the level of response accordingly.

5.5 Social Services

5.5.1 The Community Support Team from Warwickshire County Council Adult Health & Community Services provided details on how they assisted the vulnerable residents in the area and the provision, over the Christmas

period, of a community room with tea and coffee making facilities. (Appendix G)

- 5.5.2 The Community Support Team had worked closely with Officers from NBBC throughout the time on site and communications had been good. (Rec. 2.1g)
- 5.5.3 They did acknowledge however, that the out of hours services provided by the Community Support Team were not fully appreciated or known about by local residents the team therefore felt that additional work was necessary to communicate and promote its services more widely to the general public.

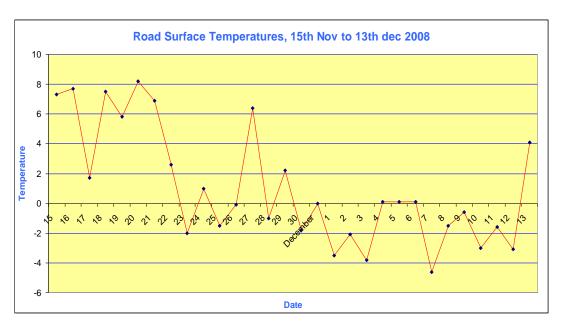
5.6 **Jephson Housing Association**

- 5.6.1 A representative of Jephson Housing Association advised the Environment OSP that they had received calls via its emergency out of hours service on 13 December 2008 with regard to flooding into the properties on Croft Pool. A Senior Officer attended and found flooding to several properties to a level of approximately 3-4 inches. The worst affected properties were Nos. 36 and 62.
- 5.6.2 The Officer could see that the emergency services were on site and that sandbags were being distributed around the area. All residents wished to remain in their properties and as flood damage was minimal it was decided that a decant to alternative accommodation was not required.
- 5.6.3 The representative confirmed to the panel that the Housing Association realised that it was in a flood plain area but that it did not pass on this information to residents as part of their welcome pack when signing for their tenancies. (Rec. 2.1f)

- 5.6.4 Jephson Housing Association do not store or provide sandbags for their residents use and on the day in question were disappointed that, although requested, its residents did not receive any of the sandbags being distributed by the Council.
- 5.6.5 Following the flood an inspection and review had been carried out and currently replacement patio doors and air vents were being fitted to reduce water ingress in the future.
- 5.6.6 A resident from Croft Pool provided the Panel with some information regarding the local watercourses and some possible solutions for preventing the flooding of properties in this area. For example, redesigning a wall to bring it up to the height of the embankment would allow water to flood further down stream. Professor Roberts was not convinced that this would be the most appropriate action as re-routing the water in this way could create further problems.

5.7 **Environment Agency**

- 5.7.1 The Environment Agency report provided information to the Environment OSP regarding the rainfall that occurred during 01.00hrs and 13.00hrs on 13 December 2008 and the condition of the catchment at that time. (Appendix H)
- 5.7.2 The report also stated that contributing factors to the flood event were the saturated and frozen nature of sub-soils. As a result of the autumn and winter weather being relatively wet with sub zero temperatures as indicated by the graph below.



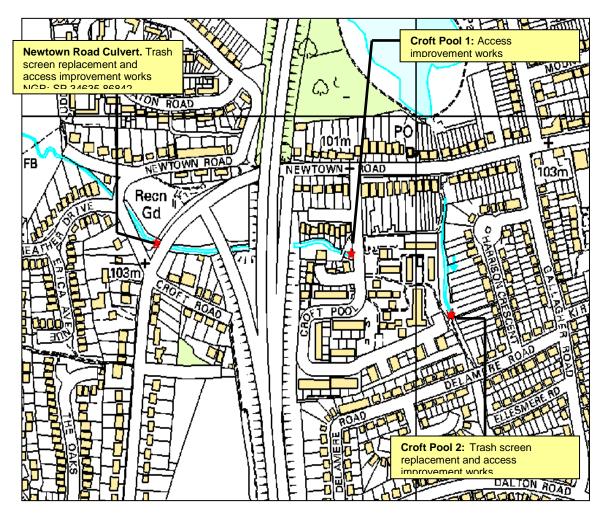
Indication of Night Temoperatures in Warwickshire in November and December 2008.

- 5.7.3 It also provided information relating to the various maintenance works that had been undertaken in the area which indicated that there was no significant impact at this time on the watercourses or ditch that could have affected the levels of water in the area and cause the flooding. Much of the work had not yet been carried out. There had been no blockages in the watercourses that could have resulted in the flooding either.
- 5.7.4 The Environment Agency has a programme of 5 yearly culvert inspections. In November 2008 this had commenced with pre-site surveys being carried out by their contractors. These included CCTV surveys and for the larger culverts full man entry teams were required. The large culverts in this area were due to be inspected on 18/19 December 2008. Following the flood these inspections were undertaken and no significant blockages were found.
- 5.7.5 The maintenance of the trash screens are programmed to be inspected and cleared on a monthly basis or after periods of heavy rain or high

water. The screens in this area were inspected and cleared on 22 occasions during 2008.

5.7.6 On 13 December 2008 the Environment Agency only received 2 or 3 calls regarding the flooding so were unaware of the severity of the flood at Delamere Road. The Officer present, had not been aware of the previous flood in 2007 either until the recent event and would endeavour to make further enquiries regarding the matter.

The Plan below shows the location of trash Screens



5.7.7 When considering the options for flood alleviation work the agency has to consider the impact on the environment and communities elsewhere to ensure that it does not create problems for another area. Schemes are carried out in order of priority.

- 5.7.8 The budget for 2009/10 had already been allocated so a scheme for this area would not be commenced until at least April 2010. It may however, be possible to carry out some temporary small works such as the erection of a small wall before the summer. The Environment Agency wished to work with residents to find a solution. (Rec. 2.1i)
- 5.7.9 The Environment Agency agreed that the development of areas can have an effect on the run off within catchments. Professor Roberts suggested to the Officer that consideration should be given to some sustainable drainage schemes providing opportunities for improved drainage in the area. It would be willing to work with the Local Authority to achieve this type of improvement. (Rec. 2.1h)
- 5.7.10The Environment Agency does not currently have any gauges in the area which could be used to monitor water levels. This may provide valuable local information and provide early warning to residents of increased water levels. (Rec. 2.1j)
- 5.7.11The Nuneaton and Bedworth area has many watercourses above and below ground, with rivers and flood plain throughout. There has been some speculation throughout the review as to how these have been affected, over many years, by development and the built environment. The Environment OSP therefore suggested that a thorough assessment of the area with this regard should be undertaken. (Rec. 2.1k)

5.8 Resident Representatives

- 5.8.1 The resident representatives were Mr Peter Roseblade and Mr Tom Gay both long term residents of Delamere Road, Bedworth.
- 5.8.2 Both representatives raised the issues of deep concern that the flooding had caused amongst the residents of the community and how it had taken

over their lives. Worry that it would happen again, questioning what had caused it and considering what schemes could be put in place to prevent it happening again. Some residents were still not back in their homes but living in temporary accommodation. The flood had occupied every waking hour.

- 5.8.3 They informed the Environment OSP of the events that occurred in March 2007 and in December 2008.
- 5.8.4 In 2007 the residents had been assured that the flood had been caused by fly tipping blocking the ditch and that once cleared this would prevent any further occurrence. Similarly the Environment Agency had said that the level of rain at that time was an unusual event that would occur maybe 1 in 100 yrs.
- 5.8.5. They expressed frustration at not being able to find out why the ditch along side the A444 was put there as it only runs a short distance at the back of Delamere Road and nowhere else. It had been referred to as a drainage ditch but it did not act as such, the representatives suggested that the ditch actually acted as an overflow ditch when the river is in flood.
- 5.8.6 Resident's believed it was this that caused the water to surge up the ditch on 13 December 2008 at faster than walking pace, overwhelming the culvert and flooding into the road from the back of no. 67 Delamere Road and into the houses within 30 minutes.
- 5.8.7 The residents commented on the poor response from the emergency services on both occasions, particularly with regard to the EOOH believing that the Officers had little knowledge of the emergency procedures.
- 5.8.8 They acknowledged that there had been much discussion regarding the distribution of sandbags in the area but in reality they did not believe that

this would have made a much difference in the circumstances given the speed and depth of the water.

5.8.9 When asked what they would like to see done the resident representatives stated that they would like to see the ditch filled in as it served no purpose. The ditch created a threat to local children also. A pipe could be laid, the ditch filled in and properly fenced to prevent people getting access to the A444 up the embankment.

5.9 **Public Consultation**

- 5.9.1 The residents had nominated two representatives who would be invited as witnesses to the meeting. These two representatives were kept fully informed throughout, received the reports in advance of the meeting for their information and consideration and assisted by allowing the Environment OSP members into their homes during the site visit to see the extent of the damage caused by the flood waters.
- 5.9.2 Residents of the area had been kept fully informed of the event through the resident representatives, press releases and also for those living in the Delamere Road, Croft Pool and Sharratt Road letters had been hand delivered advising them of the date and time of the meeting and how they could get involved and speak to the meeting if they so wished.
- 5.9.3 As a result 9 local people addressed the meeting outlining details of the incident, the concerns of residents that a similar incident should not occur again and what action they thought should be undertaken to prevent such an incident eg: the filling in of the ditch adjacent to Delamere Road.

6. 0 Conclusions

- 6.1 In conclusion the evidence provided by the agencies involved, provided some reassurance to the local residents that lessons had been learned and whilst no guarantees could be made that flooding would not occur again there were, never the less, remedies that could be implemented to mitigate the risk of future flooding.
- 6.2 The local authorities acknowledged that the seriousness of the flooding had not been communicated effectively which resulted in the initial response falling below the expectations of the local residents and adequate support and assistance not being promptly in place.
- 6.3 However, there was agreement that once NBBC were fully aware of the facts it mobilised staff and services quickly and effectively to the area and had continued to support residents as necessary.
- 6.4 Both NBBC and WCC had instigated reviews of their emergency procedures and new guidance for staff and improved communications between agencies would result from the reviews to ensure a more coordinated approach in future.
- 6.5 The data presented by the Environment Agency on rainfall in the area, suggested that the flood was caused by prolonged and persistent rain falling on saturated and frozen land causing increased water levels in the river and watercourses in the area which, then backed up the ditch that runs along the A444 at the back of Delamere Road.
- 6.6 Whilst the residents believed that the rainfall was not out of the ordinary on the 13 December 2008 there had been no evidence presented to suggest that there was another cause.

- 6.7 However, in order to clarify the situation and consider the effects of flood water in the wider area, it was felt prudent to have an independent hydrologist undertake a study of the watercourses and it was hoped that this identify any possible problems and would allay resident's fears further.
- 6.8 In the meantime assurances were given to the residents that further work would be undertaken by the Environment Agency to reduce the risk of flooding in the Delamere Road, Croft Pool and Sharratt Road area and that plans would be put forward for consideration in its 2010/11 budget round.
- 6.9 Finally, the Environment OSP appreciated the involvement and comments of the residents of Delamere Road area as it had shown the reality and devastation that such events have on people's lives.
- 6.10 It helped the agencies involved to focus on the needs of communities in such circumstances and how they could improve their services and support in the future.
- 6.11 Most importantly however, it provided an opportunity for those residents involved to have their say, be listened to, understood and be given an opportunity to be involved in the future solutions.
- 6.12 The recommendations put forward as a result of the review will go someway to addressing both the concerns of residents and in mitigating the risk of further flooding. To ensure that these recommendations are delivered the Environment OSP will monitor their implementation and success.

7.0 Appendices

Appendix A - Photographs post-flood

Appendix B - Scope Document of OSP (inc presentation slides)

Appendix C - Report of Environmental Services Director, NBBC

Appendix D - Report of Tim Bowtell, Manager Warwickshire EPU

Appendix E - Report of Warwickshire Fire & Rescue Service

Appendix F - Flood Water Incident Timeline 13/12/08 –

......Warwickshire Police

Appendix G – Briefing Note of the Adult Health & Community Services

Appendix H – Report of the Environment Agency

8.0 Background Papers

- 1. The Pitt Report www.archive.cabinetoffice.gov.uk
- Warwick District Council & Warwickshire County Council Joint
 Report Flooding Review in Warwick District Cabinet 8/1/09 –
 www. warwickshire.gov.uk