



## Loddon Catchment Natural Flood Risk Management workshop



Friday 16<sup>th</sup> September 2016 @ Reading University

### Introduction

The Loddon catchment covers an area of 680 km<sup>2</sup> across Hampshire, Berkshire and Surrey. Rivers within the catchment include the Loddon itself, the Lyde, Whitewater, Blackwater, Hart, Bow Brook, Emm Brook and Barkham Brook as well as many other smaller streams and tributaries. This is a low-land catchment with altitudinal range of the 100m at the Basingstoke source to 30m at the confluence with the Thames.

The topography of the catchment and disparate location of properties which are at risk of flooding mean that the area is not well placed for conventional flood defences in particular cost:benefit ratios tend to be unfavourable.

Over the last decade there has been a move, both nationally and locally, towards managing flooding through working with natural processes: Natural Flood Risk Management (NFRM), and for these natural processes to be deployed at many points throughout a catchment; catchment based NFRM. For example, seeking opportunities to slow the speed that rain water enters the rivers or providing additional storage to retain flood water on land. This approach offers the Loddon catchment with an opportunity to reduce flood risk whilst also seeking multiple benefits (environmental, biodiversity, water quality, etc.) from NFRM projects. This route can also provide an additional or other sources of funding.

One of the barriers to implementing a catchment based approach is engaging **all** 'stakeholders' to create an active partnership. This means involving everyone in the decision making process, particularly communities, not just taking action 'on their behalf' by the lead organisation(s). 'Stakeholders' includes (but is not limited to) those living and working at risk of flooding, fisheries groups, leisure groups, flood groups, communities, River Trusts and the flood authorities: councils, the Environment Agency, Water companies, research organisations etc.

The objective of the workshop held on the 16th September 2016 was to build an integrated platform for engaging **all** catchment stakeholders and establishing an active partnership with a schedule of activities thus re-framing community engagement.

### Objectives of the workshop

- To build the capacity of the Loddon Catchment Partnership to include:
  - People living and working at risk of flooding
  - Flood groups and other community groups
  - National Flood Forum
  - Environment Agency
  - The Loddon Catchment Partnership (hosted by the Hampshire and Isle of Wight Wildlife Trust & South East Rivers Trust)
  - Local landowners, farmers and that National Farmers Union
  - Research institutions: CEH Wallingford & Reading University
  - Councils within the catchment
  - Water and Sewerage Companies within the catchment.

- To create resident led sub groups for various sections of the catchment who can actively lead the identification and set up of projects.
- To introduce communities to the research institutes to facilitate the selection of project sites, aid project design and implementation and conduct project evaluation: pre and post monitoring. The aim of the evaluation is to generate quantifiable data to provide 'evidence' of the benefits of NFRM.

### **The formation of Loddon Valley Residents Association and the development of the workshop**

Like other areas in the country, the 2007 flood event had a substantial impact within the Loddon Catchment which 130+ properties suffering from internal flooding's. The area also suffered flooding in 2008 (rain fall event) and 2009 (snow melt water event). Following the 2009 event, residents in the Lower Loddon region, led by Phiala Mehring, formed a flood group: Loddon Valley Residents Association. The group now contains ~140 members from across the Wokingham area.

Over the intervening years LVRA has hosted many public meetings, aided in the successful application and implementation of household level protection grants for three areas within Wokingham, been involved with the development of local council policy (both at the borough and parish level), established smaller flood groups seeking to solve specific local problems and chaired quarterly partnership meetings with Wokingham Borough Council, the Environment Agency, Thames Water, the National Flood Forum, Loddon Fisheries & Conservation Consultative and other flood and residents groups including Swallowfield Flood Resilience Group, Emm Brook Residents Association and Joel Park Residents Association. LVRA has also been active in the creation of Loddon Basin Flood Action Group.

Being involved in the above range of activities has enabled LVRA to work with those living and working at risk of flooding, other stakeholders of the Loddon and with the flood authorities who are involved in 'managing' flood risk. LVRA has evolved into being perceived as an 'trusted broker' working between and amongst all these groups. It is this characterisation which facilitated the creation of this workshop.

The attendee list below has come out of the relationship that the Chair of LVRA has with the various groups involved with, or feeling the impact of, flood risk management. Many pre-workshop meetings, calls and discussions over cups of tea were needed to build the 'trust' necessary to set the stage of open participation. The workshop was held on 'neutral' ground at Reading University as opposed to being hosted at the offices of one of the flood authorities in the catchment. The latter may potentially have presented residents with concerns about knowledge hierarchies and ulterior motives for being asked whether they would like to be involved.

### **Participants**

The workshop consisted of 32 attendees:

No. of representative	Representing
9	Residents from the Loddon Catchment: from Swallowfield up to the confluence with the Thames: Swallowfield Flood Resilience Group (SFRG), Friends of the Emm Brook ( <a href="https://localgiving.org/charity/foteb/">https://localgiving.org/charity/foteb/</a> ), Emm Brook Residents Association ( <a href="http://emmbrook-residents.org/">http://emmbrook-residents.org/</a> ), Loddon Valley Residents Association ( <a href="http://www.loddonvalleyra.org.uk/">http://www.loddonvalleyra.org.uk/</a> ), Joel Park Residents Association ( <a href="https://www.facebook.com/joelparkresidentsassociation">https://www.facebook.com/joelparkresidentsassociation</a> ) & Wargrave
1	Swallowfield resident and representative Loddon Fisheries & Conservation Consultative ( <a href="http://www.lfcc.org.uk/">http://www.lfcc.org.uk/</a> ) - LFCC

6	Local authorities: Wokingham Borough Council, Hants County Council and Stroud District Council
5	Environment Agency: Loddon catchment, Evenlode & Ock catchment and Upper Thames, Windrush, Cherwell & Oxon Ray catchments
2	Hampshire and Isle of Wight Wildlife Trust - co-hosts of the Loddon Catchment Partnership ( <a href="http://www.loddoncatchment.org.uk/">http://www.loddoncatchment.org.uk/</a> )
1	South East Rivers Trust ( <a href="http://www.southeastriverstrust.org/">http://www.southeastriverstrust.org/</a> ) – SERT: co -hosts of the Loddon Catchment Partnership
5	Members of staff or researchers from Reading University ( <a href="https://www.reading.ac.uk/research/theme-environment.aspx">https://www.reading.ac.uk/research/theme-environment.aspx</a> )
2	Researchers from the Centre for Ecology and Hydrology ( <a href="https://www.ceh.ac.uk/wallingford">https://www.ceh.ac.uk/wallingford</a> )
1	Chief Executive of the National Flood Forum ( <a href="http://www.nationalfloodforum.org.uk/">http://www.nationalfloodforum.org.uk/</a> )

Figure 1: participants at the Workshop

### Structure of the workshop

Brief introduction and welcome to set organisation objectives and find out what others wanted to achieve from the day.

Participants were asked to bring their ‘flood’ photographs and any other flood information they had.

What was brought by participants:

- (1) Photos of various parts of the catchment flooded.
- (2) Records of flood events.
- (3) Homemade model of the Emm Brook catchment.



Figure 2: Three-dimensional model of the Emm Brook catchment made by a member of the ‘Friends of the Emm Brook’.

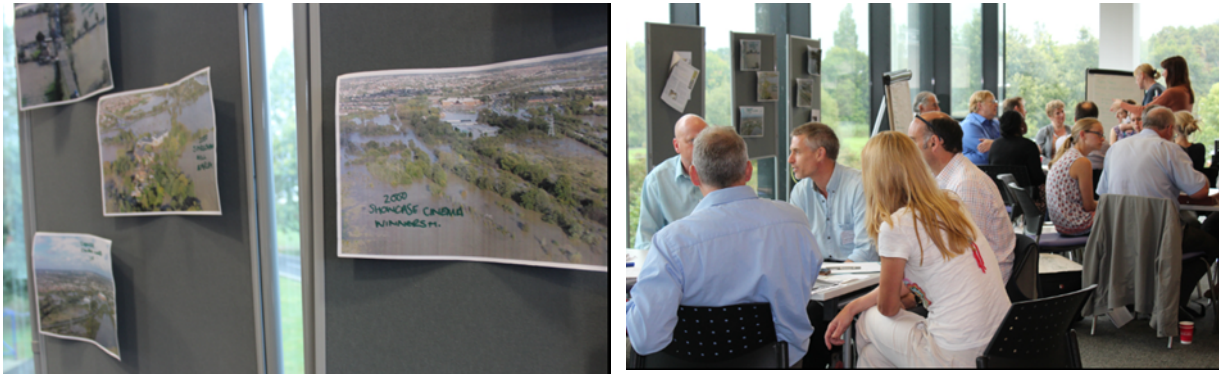


Figure 3: Flood pictures were gathered during the workshop. Figure 4: group work discussing 'how the Loddon floods'.

### Workshop format

- (1) **Arrival, coffee and networking:** all participants had badges giving their name, role (were relevant) and organisation or area they were representing.
- (2) **Introduction and welcome**
  - a. General overview of the catchment.
  - b. What do you want from this workshop?
- (3) **Group 1 exercise** – with facilitators
  - a. to gather flood stories and
  - b. to understand what people think should happen in the Loddon to manage flood risk.
- (4) **Whole workshop:** feedback from groups
- (5) **Interactive demonstrations and discussions**
  - a. EmRiver model – demonstrated by CEH Wallingford
  - b. The catchment and multiple benefits.
  - c. NFRM: Pictures of NFRM in action/the science of NFRM.
- (6) **Group 2 exercise** - Area groups to discuss how each area floods and opportunities for NFRM. Each group had a facilitator plus a 'floating' facilitator who moved around the groups helping to set up the next stage (river walks, events, meetings, etc.).
- (7) Whole workshop: feedback from groups.
- (8) Where too next, Workshop wide discussion.

### Room set up

The room was set up with 5 discussion areas each with its own flipchart, catchment map, paper, pens, etc. Around the room where area's where flood photographs could be displayed

The EmRiver model was situated in a lab near the workshop room along with monitoring and evaluation equipment.





Figure 5: group exercise 1, figure 6: CEH Wallingford demonstrating the EmRiver model, figure 7: group exercise 2 – actions which could be taken in the Lower Loddon, figure 8: group exercise 2 – marking up potential NFRM sites along the Barkham Brook.

### Facilitation Guidance

The facilitators were provided with a simple set of guidance to assist them with facilitating the groups – Appendix B.

### Output: *What do you want from the workshop?*

All comments were captured by one of the workshop facilitators on a large white board and as far as possible represent ‘verbatim’ comments from individuals and the group.

- Variability – how do we make sure that things aren’t missed
- Emm Brook – move from dredging and straightening to using more Natural Flood Risk management techniques.
- Manage water using all available land.
- No such thing as defence (need to look for improved resilience).
- Managing the combined effects of pluvial and fluvial – better understanding of the 2007 impacts.
- Slow the water down in some areas and speed it up in others.
- Clearing out upstream – should this be done.
- Environment Agency doing lots across the catchment. We need to work together.

One of the concerns in getting such a diverse range of people into the workshop was that the diversity could stoke controversy making the meeting contentious. At previous public meetings hosted by LVRA blame for flooding has been openly laid at the doors of various flood authorities. On one particular occasion a member of LVRA who had suffered internal flooding directly asked the Environment Agency to ‘*get your water out of my lounge*’. The aim of the workshop was to shift the balance of power in flood risk management and to make the process more participatory where all knowledge,

regardless of source, was equally valued and of equal importance, thus opening up the discussion about solutions to making the catchment more flood resilient.

This first question was designed to initiate this 'opening up' process by demonstrating that everyone's thoughts and ideas held equal weight and to get a measure of the dynamics within the room. It became very clear from the beginning that the atmosphere was exceedingly constructive, that residents had a fair understanding of the flooding problems in the catchment and of the problems with mitigating them and that there was a group desire to work together. Comments about this open structure from attendees included: *'I felt this (workshop structure) allowed people to be honest, engaged and contribute fully'*, *'(the) enthusiasm shone through'* to *'I believe that an integrated approach is (now) actually possible'*.

### **Group exercise 1 – Flood stories & understanding what people think should be done about flooding.**

Each group facilitator made notes of the discussions within their groups before reporting a summary back to the workshop. The notes from the group discussions below are as taken by the facilitators (no additional transcribing) and as far as possible represent 'verbatim' comments from individuals and the group.

#### **Group constitution #1**

Environment Agency – facilitator  
Environment Agency – Fisheries officer  
Friends of the Emm Brook member (Em Brook resident)  
Winnersh resident (who has flooded in 2007)  
Wokingham Borough Council Drainage Officer  
Stroud District Council SuD's officer

The Winnersh resident and the Wokingham Borough Council Drainage Officer brought photographs of flooding in the area; the resident of her property in the 2007 floods and Drainage officer with some aerial shots of some key flooding locations from around the Wokingham Borough area (Long-down Way, Showcase Cinema, Mill).

#### **Main points of discussion;**

- Interested in how natural flood risk management can be achieved alongside projects which work to improve the fish populations of the local rivers and streams.
- The Emm Brook Resident lives ¼ mile from the river. In 2007 lots of his neighbours experienced flooding. He loaned out waders to his neighbours during this period.
- The EA gauging station on the Emm brook no longer has a level gauge that passers-by can read. A return of this would be welcomed.
- Winnersh resident who badly flooded in 2007 was not so affected by the 13/14 events. She received property protection 'flood guards' after the 2007 event. She gets nervous every time it rains, her property is older and set lower than a lot of newer properties. She feels resentful of all the development (Winnersh – hatch farm) which is going on, and thinks it will increase her flood risk. This precipitated a discussion about how the age of a property affects its flood risk, and that every flood event is different.
- There was some discussion about the showcase cinema roundabout and surrounding area and whether anything could be done here. There is a rumour that the owners want to turn it into flats.
- Members of the group mentioned a study done on dredging which showed that it makes no difference.

- Humans and development have made a difference to the natural environment, and the flood risk in the local area.
- It was mentioned that there has been some work completed by the EA which would have helped the flood risk in the area. This work included clearing silt from the culvert under the A329M (helping flooding on Sylvester close) and the Molly Millers lane de-culverting in Wokingham was also done by the EA.
- Others thought that there was no longer annual maintenance carried out by the EA, and that this is now followed up through riparian responsibility. The EA observed that they will clear anything which poses a flood risk on sealed main river network.
- Discussion – The old Vernalis building was all chocked up, having an attenuation problem. This is up for sale, who owns it? Could this be a site for a project?
- Stroud SuD's officer - worked with lots of communities in Stroud and discussions are often around what small measures were done years ago, or what small piece of the jigsaw came together to create the particular flood problem. But sometimes there is just too much rain, and every event is different. With this in mind it is so difficult to design a solution which is going to work in all scenarios, therefore you have to work with a best effort. NFM solutions can help some people in some flood events by slowing the water, holding it up.

## **Group constitution #2**

SERT – Facilitator

Joel Park Residents Association representative

Reading University Researcher

Reading University PhD student

CEH Wallingford representative

Lower Earley resident and WBC councillor (nearly flooded in 2007 and has other 'close shaves')

Barkham Brook resident (who flooded in 2007)

## **Main points of discussion**

- Talked quite a lot about how 2007 was a 'one off' event. Like the floods at Boscastle etc. a combination of events acted synergistically to result in the floods – Long term preceding rain meant saturated soils; very heavy, intense rain on top of that, and high winds that 'backed up' the main Loddon left the water with no-where to go.
- CEH Wallingford and the Earley Residents pointed out that there was actually more rain in 2008, but the intensity and antecedent conditions were the breaking point in 2007. There needs to be a good understanding of the importance of antecedent conditions.
- Since the 2007 floods we have been lucky in the area with very few internal flooding incidents. Flooding mainly occurred in gardens and garages.
- However, the 2013 / 2014 event lead to many very near misses with water lapping at the doorstep – but not overtopping.
- General feeling that, because of topography, in-channel modifications are unlikely to do much to flood risk, especially in Barkham Brook area. There was a good grasp of the concept that works higher in the catchment are the most likely to be effective in addressing the problem. Once it gets to the river – it's too late.
- A strong feeling that there is a lack of communication about projects addressing floods and river management as a whole. A good example being the clearance of trees from the banks, but not the removal of the wood, resulting in logs being left both on the banks and in the channel, but no information as to whether that was to cut costs, or a deliberate component of the design.
- Concern that cuts to local budgets means ditches are cleaned out 'when necessary' and that can be too late.

### **Group constitution #3**

Environment Agency - facilitator  
Loddon Fisheries & Conservation Consultative  
Stroud SuDs Officer  
Barkham Brook Resident  
Wokingham Borough Council Drainage Officer  
CEH Wallingford

### ***Main points of discussion***

#### Swallowfield

- Swallowfield is a low lying area at the confluence of two large rivers.
- The flooding experienced in the Swallowfield area in 2007 was different to the flooding experienced in 2013/14.
- Swallowfield Park - concerned that flooding is impacting on the estate at present. Will any natural flood risk management proposals impact on the future economy of the estate if the area floods more frequently?

#### Woodley

- Rise in river levels of a foot in 1 hour.
- Trees cut down - reduction in fish population.
- Over the last 8 years flooding in the area has got worse.
- Floodplain has been built on/developed over the years. Is this increasing flooding?

### ***General discussion queries:***

- Are the downstream flooding impacts assessed relating to new development?
- How will it be possible to cope with the volumes of water experienced during flooding?
- Administration boundaries can negatively impact flood risk management - still think of River Thames catchment rather than the River Loddon catchment.
- Concerns raised about the significant development pressures in the Loddon catchment area and how these pressures will be met?
- Concerns raised about building in the floodplain - where will the water go? Will getting insurance be harder?

### **Group Constitution #4**

Wokingham Borough Council Flood Drainage Officer – facilitator  
Swallowfield Flood Resilience Group (flooded in 2007)  
Wokingham Borough Councillor and Lower Earley resident  
CEH Wallingford  
Hampshire Country Council  
Wargrave Resident (flooded 2007)

### ***Main points of discussion***

- This discussion centred around the Environment Agency's ability to approve and object developments based on their flood risk maps and the history of flooding in areas.
- There were points raised about how central government policy limits the EA's ability to reject a proposed development and one group member mentioned that if a development could increase flood risk, the developer will be required to put in mitigation measures such as SuDS in order to manage the flood risk.



- One member had brought photos of areas in Swallowfield that have flooded before and we talked about how the Swallowfield Flood Action Group had been set up to allow the residents to work with the Council and developers to ensure that the flood risk of new developments is dealt with sufficiently throughout the planning application process and construction phases.
- Many of the group already advocate natural flood risk management techniques.
- Other comments in this section centred on Wargrave and how one of the residents who attended allows his land to flood because it is unused land. He thinks that this helps to reduce the extent of flooding in the surrounding areas.

### **Group Exercise 1 – Workshop summary**

The groups all reported back to the workshop

- Each flood event is different causing different impacts and outcomes. Flood risk management in the area needs to work with this variability. This came from most of the groups and was expanded to include some discussion on the different sources of flooding: river, surface water and ground water.
- Concerns about development and how this can increase flood risk. Again this came from a number of groups. The conclusion was that the Environment Agency need 'to be tougher in stopping in appropriate build'.
- A need to understand how the age and location of a building and how this can affect its vulnerability.
- Managing flooding through natural techniques is a bit like a jigsaw puzzle where you need to have lots of pieces of the puzzle put together. But importantly you do need to get going with NFRM rather than wait around for the perfect project, modelling, etc.
- There was an understanding that flood attenuation is required: storage and projects which 'slow the flow' will help manage flooding in the Loddon catchment. And that this is required to enable the area to cope with the 'sheer volume' of water that comes through the catchment.
- There is a perception that flooding in the catchment is getting worse. This is backed up by some work done by students at Reading University that show increased flows over time at the Swallowfield River gauge.
- Concern was expressed that the state of the economy would mean that there wasn't funding for 'slow the flow' projects.
- There was an awareness of the balance between trees posing a flood risk in certain places and the need to retain the trees for reasons of biodiversity and the environment.
- There was also an awareness that antecedent conditions can aggravate flooding. For example, in the 2007 event the ground was very wet, whilst in 2008 some areas had more rain in a given day than 2007 but the ground was drier meaning it could retain more of the water.
- Poor communication between and amongst the flood authorities often leaves residents living at risk of flooding between 'a rock and a hard place' when it comes to understanding and managing their flood risk.

### **Analysis and interpretation**

The most frequently discussed during the first group exercise where:

- (1) Potential areas for NFRM and the types of NFRM
- (2) The impact of development on flood risk
- (3) Understanding the nature of flood events (including antecedent conditions), the trends and the scale.

From the first group exercise it became apparent that many participants, including residents, had some understanding of how natural flood risk management techniques could be used to improve the catchments resilience to flooding, for example an appreciation that additional flood storage or techniques designed to 'slow the flow' could increase flood resilience. In particular, there was an appreciation that using natural flood risk management techniques required a 'jigsaw' approach with many projects having to be deployed across the entire catchment and that this must not be stymied by long and detailed modelling and planning. Lack of funding was flagged up as a concern and potentially an inhibiting factor.

There was also a clear understanding that each flood event is different, for example, there was more rain in some places in 2008 than 2007, but the antecedent conditions in 2007 aggravated the intense rain fall to result in devastating flooding. There was also a perception that flooding in the catchment is getting worse.

The prospect of more development within the catchment and the impact this could have on flood risk was another major theme that came from the first group activity. A number of the groups expressed the concern that the Environment Agency does not have the powers it requires to prevent inappropriate builds.

Poor communication between the flood authorities and those living at risk of flooding was identified as another cause for concern along with reduced funding for both maintenance and 'slow the flow' projects.

Appendix C holds all the data analysis.

### **Group Exercise 2 – Emm Brook catchment group: opportunities for NFRM**

The notes from the group discussions below are as taken by the facilitators (no additional transcribing) and as far as possible represent 'verbatim' comments from individuals and the group.

#### **Group constitution #1**

Loddon Environment Agency Catchment coordinator – facilitator

Environment Agency Catchment coordinator: Upper Thames, Windrush, Cherwell & Oxon Ray

Joel Park Residents

Friends of the Emm Brook

#### ***Opportunities identified***

- Addressing flooding at the Mathews Green roundabout (dip in the road) and entrance to the school/ school fields on Joel Park estate. Floods from Emm brook and possible constriction as it goes under the road. Possible River walk location with the Joel Park and Emm brook resident's associations.
- North distributor road development/ Hatch farm – concerns relating to this and possible opportunities. This is privately owned land with horses on it. Suggestion that this could be compacted and therefore impacting on water infiltration into this field area. EA liaising with WBC in relation to this development and road, as permits will be required for work near a watercourse.
- Wellington College in the upper Emm Brook catchment – they have a series of lakes and drainage ponds. Is there an opportunity to enhance/ slow water in relation to these features?
- Red lake fishing lake to the East of the Emm Brook catchment – may present an opportunity for additional storage and slowing the flow. The landowners dug out some boggy areas to create lakes/ ponds.
- South Wokingham distributor road and development – group were not aware of this and no immediate local knowledge.

- Easthampstead park and golf centre – the golf club may have opportunities for water storage/ features.
- Blackberry Gardens – this is going to be transferred from the developer to Wokingham borough council as a publicly owned green space. FOE member has been monitoring wildlife here for a while, and it is a really good site for butterflies in particular. He has given talks on this in the past – is this an opportunity for a public engagement event/ site.

#### **Discussion about a River walk**

- Joel Park Residents Association is meeting on 12<sup>th</sup> October and can also put some information in the newsletter.
- A river walk day would be more welcome if it were a family event as many of the Joel Park residents have young families.
- Membership is low at the Friends of the Emm Brook, and there is a need to get younger members. They used to give a number of talks about the local area, so we discussed the possibility of starting these up again at a public river walk/ engagement event which was family oriented.
- To remain as the point of contact for the Emm Brook group.

#### **Group constitution #2**

Hampshire and Isle of Wight Wildlife Trust (Loddon Catchment Partnership) – facilitator

Hampshire and Isle of Wight Wildlife Trust - intern

Barkham Brook resident

Loddon Valley Residents Association member

#### ***Background to flooding, & Opportunities identified***

- The Barkham Brook resident and his neighbours are affected by flooding from the Barkham Brook; there are three houses which are close to the channel and have flooded periodically in the past. However, the properties are isolated and so are unlikely to benefit from capital defences (direct protection is unlikely due to Cost-benefit, and defences located elsewhere to protect other settlements will likely have no impact due to distance)
- The flooding appears to be primarily fluvial, (although groundwater levels will also play a role).
- Within the Barkham Brook catchment there are numerous small channels which provide the scope for NFRM techniques to be utilised.
- Land management options could also be considered, e.g. practices or features that aid infiltration.

A river walk will be planned to identify & discuss opportunities to alleviate flood risk. Key points:

- The Barkham Brook residents thinks his neighbours will be interested, however various house sales are underway currently; a visit will therefore be arranged for a date over the winter.
- Land to be walked includes the **Barkham Brook** (the residents own land, and that of Henry Lee at Newlands Farm. The resident should be able to put us in touch with Henry), and also the **tributaries in The Coombes** (this site is publicly accessible via footpaths although ownership is unknown and will need to be investigated).
- Items that could be of use locally, and should be discussed on the walk include:
  - Woody Debris in the channel at the Coombes
  - Floodplain – leaky dams’ in the Coombes, similar to those used in Pickering.

- Farm options including hedgerow planting to aid infiltration, field corner bunds, and the use of cross drains to direct flow away from tracks & gates.
- Subsequent discussion with EA Fisheries Officer has suggested that a structure below a bridge in the Barkham area could be both an obstruction to fish passage and an impoundment which may increase flood risk upstream. The purpose of the structure is unknown and it may be obsolete. The EA Fisheries Officer indicated that would like to join the river walk to look at options for removing or modifying the structure.

### **Swallowfield Group**

#### **Group constitution #3**

Environment Agency – facilitator  
 Loddon Fisheries & Conservation Consultative  
 Farley Farms Manager  
 Stroud SuD's officer  
 Swallowfield Flood Resilience Group Chair  
 Environment Agency Fisheries Officer

#### ***Opportunities identified***

- Shinfield Quarry proposals – reinstate quarry to increase flood storage.
- Reinstall a historic canal in Swallowfield Park to increase flood storage.
- Increase floodplain storage in the natural floodplain adjacent to Swallowfield along the River Blackwater.
- Attenuate A33 bypass run-off before it discharges into a ditch towards Riseley and in to the river - improve ditch network in this area. Run-off from Riseley to the River Loddon.

### **Lower Loddon Group**

#### **Constitution**

Wokingham Borough Council Flood Risk Manager – facilitator  
 Winnersh resident  
 Wokingham Borough Councillor and Lower Earley resident  
 Wargrave resident  
 Environment Agency Evenlode and Ock Catchment Coordinator  
 Reading University Researcher  
 Reading University PhD student

#### ***Projects included:***

- Allowing the old Winnersh Park and Ride to flood. Questions were raised about how this could help though, given that this floods anyway.
- Using a golf course in the Basingstoke area as land that can be purposely flooded during a storm – this is being progressed by Hampshire County Council.
- Allowing the field behind houses along Station Road Wargrave to flood and contain the water using a bund to prevent properties from flooding. There is potential for this although there would have to be agreement from the land owner who may not want a bund running through their land.

### **Group Exercise 2 – Workshop summary**

#### ***Loddon group***

- Retro-fitting SuD's, in particular in the Winnersh area.
- Wokingham Borough Council parkland could be used for additional flood storage.
- Need to engage farmers.

- Using reed beds will improve water quality and storage.
- Additional flood storage on Reading University land.

#### ***Emm Brook group***

- There is a flooding problem (road is often closed) by a bridge near to Joel Park.
- Need to understand the area better – arrange river and area walks. Note: The National Flood Forum recommend that some river walks are done in the rain as this enables you to ‘see’ how the water is moving. CEH Wallingford reminded the groups to invite them on the walks.
- The catchment isn’t flat and there are opportunities to work with wetlands to increase flood storage upstream.
- Need to think more about techniques which could be used in non-urban areas.

#### ***Swallowfield group***

- Need to attenuate road run-off.
- Need to re-instate some of the historic water features
- Use local quarries to increase flood storage.
- River walk is required to bring everyone together and discuss options, opportunities and project.
- Some of ‘today’s’ problems have arisen because of historic dredging. There are opportunities to remove bunds made from dredging spoil. The river is also perched in many places which aggravates flood risk.
- There are opportunities for planting trees, but need to understand whether these areas would generate a positive flooding benefit (the right tree in the right place).
- Landowners need to be involved in the discussions.

#### ***Barkham Brook group***

- River flooding is the main problem.
- There are lots of tributaries and channels in the area so a river walk is required to understand the ‘connectivity’ in the area. In particular looking at the Coombes area to see if there are opportunities there to store water and slow the flow.
- Look at options that reduce run-off from the land.

#### **Analysis and interpretation**

The second group exercise focused on what potential natural flood risk management techniques could be used in set areas within the catchment: Lower Loddon, Barkham Brook, Emm Brook and around Swallowfield. 31% of the comments made focussed on the need to find places where flood water could be stored. This was often accompanied with ideas of where this could potentially happen.

All four groups identified a number of areas which could readily provide additional flood storage. There was also discussion about improving infiltration, the use of leaky dams, tree planting, ditch clearance, reducing run-off, the use of schemes upstream to reduce flow, SuD’s, engaging farmers and land owners and the multiple benefits that many natural flood risk management techniques provide.

All four groups concluded that river walks would be required to fully understand what natural flood risk management techniques could be deployed and that these events could provide a means of further community engagement. CEH Wallingford and Reading University explained the importance of evaluating the techniques used and that this would require the capture of data about the current



situation (flows, peaks, volumes, etc) and well as monitoring of flooding post implementation to see how the schemes have changed flows.

### **Workshop Group Summary**

- There are so many things we can do to reduce flood risk. There was an understanding that you can't stop flooding.
- We need to seek out some quick wins first.
- Need to plan river walks to understand each area better, for example, where does the water comes from, where can it be stored, where can the flow be slowed, etc.
- Swallowfield Parish Council have employed a hydrologist to do a desktop hydrological study. This is an excellent opportunity, in particular to understand the interdependencies between projects.
- Emm Brook family day/picnic designed to engage and inform residents. Friends of the Emm Brook can showcase stories.
- The problems with engaging residents is that (thankfully) we haven't had a major flood event locally since 2007 and flooding suffers from 'out of sight and out of mind'. As Stroud has demonstrated you can't implement natural flood risk management techniques if people don't want them. But you can be very successful if they do!
- Natural flood risk management doesn't have to cost a lot but it does need to be evaluated. Hence the involvement of CEH Wallingford and Reading University. They urged the group to get them involved as soon as possible in monitoring.
- The group felt that the real benefit of the workshop was all the ideas that had come out of it.

There was an understanding that fast response resilience measures are needed in order to cope with the unexpected 'freak' events that don't show up in the models and flood risk maps. But also that that type of resilience should be a 'last resort' i.e. the best way forward is to slow the speed that waters gets into the river and slow its conveyance through the river.

Participants at the workshop demonstrated a good understanding about the principle of slowing the flow down. And appreciated that natural flood risk management was about slowing conveyance down rather than speeding it up with techniques like dredging. This was linked to the idea that catchment scale measures, particularly in the upper catchment, help to smooth out the peak flows.

The workshop was cautioned by the researchers present that there was a lack of a strong evidence base which clearly demonstrated the natural flood risk management did reduce flood risk (but that this didn't mean it didn't). There is a good opportunity within the Loddon catchment to gather quantifiable data to evaluate how effective these techniques are. This does mean that projects that we want to capture evaluation data for may need to be postponed until the monitoring is in place and providing baseline data.

CEH Wallingford requested that groups invite them to the river walks and Paul Cobbing of the National Flood Forum recommended selecting rainy days where possible and this gave you a much clear picture of water movement.

### **What next?**

#### **Location focussed Groups – commitments:**

##### **Barkham Brook:**

Barkham Brook resident is to engage with his neighbours and lead on arranging a river walk. He will also talk to local landowners seeking permission to walk through their land but also trying to engage

them with the process. Group facilitator to call w/b 17/10/16 for river walk date and talk to CEH Wallingford about getting a member of the CEH team to attend the walk.

#### **Swallowfield group:**

LFCC to led on arranging a river work and this featured on the LFCC 13<sup>th</sup> October meeting, where it was agreed that LVRA, LFCC and Farley Farms would liaise with local land owners and the Swallowfield Flood Resilience Group to set up a river walk and subsequent action meeting. This can then dovetail with the forthcoming hydrologists report.

#### **Loddon group**

Facilitator to contact the group in early November and set up a river walk. This time gap will enable residents to go back to neighbours and drum up further support for the project. Workshop organiser to follow-up with Loddon residents.

#### **Emm Brook group**

Joel Park Residents Association member to bring the river walk to the associations next meeting on 12<sup>th</sup> October. Group facilitator has already engaged in an email conversation with the Association and to talk through the Woosehill project and develop a project brief which includes community engagement. Date for family activity to be set but this will include items like electro-fishing, river walk, local river history and other family activities.

#### **Conclusions**

This workshop represents a step forward in the engagement between community, flood researchers and flood authorities. Framing the workshop in a 'level playing field' where everyone's knowledge was treated as being equally important and valid (as it actually is) enabled not just constructive conversations to develop but also a feeling of being a 'team' determined to improve flood resilience within the Loddon catchment. This is in stark contrast to the 'them and us' scenario previously encountered in community engagement activities by both residents and flood authorities.

However, this 'team' feeling could easily be transient if concrete actions don't start to materialise. In that regard it would have been more 'sustainable' if not only river walks were set at the workshop but also local meetings to establish larger local groups with clear objectives and action plans. However, this has to be balanced against the time commitments that this requires from those involved and the understanding that building strong relationships and partnerships takes time.

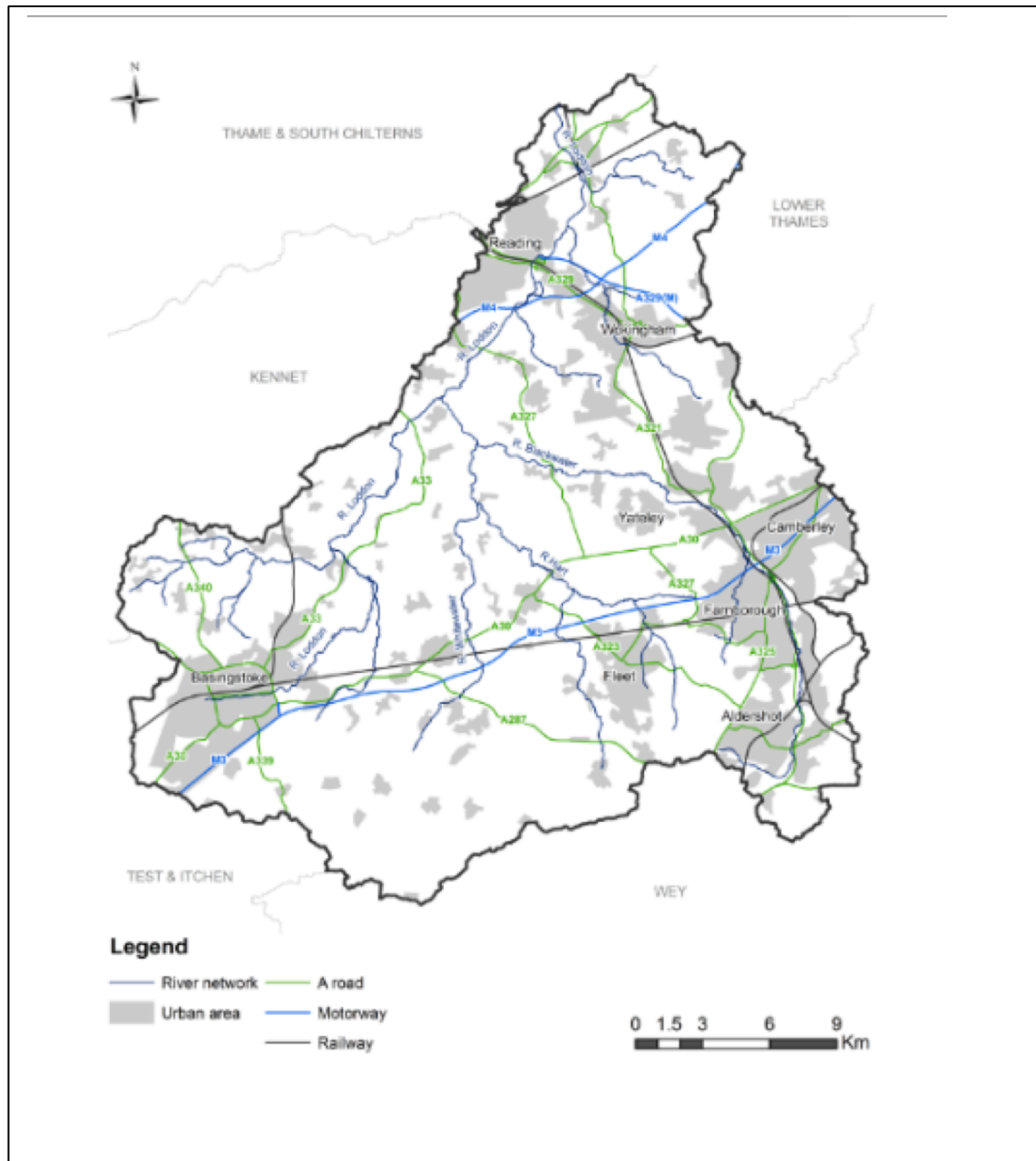
Our recommendation would be to set a date and location for subsequent meetings within each area to be fixed at the workshop and potentially for this to be the first action following the workshop rather than focusing solely on river walks.

#### ***Next steps:***

- (1) For the Catchment Partnership to work with each of the four local groups to set up river walks.
- (2) To use the river walks to establish a sub-catchment local group and set in motion the development of long partnership designed to identify potential project sites, develop proposals and manage/implement projects.
- (3) For the 'flood researchers' and 'flood authorities' to work with the local groups in the identification of potential sites and the development of proposals along with ensuring that suitable evaluation and monitoring occurs for each area.
- (4) Tackling the thorny issue of funding – this will require local groups and the catchment partnership as a whole learning together how and where funding can be obtained.



**Loddon Catchment Map reproduced courtesy of the Hampshire & Isle of Wight Wildlife Trust**



## Appendix B

### Facilitators guidance notes

The most important stage in getting a group to work is to 'form' the group i.e. make everyone feel included. For the first groups I would suggest forming the group by introducing yourself and explaining why you have come to the workshop:

*'My name is Phiala and I chair LVRA. The reason that I came to the workshop today is because I believe that by working together to use natural flood risk management techniques we can help manage flooding in the Loddon catchment'.*

Get everyone to do likewise

The objective of this first stage of the workshop is to:

- (a) gather flood stories and
- (b) understand what people think should happen in the Loddon to manage flood risk?

The most important thing to manage is that everyone contributes: scientists, flood authorities and residents. Everyone's thoughts/opinions/ideas are very important.

Use the flip chart to log everything down, this does a couple of things:

- (1) Shows people that what they say is important.
- (2) Helps other group members to elaborate on earlier points.
- (3) By standing up next to the flip chart this sets you slightly aside from the group i.e. shows it is their ideas which are important.
- (4) Allows people to spot mistakes or note when you have simply misunderstood them.
- (5) Creates a record of the session.

For the second set of groups the most important objective is to create an enthusiastic group who generate ideas and momentum to take outside of the workshop.

#### **Qualitative tips:**

- (1) Try to keep questions open, that is avoid questions that could elicit a bland 'yes' or 'no'. For example, avoid 'is flooding getting changing?' rather use the question 'how is flooding changing'.
- (2) Avoid leading questions: 'what NFRM techniques would you use'. Better to ask 'how do you expect to see flooding managed?' or 'what experience do you have of flooding increasing?'.
- (3) Probe answers with questions like 'what is it that makes you think flood risk is increasing'.
- (4) If possible, try avoid asking 'why', for example 'why do you think flood risk is increasing' as it can be viewed as being a little confrontational!
- (5) Use body language to help you manage the group. For example, face people directly when asking a question, twist slightly away from people dominating the group (without turning your back on them).
- (6) And the obvious, avoid technical language. Frankly this is the hardest thing to do!

Classic market research questions designed to probe answers are:

What makes you say that?

What is it that makes you prefer.....?

How do you..... ?