

ELMER SANDS

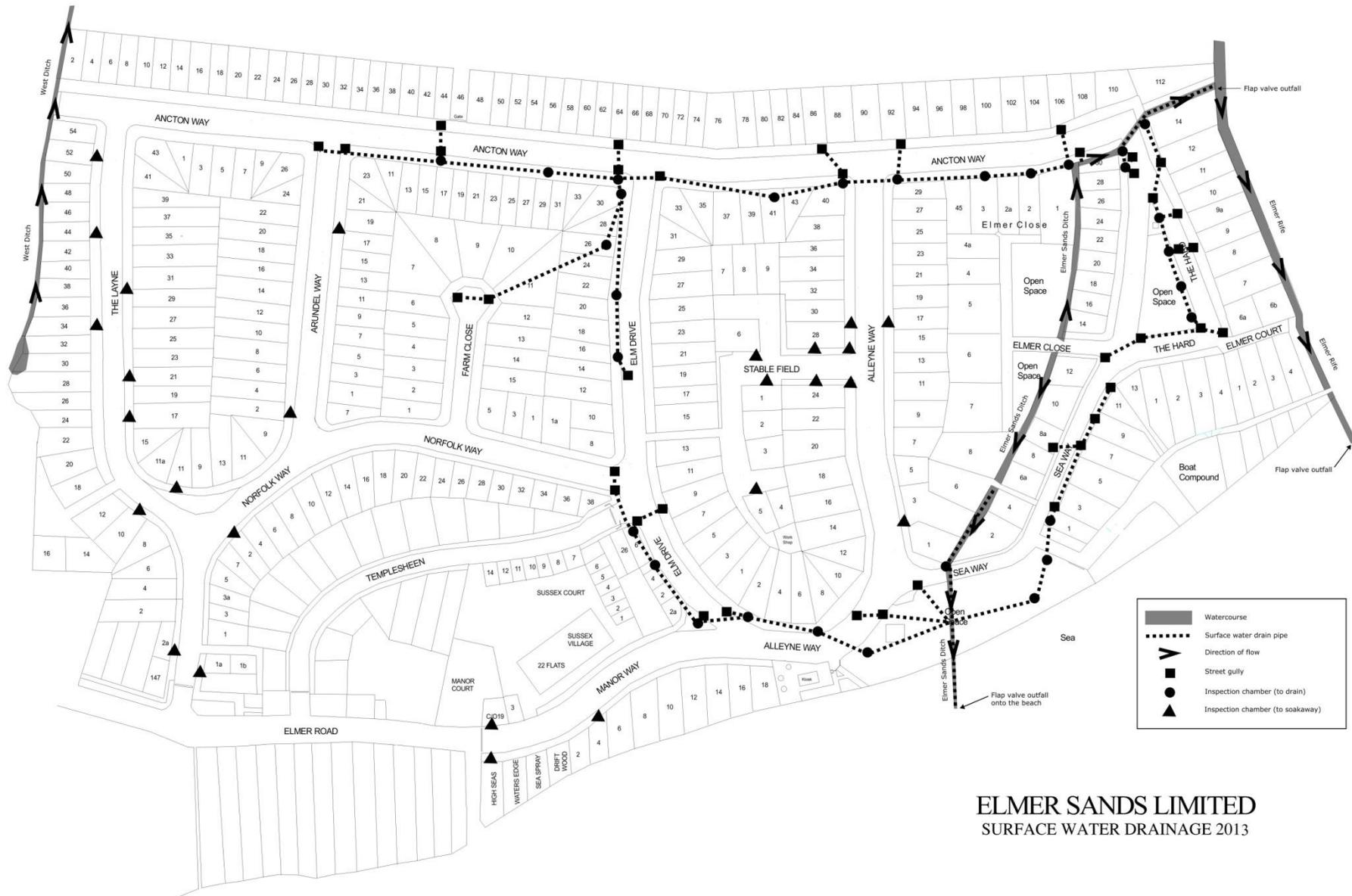
Flooding Background



Photograph Geoff Matcham 21/10/2009

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Last updated March 2018



ELMER SANDS LIMITED
SURFACE WATER DRAINAGE 2013

1. INTRODUCTION

The aim of this document is to assist property owners and statutory authorities in the mitigation of the threat or effects of any type of flooding that might occur in Elmer Sands Estate and the surrounding catchment.

Grounds for optimism:

A lot of remedial work has been achieved already as a result of the carrying out of a number of recommendations made in the Surface Water Management Plan Report (SWMP), a culmination of many hours of work by Elmer Sands Ltd, Estate volunteers, Southern Water, West Sussex County and Arun District Councils and the Environment Agency. Additionally a Flood Defence Grant in Aid bid was prepared and submitted to outline the options for a surface water alleviation scheme and £240,000 of Environment Agency funding was approved for future schemes.

While recently, responding to concerns expressed in the surrounding area that maintenance of drains should be given a higher priority, better co-ordinated action by departments in the Civic Offices (Highways Agency) has resulted in a maintenance program being undertaken.

The Environment Agency and other local agencies have also been surveying local ditches and rivers with a view to improvements as well as in some cases helping with and facilitating maintenance.

The Environment Agency has also been active on the beachfront. A large scale project has been running since 2016 to implement the Environment Agency strategy for the south coastal area. Elmer Sands has been treated as a priority and it is expected that the project will deliver improvements to the sea defences in late 2018 costing in excess of £3m.

In 2014 Elmer Sands took delivery of 450 water butts thanks to a grant of £11,000 won from the West Sussex County Council Operation Watershed Fund. This delivered one of the recommendations of the Elmer Sands Surface Water Plan to install water butts, set up in a special way, at many properties across the Estate. Estate properties are not connected to a surface water drainage system, the rain water either goes to a soak away or simply onto the ground. When the ground is very wet or alternatively very dry and there is a concentrated heavy downfall of rain, this deluge is not absorbed and there is potential for flooding. These new water butts will allow a large amount of water to be captured during a period of extreme rain fall, reducing the amount immediately flowing across the Estate. (This equates to 90,000 litres of rain) They have also been designed to subsequently release the water slowly after the event so that the majority of the butt capacity is then available to fill again during the next heavy fall.

A further WSCC Operation Watershed grant of £13,000 was obtained in 2015 to replace the pipework taking the ditch running north on the western boundary of the Estate behind 52 and 54 The Layne and under the public footpath. This was followed

again in 2016 with a WSCC Operation Watershed grant of £34,000 to install pipework and re-profile this ditch running north behind Sunnymead Close.

West Sussex County Council are now in a position to proceed to complete the spending of the Environment Agency funding of £240,000 identified in 2014 and this is expected to deliver improvement to the Estate surface water drains during 2018.

The problems caused by flooding are reducing as these and further actions are taken by the various stakeholders.

Mechanism and potential forms of flooding:

Groundwater/Surface Water/Flash/Sewage:

Groundwater flooding is the type of flooding which occurs due to the rise in the water table level. A long period of rain can raise the water table level causing soakaways in some areas to become ineffective. This reduces effective drainage to the estates surface water drainage system, as well as the ditches either side and through the west end of the estate. If you couple these conditions with high tides (thus rendering the flap valves to the sea inoperative), this groundwater cannot escape immediately and ponding can occur. In some circumstances of rainfall, this ponding can lead to flooding situations.

Fluvial:

Fluvial flooding is the type of flooding which occurs due to run off from the surrounding area. It was apparent that during the event of June 2012 when the estate saw what has been described as a 1 in 200 year storm there was run off from farm land at the north of Ancton Way as well as Kingsmead and the Elmer Road.

Tidal:

The effect of the tides on surface water drainage is normally associated with the incidence of high spring tides, rendering the flaps on the outfall shut; this stops the Elmer/Ryebank Rife from draining at the North West corner of the estate. Whilst the Elmer Rife for the main part of the year is actually a holding area for surface water during high tide, on some occasions after heavy volumes of rainfall the level of the Rife is already high so it renders the flaps from the estate shut and no drainage can occur. On some occasions this can lead to flooding situations until the level of the rife can fall again.

Flooding from the sea:

This has not occurred since the 1980s before the rock islands were built and the beach defences were put in place. Protection against this type of flooding in the future is reliant on the maintenance and replenishment of the beach defences by the Environment Agency.

Responsibilities:

Elmer Sands Ltd. (ESL) - Elmer Sands Ltd is responsible for all surface water drainage, outside individual property boundaries within The Estate. The only exceptions are the two storm drains immediately inside the gate at Manor Way which are the responsibility of Arun District Council and a system installed along the public

footpath / boat yard access road, behind the sea defences which is the responsibility of the Environment Agency.

The surface water drainage of Elmer Sands consists of 75% soakaways, plus ditches and piped drains along most of the length of Ancton Way, Elm Drive, some of Farm Close, Alleyne Way, Sea Way and The Hard.

In order to prevent flooding, regular inspection of all gullies and inspection chambers is carried out to ensure that drainage is free flowing. On an annual basis, jetting is carried out (ESL) to ensure that silt deposits do not build up thereby limiting flow. In addition, all gullies should be cleaned either by vacuum or mechanical means to eliminate blockages by the removal of debris.

For the safety of the estate it is recommended that even though it is the responsibility of James Baird, ESL should ensure regular inspection of the non-return flap at the point where the ESL system discharges into the Ryebank Rife. If possible ESL also needs to regularly ensure that no vegetation is impeding the efficiency and correct operation of the flap. Access is via the property at 14 The Hard. If there is a problem please inform the Elmer Sands Secretary.

For the safety of the estate ESL/residents should also ensure that the West ditch (responsibility of riparian owners), Ryebank Rife (EA), the Elmer Ditch (ESL) and the storm drains in Manor Way (ADC) are inspected regularly and any problems that could, or are causing, restriction to the discharge of surface water into the outfalls (EA) are reported to the appropriate agency.

Note: If you notice any potential problems please phone The Secretary on 585900

Arun District Council (ADC) - The two circular drains flow into a chamber inside the gate at Manor Way, as mentioned earlier, these are the responsibility of Arun District Council. This chamber was installed when the sea flooded that area before the rock islands were installed however; it now holds surface water from the Manor Way. ADC have advised that this chamber flows into a soakaway within the beach shingle, although previously it used to be connected to an outfall.

Home Farm (Mr James Baird) - The ditch flowing north to Grevatts Bridge (West Ditch) when it leaves the estate goes across land owned by Mr Baird. The maintenance of this section of the ditch is the responsibility of Home Farm (Mr James Baird).

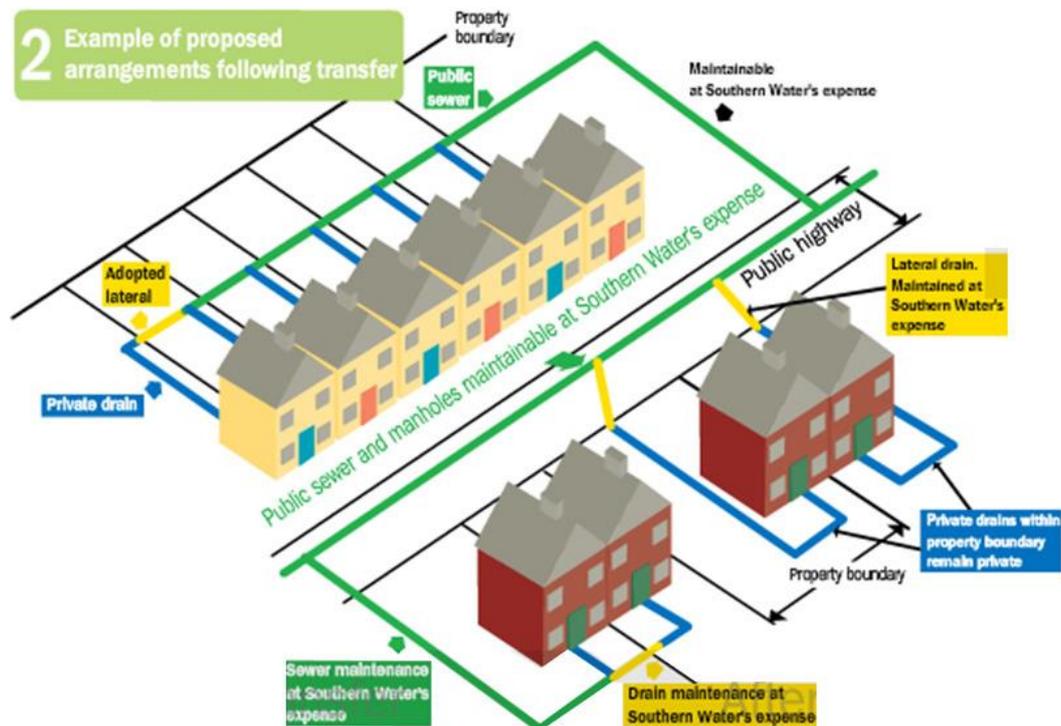
Southern Water - is the statutory authority for the effectiveness and hence, the maintenance of the pumping station and sewerage drains in the locality.

Southern Water monitors the pumping station and they are responsible if sewerage flooding occurs. No back-up generators exist in the case of electrical system failure. We have to be aware that in the latter case, a delay of around 4 hours can be

expected before backup generators are delivered to the pumping station by Southern Water.

In the event of a pumping station failure or the pumping station beacon is flashing signifying an overload situation - contact Southern Water on 0845 278 0845 and use the code '100330 at post code PO22 6JS' - this helps Southern Water to pinpoint the station. Also ask for a Customer Services Management Action Number. In the event of sewage pollution, contact the Environment Agency on the pollution hotline 0800 80 70 60.

Private Sewer Drainage Responsibilities from October 2011



Environment Agency (EA) - The Elmer Rife (Ryebank Rife) is defined as a 'Main River' and, as such, falls within the statutory responsibility of the EA for its maintenance, flood management and flood prevention measures. The Elmer Sands Ditch is not a main river and responsibility for its maintenance transferred to ESL in April 2017. The Environment Agency annually clears the weeds in the Elmer Rife (Ryebank Rife) and ESL will undertake suitable maintenance of the Elmer Ditch.

Note: If the flaps are not cleared brambles may build up leaving them permanently open or shut which can cause flooding on the estate.

In the event of sewage pollution contact the EA pollution hotline on 0800 80 70 60.

Residents (Riparian Owners) - A number of properties on the west side of The Layne are drained by a ditch which flows north from the estate and drains into the

Ryebank Rife (West Ditch). Any residents who have a property with a ditch at the end of their garden have a responsibility as riparian owners to maintain that ditch, keeping it clear of any obstructions and making sure that the water can flow freely. (ESL is responsible for the small east side section of the West ditch at the cutting through to Kingsmead Road)

All Property owners - It is understood that, in law, owners of property are responsible entirely for the protection of their property.

2. “FOR WARNED IS FOR ARMED”

Station	Frequency	Website
BBC Sussex	104.8 & 95.3 FM	http://www.bbc.co.uk/news/england/sussex/
Heart	97.5 & 96.7 FM	www.heart.co.uk/sussex/
BBC- WEATHER		http://www.bbc.co.uk/weather/po22

Regularly monitor local news and weather forecasts.

Be aware of when extreme high tides occur. You can buy Tide Tables in the local shops or <http://www.tidetimes.org.uk/bognor-regis-tide-times>

a) Sign up for Flood Warnings on the WSCC Website: Residents are encouraged to register to receive flood warnings and pass them on to those at risk in their vicinity. Following are some examples.

http://www.westsussex.gov.uk/living/emergency_services/preparing_and_dealing_with/severe_weather/flooding/flood_warnings.aspx

Click on **Sign up to receive severe weather alerts** by email

Click on **Email alert service**

You will now need to set up a subscriber account with password

Search for **Emergencies** and tick **Extreme weather alerts** then Submit

On the next page scroll down to **Met Office** and tick **London and South East England(weather warnings)**

b) Facebook. Sign up for the Flood Alerts App on Facebook

c) FLOODLINE By telephone: You can ring **0845 988 1188** at any time to receive automated up-to-date information on flooding. There are six service options offered of which the most important ones are Options 1 to 4:

Option 1 gives you information on the latest flooding situation. The quick dial number you require for Coastal flooding in the warning area of Elmer is 0123125.

Option 2 provides pre-recorded advice on what to do before during and after flooding.

Option 3 allows you to check if you are eligible for free flood warnings.

Option 4 allows you to report flooding, for general enquiries and to be put through to the operator.

d) Environment Agency website. The principal organisation charged with the responsibility for flood warnings is the Environment Agency however these warnings are only for river and coastal flooding from the sea.

<http://www.environment-agency.gov.uk/homeandleisure/floods/31618.aspx>

Enter 'Elmer' in 'river Name Box' and click 'GO'

The page shows latest Flood warning

Note: The Environment Agency supplies various information packs to help in instances of flooding e.g. Booklet: *What to do before during and after a flood*

There are four flood-warning messages (three represented by graphical icons) that may be issued by EA. These are:



Flood Alert- Flooding is possible, be prepared



Flood Warning- Flooding is expected. Immediate action required*.
ACTION – DEPLOY FLOOD BARRIERS!



Severe Flood Warning- Severe Flooding, Danger to Life.

3. ORGANISATIONS INVOLVED

The following organisations may be involved in direct specific action during a flooding event. Property owners are included as it is their responsibility by law to protect their own property from flooding.

WHO DOES WHAT ...

ENVIRONMENT AGENCY

- ISSUE FLOOD WARNINGS
- RECEIVE AND RECORD DETAILS OF ALL FLOODING INCIDENTS
- MONITOR THE SITUATION AND ADVISE OTHER ORGANISATIONS
- DEAL WITH EMERGENCY REPAIRS AND BLOCKAGES ON MAIN RIVERS AND OWN STRUCTURES
- RESPOND TO POLLUTION INCIDENTS
- ADVISE ON WASTE DISPOSAL ISSUES

WEST SUSSEX COUNTY COUNCIL

- (Through Sussex Constabulary) CO-ORDINATE EMERGENCY SERVICES IN A MAJOR FLOOD INCIDENT AND HELP WITH EVACUATION OF PEOPLE FROM THEIR HOMES WHERE NECESSARY
- MAINTAIN SAFE CONDITIONS ON THE ROADS
- PUT FLOOD WARNING SIGNS ON THE HIGHWAY
- ORGANISE ROAD CLOSURES AND TRAFFIC DIVERSIONS
- CLEAR BLOCKAGES ON HIGHWAY DRAINAGE SYSTEMS

ARUN DISTRICT COUNCIL

- **CO-ORDINATING ROLE FOR AREA**
- **CLEAR BLOCKED WATERCOURSES ETC. (Land Drainage Act powers)**
- **ENVIRONMENTAL HEALTH ISSUES - POLLUTION**
- **EMERGENCY PLANNING – RESPONSE TO EMERGENCIES PLAN**

MIDDLETON ON SEA PARISH COUNCIL

MOS Parish Council already have in place an Emergency plan for the parish. In the event of an emergency they contact the Arun District Council Duty Emergency Co-ordinator who, depending on the type and scale of the emergency, will put the plan in action. This would include the opening of an evacuation centre in the Jubilee Hall and the 1st Middleton-on-Sea Scouts Headquarters.

- **FLOOD WARNING DISSEMINATION (By local agreement with EA)**
- **OPEN VILLAGE HALL AND SCOUT HALL FOR REFUGE AND FACILITIES**

ELMER SANDS COUNCIL

- **PROVIDE INFORMATION TO LOCAL AUTHORITY EMERGENCY PLANNING SUPPORT GROUPS TO ENABLE THEM TO ASSIST AFFECTED PROPERTY OWNERS**
- **OPEN MUSTER STATION IN THE CABIN**

FIRE AND RESCUE SERVICE

- **RESPONSIBLE PRIMARILY FOR SAVING LIFE, RESCUE AND RECOVERY**
- **RESPOND TO ALL EMERGENCY INCIDENTS AS REQUIRED**
- **ASSIST THE POPULACE WHERE A NEED IS IDENTIFIED AND THE USE OF FIRE SERVICE PERSONNEL AND EQUIPMENT IS RELEVANT**

WATER COMPANIES (Southern Water and Portsmouth Water Company)

- **EMERGENCY OVERPUMPING OR TANKERING AT PUMPING STATIONS**
- **CLEARING BLOCKAGES IN PUBLIC SEWERS AND OUTFALL/INLET GRILLES**
- **REPAIRING BURST SEWAGE AND WATER PUMPING MAINS**
- **MAY TAKE ACTION TO PROTECT PROPERTY FROM FLOODING BY WATER FROM THE PUBLIC WATER MAINS OR DISCHARGES FROM THE PUBLIC SEWERAGE SYSTEMS**
- **PROVISION OF PORTABLE TOILETS IN SOME CASES**
- **PROVISION OF BOTTLED WATER IN SOME CASES**
- **ELECTRICITY, GAS AND TELECOMMUNICATION COMPANIES**
- **ATTEND TO EMERGENCIES RELATING TO THEIR SERVICE AT PROPERTIES PUTTING LIFE AT RISK AS A RESULT OF FLOODING**
- **ATTEND TO FLOODING EMERGENCIES AT THEIR OWN SERVICE INSTALLATIONS**

4. HOUSEHOLDERS' SELF SUPPORT NETWORK

- a. Householders are strongly encouraged to **register** for flood warnings by email or on their private telephone numbers.
- b. It is recommended that close neighbours exchange their telephone numbers for use in any flood emergency.
- c. 'Buddying' arrangements are encouraged for mutual assistance - for example when deploying household flood barriers. This may be especially needed for the support of elderly or infirm neighbours.

5. PROPERTY OWNERS - WHAT CAN BE DONE TO PREPARE FOR SUCH AN EVENT

- a. Ensure that you have adequate home insurance
- b. Ensure that you know where to turn off the gas, electricity and water supplies
- c. Keep a list of useful telephone numbers including your family, insurance company (email address and fax number), local council and emergency services etc.
- d. Make a family flood plan and a flood kit which will contain key personal documents, torch, mobile phone, battery or wind-up radio, rubber gloves, Wellington boots, waterproof clothing, spare medication, first aid kit, blankets and Thermos.
- e. Prepare your property with flood defences
- f. Know where you can move your car, pets, and valuables to.
- g. List and prioritise items to be moved upstairs. Have copies of list available for volunteers if you require help. If possible board the loft to store items and keep important items there all the time (e.g. family photos).
- h. If you think you might need help organise it in advance.

WHAT CAN BE DONE WHEN AN EVENT IS IMMINENT- preferably in daylight

- Secure or put away anything outside that could blow around (including bins, ladders etc)
 - Avoid all but essential travel during the storm, and if you must go out avoid using bikes, caravans and lorries
 - Stay away from the coastline, and take caution when out and about because of flying debris
- a. Be aware of the latest situation monitor local news and weather forecasts. Be aware of water levels near you particularly high tide.
 - b. Charge your mobile phone.
 - c. Turn off gas and electricity at the mains before the water arrives.
 - d. Move family, pets, vehicles, food and valuables to safety.
 - e. Move items upstairs and move your vehicles to a safe place.
 - f. Deploy flood prevention devices e.g. door defences, block airbricks etc.
 - g. Take photos if at all possible before, during and after the event.

WHAT CAN BE DONE AFTER THE EVENT

- a. Contact insurance company, request early inspection and interim payments for accommodation to hotel or host.
- b. Contact gas, electricity and water companies
- c. Ventilate your property, unblock airbricks, but still remember security of property.
- d. Contact dehumidifier company. It is advisable not to sleep in your property when they are working as they will dehydrate you.
- e. Run taps for a few minutes
- f. Ensure you obtain quotes for any remedial work and do not carry out any work without the insurance company's agreement. Beware of tradesmen who say they can sort out your problems quickly and for cash.
- g. You may be entitled to hotel accommodation under your insurance, but check with them first.

GENERAL HEALTH AND SAFETY ADVICE:

- Keep yourself and any children and older people warm and dry
- Put spare clothes in a safe, dry place.
- Put medicines in a safe dry, accessible place.
- Flood water may contain faecal matter
- Flood water may conceal open chambers

Food Safety

- Move all food including cans, into high cupboards or even upstairs
- Wash all fresh food with safe water before eating
- Do not eat any food that has come into contact with flood water.
- Only make up food for babies with boiled or bottled water
- Do not refreeze foods that have thawed out

Sanitation and Hygiene

Always wash hands with soap and water:

- Before Preparing or eating food
- After toilet use
- After cleaning up flood water
- After handling anything contaminated by flood or sewage

Do not allow children to play in floodwater areas or with contaminated toys

(Flood water may contain faecal matter)

Cleaning Up

- Wear rubber boots and gloves during the clean up
- Open doors and windows to ventilate your home
- Watch out for broken glass or nails
- Walls floors and most surfaces should be cleaned with mild disinfectant (one cup bleach to 5 galls water)
- Remove and destroy all contaminated material that cannot be cleaned.

- Steam clean carpets
- Clean any areas where children play
- Wash taps and run for a few minutes before use
- Contact gas, electricity and water companies to check supplies before turning back on.
- Make sure electrical items have dried out before use

6. PROPERTY PROTECTION

There is a process to go through to ensure that property protection works. People considering it are best to gain advice by talking to someone at the National Flood Forum (NFF) on 01299 403055.

Below is a link to the Blue Pages directory which lists the products available on www.bluepages.org.uk or for those who can't use/don't have a computer they can ring the NFF's 01299 403055 number and have a hard copy sent through the post.

Also just launched (& trialled in W Sussex) is a new 'Property Protection Advisor' on http://nationalfloodforum.org.uk/?page_id=989 or go to www.nationalfloodforum.org.uk and scroll down the side menu to 'protect my property' and then from there to 'reducing my flood risk'

In the event of flooding sandbags are a very temporary measure and where applicable other methods of property damage limitation should be explored.