

1. St Asaph

The investigation carried out by Natural Resources Wales (NRW) following the floods found that the current defences in St Asaph provide protection against a 1 in 30 chance event north of the A55 (adjacent to Roe Parc) and 1 in 75 chance event south of the A55. This was below the standard of protection considered appropriate. Natural Resources Wales has identified short term measures, some of which have been completed, and is also considering long term options to reduce the risk of flooding to a more acceptable level.

- Short Term Measures

- The flood embankment at Roe Parc has been raised to provide a minimum standard of protection of 1 in 75 until a long term solution can be delivered.
- Modifications to Spring Gardens Bridge, involving the installation demountable barriers and alterations to mesh fence above the bridge deck (work completed October 2013).
- Some tree clearance work between the New Inn public house and the confluence of the Clwyd and Elwy has been completed. Further work is due to start in August 2014.

- Long Term Plans

- NRW has commenced work to plan and design long term options as part of a process that could take at least three years. NRW now expects to carry a project appraisal study in August 2014 for submission to the Welsh Government (WG) for approval. Design work is anticipated to be carried out in 2015 with construction expected in 2016, subject to WG funding.
- Project options under assessment are the permanent raising of flood defence bunds throughout St Asaph, removal / raising of Spring Gardens bridge, setting back flood defence bunds downstream of St Asaph and upstream storage. The assessment process will identify which option is the most cost effective. The preferred solution may be a combination of different options.

2. Rhuddlan, including Sarn Lane

The proposed long term measures to reduce flood risk at St Asaph should also reduce the risk to properties in and around Rhuddlan.

3. Lower Denbigh Road

NRW has extended its flood warning service to include isolated properties in Lower Denbigh Road. The service went live in October 2013. All but two properties have Individual Property Protection (IPP) installed. However, these properties have been surveyed and are awaiting IPP.

4. Brookhouse, Denbigh

The Council has installed non-return valves to 4 surface water drains in the vicinity of the A525 underpass to prevent water from the River Ystrad entering the drains and flooding properties. A flood modelling study is expected to be completed in July 2014. An assessment will be undertaken to look at possible options for reducing risk. The majority of properties at risk already have Individual Property Protection (IPP) installed.

5. Gellifor

A hydrological study of the river catchment has been carried out. This has identified that 14 properties, including 2 businesses, are at risk from a 1 in 100 year flood. The Council will now approach the Welsh Government regarding funding to carry out a project appraisal study to identify the most cost effective solution to reduce risk.

6. Glasdir, Ruthin

- The Council received Flood Defence Consent from Natural Resources Wales on 27th February 2014 to carry out work to raise and extend the existing flood bund, including the installation of pre-cast concrete wall units.
- Work started on site on 2nd June 2014 (commencement was delayed because of wet ground conditions) and is anticipated to take 3 months to complete.
- Glasdir Community Flood Plan completed in October 2013. The plan will be reviewed by Natural Resources Wales, the Council and the Glasdir residents every 12 months.

7. Park Place, Mwrog St., Maes Ffynnon, Ruthin

- NRW has carried out work to repair a flood bund in the vicinity of Cae Ddol (the bund had been eroded prior to the flood as a consequence of human activity).
- Non-return valves have been installed to gully connections on the A494 at Mwrog Street to prevent flood water from the River Clwyd entering the highway.
- Maintenance work has been carried out by NRW to the masonry wall Adjacent to the River Clwyd at Maes Ffynnon.

8. River Management Partnership

During discussions with Natural Resources Wales (NRW), it became apparent that NRW was already developing proposals for a project to investigate the benefits of an 'ecosystems approach' to catchment management. These proposals have subsequently evolved to become a pilot study focusing on the River Clwyd catchment, entitled 'Land and Water Management within the Clwyd Catchment'. As the Lead Local Flood Authority, the Council is a key stakeholder in the study. Other stakeholders include representatives of landowners and the farming community and

Report to Cabinet 29th July 2014

Denbighshire's Local Flood Risk Management Strategy

Appendix 2: Update on the Recommendations of the Investigation Reports into the November 2012 Floods

Dwr Cymru Welsh Water. Natural Resources Wales hopes that the pilot study will form the basis of a nationally adopted approach to catchment management. At this stage it isn't clear whether the outcomes from the pilot will contribute towards the establishment of a River Management Partnership. However, to avoid duplication of effort, it would be prudent for the Council to continue to work with Natural Resources Wales for the time being.