

WYRE Making Space for Water - Hotspot List

Appendix A - Flood Hot Spot List

1 - Communities affected during the December 2015 flood events							
MSFW No.	Location of incident	Section 19	Brief summary of the incident	Risk Management Authority (RMA)	Agreed action	Status	Action Taken
MSFW232	Churchtown	Yes	<p>58 properties flooded in and around Churchtown, including St. Helens C of E Primary School. Primary source of flooding from River Wyre, both upstream of Kirkland Bridge and downstream of the bridge through the sewage treatment works and through Hamilton House Farm. Some secondary flooding from Ainspool watercourse.</p> <p>Surface water flooding also appears to be a significant contributing factor.</p> <p>The majority of affected properties were on Ainspool Lane, Garstang Bypass Road, Garstang Road, and The Avenue (off Garstang Road).</p>	Highway Authority, Lead Local Flood Authority, United Utilities, Environment Agency, Wyre Borough Council	<ul style="list-style-type: none"> All RMA's to undertake data collection Appraise current programmed works Undertake preliminary investigations Undertake appraisal to identify possible actions Attend drop in session Undertake Section 19 Investigation Inspect assets with significant flood risk Assist and support new Flood Action Group 	<p>Closed.</p> <p>Section 19 report for Aug 2016 outstanding</p>	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance – COMPLETE. HA - Further investigation has been undertaken on A6/A586 regarding side entry gullies - COMPLETE Capital bid has been made for funds to change how existing side entry gullies operate on A586 and A6 by M&S/garage to allow improved drainage and increased attenuation. All gullies to be cleared. LLFA - Stage 1 of the Section 19 Investigation published – COMPLETE LLFA - bid for DEFRA Investment Programme to undertake SWMP level 3 has been submitted to the EA for approval - ONGOING UU - modelling and inspection of assets complete and supports EA report that surcharging sewers was caused by river water entering the public sewer system - COMPLETE EA - has undertaken inspection of their flood defence assets, with maintenance undertaken as required. Inspection of river banking undertaken by pest control officer. EA - Work is programmed to top up the low spot on the embankment beside the UU pumping station during the summer (2017). UU and HA have undertaken maintenance works as reasonably possible ALL - attended flood roadshows and continued support to local community and meeting individual residents Churchtown Flood Action Group formed. WBC - updated Emergency Plans for Churchtown with assistance from FLAG WBC - supporting flood resilience grant applications and implementation of measures.
MSFW214	Garstang	Yes	<p>22 properties were flooded in Garstang on 5 December 2015. These include residential properties, a care home on the Moorings, a home for vulnerable adults and several businesses. The majority of affected properties were on Bridge Street.</p> <p>It appears that the main source of flooding was fluvial from the River Wyre.</p> <p>Residents have concerns that that they are not adequately protected by existing flood barriers.</p> <p>1 property was also flooded on the 26 December 2015.</p>	Highway Authority, Lead Local Flood Authority, United Utilities, Environment Agency, Wyre Borough Council	<ul style="list-style-type: none"> All RMA's to undertake data collection Appraise current programmed works Undertake preliminary investigations Undertake appraisal to identify possible actions Attend drop in session Undertake Section 19 Investigation Inspect assets with significant flood risk Assist and support new Flood Action Group 	Closed	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance. No further action required at this time. LLFA - Stage 1 of the Section 19 Investigation published. LLFA - bid for DEFRA Investment Programme to undertake SWMP level 3 has been submitted to the EA for approval - ONGOING UU - modelling and inspection of assets complete. Flooding as a consequence of river overflowing – no operational issues. EA - has undertaken inspection of their flood defence assets, with maintenance undertaken as required. Flood banks re-built to pre-December levels. ALL - attended flood roadshows and continued support to local community and meeting individual residents Garstang Flood Action Group formed

Location of incident			Brief summary of the incident	RMA	Agreed action	Status	Action Taken
MSFW108	St. Michaels (Blackpool Road / Hall Lane)	Yes	27 properties flooded, including school and Memorial Hall Pumping operation that took up to a week to clear the water out of the area. As a consequence, the main road running through St Michaels-on-Wyre, the A586 Blackpool Road, had to be closed off for a number of days. The flooding in this area was mainly fluvial from the River Brock, following breach of the embankment. It is reported that the overflow from River Brock crossed farmland before flooding the properties.	Highway Authority, Lead Local Flood Authority, United Utilities, Environment Agency, Wyre Borough Council	<ul style="list-style-type: none"> All RMA's to undertake data collection Appraise current programmed works Undertake preliminary investigations Undertake appraisal to identify possible actions Undertake Section 19 Investigation Inspect assets with significant flood risk 	Closed	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance LLFA - Stage 1 of the Section 19 Investigation published. Inspection of ditch showed no obstruction. UU - modelling and inspection of assets complete. Any surcharging from public sewers was due to the overland flooding entering the public sewers and outfalls being locked by high river levels EA - has completed the rebuild of the River Brock embankment to the pre-December level. EA - Upper & Middle Wyre Catchment Study to be progressed and concluded. St.Michaels Flood Action Group formed.
MSFW107	St. Michaels (Rawcliffe Road area)	Yes	5 residential properties in the Rawcliffe Road area flooded. The affected properties are at a moderate surface water flood risk, based on EA flood maps.	Highway Authority, Lead Local Flood Authority, United Utilities, Environment Agency	<ul style="list-style-type: none"> All RMA's to undertake data collection Appraise current programmed works Undertake preliminary investigations Undertake appraisal to identify possible actions Undertake Section 19 Investigation Inspect assets with significant flood risk 	Closed	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance. No further action required at this time. LLFA - Stage 1 of the Section 19 Investigation published. UU - modelling and inspection of assets complete Recommendation - highway and surface water systems flow into main river, when water level is high system becomes locked. No engineering solution has been identified at this point so property level protection is recommended.
MSFW106	St. Michaels, Moss Side Road	Yes	Two farms flooded. EA mapping indicates that properties are adjacent to an area of high surface water flood risk	Highway Authority, Lead Local Flood Authority, Environment Agency	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions Undertake Section 19 Investigation Inspect assets with significant flood risk 	Closed	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance. All defects are being repaired, including potholes and kerbing LLFA - Stage 1 of the Section 19 Investigation published. EA - maintenance undertaken on assets complete. Future works have been identified and programmed.
MSFW116	Scorton/Forton - Cleveley Bridge Area	Yes	1 property affected by the 5th December 2015 flooding. The property lies within fluvial Flood Zone 3, adjacent to the River Wyre. There are some reports on highway flooding to the west of this location in Forton, however no internal flooding has been reported. 6 Caravans were also flooded at the Six Arches Caravan park approximately 1 km downstream of Oak House	Highway Authority, Lead Local Flood Authority, United Utilities, Environment Agency	<ul style="list-style-type: none"> All RMA's to undertake data collection Appraise current programmed works Undertake preliminary investigations Undertake appraisal to identify possible actions Undertake Section 19 Investigation Inspect assets with significant flood risk 	Closed	<ul style="list-style-type: none"> HA - has undertaken gully cleansing / highway maintenance. LLFA - Stage 1 of the Section 19 Investigation published. Inspection of ditch showed no obstruction. Residents are encouraged to consider installing property level flood resilience measures in order to further reduce the risk of flood water entering the property in the future. UU - no reports of any flooding caused by operational / capacity issues. EA - has undertaken inspection of flood banks with maintenance carried out as required.

2 - Reports and issues				
Location of incident	Technical Notes	Agreed action	Status	Update / Comments
Sunnyside Terrace, Preesall	<p>The initial solution identified was to collect water by means of a swale adjacent to Cart Gate road and pipe it into the nearby watercourse. This option was developed and a detailed design was produced. The construction was programmed and community engagement initiated.</p> <p>During the course of the engagement with residents who have suffered flooding and with engineers from Wyre Council it emerged that the solution identified by the highways team would be dealing with the symptom of the flooding rather than addressing it at source.</p> <p>Information came to light that the flooding originates from water not being able to discharge from a watercourse to the back of the properties and backing up, spilling into the road. It was therefore determined that a more suitable solution is to access the capacity of the trash screen and daylight a culverted section of the watercourse to increase capacity and to undertake rejuvenation of the existing watercourse to maximise its effectiveness.</p> <p>The other major constraint on site is that the adjacent road is an access road for School Buses so to limit disruption the scheme will aim to be completed during school holidays.</p>	<ul style="list-style-type: none"> Deliver scheme in summer school holidays 2017. 	Ongoing	<ul style="list-style-type: none"> Scheme delivery has been programmed with Contractors. LCC - Works scheduled in begin summer 2017 following closure of St Aidan's School for holidays. It was noted that the tree on the junction of Green lane and Cart Gate needs to be removed – EL to send detail to EA
Linden Avenue / Branksome Avenue, Thornton Cleveleys	Applicant reports that a lot of the gardens along Linden have laying water. The owner is extremely worried as he thinks he has water under the floor.	<ul style="list-style-type: none"> WBC - to investigate options to drain surface water with support from UU 	On-going	<ul style="list-style-type: none"> WBC - Initial drainage works commenced in December 2016; further ground works to be considered in summer 2017.
Home Field, Garstang, Wyre	No internal flooding, however street/drives flooded 16 homes on Home Field. River Mead brook is behind them all. Brook has only been cleaned once that the applicant can remember. Concerns about it causing floods. Also drains couldn't take the water.	<ul style="list-style-type: none"> LLFA Flood Risk Management Team to undertake investigation 	On-going	<ul style="list-style-type: none"> HA - to undertake investigation and programme highway maintenance LLFA FRM Team undertook site investigation on Tuesday 15 November 2016. Heavily overgrown watercourse, maintenance required which may alleviate flooding issue. FRM to undertake land registry search and issue 1st stage enforcement letter. Still outstanding May 2017 – LCC to look at enforcement
Middle Holly Cottages, Forton	Report of blocked dykes	<ul style="list-style-type: none"> Undertake investigations Undertake appraisal to identify possible actions Inspect highway culvert 	On-going	<ul style="list-style-type: none"> HA – to undertake investigation into upsizing the culvert under Middle Holly Lane. Capital funding 2017/2018 Scheme. LLFA FRM Team undertook site investigation on Tuesday 15 November 2016. Good flow in dyke. Maintenance on the east side of the dyke seems to be regularly undertaken. On the west side, more vegetation was present but not hindering the flow. The culverts under the A6 and Middle Holly Lane were free from any obstruction. Works to upgrade culvert to be undertaken by LCC

Location of incident	Technical Notes	Agreed action	Status	Update / Comments
Grange Lane, Stalmine	Foul flooding of highway at junction of Grange Lane and Smithy Lane	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	Closed	<ul style="list-style-type: none"> UU have completed works and installed new manhole No further reports of flooding received.
Meadow Avenue, Preesall	Watercourse to rear of Meadow Ave, Preesall in urgent need of cleaning and reinstatement. Watercourse takes surface water from Pilling Lane and estate around Meadow Ave.	<ul style="list-style-type: none"> Undertake investigations Undertake appraisal to identify possible actions Possible Enforcement 	On-going	<ul style="list-style-type: none"> LLFA (FRM Team) to investigate, potential enforcement action required. Still outstanding May 2017 – LCC to look at enforcement.
Cleverley Bank	Watercourse discharge to River Wyre on Cleveleys Bank Lane requires investigation works, including replacement of trash screen.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions Replace culvert trash screen 	On-going	<ul style="list-style-type: none"> EA, LLFA, HA and WBC met to investigate works. EA to undertake works to watercourse. Work to improve channel conveyance, tree trimming and topping up low spots in the embankment. Works in progress. Trimming of trees and build-up of embankment completed.
Sandy Lane, Hambleton	Reported by United Utilities that property flood during heavy rainfall events	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	Monitor	<ul style="list-style-type: none"> UU - have undertaken inspection of assets, cleaned systems HA - to programme an investigation and work with UU once information has been received from their inspection. Gulley cleaned out – no further action required.
Carr Lane, Hambleton	Reports of manhole covers surcharging. Area flooded in 2012 and highway flooded in November 2016.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	On-going	<ul style="list-style-type: none"> HA has undertaken works to the highway which included lowering of gullies and re-profiling road to mitigate ponding within the highway. HA report that residents have been updated. HA to expose drain south of Carrisbrooke and undertake repair works summer 2017.
A6 / Gubberford Lane	Highway Authority report that the footway floods. Potential for LCC Capital Scheme, possible issues with access to properties so will require careful consideration.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	Monitor	<ul style="list-style-type: none"> HA - footway to be reconstructed and will take forward with LCC Asset Management Team. No works are currently planned for this area – continue to monitor.
Lancaster Road, Preesall	Flooding of fields and Lancaster Road. Road requires to be closed when flooded. Dyke are not draining, possibility of blockage under highway. Investigate if there is a blockage in the culvert.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	On-going	<ul style="list-style-type: none"> LLFA (FRM Team) undertook initial site investigation and met local residents on Tuesday 15 November. Dyke full and very limited flow. Maintenance cannot be undertaken on network of dykes until obstruction can be found and removed. FRM have undertaken an investigation in January 2017. Culvert under highway was cleaned out and jetted to remove silt build up. Further works are required as there is a capacity issue and the embankment is slipping into the ditch. HA has been made aware of their duties and will report on further action needed. Culvert now cleared. Works required to repair culvert end wall – LCC to undertake these summer 2017.
Kiln Lane / Sherbourne Road, Hambleton	Highway floods during heavy rainfall events. Road is only passable with care. Flooding to local residential properties. Flooded December 2015 and June 2016 Long-standing problem – LCC undertook extensive investigation in 2012/13 following flooding in September 2012.	<ul style="list-style-type: none"> UU to investigate foul drainage system. 	Monitor	<ul style="list-style-type: none"> UU have installed an additional flap valve on the overflow from Kiln Lane pumping station to protect the wastewater network from backflow from Wardleys Creek at high tide. No flooding during recent high tides. Continue to monitor.

Location of incident	Technical Notes	Agreed action	Status	Update / Comments
Fleetwood Football Club	Potential blockages of surface water system causing issues to football club	<ul style="list-style-type: none"> Flood Risk Management Team to investigate 	Complete	<ul style="list-style-type: none"> Investigation shows that part of the surface water highway system is in need of repair / replacement. HA is undertaking this work as a matter of priority and will liaise with the football club stadium manager with updates. All pipework from Radcliffe Road to football ground have been cleared. Works complete
Church Lane, Hambleton	Highway floods during heavy rainfall events. Road is only passable with care.	<ul style="list-style-type: none"> Highway Authority 600 diameter stone culvert asset requires upgrading. 	Complete	<ul style="list-style-type: none"> HA report that this work is now complete.
Bull Park Lane, Hambleton	Highway floods during heavy rainfall events. Road is only passable with care.	<ul style="list-style-type: none"> Highway Authority to undertake investigation 	Complete	<ul style="list-style-type: none"> HA report that is has been inspected and routine maintenance to be undertaken which will include jetting of the systems.
Smallwood Hey, Pilling	Reports of flooding in localised areas due to flat topography.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions 	Complete	<ul style="list-style-type: none"> HA - the road is very flat and floods in certain areas. Order has been placed to jet gullies.
Stricklands Lane, Stalmine	Highway floods during heavy rainfall events. Road is only passable with care.	<ul style="list-style-type: none"> Undertake preliminary investigations Undertake appraisal to identify possible actions. 	Monitor	<ul style="list-style-type: none"> LLFA (FRM Team) to investigate, potential enforcement action required. HA – gullies have been jetted clean.
Pilling Lane, Preesall	Highway floods during heavy rainfall events. Road is only passable with care.	<ul style="list-style-type: none"> Undertake investigations. Consider linkage to Meadow Ave. Undertake appraisal to identify possible actions Possible Enforcement 	On-going	<ul style="list-style-type: none"> LLFA (FRM Team) to investigate, potential enforcement action required.
Smithy Lane / Dagers Lane, Preesall	United Utilities report that flooding has occurred on the highway. United Utilities have undertaken dye testing and cannot trace the system.	<ul style="list-style-type: none"> Highway Authority to undertake investigation 	On-going	<ul style="list-style-type: none"> HA to investigate possible broken highway drain
Great Eccleston Village Square	Wyre Council report that flooding is occurring in the village square.	<ul style="list-style-type: none"> Highway Authority to undertake investigation 	On-going	<ul style="list-style-type: none"> HA have applied for highway closure to allow access – works planned to commence 7 Aug 2017.
River Road, Thornton	Wyre Council report that there is flooding to the grounds and part of the touring caravan site. Possibility that there is issues with the highway drainage preventing discharge of surface water from site.	<ul style="list-style-type: none"> Highway Authority to undertake investigation 	On-going	<ul style="list-style-type: none"> HA – works commenced 25 May 2017 to reroute highway drainage.
Ratcliffe Wharf Lane, Forton	Highway drainage discharging on private property.	<ul style="list-style-type: none"> Highway Authority to undertake investigation 	Monitor	<ul style="list-style-type: none"> HA visited site and offered to undertake works to remove flooding issue – local resident has declined works. HA to monitor for future flooding
Regatta Point, Hambleton	Complaints re movement of river embankment causing damage to perimeter fencing	<ul style="list-style-type: none"> Environment Agency to undertake investigations 	On-going	<ul style="list-style-type: none"> EA visited site and arranged for works to be undertaken on the embankment beginning Oct 2017.