

Flood Investigation Report

Location: **Warden** Incident Date: **5/12/15**

Source(s) of flooding:						
Ordinary Watercourse	Main River	Surface Water	Groundwater	Sewer	Sea	Tidal Lock
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impacts	Residential	Business	Other Buildings	Roads	Critical Infrastructure
(number)	9	7	0	0	0



FOR REFERENCE PURPOSES ONLY NOT TO BE REPRODUCED

<p>Northumberland County Council Northumberland County Council</p>	<p>Network Management Information System</p>	<p>Title: Warden - Areas affected by flooding Winter 2015-16</p>		
		<p>Drn: JRS</p>	<p>Date: May 2016</p>	<p>Scale: 1:5,000</p>

— Ordinary watercourse — Main river
 Affected dwellings Winter2015-16
 Affected business Winter2015-16
— Affected Roads Winter2015-16

Description

Warden is a small village located 2 miles West of Hexham.

On Friday 4th – Saturday 5th December, Storm Desmond passed to the northwest of the UK bringing severe gales and heavy and persistent rainfall across northern England. As a result, the River Tyne and its tributaries swelled and the defences at Low Prudhoe overtopped.

In Warden approximately 9 residential properties and 7 businesses flooded on both the North and South banks of the River South Tyne. Two properties flooded before 12pm. The water then overtopped the floodwall at Bridge End, flooding three properties around that area. Flood water flowed towards the railway bridge and down the track, flooding another three properties.

Gardens along the north west of the village were flooded, but no water entered the properties themselves.

RMA Actions:	
NCC	<p><i>Exercised:</i> - Property level resilience grant made available for residents to install defences and make properties more resilient in flooding events.</p> <p><i>Proposed:</i></p>
EA	<p><i>Exercised:</i></p> <ul style="list-style-type: none"> - Reviewed the Flood Warning Service and implemented improvements based on data collected after the flood event. - Inspected all the flood defence assets to determine if repairs were required following flood. - Supported the Warden Flood Action Group in updating their Community Flood Action Plan. - Completed an initial economic assessment following the floods to see if future flood risk management improvement works would be cost beneficial. <p><i>Proposed:</i></p> <ul style="list-style-type: none"> - Review of hydraulic model as part of the Tyne Modelling Review. - Continue to support the Warden Flood Action Group in updating their Community Flood Plan. - Invite Warden Flood Wardens to attend the 2016 Flood Warden Event in October 2016.
NW	<p><i>Exercised:</i></p> <ul style="list-style-type: none"> - Some localised CCTV sewer surveys. - Met with the EA to discuss whether the maximum water level in Kielder Reservoir can be reduced to provide greater flood water attenuation. - Transferring Kielder Reservoir to a new water resources modelling software (Aquator) in order to determine maximum water level. <p><i>Proposed:</i></p> <ul style="list-style-type: none"> - Test using Aquator software to help NW and the EA decide an acceptable maximum water level at Kielder. Any Viable changes to the maximum water level in Kielder Reservoir would be implemented from 1 November 2016.
Other	<p><i>Exercised:</i></p> <p><i>Proposed:</i></p>
Additional supporting information	

<p>Sign Off Drafted by: Lucia Vidal Approved by: Aaron McNeill</p>	<p>Date 12/08/2016</p>
<p>RMA Notification: EA <input checked="" type="checkbox"/> NW <input checked="" type="checkbox"/> Other <input type="checkbox"/> (please specify)</p>	