

Bridgend County Borough Council

Annual Flood Investigation Report 2019 - 2020

1.0 Introduction

The Flood and Water Management Act 2010 (FWMA 2010) places a number of Statutory Duties on Local Authorities in their role as the Lead Local Flood Authority (LLFA) in their respective area including under Section 19(1) a duty to investigate flooding within its area, to the extent that it considers it necessary or appropriate:

To comply with Section 19(1) (1), of the FWMA 2010, Bridgend County Borough Council (BCBC) encourages the reporting of flooding incidents and investigates those reported, to ascertain which Risk Management Authority (RMA) has an oversight role and whether this role has been exercised.

The RMA's in Wales are Natural Resources Wales (NRW), which has an oversight role for flooding from main rivers and the sea, Dwr Cymru/Welsh Water (DCWW) which has an oversight role for flooding from public sewers/water mains and BCBC, as LLFA, which has an oversight role for flooding from ordinary watercourses, surface water and groundwater.

Note that although these organisations are responsible for managing flood risk, this does not mean that they are liable for damage caused by flooding. Property owners have a responsibility for protecting their properties and for clearing watercourses and rivers where they are the riparian owner.

Under Section 19(2) the BCBC liaises with the other RMA's, in the course of investigations, records the investigation details and will produce and publish an annual report of investigations undertaken to comply with the requirements of the FWMA 2010.

Whilst local information is recorded, due to the restrictions imposed by the Data Protection Act the published report will not identify individual properties; or property owners but will be restricted to the number of incidents investigated, identification of the RMA with oversight role, the type of flooding experienced and any action taken.

Information recorded will be retained and used in the review of Flood Risk Assessment for the County Borough, including identification of any remedial works to drainage systems under the control of BCBC and potential improvements to drainage systems and/or operations.

The Report covers the Major Flooding Incidents within the County Borough in the period April 2019 to March 2020; it only includes reference to those flooding incidents of which BCBC is aware of.

2.0 Flooding incidents 2019/2020

During this period many investigations were undertaken, of these some related to DCWW apparatus (public sewer blockages/hydraulic overload), also Valleys to Coast (V2C) assets, BCBC assets (culvert/highway drainage/Highway run-off) and several which were established to be domestic private drain blockages or private watercourses, few related to NRW (main rivers).

Of the major flooding incidents that occurred, these resulted in internal flooding to 42 properties, one related to DCWW apparatus, 2No. related to V2C assets, 8No. related to BCBC assets (Culverts/Highway drainage/Highway run-off), 2 cases to NRW (main river levels) and 2 cases due to a defect in private drainage (Including private watercourses). The flooding of the remaining 28 affected properties was due to overland flows and not related to any drainage asset. Internal flooding was avoided in several cases by the timely intervention of BCBC Highways teams, DCWW staff, Fire Service and deployment of sand-bags by BCBC.

Most incidents involved hydraulic overloading of drainage systems, where flows exceeded the capacity of systems. Where flooding was due to blockages in systems these were dealt with either by BCBC working with the riparian owner to resolve, or, directly by BCBC in cases where the issue was on BCBC owned apparatus.

Flooding was also avoided in cases where BCBC had been pro-active through the monitoring of sensors on high risk culverts, checking and clearing culvert grids before and during the flood events.

2.1 Major Flooding incidents 24th/25th Sept 2019

During the 24th September some 88 flooding calls were received over a 12 hour period, 65 related to Maesteg and the immediate surrounding area, with 23 covering the rest of the County Borough including Pyle, Porthcawl, Pencoed and the Garw and Ogmore valleys.

BCBC received a severe weather warning on 23rd September and inspections of the hot-spot culverts in the County Borough were undertaken.

On 24th September, alarms throughout the County Borough were received from the sensors on the high risk culverts circa 8am, with highway staff requested to attend as soon as possible. The inspector and hazarding team cleared the inlet grid at Heol Faen to ensure that further flows remained in channel, this prevented any further flooding from Heol Faen. Again, the debris removed was a selection of stones/gravel /vegetation/other material. Many calls were received requesting sandbags and these were issued as quickly as possible to properties.

With regard to the Heol Dyfed/Heol Elfed V2C culvert, V2C have their own alarm system, BCBC are only able to contact V2C through their switchboard system and the out of hours switchboard; however V2C was made aware by BCBC of the ongoing incident and its high importance and that BCBC was supplying sandbags to affected residents.

Flooding also occurred in other parts of Maesteg, including Talbot Street, Yr Ysfa, Cwmfelin and Garn Road. Operatives, apparatus and sandbags were deployed as quickly as possible to assist.

Severe weather continued into 25th September and resources continued to be deployed to manage and reduce the risk of flooding.

Officers from the Flood and Coastal Management Section carried out door-knocking visits in the area, following the flood event, to ascertain details of who had been affected and how, also to commence a review of the works carried out and to identify any improvements which can be made.

A CCTV survey has been carried out on the Heol Faen culvert to confirm that the line is free from blockages. Investigations are ongoing in Talbot Street and Yr Ysfa to identify any possible improvements to the drainage systems. In Talbot Street the drainage system has been checked and found to be in working order; however an additional highway gully is to be installed in the area of flooding to act as a secondary drain in case of future blockages, it was noted that the Llynfi River was at an extremely high level, which would contribute to the hydraulic overloading by reducing the effective discharge rate of the highway/surface water drainage system. Investigations are currently ongoing to try to identify any possible improvements to the system. At Yr Ysfa the inlet structures have been cleared, the piped drainage system has been surveyed to ensure that there are no major blockages and a contractor engaged to carry out root cutting and removal of minor debris/silt.

The Flood and Coastal Management Section is working to identify any improvements that can be made to the system and in discussions with BCBC Corporate Landlord to agree any revised inspection regime.

Most of the flooding was due to hydraulic overloading of drainage systems during the extreme weather event, where flows exceeded the capacity of systems.

Following this Flood Event an evening meeting was held on 13th March 2020 with residents of the Garth area, attended by Officers, Members, AM and MP, to discuss the changes and improvements already made, following the flooding in 2016, together with future initiatives which may further reduce and manage flood risk.

As a result of this event in September 2019 the following action plan has been identified:-

Location	Proposed action	Link to BCBC Flood Risk Management Plan – EU reporting Code	Status/Notes
Heol Faen, Garth	CCTV survey of culverted water course	M41- Preparedness	Survey undertaken and no significant defects noted February/march 2017 (Survey repeated Sept 2019)

Heol Faen/Heol Dyfed Garth	Arrange public meeting to discuss progress to date and possible future improvements	M41- Preparedness	Meeting held 13 th March 2020
Talbot Street Maesteg	Carry out survey of highway drainage and surface water system	M41- Preparedness	Inspection undertaken 17/11/19 no significant defects, suspect hydraulic locking due to high river levels
Talbot Street Maesteg	Install additional highway drainage	M41- Preparedness	Order raised awaiting resources to become available
Heol Dyfed, Garth	Investigate to identify possible improvements to system	M41- Preparedness	Identify possible mitigation within upstream catchment.
Yr Ysfa Maesteg	Cleansing/root cutting/CCTV	M41 – Preparedness	Due May 2020
Yr Ysfa Maesteg	Agree inspection and maintenance regime with holding dept.	M41- Preparedness	Ongoing with BCBC Corporate Landlord
Yr Ysfa Maesteg	Investigate to identify possible improvements to system	M41- Preparedness	Produce report by July 2020

2.2 Major Flooding incident 15th February 2020

The period through February and March 2020 saw unprecedented rainfall/storm events on an almost weekly basis, these resulted in significant flooding throughout Wales and in Bridgend County Borough it affected the whole of the County Borough stretching resources over the coastal, central and valleys communities.

Storm Dennis hit on the evening/night of 15th February, teams had been deployed on the Friday to check known vulnerable areas, to ensure that drainage systems were prepared. The heavy rain storm mainly affected the valleys; more than sixty calls were received out of hours with the inspectors and operatives working to check culverts, clear blockages, deliver sand-bags also deal with fallen trees, highway flooding/road closures. Whilst alarms were triggered at several of the culvert entrances these were checked and if necessary cleared as soon as possible, two culvert entrances overtopped briefly, one at Wyndham Street Ormore vale and one in Pencoed; these were cleared quickly with no properties adversely affected.

Eleven properties are known to have flooded internally, ten residential and one commercial, the majority of these in Ogmore Vale.

The flooding in Ogmore Vale appears to have been mainly due to blockages at culvert entrances, partly due to hydraulic overload of systems and high river levels causing hydraulic locking to outlets forcing flows to run down the highway and into properties with low thresholds.

2.3 Major Flooding incident 24th February 2020

Heavy rainfall occurred again on 24th February, mainly affecting the Ogmore and Garw valleys. Teams were deployed to deliver sandbags requested and to check and clear drainage systems. No properties were known to have flooded internally on this occasion.

2.4 Major Flooding incident 28/29th February 2020

28th/29th February saw the area hit by Storm Jorge. All parts of the County Borough were affected. Over 150 calls were received during the working day with more than 20 further calls out of hours. Teams were deployed throughout the County Borough, delivering sandbags, clearing debris from drainage systems, closing/clearing and managing flooded roads also liaising with the police and fire services.

Flooding was experienced from many sources, overland flows sheeting from already saturated higher ground, hydraulic overload of the public and highway drainage systems, overtopping of a main river at Pencoed.

Around 17 properties were believed to have flooded internally 16 residential and one commercial, most affected was the Llangeinor area where the run-off from higher ground overwhelmed the drainage systems and brought debris down onto the main road causing it to be closed for safety, for a period.

A blockage within a culverted watercourse caused flows to surcharge in Llangeinor flooding lower properties, temporary works were undertaken using sandbags to divert flows back into the culvert lower down. An investigation found the blockage within a partially buried chamber in the rear garden of a house. The blockage was severe and it took several attempts, trying various methods to clear.

2.5 Major Flooding incident 9/10th March 2020

Extremely heavy rainfall hit the County Borough starting late afternoon, carrying on overnight and through to the following morning. Over 20 calls were received out of hours requiring teams to deliver sandbags, close two roads and work to clear blockages also liaise with the police and fire services. No known internal flooding during this event.

As a result of these events in February/March 2020 the following action plan has been identified.

Location	Proposed action	Link to BCBC Flood Risk Management Plan – EU reporting Code	Status/Notes
Commercial Street Ogmore Vale	Carry out survey of culverted watercourse to identify any restrictions	M41-Preparedness	Initial survey delayed due to access issues river levels, now proposed mid-May

Commercial Street Ogmores Vale	Investigate to identify any improvements which may reduce the likelihood of future flooding	M41- Preparedness	Awaiting results of CCTV, Any proposals would be subject to discussion/approvals and funding
Commercial Street Ogmores Vale	Arrange public meeting to discuss concerns regarding the flooding and explain Council's current position and future proposals	M41- Preparedness	Currently postponed due to Covid 19 lockdown
Craiglas Llangeinor	CCTV survey of culverted water course	M41- Preparedness	Survey undertaken and no major defects noted March 2020
Craiglas Langeinor	Arrange discussion with riparian owners and Local Member with regard to future maintenance of system	M41- Preparedness	Currently postponed due to Covid 19 lockdown

Note: BCBC has no statutory duty to clear blockages in watercourses/culverts in areas it does not own; this is the duty of the riparian (land) owner(s). When aware of a problem BCBC will endeavour to persuade a land-owner to carry out necessary work. If this fails BCBC does have permissive powers under Section 25(1) of the Land Drainage Act 1991 which can be used, after consultation with Natural Resources Wales, to compel a land-owner to take action, or, on expiration of notice to carry out necessary work at the land-owners expense.