

Specific Measure	Measure Type	Link to FRMP Objective	Link to RBMP & Severn FRMP	Time Scale	Progress 2016-2020	Progress 2020-2021	
MEASURE BG01: We will avoid inappropriate development in flood risk areas							
BG01.1	Adopt the Local Development Plan and implement Policy SP7 which directs new development away from high flood risk areas	Prevention M21	S1, S2, S3	Work with others to avoid inappropriate development	2016-2021	The Local Development Plan has been adopted and Strategic Policy SP7 is used to direct development away from flood risk areas. Schedule 3 of the Flood and Water Management Act 2010 was implemented in January 2019 and BGCBC are a SuDS Approval Body (SAB). This means that planning consents have now become completely separate from consents relating to Drainage.	SP7 continues to direct new development away from high flood risk areas.
BG01.2	Raise awareness in Planning Committees when developments potentially impact on flood risk areas.	Prevention M21	S1, S2, S3, Ec2	Work with others to avoid inappropriate development	2016-2021	Development which potentially impact on flood risk areas are identified within planning committee reports	Blaenau Gwent County Borough Council has been set up as a SuDS Approval Body (SAB). This means that planning consents have now become completely separate from consents relating to Drainage. The Planning Committee continues to be made aware

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							when applications have implications on flood risk areas.
BG02.1	Adopt the Local Development Plan and implement Policy SP7 which includes a requirement to incorporate measures in design and construction to reduce the effects of flooding. This will ensure buildings are designed to reduce the effects of flooding	Prevention M23	S2, Ec1, Ec1, Ec2	Promote flood resilience and flood proofing	2016-2021	<p>The Local Development Plan has been adopted and Strategic Policy SP7 is used to ensure buildings are designed to reduce the effects of flooding</p> <p>Due to the implementation of Schedule 3 of the Flood and Water Management Act 2010 planning consents have now become completely separate from consents relating to Drainage.</p>	Where less vulnerable development is permitted in flood risk areas, where necessary, buildings continue to be designed to reduce the effects of flooding.
BG02.2	Promote appropriately designed developments in relation to site levels, creation of high ground and setting floor levels	Prevention M23	S1, S2, Ec2	Promote flood resilience and flood proofing	2016-2021	Advice from NRW on appropriate ground levels and floor level is taken into account in the planning application process. Blaenau Gwent County Borough is now a SuDS Approval Body (SAB). This means that planning consents has become completely separate from consents relating to	Advice from NRW on appropriate ground levels and floor level continues to be taken into account in the planning application process.

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						Drainage	
BG02.3	Increase approaches in road schemes to utilise materials which provide more resilience to flooding incidents where they are likely to occur.	Prevention M23	S4, Ec2, En2	Promote flood resilience and flood proofing	2016-2021	<p>The Drainage Officer previously provided advice on appropriate design for Highway schemes, building in green infrastructure solutions as appropriate.</p> <p>This measure has been largely overtaken by Schedule 3 of the Flood and Water Management Act 2010. Therefore planning consents have now become completely separate from consents relating to Drainage.</p>	This measure is ongoing
BG03.1	Develop reporting system to register details of events at the time of flooding incidents.	Prevention M24	Ec2	Learn from flood events	2016-2021	<p>funding acquired from Welsh Government allowed us to purchase flood management software which will improve the accuracy of recording flooding incidents Software and training was provided in March 2017 enabling details of flood events to be recorded on the software. The loss of a staff member in 2018</p>	The register and software remain in place. The software licence continues to be funded by Welsh Government Flood Grants.

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						reduced input into the database to a minimum.	
BG03.2	Develop and maintain a register of flood assets.	Prevention M24	Ec2	Learn from flood events	2016-2021	funding acquired from Welsh Government allowed us to purchase flood management software which improved the accuracy of recording our Assets. Software and training was provided in March 2017 and details of flood events were recorded on the software The loss of a staff member in 2018 reduced inputting into the database to a minimum.	A new apprentice Drainage Engineer was appointed in 2020 and software training has taken place. Work to update the database has recommenced and will be continuously updated. Whist resources permit.
BG03.3	Develop a maintenance recording system and ensure these are informed by the register of flooding incidents.	Prevention M24	Ec2	Flood Forecasting warning & incident management	2016-2021	Welsh Government funding enabled the purchase of funding acquired from Welsh Government allowed us to purchase flood management software designed to improve the efficiency of maintenance schedule Software and training was provided in	A new trainee officer has now been appointed and given further training. this has enabled the database to be updated

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						March 2017 and details of flood events were recorded on the software. Inputting of data ceased due to lack of capacity during 2019-20.	
BG03.4	Carry out a risk assessment of all critical culverts and flood assets, as identified through the register of flooding incidents, maintenance records or flood assets, and prepare an action plan to address any unacceptable risks as a result of the review.	Prevention M24	Ec2	Modelling & Hydrology	2016-2021	<p>Progress has been made with T98 condition assessments of all critical and significant culvert resulting in repairs and replacements of a number of inlets.</p> <p>Funding has also enabled us to undertake CCTV surveys on a number of culverts, resulting in work to address unacceptable risk</p>	<p>We have undertaken a number of CCTV and man entry inspections throughout the borough.</p> <p>In 2020 a number of catchment studies were undertaken to inform us if the existing culverts are able to cope with the extra demand of new developments and the resulting additional impermeable surfaces which increase flow at culvert inlets.</p>
BG04.1	Ensuring flood events are recorded in line with the form identified in PRFA	Prevention M24	Ec2	Flood Forecasting warning & incident management	2016-2021	<p>A system originally put in place for the recording of flood incidents onto spreadsheets. Software and training has since been provided and details of flood events were recorded on the software. This measure is</p>	<p>Since the loss of the officer progress on this aspect has been reverted to the spreadsheet until it can be input into the software database.</p> <p>A new trainee officer has now</p>

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						ongoing.	<p>been appointed and training has been undertaken paid for by 100% Welsh Government funding.</p> <p>Work to update the database is ongoing.</p>
BG04.2	Implementing a geographical database of flood events to inform future mapping of flood risk areas	Prevention M24	Ec2	Flood Forecasting warning & incident management	2016-2021	<p>Flood risk management software has enabled us to commence input of flooding locations and improve the efficiency and accuracy of mapping flood risk areas.</p> <p>Lack of resources has limited progress with data input, and as a result has reverted to the spreadsheet until it can be input into the software database.</p> <p>A new trainee officer was appointed and training is to be arranged so that he and other members of staff are able to input the data on to our new software</p>	<p>Officers have now received training paid for by 100% Welsh Government funding.</p> <p>Providing we have the resources, work to update the database will be ongoing. It is anticipated that this will be continuous as new flood events occur.</p>

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BG05.1	Delivery of the Blaenau Gwent Local Biodiversity Action Plan (LBAP), specifically HAP1, Wet woodlands, HAP4, Wetlands and HAP 5 Rivers and Streams.	Protection M31	S1, Ec1, En2	Ensure appropriate floodplain compensation	2016-2021	<p>Working with community groups, schools and external charities including pond restoration and creation.</p> <p>Volunteers participated in the vegetation clearance</p> <p>In 2018 invertebrate monitoring and training has been given to new volunteers.</p> <p>Several areas covering all three rivers in Blaenau Gwent are now monitored on a monthly basis.</p> <p>Trigger levels are set so any concerns with water quality are raised immediately.</p> <p>Monthly visits to the rivers also ensure that issues noted while on site are reported.</p> <p>An invasive weed treatment programme was continued that identified and treated Japanese Knotweed and Giant Hogweed</p>	<p>Ongoing</p> <p>Restricted due to Covid Restrictions</p> <p>Restricted due to Covid Restrictions</p> <p>Restricted due to Covid Restrictions</p> <p>Ongoing</p> <p>Ongoing</p> <p>Treatment ongoing where invasive species are reported.</p>

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						<p>found on the Rivers Sirhowy, Ebbw Fawr and Ebbw Fach that flow from Blaenau Gwent into Caerphilly.</p> <p>Himalayan Balsam was also treated in a number of locations</p>	
BG05.2	Consider/Review the designation and management of Local Nature Reserves (LNR) where they assist in flood prevention.	Protection M31	S1, Ec1, En2	Ensure appropriate floodplain compensation	2016-2021	<p>Biodiversity Action Plans have been updated to accommodate Action in the Flood risk management strategy, incorporating planting schemes and habitat management which help to alleviate flooding. BGCBC are contributing to the water management on local nature reserves in line with the ecological management plan in collaboration with internal teams and community groups.</p>	Ongoing

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BG05.3	Consider planning requirements for wetland habitat creation as part of the Development Management Process.	Protection M31	En2	Ensure appropriate floodplain compensation	2016-2021	Opportunities for wetland habitat creation are being considered within the development management process. The options are always discussed with developers when appropriate.	The implementation of Schedule 3 of the Flood and Water Management Act 2010 has ensured that the requirements for wetland habitat creation as part of the Development Management Process are considered separately as a matter of course.
BG05.4	Consider the designation and management of existing wetland areas where they assist in flood prevention.	Protection M31	Ec2, En2	Ensure appropriate floodplain compensation	2016-2021	A number of pond restorations schemes have been identified to build resilience to climate change and help combat the risk of flooding including; Peacehaven, Tredegar Business Park, Beaufort ponds Six Bells and Trevor Rowson. River clearance involving the removal of large quantities of debris was undertaken at sites throughout Blaenau Gwent.	Similar works are ongoing but greatly reduced due to restrictions imposed by Covid.

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BG05.5	BGCBC will encourage developers to incorporate wetland and other natural attenuation schemes in new development through guidance, Policies and pre-application discussions with Planning Control case officers.	Protection M31	S2, Ec2, En2	Ensure appropriate floodplain compensation	2016-2021	<p>2016-17 We have developed draft supplementary planning guidance for biodiversity which considers how to incorporate wetland and other natural attenuation schemes in new developments.</p> <p>2017-18 The above is still relevant but we have seen a fall in enquiries for major housing and other schemes which is when these requirements would become relevant.</p>	Following the implementation of schedule 3 of the Flood and Water Management Act 2010 the issues are automatically considered as part of the SAB application process.
MEASURE BG06: We will increase approaches that utilise the natural environment, like adopting soft engineering in place of traditional solutions, managing of the land to reduce storm runoff, creating more wetlands to store water							
BG06.1	Identify contributions to delivery of the Woodlands for Wales Strategy (Welsh Gov) e.g. Shelter belt planting opportunities.	Protection M31	Ec2, En2	Sustainable woodland and forestry management	2016-2021	<p>A number of woodland planting schemes delivered on school sites</p> <p>1500 trees planted as part of the Sirhowy Valley planting scheme around Peacehaven.</p> <p>Further tree planting took place</p>	<p>Schemes delivered on the following sites:</p> <p>Woodland management at Cwmtillery. £8,500</p> <p>Tree Planting Blaenau Gwent,</p>

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						<p>during Dec 2019 at Bryn Bach Park</p> <p>Sirhowy Community Woodland Group new woodland Planting – 500 native trees planted.</p> <p>2 Ha of infected Larch clear-felled at Bryn Bach Park and replaced with 5000 native this will build in resilience to climate change, and involved the use of volunteers from 4 local schools and the local community.</p> <p>155meters of hedgerow planting took place</p>	Blaenau Gwent Green Infrastructure repairs undertaken with a total value of
BG06.2	Review the existing management of ordinary water courses in regard to controlling invasive weeds.	Protection M31	Ec2, En2	RBMP: Manage invasive non- native species	2016- 2021	26 Km of water courses monitored for the presence of Japanese Knotweed with 65 individual sites being treated (Autumn 2016). The sites have been revised and treated where required in September 2017.	Similar works are ongoing but more reliant on individual reports of sightings due to restrictions imposed by Covid

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						In 2018-19 an ongoing invasive weed treatment programme was continued which treated Japanese Knotweed, Giant Hogweed, and Himalayan Balsam	
BG06.3	Review the existing management plans for Local Nature Reserves which assist in storing and filtering water.	Protection M31	Ec2, En2	RBMP: Improve flows and water levels	2016-2021	Working with our community groups the LNR management plans form the basis of actions on site. Water courses, ponds and lakes are considered to maximise their potential for storing and filtering water	This measure is ongoing in collaboration with the borough ecologist, but greatly reduced due to restrictions imposed by Covid and resulting lack of human resource.
BG06.4	When designing streetscape works consideration will be given to incorporating a greater area of tree planting and permeable areas.	Protection M31	S4, Ec2, En2	RBMP: Reduce impacts of other physical modifications	2016-2021	Consideration is given to the inclusion of tree planting and permeable areas in all development applications. during 2017- 18, 131 planning applications responded to and opportunities to include additional tree planting included where possible.	Following the implementation of schedule 3 of the Flood and Water Management Act 2010 the incorporation of a greater area of tree planting and permeable areas are automatically considered as part of the SAB application process.

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BG06.5	Identify opportunities for planting to stabilise river banks.	Protection M31	Ec2, En2	RBMP: Reduce impacts of other physical modifications	2016-2021	<p>We worked with NRW, Groundwork Wales and volunteers at Marine Colliery on bank stabilisation project, using native woodland species (500 native trees planted).</p> <p>Aberbeeg cycle bridge has included bank stabilisation via green engineering and native woodland planting on the embankment. (500 native trees)</p> <p>No further projects delivered in 2019 -20</p>	Due to restrictions imposed by Covid and the resulting reduction of resources No further projects delivered in 2020 -21
MEASURE BG07: deploying the sustainable drainage systems (SuDS) approach for surface water management for both new and existing developments							
BG07.1	Adopt the Local Development Plan and implement Policy DM1 which requires	Protection M34	Ec1, Ec2	Support implementation of SUDs	2016-2021	The LDP is a key Council Policy in terms of Development Control. Policy DM1 is considered in all development applications (378	Following the implementation of schedule 3 of the Flood and Water Management Act 2010 the reduction of surface water

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	proposals to reduce surface water run off through minimising an increase in impermeable surfaces and using Sustainable Drainage systems, where appropriate.					applications considered for 2016)	run of by the introduction of more permeable areas are automatically considered as part of the SAB application process.
BG07.2	Encourage developers through pre-application discussions to use sustainable drainage systems pending the introduction of the new SuDS regime	Protection M34	En2	Support implementation of SUDs	2016-2021	The use of SUDs is being considered through the development control process. However we are finding developers are not buying in 100% to the principle until it becomes a mandatory requirement.	Following the implementation of schedule 3 of the Flood and Water Management Act 2010 the incorporation SuDS are automatically considered as part of the SAB application process.

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BG07.3	Specify greater use of SuDS systems for new developments as conditions of planning consent.	Protection M34	S1, S2, En2	Support implementation of SUDs	2016-2021	Developers are encouraged to adopt the SuDS management train. However, as it is not yet a statutory requirement we have not attached conditions requiring SUDs but we do attach informative notes to permissions advocating its use	Following the implementation of schedule 3 of the Flood and Water Management Act 2010 the incorporation SuDS are automatically specified as part of the SAB conditions.
MEASUREBG08: Identifying and protecting areas suitable for inundation and water storage to prevent flooding elsewhere							
BG08.1	Identify areas suitable for inundation and water storage.	Protection M31	Ec1, En2	Identify opportunities for floodplain restoration	2016-2021	No progress has been made in this area at present due to lack of capacity.	Due to the topography of Blaenau Gwent there are limited inundation areas for consideration

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MEASUREBG09: Enable those at risk of flooding to play a proactive role in shaping the flood risk management service they receive							
BG09.1	Develop community resilience schemes for areas at risk of flooding	Preparedness M43	S1, S2, S3	Provide service to local resilience forums	2016-2021	No further work undertaken at present. National guidance on community resilience has recently been issued by the Cabinet Office. This is currently being considered on a Multi-Agency basis as to what community resilience work is currently undertaken, and what additional work can be done with current capacity (not necessarily solely flood related).	No further progress made in 2020 – 2021.

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BG09.2	Ensuring wider awareness of individual risk to increase levels of preparedness and planning for flooding events	Preparedness M43	S1, S3, Ec1	Raise awareness of flood risk issues	2016-2021	<p>Information on flood risk is now available on various websites (BGCBC, Gwent Local Resilience Forum, Natural Resources Wales). Updates to BGCBC web site are applied as necessary</p> <p>In 2020 Progress was limited due to the lockdown and social distancing regulations related to the Covid 19 Virus</p> <p>Progress is also limited due to the Civil Contingencies Team only having capacity to work on COVID-19.</p>	No further progress made in 2020 – 2021.
MEASURE BG10: Improve the response to flooding incidents by the emergency response organisations, as well as individuals and businesses							
BG10.1	Ensure lessons from flooding incidents in this and other areas are captured	Preparedness M42	Ec1, Ec2	Learn from flood events	2016-2021	As a result of the flood report forms we are investigating each event of flooding to identify the source and take measures to prevent future occurrences.	<p>This measure is ongoing.</p> <p>Whereas all flooding issues are routinely investigated to an appropriate level. A section 19 Report is a more in depth investigation into serious</p>

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							flooding events. BGCBC is presently finalising its Section 19 investigation of the flood event at Llanhilleth in February 2020 and will be published on the authority website.
BG10.2	Appropriate trained staff to ensure awareness of roles, responsibilities and an effective response for those involved in flood response.	Preparedness M42	Ec1, Ec2	Work closely with NRW	2016-2021	Multi agency Tactical Emergency Management (Head of Service) and Strategic Emergency Management (Corporate Management Team) training is undertaken on an annual basis. Relevant training has been undertaken every year, and all staff with a strategic or tactical role have been trained. Training for 2020 is postponed due to COVID-19	No further progress made in 2020 – 2021.

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MEASURE BG11: Ensure effective recovery arrangements are in place and supported by all relevant parties							
BG11.1	Involvement in multi-agency recovery planning, ensuring plans are tested for suitability	Preparedness M42	Ec1, Ec2	Provide flood incident response service	2016-2021	A Gwent Local Resilience Forum Recovery plan is in place. This is updated on a 3 yearly basis, and Civil Contingencies are involved in both the development of these arrangements and plan validation. The Recovery Plan will be tested through recovery of COVID-10	No further progress made in 2020 – 2021.
MEASURE BG12: Develop better flood forecasting and warning system							
BG12.1	Developing a consistent approach to recording of flood events and flood assets.	Preparedness M41	Ec2	Flood Forecasting warning & incident management	2016-2021	In 2016 we were mostly recording data with a pen and paper and simple excel databases of flood events and of our culvert inlet inspection regime. As of Jan 2017 a new software package, in line with NRW requirements for recording data. 2017 -18 software installed for the	In 2020 Software training was provided for a number of staff and the inputting of data has commenced. Primarily to record flood assets on to the software. Flood events have been collated from a number of different formats and input onto an excel database. These will ultimately

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						recording of floods and we have commenced the inputting of data However this was limited due to the lack of trained staff. recourses were limited due to training	be transferred to our AMX software.
BG12.2	Develop a communication strategy for at-risk communities where risks that cannot be immediately reduced are communicated to the Emergency Planning Team and affected businesses or residents.	Preparedness M43	S1, S2, Ec2	Flood Forecasting warning & incident management	2016-2021	No progress has been made in this area at present due to lack of capacity. However, There is a resilience group in Cwm set up by NRW.	No further progress made in 2020 – 2021.
MEASURE BG13: Improve communication and support to residents, businesses and communities							
BG13.1	Set up a "Flood Risk Community Engagement Group" to help communicate flooding and flood risk to residents, businesses,	Preparedness M44	S1, S2	Raise awareness of flood risk issues	2016-2021	No progress has been made in this area at present due to lack of capacity.	No further progress made in 2020 – 2021.

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	community etc.					