



## Upper Bronallt Terrace Attenuation Pond

Flood Alleviation Scheme delivered to reduce the risk of ordinary watercourse and surface water flooding to 36 residential and 3 commercial properties in the Abercwmboi area.

Scheme Summary	
Strategic Flood Risk Area	Mid Cynon 2
Location	Bronallt Terrace, Abercwmboi
Properties benefiting	36 residential and 3 commercial properties
Type of scheme	Complex Flood Alleviation Scheme
Cost	£770,700
Contractor	Hammonds Construction
Status	Completed
Scheme Completion Date	March 2023
Funding Source	Welsh Government FCERM Capital Grant



*Before (Left) and After (Right) photos of Upper Bronallt Terrace Flood Alleviation Scheme, Abercwmboi*

## Scheme Background

Bronallt Terrace in Abercwmboi is noted as an area of high surface water and ordinary watercourse flood risk based on Natural Resources Wales's (NRW) Flood Risk Assessment Wales (FRAW) maps.

Bronallt Terrace has been subject to several flooding events in recent years, the most significant incident occurring on the 15<sup>th</sup> and 16<sup>th</sup> February 2020 following Storm Dennis, where 28 residential properties were internally flooded and a further 40 properties experienced external flooding.

The community of Abercwmboi is also noted as the 130<sup>th</sup> most at risk community for ordinary watercourse and surface water flooding in Wales according to the Communities at Risk Register (CaRR) which was developed by NRW to provide an objective means of identifying risk and prioritising flood risk management activities at a Wales-wide, community level.

## Scheme Description

The aim of the flood alleviation scheme is to reduce peak storm flows of water from the catchment to reduce the risk of overloading the urban drainage systems downstream and causing flooding to properties and the highway.

The project involved the creation of an **upper catchment attenuation basin**, designed to **reduce peak water flows** during weather events towards the existing downstream culvert. It also included a **debris control basin** to reduce the potential of debris blocking the downstream culvert structure.

The works further provide **enhanced amenity value** within the wetland area, providing an **interactive natural environment** that is adaptive to the future impacts of climate change and enhances the area's **biodiversity by reintroducing a natural and diverse environment for local fauna and flora**. The project also includes telemetry monitoring of the attenuation basin, enabling the Council to monitor the basin's condition and provide early detection of potential blockages to infrastructure.

## Scheme Benefits



Reduced flood risk to **39 properties**



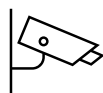
**Natural Flood Management** techniques



**Reintroduced** a natural and biodiverse environment.



Approximately **75m<sup>3</sup>** of debris storage and **1230m<sup>3</sup>** of water storage



**CCTV Monitoring** of Attenuation Basin



Standard of protection of **Q100 plus 40% climate change allowance**