Flood Alleviation Scheme

RHONDDA CYNON TAF

Park Lane Attenuation Pond

Flood Alleviation Scheme delivered to reduce the risk of ordinary watercourse and surface water flooding to 122 residential properties and 30 businesses, including a local school, in the Aberdare area.

Scheme Summary	
Strategic Flood Risk Area	**Mid Cynon 1**
Location	**Park Lane, Aberdare**
Properties benefiting	**122 residential properties and 30 businesses, including a local school**
Type of scheme	**Complex Flood Alleviation Scheme**
Cost	**£530,000**
Contractor	**Horan Construction**
Status	**Completed**
Scheme Completion Date	**July 2021**
Funding Source	**Welsh Government FCERM Capital Grant**

Before (left) and After (Right) of Park Lane Flood Alleviation Scheme, Aberdare

Scheme Background

The Park Lane area of Aberdare 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 and is identified as the 27th 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.

The area has been subject to several flooding events in recent years, the most significant incident occurred on the 12th and 13th October 2018 following Storm Callum, where 5 school classrooms and 2 residential properties were internally flooded with a further 20 properties experiencing external flooding. This flooding event was the 2nd/3rd event following Storm Bronagh which occurred on the 20th and 21st September 2018 which identified the same level of internal flooding.

Scheme Description

The primary aim of the flood alleviation scheme is to reduce the peak storm flows of water from the catchment thus reducing the risk of flooding within the Park Lane area of Aberdare by reducing the risk of overloading the urban drainage systems.

The scheme involved the creation of an **upper catchment attenuation wetland** through the **de-culverting of an ordinary watercourse culvert**, designed to facilitate a **50% reduction to the peak flows downstream watercourse**.

This work was based on the principal of Natural Flood Risk Management with a range of environmental improvements being implemented to facilitate the development of a **diverse ecological wetland with associated amenity use for the local community**.

The scheme involved the creation of a graded channel to provide greater storm water attenuation within the field area of Aberdare Park and de-culverting a section of the ordinary watercourse to install a wide span bridge structure on the existing footpath passing over the watercourse. The works also involved the creation of a maintenance path around the attenuation basin which doubles as an amenity path for local residents and park users.

Scheme Benefits

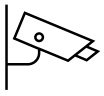
Reduced flood risk to **122 residential properties and 30 business, including a local school.**

Natural Flood Management techniques

Reintroduced a natural and biodiverse

Enhanced amenity uses for residents.

50% reduction in peak flow to the downstream watercourse



CCTV Monitoring of Attenuation Basin