

# A8. Offerton Green

## 8.1. Overview

Offerton Green is a suburb of Stockport, sited between Marple in the east and Hazel Grove in the south. The estate was built in the 1970s in close proximity to the main river Poise Brook, which runs in a northerly direction parallel to Bean Leach Road.

Further upstream, Poise Brook is two separate tributaries, passing through the areas of Torkington and Hazel Grove where it converges just before Offerton Green. From here, Poise Brook travels into Offerton Green estate and passes under Bean Leach Road onto farmland through a culvert.

Just after the junction of Shearwater Drive and Bean Leach Road, Poise Brook makes a 90° turn. This was originally thought to be recently modified; however the historic maps show the route to be unchanged from as early as the start of the 1870s.

The newly updated fluvial (Figure A8.1) and surface water (Figure A8.2) flood risk maps show there to be a high chance of yearly flooding around the areas of Shearwater Road and Fulmar Drive, as well as further south along Minsmere Walk and Dunnock Close. According to the Environment Agency, there are approximately 576 properties within their Flood Warning Area, in the Poise Brook catchment. There have been three recent flood events prior to January 2025, two in 2016 and one in 2019.

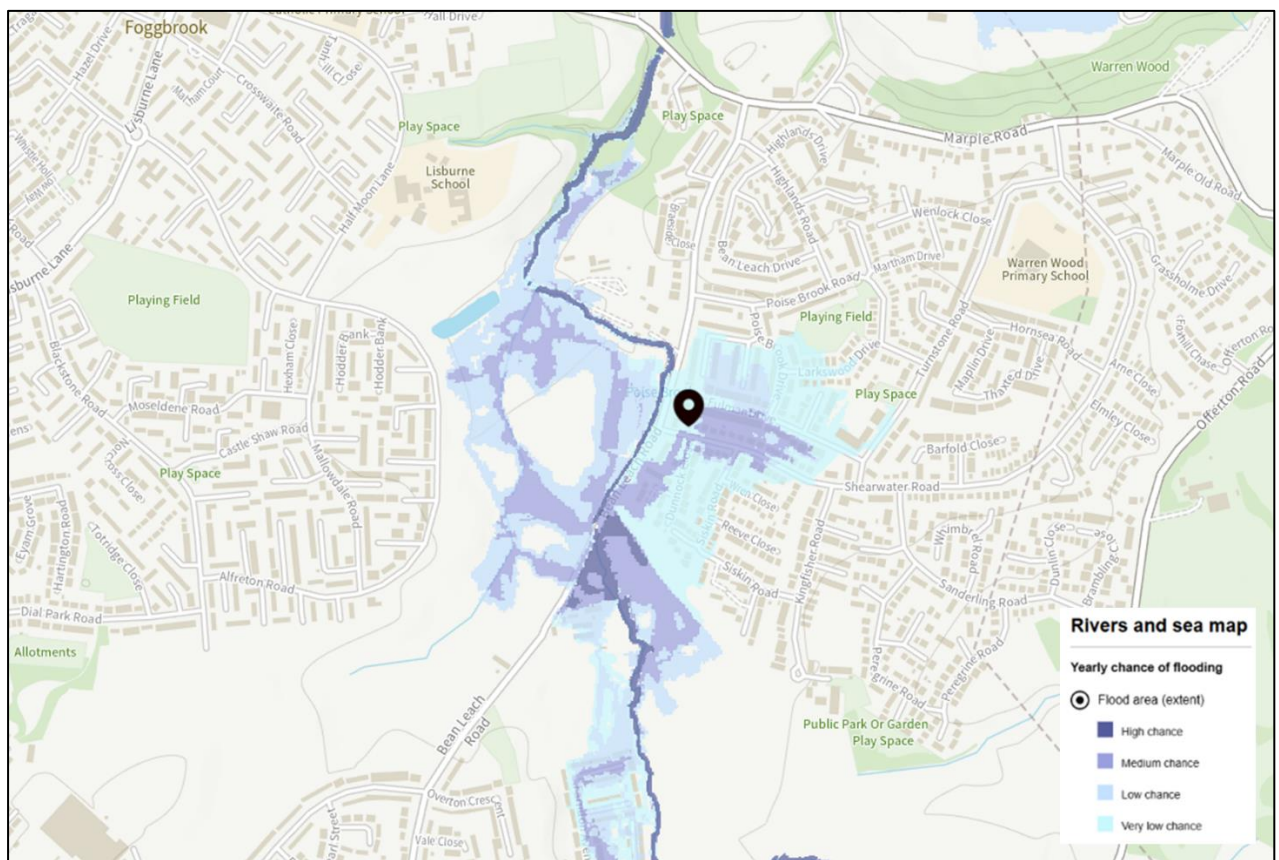


Figure A8.1. Offerton Green Fluvial Flood Risk map. Image Source: Environment Agency.

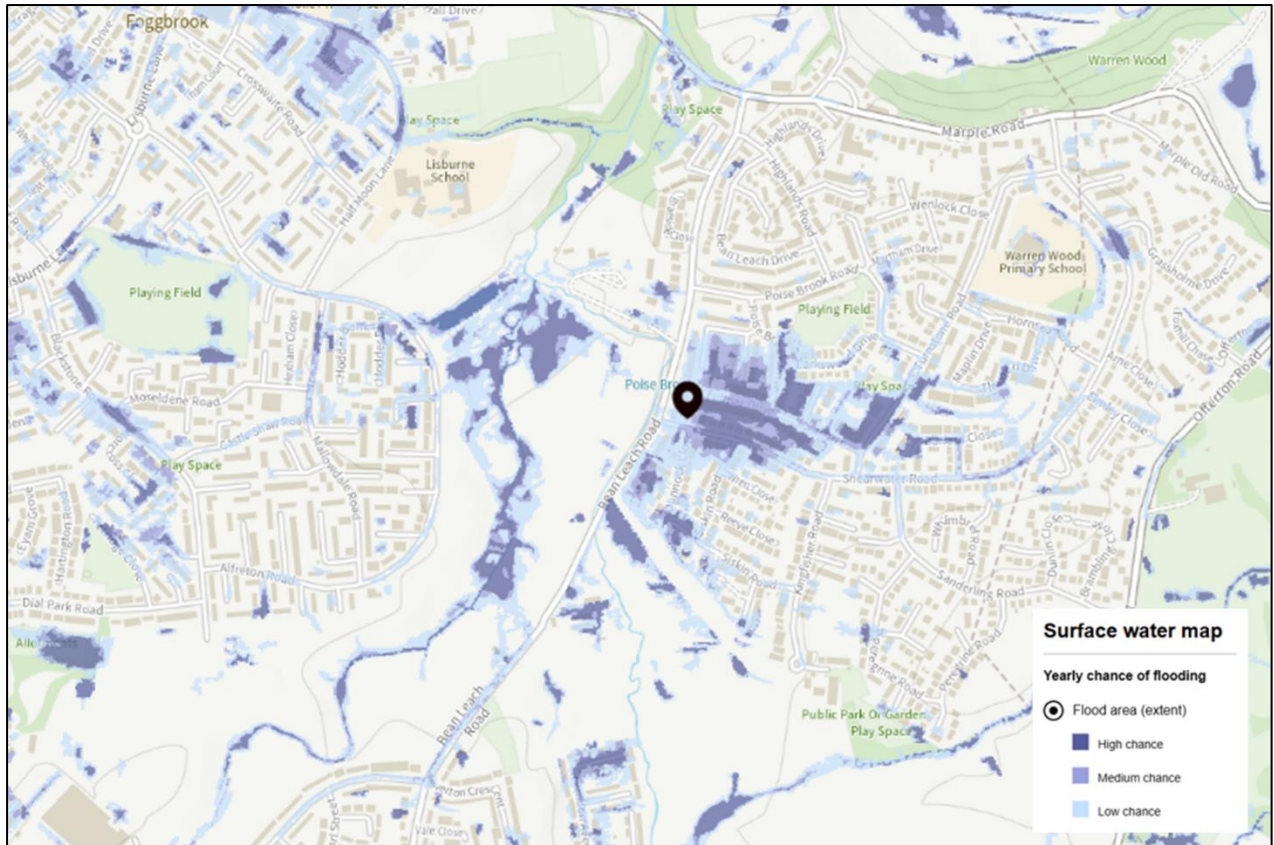


Figure A8.2. Offerton Green Surface Water Flood Risk map. Image Source: Environment Agency.

## 8.2. Flooding Analysis

It is likely that a combination of surface water being unable to drain into the overwhelmed brook, as well as river levels overtopping the culvert on Bean Leach Road, is the cause of flooding. The intense rainfall on 31<sup>st</sup> December 2024 likely also overwhelmed the surface water sewer down Shearwater Road and consequently there was external flooding. The entire Offerton Green estate is connected to the 900 mm sewer which outfalls into Poise Brook. This surface water sewer quickly reached capacity with the additional runoff from the highway and overland flow from the brook and cannot drain back into the brook due to the high water levels.

Poise Brook is heavily channelled at Bean Leach Road and is prone to overtop near the culvert at Bean Leach Road and directly spills over to Minsmere Walks as the camber of the road falls to the east and there is no raised kerb on this side of Bean Leach Road. The other source is surface water run-off and fluvial run-off down Siskin Road and Dunnock Close where it impacted gardens and out-buildings. Water gathered at the junction of Siskin Road and Shearwater Road flooding properties internally.

There is a low point in the right bank floodplain upstream of the Bean Leach Road culvert which is regularly flooded but has no means of naturally draining back to the river and so potential to attenuate any runoff during the event was limited as it was already full. There is an embankment that runs along Minsmere Walks which prevents direct flow into the estate but flood flows are able to get around the embankment where it ends at Bean Leach Road and flow into the estate.

Further upstream of the sewer system properties at the higher end of Fulmar Drive were flooded due to the likely surcharge of the sewer system due to back up from the outfall to Poise Brook.

Figure A8.3 provides an image of the flood risk in Offerton Green during the 1<sup>st</sup> January 2025 event.



*Figure A8.3. Image showing flood waters around Offerton Green on 31.12.2024*

Figure A8.4 provides an overview of the indicative flood flow routes during the 1<sup>st</sup> January 2025 event.

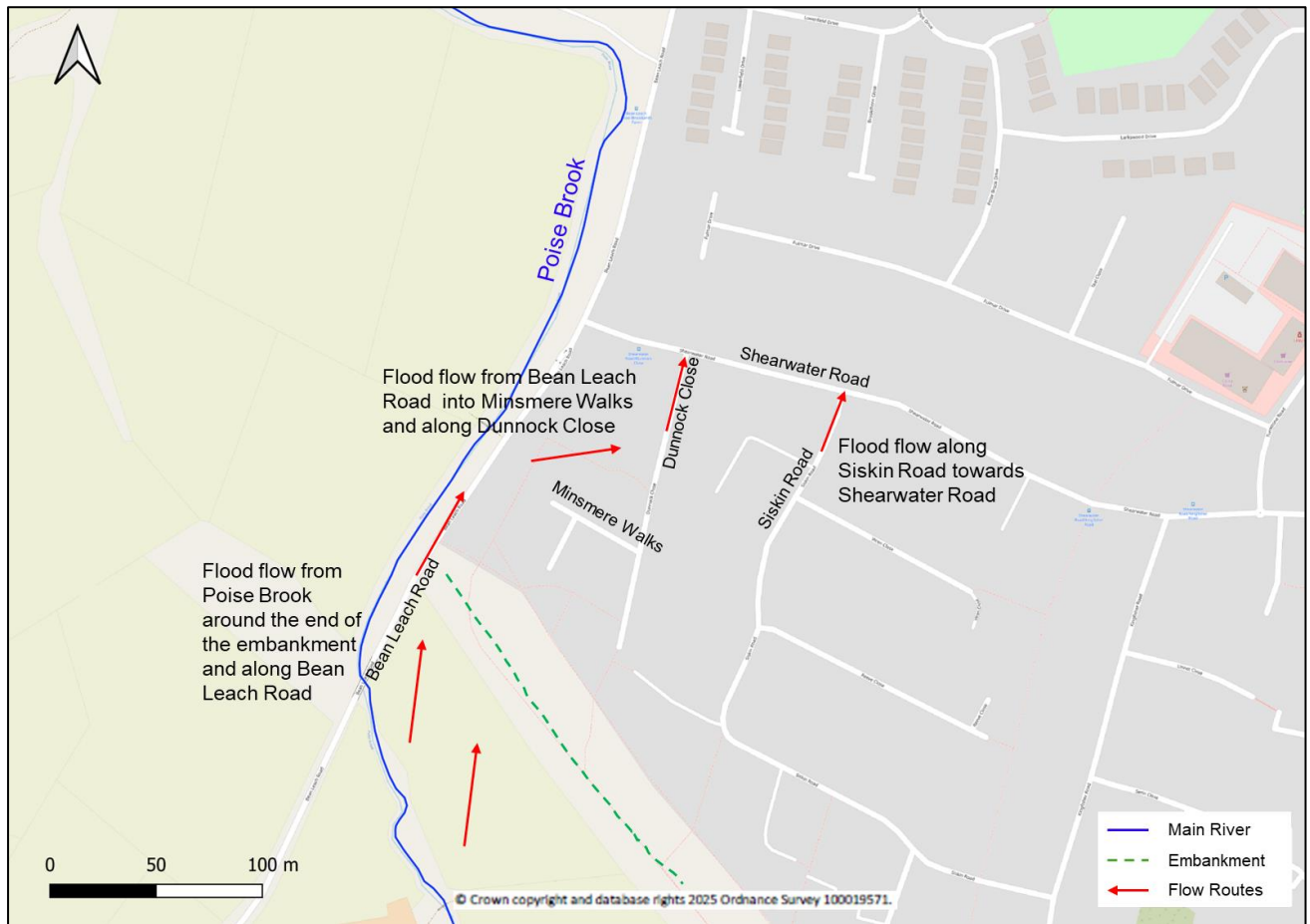


Figure A8.4 Offerton Green Site overview Image with indicative flood flow routes.

### 8.3. Flooding Impacts

As early as 11:40pm on 31<sup>st</sup> December 2024, residents reported up to 10 inches of floodwaters outside their homes, stating that water was coming from Poise Brook that goes under Bean Leach Road, as the culvert became surcharged due to high flows. Residents also suffered from surface water as well as fluvial, and sewer flooding, similarly to how the area was previously affected on the 8<sup>th</sup> and 11th June 2016, as well as 31<sup>st</sup> July 2019.

A number of properties were affected externally with garden and driveway flooding and properties flooded internally within Offerton Green area are summarised in Table A8.1.

Table A8.1. Flood Impact Summary

Number of properties evacuated	Number of properties flooded	Number of domestic properties flooded	Number of commercial premises flooded	Comment

0	21	21	0	As reported to Stockport Council prior to publishing
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Table A8.2. provides a brief summary of the flood event, impact and response in Offerton Green area.

*Table A8.2. Offerton Green Flooding Summary*

Date	<ul style="list-style-type: none"> <li>1st January 2025</li> </ul>
Affected Roads	<ul style="list-style-type: none"> <li>Bean Leach Road, Shearwater Road, Minsmere Walk, Dunnock Close, Siskin Road, Fulmar Drive</li> </ul>
Description	<ul style="list-style-type: none"> <li>Out of bank flow of Poise Brook and surcharge of drainage systems due to elevated water levels at outfall.</li> </ul>
Flood Alert / Warning Issued	<ul style="list-style-type: none"> <li>A Flood Alert for the River Mersey Uplands catchment was issued at 16:57 on the 31<sup>st</sup> December 2024.</li> <li>A Flood Warning for the Poise Brook at Offerton was issued at 01:16 on the 1<sup>st</sup> January 2025.</li> </ul>
Flooding Impacts and Observations	<ul style="list-style-type: none"> <li>Property damage</li> <li>Highways flooded affecting access</li> <li>Additional stress and mental anguish on the community over repeated flooding</li> </ul>
Summary of Flooding Incident Response	<ul style="list-style-type: none"> <li>Stockport Community Incident Officers and United Utilities attended the site to liaise with affected residents at Offerton Green.</li> <li>Property owners do what they can to protect their own properties</li> </ul>

## 8.4. Existing Measures in the Catchment

An Environment Agency led “Poise Brook Catchment Project” business case was initiated in 2022, as a result of the previous flood events to Offerton Green, as well as upstream in Hazel Grove. This project allows the Environment Agency, United Utilities and the LLFA to collaborate on, and develop an integrated business case; to understand the causes of flood risk, the mechanisms at work and the ways these can be reduced. The Poise Brook scheme is currently in the appraisal stage where various options are being assessed to consider how flood risk can be managed in Offerton Green and Hazel Grove. Staged business cases are required to prove project feasibility, before any approvals are given to take a flood scheme forward. Poise Brook is in early appraisal stage and any implementation will be subject to business case approval, availability of funding and partner involvement.

Existing Measures include:

- Leaky dams – Torkington Park
- Refurbished Trash Screen – Torkington Park
- Leaky Dams - Cown Edge Way
- Leaky Dams – Hazel Grove Golf Club

## 8.5. Review of previous Recommended Actions from July 2019 flood event.

As part of the Section 19 report for the July 2019 event a number of recommended actions were proposed for the mitigation of flood risk in the Offerton Green Area. Table A8.3 provides a summary of the progress to date and how an increased understanding of the flooding mechanisms following the 1<sup>st</sup> January 2025 event has shaped the recommended actions outlined in Section 8.6.

Table A8.3. Summary of progress on July 2019 S19 actions

Recommended Actions from July 2019 Section 19	Progress Update
Consider fitting non return valve(s) to UU SW outfall(s) to Poise Brook and confirmation the outfall has free discharge without silt blockage	Review undertaken but additional measures required for online storage prior to outfall which are considered in Recommended Action ID OG4 in Section 8.6
Consider installing raised kerb or bund on Bean Leach Road to prevent Poise Brook exceedance flow from flowing towards properties on Minsmere Walks.	Raised bund installed on Bean Leach Road to prevent flooding of small events on the highway entering Minsmere Walks
Consider highway surface modification (speed table?) to ensure Poise Brook exceedance flow is tipped to the downstream brook and the speed table links with 3rd party informal defence structure (estate flood embankment). This action benefits Minsmere Walks and takes pressure off SW drainage in Shearwater Road.	Further improvements to kerbing along Bean Leach Road to be considered and is included as Recommended Action ID OG3 in Section 8.6.
Update hydraulic model of this reach (including re-survey as appropriate to monitor siltation); validate against 2019 event.	Hydraulic modelling undertaken as part of the Poise Brook catchment project which is at initial appraisal stage.
Update flood mapping for this reach, formalise the flood embankment if necessary.	Hydraulic modelling undertaken as part of the Poise Brook catchment project which is at initial appraisal stage.
Review options for Flood Risk Management Scheme in reach and/or upstream flood management.	The Poise Brook scheme is currently in the appraisal stage where various options are being assessed to consider how flood risk can be managed in Offerton Green
Promote appropriate FRMS	The Poise Brook scheme is currently in the appraisal stage where various options are being assessed to consider how flood risk can be managed in Offerton Green
Residents in low spots of Shearwater and adjacent roads should consider Property Level Defences (PLP) to protect against SW flooding.	Stockport Council have promoted flood resilience through increased communications and have supported affected residents to explore property protection measures. Stockport Council have promoted the Flood Hub to

	affected residents. A direct link from the Flood pages of the Stockport Council website to the Flood Hub is provided.
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## 8.6. Recommended Actions

The following actions are recommended for the Offerton Green flooding hotspot area:

Action ID	Recommended Action	RMA Lead	Stakeholders	Timescale	Constraint
OG1	Where requested provide advice to riparian landowners of their channel maintenance obligations for Poise Brook.	Environment Agency	Riparian owners	Ongoing	Riparian owners, especially homeowners, are unable to carry out maintenance due to physical or financial constraints.  Environment Agency will need to monitor resource availability and situational circumstances when responding to enquiries regarding riparian responsibilities.
OG2	Investigate potential natural flood management measures to attenuate flows upstream of the Bean Leach Road culvert of Poise Brook utilising the existing low-lying area within right bank floodplain. Investigation would need to consider the existing embankment structure to retain water and an outfall to drain water back into the river to ensure available storage during successive rainfall events.	Stockport Council, as LLFA, Environment Agency	Local Residents, Private landowners	3 years	Available budget to undertake investigations and any potential opportunity for works identified.  Engagement and approval required from private landowners for attenuation measures on Poise Brook with loss of land to a formalised washland area.
OG3	Stockport Council, as Highways Authority and LLFA, to investigate potential improvements to Bean Leach Road to retain water in kerbing and direct water back into Poise Brook.	Stockport Council, as LLFA and Highway Authority	Local residents	3 years	Available funding for undertaking highway capital works.  Disruption to access.
OG4	Identify potential additional storage in the network to manage surcharge of the	United Utilities	Local residents	6 years	Available funding for undertaking sewer improvement works that

Action ID	Recommended Action	RMA Lead	Stakeholders	Timescale	Constraint
	system when the outfall submerged due to high water levels in Poise Brook.				are not already prioritised within the latest funding cycle.