

Flood Risk Assessment – Whalley Lodge

This Flood Risk Assessment is in support of the planning application for Whalley Lodge, Whalley Abbey, The Sands, Whalley BB7 9SS.

The proposed development is:

- the replacement of poor-quality late 20th century wooden windows, and aUPVC French double glazed windows, with superior quality wooden windows and French windows using heritage double glazing,
- the replacement of a late 20th century timber back door with a superior quality timber and heritage double glazed back door,
- and the removal of 2 internal 1980's breeze-block walls, installing the necessary structural supports, to provide a larger kitchen/living space and restoring more of the open layout of the historic structure.

Flood Risk - The Environment Agency's Flood Maps Fig 1 show that the site lies within the Flood Zone 2 medium probability flooding). The Environment Agency's flood risk map indicates that the risk of flooding to the site is 'medium'. The overall risk of fluvial and surface water flooding to the site varies from 'low' to 'medium' with the maximum flood depth less than 300mm. The flood risk from other sources including underground water, sewer and reservoir is low.

The estimated flood level for the property is 44.46mAOD Fig 2, and is primarily from fluvial flooding associated with the nearby River Calder. The property has experienced flooding in the near past. The proposal does not impact on the existing height of the existing doors or windows. The submitted Climate change calculations Fig 3 show the estimated increase in peak river levels. The development does no impact on the current heights of doors or windows.

Fig 1.

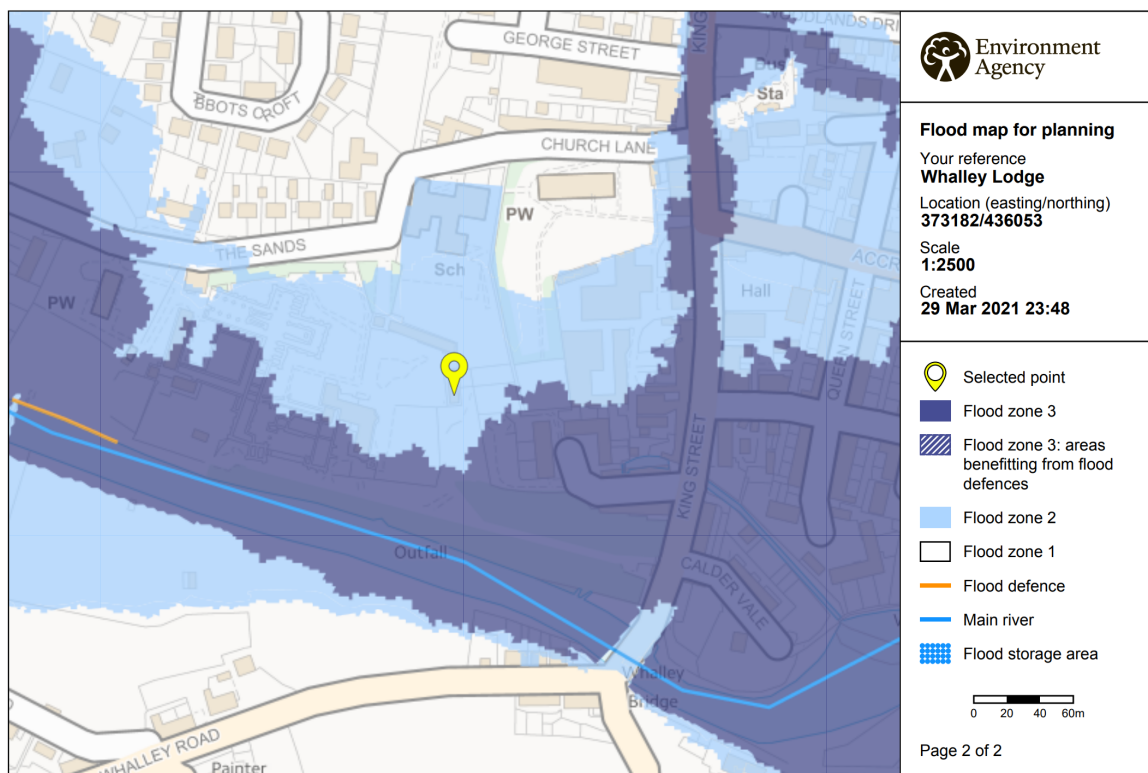


Fig 2

- **Station name:** Whalley Weir
- **Station ID:** 5150
- **River name:** River Calder
- **Typical range:** 0.33m to 3.33m
- **Highest level on record:** 4.64m on 26 December 2015
- **Site datum:** 39.82mAOD
- **Estimated Flood Level:**44.46mAOD

Fig 3

	Peak River Flow Allowances			
River basin district	Allowance category	Total potential change anticipated for the '2020s' (2015 to 2039)	Total potential change anticipated for the '2050s' (2040 to 2069)	Total potential change anticipated for the '2080s' (2070 to 2115)
Northwest	Upper End	20%	35%	70%
	Central High	20%	30%	35%
	Central	15%	25%	30%

Resilience

In order to provide a level of protection against flooding, the doors and French windows to the property have already been fitted with flood barriers. These will be unaffected by the development. The existing floor level will be unaffected by the development. The proposed replacement windows will not affect the existing height of the windows. The proposal does not include the provision of any additional electrical sockets. Existing electrical sockets have been moved above 300mm inside the property. Floor level of the proposed extension will be set no lower than the existing level of the property, and flood proofing of the proposed development will be incorporated where appropriate. In order to minimise the damage and to enable quick recovery and clean up after the flooding event, it is proposed that flood resilient measures will be implemented. This is primarily the replacement of the current carpets in the existing front lounge and hallway with flood resilient wooden composite flooring. The occupants are fully aware of the flood risk and flood warning and evacuation during an extreme event. The occupants already utilise the Environment Agency's Flood Alerts Service available in the area and have a flood evacuation plan.

Floor levels

The existing floor levels are provided in the application and they remain unchanged by the development.