

Downton Flood Alleviation Scheme

What is the flood risk in Downton?

- Downton is situated in the middle of the Hampshire Avon catchment where, historically the Avon has been split into several channels. These channels were created when water level management was the local farming practice allowing the landowners to control and manipulate river levels around the meadows where they could be "drowned" to provide early season grass growth to feed larger herds of sheep and stock. The Avon at Downton also provided a head of water on the Tannery stream that would have powered the Old Mill. There are several other structures in Downton that, over the years have assisted with the water level management in the area. With the change of farming practice, and ever-present flooding issues, The Environment Agency operates some of these structures for a flood risk benefit that reduces the flood risk to properties and businesses in Downton,
- The Hampshire Avon catchment is predominantly chalk geology that responds differently to rainfall than other watercourses. After periods of prolonged and heavy rainfall, levels in the Hampshire Avon will begin to rise and stay high for long periods of time.
- There is a long history of flooding in Downton. Flooding in the early 2000's instigated the necessity to build a flood alleviation scheme that would reduce the risk of flooding to approximately 130 properties.
- In 2003 Flood Risk Management works were completed to reduce the risk of flooding to a 1% chance of flooding event in any year.
- The flood alleviation scheme comprises of 1200m of earth embankments, two stage flood relief channels, 100m of flood walls, various control structures, weirs and a pumping station.
- The Environment Agency maintains the Flood Alleviation Scheme structures to ensure they perform as they should during a flooding event.
- Smaller scale flooding still occurs in areas not protected by the scheme due to surface water flooding and runoff. Environment Agency flood mapping shows that parts of Downton are still at risk of flooding. The risk of flooding is forecast to increase in the future due to climate change.

How does the Flood Alleviation Scheme reduce the risk of flooding in Downton?

The Downton Flood Alleviation Scheme works to convey flood water and raised base flows as safely as possible through Downton.

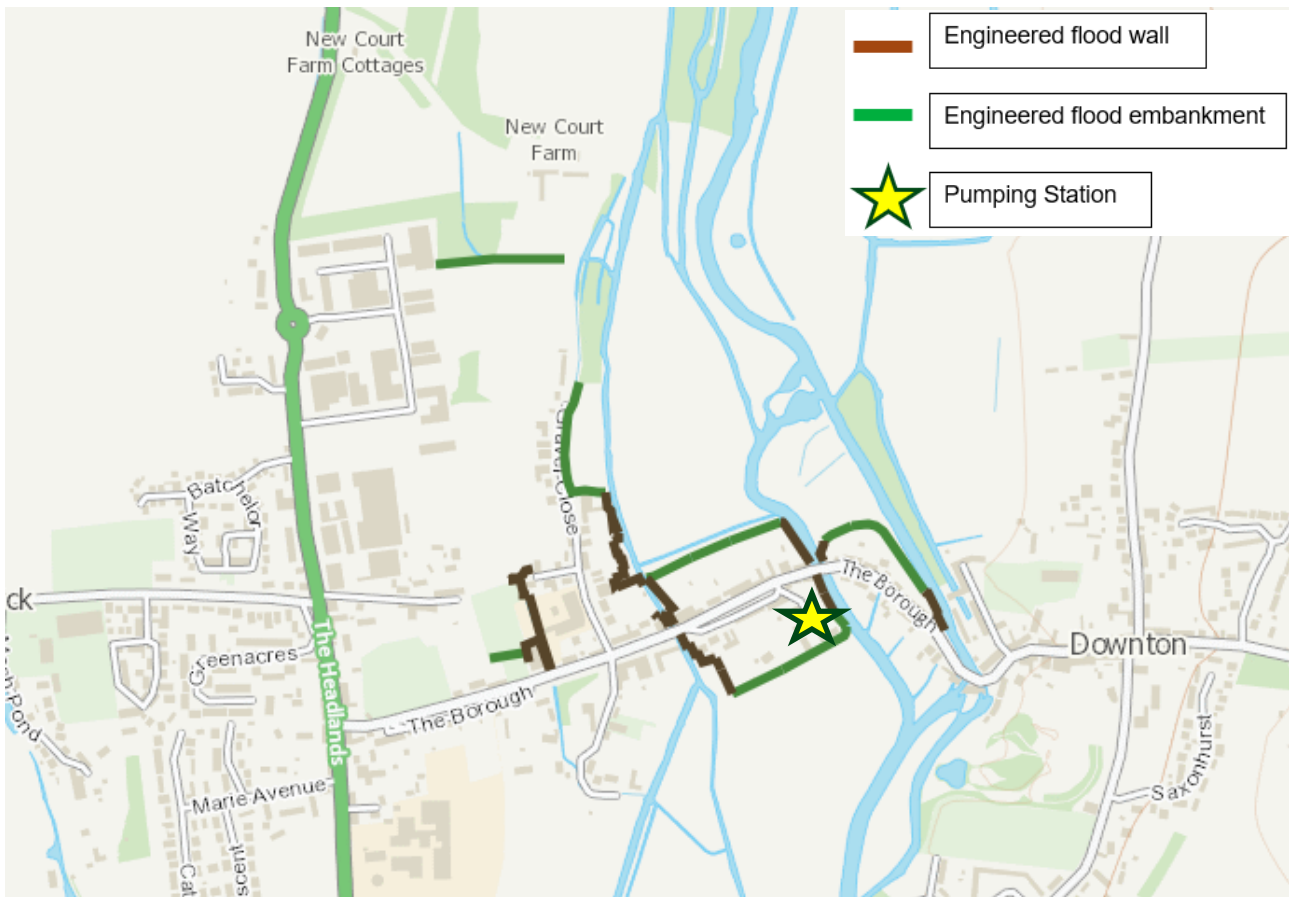
This is done by apportioning the flows through various channels in Downton and by making the most of the natural flood plain upstream and downstream of the village.

customer service line **03708 506 506**

floodline **03459 88 11 88**

incident hotline **0800 80 70 60**

Flood Wall
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The scheme is made up of a series of engineered flood walls and engineered flood embankments that offer a raised level of protection to properties at flood risk. During periods of higher flows, it is not uncommon for water to be up against these structures for long periods of time.

The scheme provides relief from emerging groundwater and surface water that accumulates within the village.

During normal flows, surface water that accumulates in the town after rainfall events can discharge into the Hampshire Avon through the surface water drainage system by gravity, and flow through the flapped valves into the River. When levels are high the flap valves are forced shut.

The network of drains at the eastern end of The Borough lead to a pumping station. When river levels are high the pumps automatically pump surface water and groundwater into the Hampshire Avon through large flap valves reducing the risk of flooding in Downton.

How does the Environment Agency maintain the Flood Alleviation Scheme?

- Our staff regularly carry out routine inspections of the Flood Alleviation Scheme, ensuring it is fit for purpose and ready to operate as it should.
- We carry out regular maintenance on the structures, making sure it is free from large blockages and removing any large debris that gets caught on it.
- During the growing season, Environment Agency staff carry out maintenance on the grass covered embankments in Downton. This is carried out by using machinery to maintain a good grass coverage of the embankments as this provides erosion protection to the clay cored embankments. Follow this link to find out more [Why we cut the grass on flood defences - Creating a better place \(blog.gov.uk\)](#)
- Prior to the winter, outside of the bird nesting season and before the migratory salmonoid spawning season, our field teams exercise the Environment Agency's permissive powers to carry out a sensitive vegetation management cut in some of the channels in Downton. This comprises of cutting back any vegetation or large debris that could pose a flood risk or could block part of the scheme from operating as it should when and where necessary.
- This however does not mean that we will clear all the vegetation as this would have a detrimental impact to the unique habitat on the Hampshire Avon in Downton and the species that reside there.
- General maintenance of the footpaths, trees and bankside vegetation is the responsibility of the riparian owner. For more information about Riparian responsibilities and sensitive vegetation management follow these links.
- [Owning a watercourse - GOV.UK \(www.gov.uk\)](#)
- [Water crowfoot, or how we learned to love Ranunculus - Creating a better place \(blog.gov.uk\)](#)
- [GardenRiverbankGuide-EmailVersion.pdf \(wessexrt.org.uk\)](#)
- This link shows high levels in the Hampshire Avon during January 2023 you can see how the Downton Flood Alleviation Scheme worked to reduce the risk of flooding to many properties in Downton during that winter. [Avon in flood \(loveofwater.org\)](#)

What can you do to reduce the impact of flooding?

- We strongly advise that people continue to prepare and take action to reduce the impact of flooding to their homes and businesses.
- Find out if your home is at flood risk, sign up for flood alerts and flood warnings and be ready to take action. [Check the long term flood risk for an area in England - GOV.UK \(www.gov.uk\)](#)
- Write a personal or community flood plan to help you prepare.

- For more information visit www.gov.uk/flood or call Floodline on 0345 988 1188.

You can check river and sea levels in England <https://flood-warning-information.service.gov.uk/river-and-sea-levels>

Visit the Met Office website for local forecasts at www.metoffice.gov.uk

Downton Flood Alleviation Scheme

Completed December 2003

Approx 130 properties benefit from the flood alleviation scheme

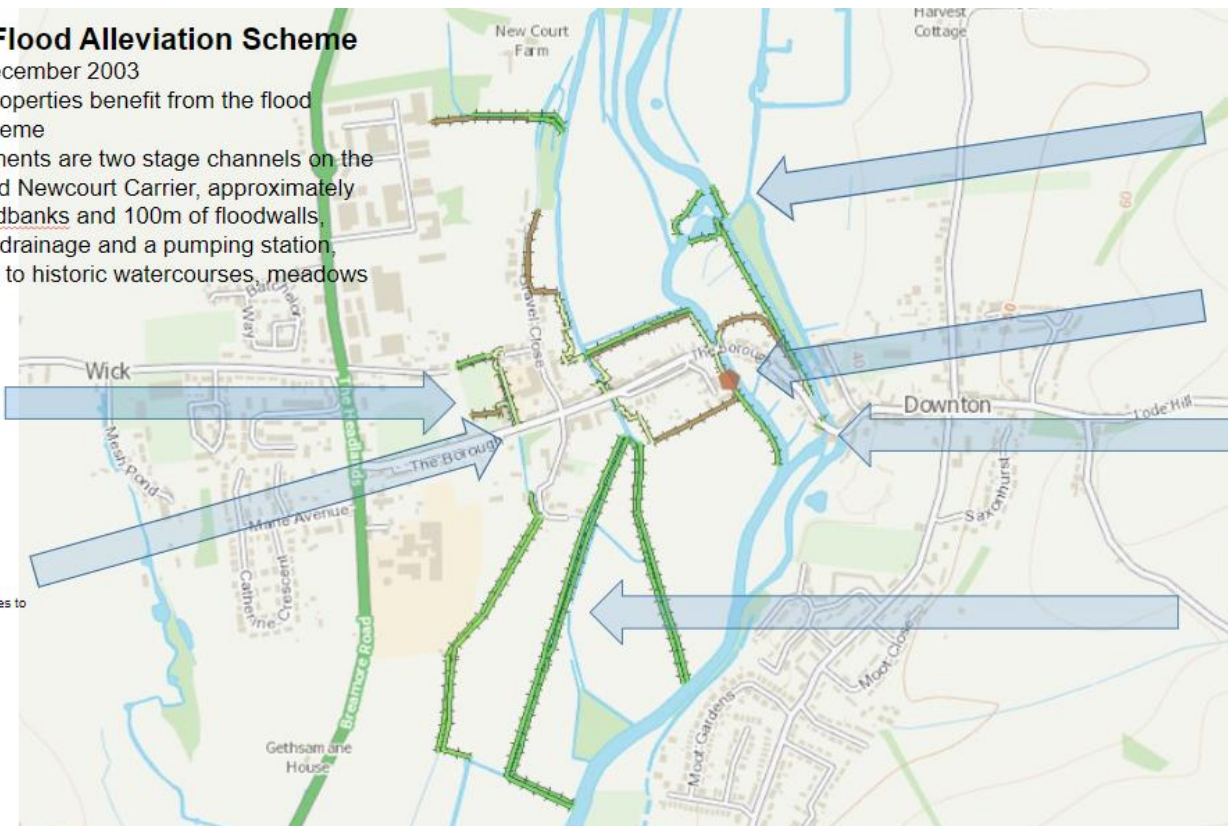
The main elements are two stage channels on the River Avon and Newcourt Carrier, approximately 1200m of floodbanks and 100m of floodwalls, surface water drainage and a pumping station, improvements to historic watercourses, meadows and ditches.

The Bunny

Maintenance in the Autumn, left for wildlife benefits through the summer months then flows into the New Court Carrier

Culvert

Routine inspection and checks from EA operatives to grease flap valves



Wild Weirs

4 x radial gates
Fish pass
Apportions flow between Iron Bridge and the Tannery

Green Lane Pumping station moves surface water build up from defended area when river levels are high.

Bucket's Hatch at the Old Mill
Automated vertical lifting gate, maintains levels during lower flows for wildlife benefits on the Tannery carrier with fish pass

2 stage channel for increased capacity
Planted with wildlife beneficial ground cover. Mown in the autumn to increase capacity.

