

Cannock flood alleviation scheme

Your questions answered



ENVIRONMENT
AGENCY

Cannock

Introduction

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The ancient town of Cannock, in Staffordshire, has a population of some 92,000. Once a quiet market town, Cannock matured into a centre of mining and edge-tool manufacture during the industrial prosperity of the 19th century. Now, extensive shopping facilities mix the traditional and the modern and Cannock is well known as the gateway to Cannock Chase.

Cannock Chase is called 'the green heart of Staffordshire', with majestic woodlands, valleys and heathlands. A former royal hunting forest and home to one of Britain's largest herds of fallow deer, the Chase is the smallest mainland Area of Outstanding Natural Beauty (AONB) in England and Wales at 68 km² or 26 miles². It is a major tourist attraction. The area has a fascinating history, once being the home of mining, iron-working, charcoal and glass making. Extensive areas of the Chase were used for military training and army encampments for World Wars I and II.

However Cannock also has a flooding problem...

Ridings Brook

The Ridings Brook drains an area of land that includes parts of Cannock Chase, Hednesford and eastern Cannock. The brook generally flows in a south-westerly direction from Pye Green, just south of high ground in Cannock Chase, through the urban areas of eastern Cannock and Bridgetown. It joins Saredon Brook, near the A5 trunk road, before joining the River Penk. The brook is only 6.2 km long and drains an area of 18 km², the majority of which is urban. The brook's tributaries include Pye Green Brook, County Brook, Hawkes Green Brook and Golly Brook North.

Flooding and Ridings Brook



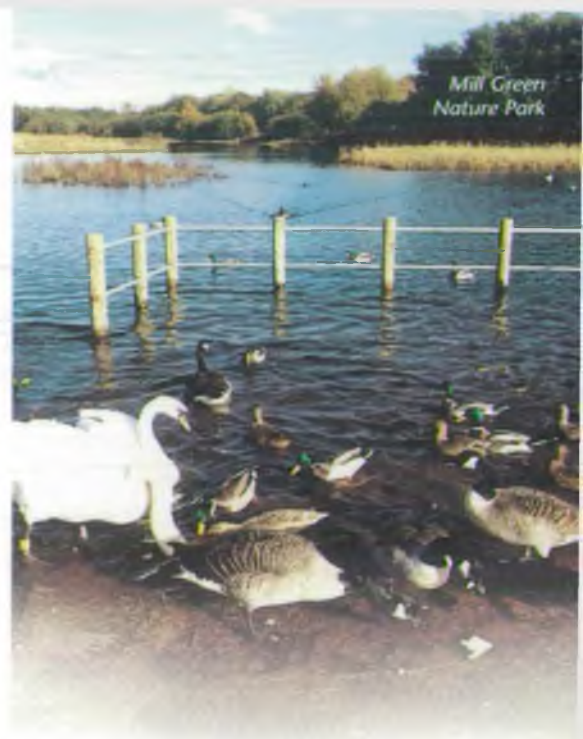
Cannock has a history of flooding from the brook in recent years, with notable events occurring in September 1994, July 1999 and November 2000. The current standard of flood protection to properties within the Ridings Brook floodplain in Cannock is largely inadequate, with some areas beginning to flood in a 1 in 5 year event*.



The existing flood defences depend on a storage reservoir known as Mill Green Balancing Pond which offers a degree of protection and which lies within the Mill Green Nature Park. In 1977 an existing pond was enlarged and modified to operate as a balancing lake retaining water using manually controlled sluices set in an earth dam. However, once the pond is at capacity, the water overflows the top of the earth dam causing flooding to downstream properties.



South of Mill Green Balancing Pond Ridings Brook runs through a number of undersized culverts (underground channels). As a result some areas around these culverts are also very susceptible to flooding.



The 1994 flood was the result of severe multiple storms. The Mill Green Balancing Pond didn't have sufficient time to drain down between the storms and water overtopped the dam, causing flooding downstream. Many areas of Cannock including Rumer Hill Road, Walsall Road (A34) and Watling Street (A5) were all severely affected. The A5 was closed for two days.

Heavy rainfall in November 2000 caused minor flooding at Eternit and Finnings factories. On this occasion severe flooding of many properties was averted due to the presence of contractors manually operating the Mill Green sluice gates.

Following the 2000 floods the Mill Green Balancing Pond was de-silted and enlarged but computer modelling indicates that the storage capacity is still below the required level. Studies have shown that at present the pond has a 10% chance of overflowing in any single year. In this event, 40 residential and 24 industrial properties are at risk. This number rises to 88 residential and 46 industrial properties, in a 1 in 100 year* event.

*Floods are categorised by their size and the frequency with which they can be expected to occur. A 1 in 5 year flood is one that has a 20% chance of happening in any year - this is a frequent flood. A 1 in 100 year flood only has a 1% chance of happening in any one year but its effects can be enormous.

All above
Flood of 1994

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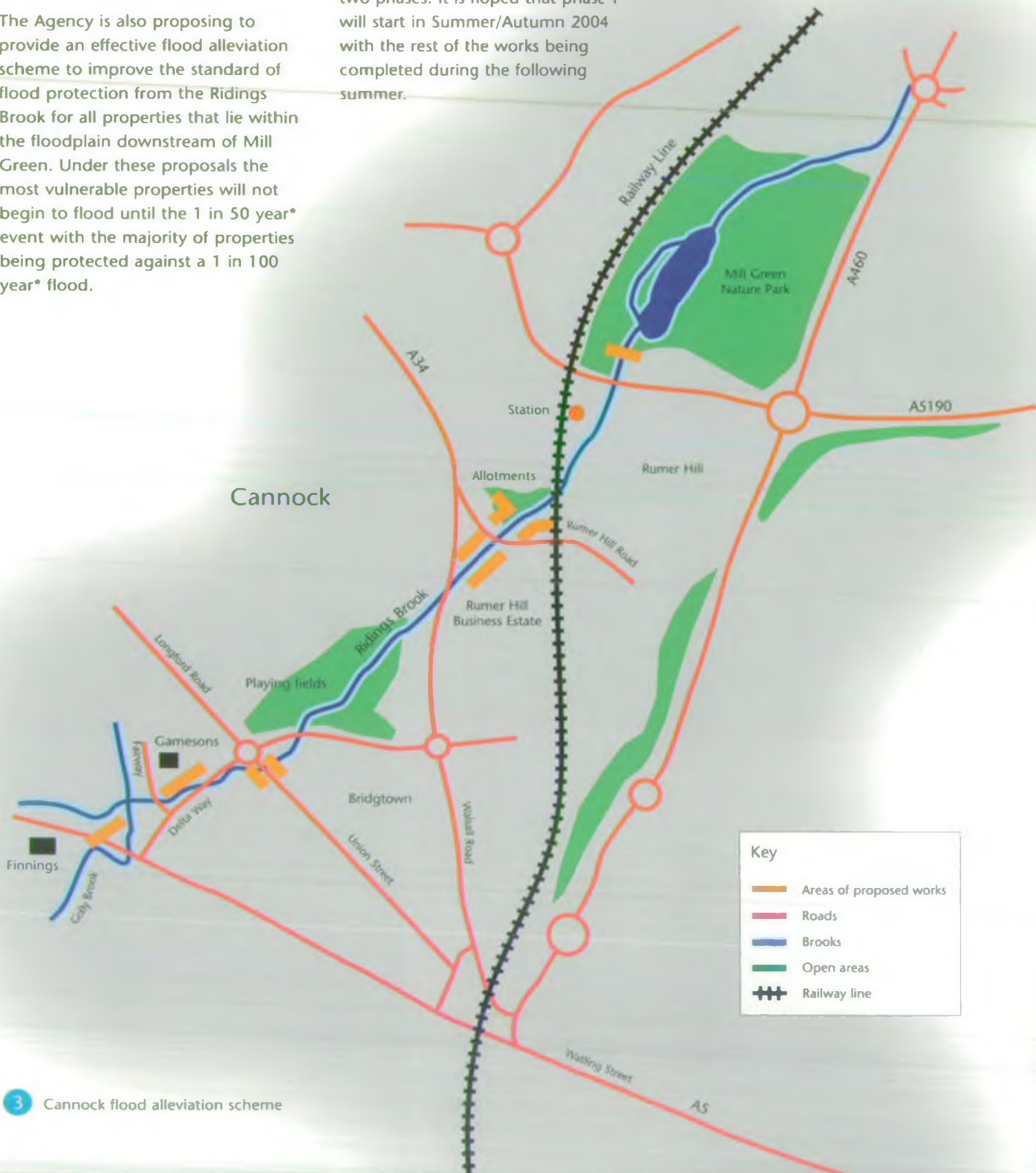
What is the solution?

In October 2003 a new river gauge was installed which allows improved flood warnings to be given to local residents and businesses. This gives people time to prepare and to reduce the effects of any flood.

The Agency is also proposing to provide an effective flood alleviation scheme to improve the standard of flood protection from the Ridings Brook for all properties that lie within the floodplain downstream of Mill Green. Under these proposals the most vulnerable properties will not begin to flood until the 1 in 50 year* event with the majority of properties being protected against a 1 in 100 year* flood.

We are hoping to spread the construction work over two years so that minimum disruption and inconvenience is caused to the town.

The scheme will be separated into two phases. It is hoped that phase 1 will start in Summer/Autumn 2004 with the rest of the works being completed during the following summer.



The proposals

Mill Green

Changes to Mill Green Balancing Pond will provide increased flood protection to all properties within the Ridings Brook floodplain and therefore this work will be part of phase 1 of the scheme. We are proposing that the height of the dam is raised by a maximum of 1.9m and automated controls installed for two outlet sluice gates, based on trigger levels upstream and downstream of the dam.

Mill Green is a **Grade 1 Site of Biological Importance** containing an area of ancient unimproved grassland. The Environment Agency is currently working with Cannock Chase District Council to ensure that the effect on this area as a result of the scheme is minimised. It is recognised that more of the open space in Mill Green Nature Park would be under water during the most severe flood events, if the dam were raised. However, installation of automated sluice gates will halve the length of time taken to empty the area after a flood has receded. This will mean that for the more frequent floods, the paths around the lake will remain open for a longer period of time than they do at present.

The Environment Agency has identified a thriving **water vole** population at Mill Green that could be endangered if the dam were to be raised. However, consultation with Staffordshire Wildlife Trust and English Nature will ensure that measures are taken so that there is no adverse effect on water voles as a result of the works.



Mill Green Nature Park

A full assessment of other habitats will be undertaken as part of a plant community survey. A number of archaeological sites have been recorded in the area including the original mill stream. Any archaeological impact will be assessed in consultation with Staffordshire County Council.

It has been recognised that Mill Green is a popular recreation and dog walking area. Whilst it is inevitable that there will be some disruption to these facilities during construction, the paths will be restored on completion and replacement and additional planting will be undertaken to enhance the area.



The A5

Work around the A5 will also form part of the first phase of the scheme. A new flood relief channel and culvert will need to be constructed under the A5 about 75m westwards of the existing culvert. This will ensure that water from Ridings Brook cannot spill over the A5 which will prevent road closures and protect the Finning's factory from flood water.

Work on the A5 culverts may cause some disruption to traffic. Consultations will take place with the relevant highways authority to reduce this to a minimum. Also, we expect that congestion will not be a problem because of the M6 toll road, which will be open by then.



Ridings Brook behind Rumer Hill Road allotments

Rumer Hill Road

This is phase 2 of the scheme. The proposals suggest a 1m high embankment along the rear of properties on the north side of Rumer Hill Road for a length of around 80m on both banks.

In addition, the construction of new walls upstream of Rumer Hill Road will protect properties on both sides of the brook from flooding. It will be necessary to replace the railings, on the upstream side of the Rumer Hill Road culvert, with a concrete wall.

In order to protect properties south of Rumer Hill Road from flooding it will also be necessary to construct a 100m long wall on both sides of the brook. It will also be necessary to raise the walls at the entrance to the A34 culvert by a maximum of 0.7m.

During construction some disruption to businesses, properties and gardens is inevitable. However, the Environment Agency will make every effort to minimise this inconvenience. Any gardens affected by the scheme will be landscaped on completion.

It is likely that part of the allotments at the rear of Rumer Hill Road will be needed for the contractors' compound during construction. Care will be taken to minimise disruption and any plots affected will be restored to their former condition on completion.

Longford Road

The head wall and wing walls at the entrance to the Longford Road culvert will be raised by a maximum of 0.3m, tying into high ground, to prevent flood water flowing over Longford Road.

Delta Way

We are proposing to raise the height of the right bank outside Gameson's factory on Delta Way by around 0.5m.



What happens now?

Initial consultation has been carried out in July 2000 when an Environmental Scoping Report was published as part of the on-going Environmental Impact Assessment of the scheme. An addendum to this report covering possible works at Mill Green was published in January 2002. Local people responded to the consultation, and the proposed option that we are putting forward now, reflects the views and wishes of the community.

We are now entering into a second stage of consultation. An Environmental Report will be published in early 2004 giving full details of the proposals. You will be able to respond to this report, which will then go forward with any planning application. We are hoping to apply for planning permission around Easter 2004. Cannock Chase District Council will have the final decision on whether the scheme is given planning permission. Once planning permission has been granted the proposals will be submitted to the Department for Environment, Food and Rural Affairs (Defra) for approval.

It is important that everyone in Cannock who wants to comment and influence the proposals has the opportunity to do so, and we will welcome your views.

Assuming planning permission is given, it is hoped that construction of the scheme could start in Summer/Autumn 2004.

For further information on the Cannock Flood Alleviation Scheme, please contact James Mallender, Project Manager, Environment Agency by emailing him at: james.mallender@environment-agency.gov.uk or by ringing our regional office on 0121 711 2324.

Rumer Hill Road allotments



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