WELCOME

We hope that you find the information event informative. Please have a look at the boards and talk to representatives of the below organisations who are on hand during the event if you have any questions.

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THE PROBLEM

Winchester is prone to predominately groundwater flooding. Groundwater flooding occurs after prolonged rainfall to the River Itchen catchment, see below. The ground water then feeds into the River Itchen and some of its tributaries which then runs through Winchester. When the river and streams become overwhelmed from groundwater Winchester receives unmanageable amounts of water.



The most recent flooding occurred in the winter of 2013-2014 where a flood response from Hampshire County Council, Winchester City Council and the Environment Agency did their best to prevented significant damage to properties and assets from occurring.







WHAT HAVE WE ALREADY DONE?

PHASE 1 - NORTH WINCHESTER FLOOD DEFENCES

Following the flooding in 2014, phase 1 of the Winchester Flood Alleviation Scheme was implemented in the Summer of 2016. The scheme was funded by Hampshire County Council, Winchester City Council, The Environment Agency and Southampton University and it was designed to protect River Park Leisure Centre, St Bede's School, Winchester Art College and properties along Park Avenue.

The flood defences consist of flood defences walls, demountable flood barriers, timber sleeper walls, sluice gates and flood defence bunds.





ADDITIONAL MEASURES

- As well as the implementation of Winchester Flood Alleviation Scheme, Winchester City Council and the Environment Agency have undertaken an assessment of all the sluice gates, rivers, watercourses and underground pipework within the city. There is now a greater understanding of their locations, ownership and effect on flooding in the city.
- · From this assessment a Sluice Gate Management Group was started between Winchester City Council, City Mill and other sluice gate owners to ensure all parties work together to maintain and manage the flow of water through the city.
- A dwarf wall on Water Lane was also constructed by Winchester City Council in 2015 to help protect properties on Water Lane from flooding



SCHEME OVERVIEW





Winchester City Council, The Environment Agency and Hampshire County are now aiming to deliver the second phase of the Winchester Flood Alleviation Scheme. The map below shows an overview of the whole scheme, phase 1 and phase 2.

PHASE 2 – PROPOSED WORKS







PHASE 2

Photos attached give an indication of how the scheme will look once implemented









Typical photo of sluice gate

BENEFITS OF SCHEME



DURING LOW RETURN PERIOD EVENTS (1in5 1in20)

- · Reduces the risk of flooding to properties south of Durngate
- Enables Winchester City Council to control and manage all rivers running through Winchester. At present these 3 channels are the only ones without a control structure.
- Provides flood resilience to City Mill a national trust monument
- Enables channels to be maintained
- Ensures surface water systems continue to work in the city centre during storm events as all drains discharge into the river



BENEFITS OF SCHEME



DURING LARGE RETURN PERIOD EVENT (1in75 1in100)

- Reduces the risk of flooding to properties south of Durngate
- Enables Winchester City Council to control and manage flow to relieve pressure on certain channels
- Provides flood resilience to City Mill a national trust monument
- Enables channels to be maintained ٠
- Helps to protect surface water systems in the city centre during storm rainfall events
- Retains flood water in Winnall Moors for up to 1 week during • extreme events to enable properties downstream to prepare for flooding



ENVIRONMENTAL AND ECOLOGY IMPACT ON WINNALL MOORS

- Winnall Moors and the River Itchen are nationally- and internationally-important sites for biodiversity. Winnall Moors is a vital component of the natural environment that provides much natural flood protection to the city and therefore we recognise the necessity of protecting this from any harm that might otherwise arise from the construction and operation of the scheme. We have undertaken extensive consultation with nature conservation bodies including the Hampshire and Isle of Wight Wildlife Trust, Natural England, and the Environment Agency. The results of these have fed into the design of the survey work and the development of measures to avoid, mitigate, and compensate for biodiversity impacts.
- A detailed and carefully-planned programme of extensive survey work carried out by specialists to properly understand the characteristics of features such as important flood meadow habitats, water voles, breeding birds, bats, and fish populations. This information was fed in to the development of the design and operating protocol of the schemes.
- We have undertaken extensive consultation with nature conservation bodies including the Hampshire and Isle of Wight Wildlife Trust, Natural England, and the Environment Agency. The results of these have fed into the design of the survey work and the development of measures to avoid, mitigate, and compensate for biodiversity impacts.







ENVIRONMENTAL AND ECOLOGY IMPACT ON WINNALL MOORS

MAPPING OF FISH HABITATS AT DURNGATE



- The scheme has been designed to minimise impacts e.g. pollution control, timing and methods of works to avoid impacts to fish, timing of vegetation clearance to avoid harming nesting birds.
- The scheme includes a tree replacement programme so there will be no overall loss of trees, and the new trees will be in more appropriate locations and will have a longer life span.
- There will be benefits to biodiversity in some areas of the scheme. For example, the construction will result in a more varied structure of woodland, scrub, and open habitats near Durngate Place, providing more niches for different plant, animal, and insect species.
- Detailed flood modelling together with understanding how and when the infrastructure will be operated allows us to understand how the various areas of the Moors will be affected e.g. additional water depth, extent of flooding. After each use of the new infrastructure, the Moors will be resurveyed to assess if and how the habitats have been affected.



KEY INFORMATION

Duration of Construction: 6 Months

Anticipated start date for Construction: October 2019

Total Cost of Works (Phase 2 only): 1.4million

Contractor: TBC during tender process

DELIVERY



CONSULTEES

Environment Agency, Natural England, Highways Agency, WCC, HCC, SDNP, HIWWT, Southampton University, Trinity Winchester, Wessex Chalk Stream and Rivers Trust, Southern Water, Test & Itchen Catchment Partnership, The Winchester River Maintenance Group, WINNAC



FAQ



Does this mean Winchester is protected against flooding for the next 100 years?

'No, a return period is a magnitude of storm, not an interval between flood events. It does not mean that a 100-year flood will happen regularly every 100 years, or only once in 100 years. In any given 100-year period, a 100-year event may occur once, twice, more, or not at all'."

Will this stop my house from ever flooding?

'No, the risk of your house flooding will decrease however this does not mean your house will never flood.'

Why can't the wall be built higher to give greater protection?

'The type of flooding that occurs north of Winchester is a build-up of water caused by extended periods of prolonged rainfall. This raises both river levels and the levels of the groundwater but is a slow process and it is not a 'flash' flood similar to those that have occurred recently elsewhere in the country. The top of the wall has been designed to be 100mm above the 1% annual probability flood event to provide a safety factor. There is also a limited budget for the scheme and a higher wall may not be considered to be acceptable aesthetically, consequently this level of protection was deemed appropriate.'

What will be done if it looks like the water level is rising to over top the wall?

'The type of flooding that occurs north of Winchester is a build-up of water caused by extended periods of prolonged rainfall. This raises both river levels and the levels of the groundwater but is a slow process and it is not a 'flash' flood similar to those that have occurred recently elsewhere in the country. This slow onset allows additional defences i.e. sand bags and temporary barriers to be installed should the wall be at risk of being overtopped.'

How do you know it will work?

'The wall has been designed following detailed flood water modelling of the surrounding areas and designed using best practice engineering.'

Will this defence reduce my insurance premium?

'Possibly, you would need to contact your current insurance provider to discuss this'.

Where will the works be carried out and will it cause any disruption?

'The works will be carried out as indicated on the following plans. There is likely to be minimal disruption however we will have to close Durngate Car Park during the works and implement some temporary footpath diversions. Winnall Moors will remain open at all times'

WHAT TO DO IN A FLOOD EVENT



- Find out if you are in a flood zone or at risk of flooding
- Sign up to flood alerts
- Call Floodline for advice and help: 0345 988 1188 (24-hour service)
- Produce a flood plan for your property
- Install Property Level Protection (PLP). They can be categorised into the following two groups:
 - Flood resilience is about reducing the damage to the inside of your property once water has got in and speeding up the time it takes to recover after a flood. Such as porous plaster, fitting solid floors or tiled floor coverings
 - Flood resistance measures involve trying to stop the water entering the property in the first place. These can usually be fitted to the outside of a property to prevent or limit the flood water getting in and can include flood boards, air brick covers, non-return valves and pumps, as well as work to ensure that the fabric of the property is sound.
- Understand your rights and responsibilities of owning a riverside property.

All information can be found on https://www.gov.uk/prepare-for-flooding

STRATEGIC OVERVIEW OF ITCHEN VALLEY CATCHMENT



The Environment Agency, Winchester City Council and Hampshire County are also undertaking a catchment wide approach to reducing flooding in Winchester and the County with the following works:

- Outer Winchester Flood Alleviation Scheme Littleton, Kings Worthy and Headborne Worthy, current at preliminary design stage
- Flood modelling of Itchen catchment by JBA
- Chilland, River Itchen bank Improvements





Outer Winchester Flood Alleviation Scheme Photo of flooding in Kings Worthy



