

NORTH WINCHESTER FLOOD WATER MANAGEMENT SCHEME



WELCOME

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

Hampshire County Council, Winchester City Council, the Environment Agency, and the University of Southampton have been working together to develop a flood water management scheme around the North Walls/Park Avenue area of the city which aims to create flood defences to protect properties and assets to the north of Winchester city centre against fluvial (river) flooding from the River Itchen and to reduce resources required during future flood events.

The River Itchen flows from its source, south of Cheriton, through the City of Winchester to Southampton Water. The Itchen's flow is restricted through Winchester by the Durgate Sluice, City Mill and Wharf Mill.

The River Itchen is a chalk stream and is fed by groundwater. During prolonged periods of rainfall the ground water levels rise resulting in an increase in the water level of the river.

Historically, the River Itchen flooded in 1852, 1903, 1928, 1935, 1947, 2001 and 2014. The greatest impact occurred in the winter of 2000-2001, with significant damage to properties and assets within Winchester, the highest level of flood water was recorded in 2014.



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The most recent flooding occurred in the winter of 2013-2014 where a well-managed flood response from Hampshire County Council, Winchester City Council and the Environment Agency prevented significant damage to properties and assets from occurring. The response involved a great deal of intensive work and associated resources provided through joint agency working and with government support.



A hydraulic modelling assessment has been undertaken to determine the river flood water level associated with the 1:100 year storm return period, plus 30% increase to allow for climate change. All new flood defences are to be constructed to the height of the 1:100yr+30% climate change water level, this is greater than the highest water level recorded during the 2014 event.

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.

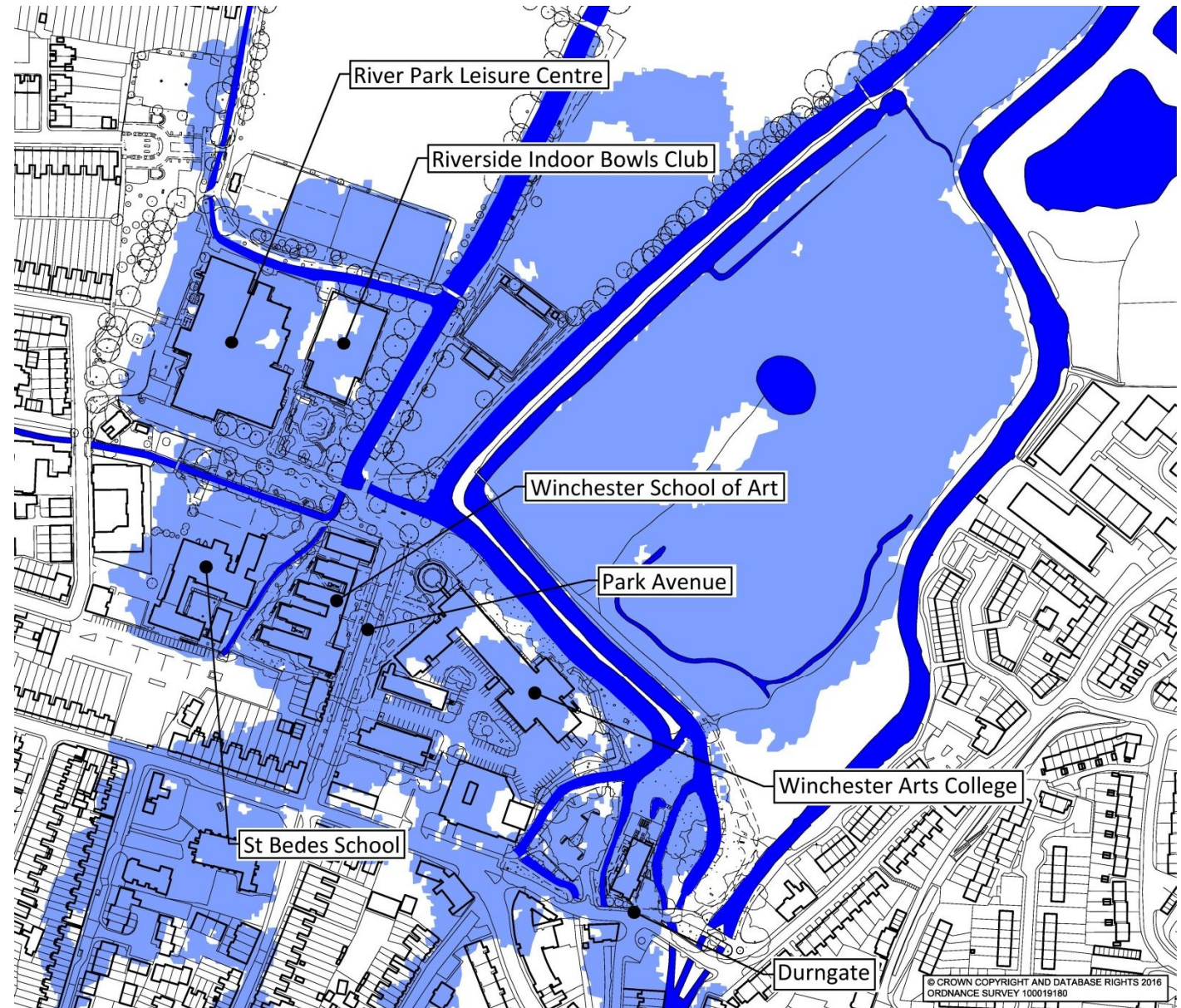
The flood defences will mainly consist of brick walls which will reduce the need for temporary sand bags to be installed during a flood event. Where gaps in the wall are required, they will be closed during a flood event using temporary flood gates, or sand bags as part of the Multi Agency Flood Action Plan.

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The hydraulic model is able to produce a map which identifies the current areas within the north of Winchester that are at risk of fluvial flooding during a 1:100 year storm return period, plus 30% for climate change event. The depth of the flood water can be up to 600mm, dependent on location.

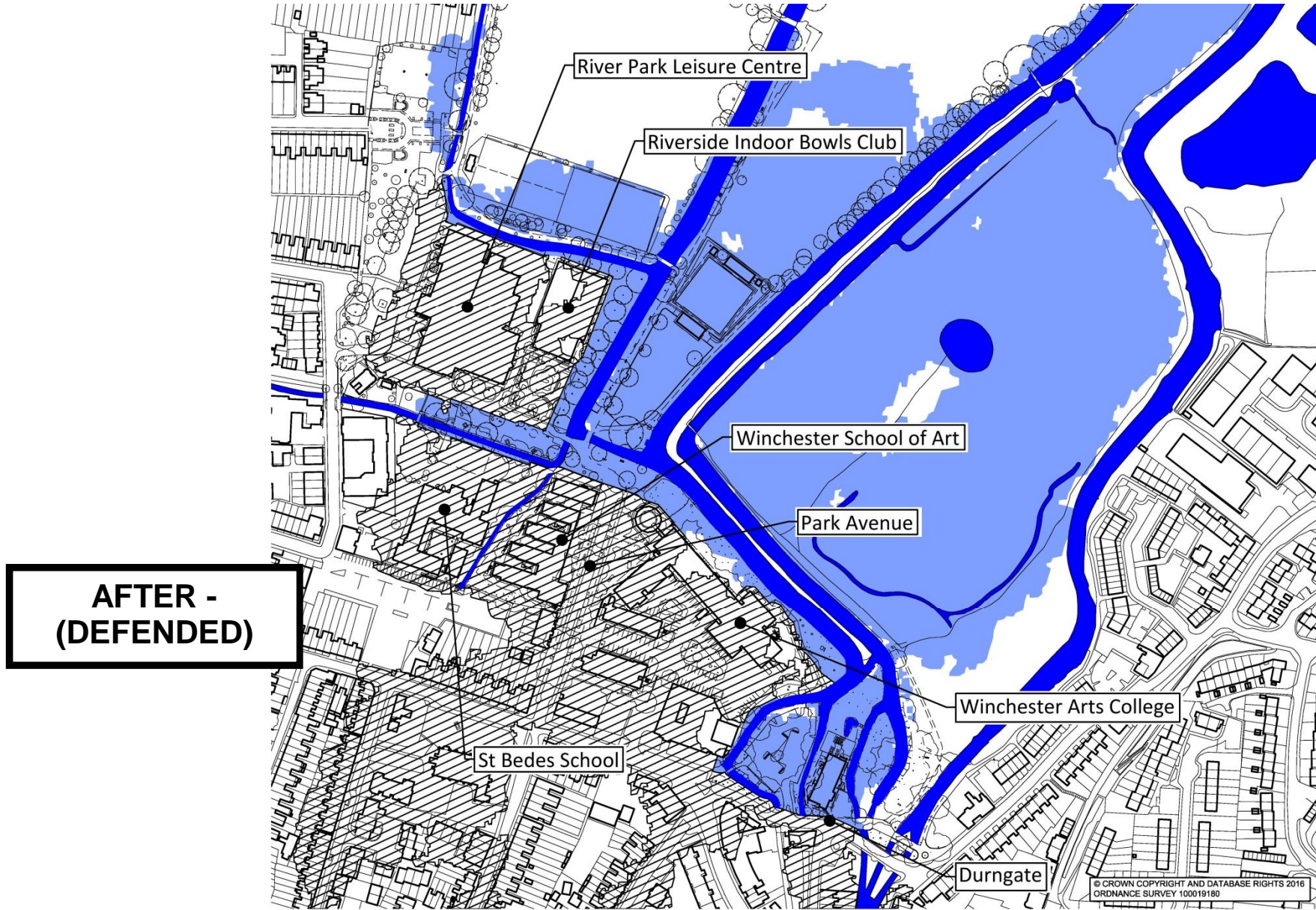
The hydraulic model is able to produce a map which confirms the areas which will benefit from flood defence as a result of the implementation of the scheme and the Multi Agency Flood Action Plan during a flood event. These areas are defended and protected against the 1:100+30% storm as long as the defences are in place and the storm intensity is not exceeded.

**BEFORE -
(UNDEFENDED)**



**Figure 1 - Map showing the flood extent of a 1:100+30% storm
(Dark Blue = Rivers, Light Blue = Flood Extent)
WITHOUT FLOOD MANAGEMENT**

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**FIGURE 2 - Map showing extent of a 1:100+30% storm
(Dark Blue = Rivers, Light Blue = Flood Extent, Black Hatched = Defended Area)
WITH FLOOD MANAGEMENT**

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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, If your property is shown to be within the defended area in figure 2 then once the scheme has been implemented it will be protected against the 1:100 year plus 30% storm event, as long as the defences remain in place and the standard level of protection is not exceeded'.

How do I protect my property if the design storm is exceeded?

Property level protection should be considered such as flood gates, air brick covers and sand bags, visit [www \(George please provide web address\)](#), for more information. Also register your property for flood warning updates at <https://fwd.environment-agency.gov.uk/app/olr/register>.

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 1:100+30% climate change storm water level to provide a safety factor. There is also a limited budget for the scheme and a

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

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.'

What has been done since the 2014 flooding?

'Since the 2014 flood event Hampshire County Council, Winchester City Council and The Environment Agency have been working to understand the ownership and operation of the numerous sluice gates throughout the city so there is a better co-ordination and maintenance of these so that the flow through the city can be maintained and controlled more efficiently. This information has been collated into a Sluice Management Plan.

Work has also been carried out by the Environment Agency to improve headwalls to enable a better flow through culverts.'

A Multi Agency Flood Action Plan has also been created which will enable all 3 organisations to manage and respond to flood risk should it occur'.

A flood defence wall has been constructed within Water Lane to protect it against the 1:100+30%CC storm.

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Will this reduce my insurance premium, now my property is not in a flood zone?

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

What will it look like?



Water Lane Flood Defence Wall

The wall will look similar to the recently constructed flood defence wall in Water lane.

The top of the wall will remain at a constant level, however the height of the wall will vary from 350mm to 950mm dependant on existing ground levels.

Some sections of the wall will be topped with metal railing fencing where existing fence lines are being replaced.

Gaps will be left in the wall where required to allow for pedestrian and vehicle access.

During a flood event the Multi Agency Flood Action Plan will be implemented by Hampshire County Council, Winchester City Council and The Environment Agency.

As part of the plan temporary flood gates will be taken out of storage and installed within the gaps in the wall creating a single line of defence.



Typical Flood Gate

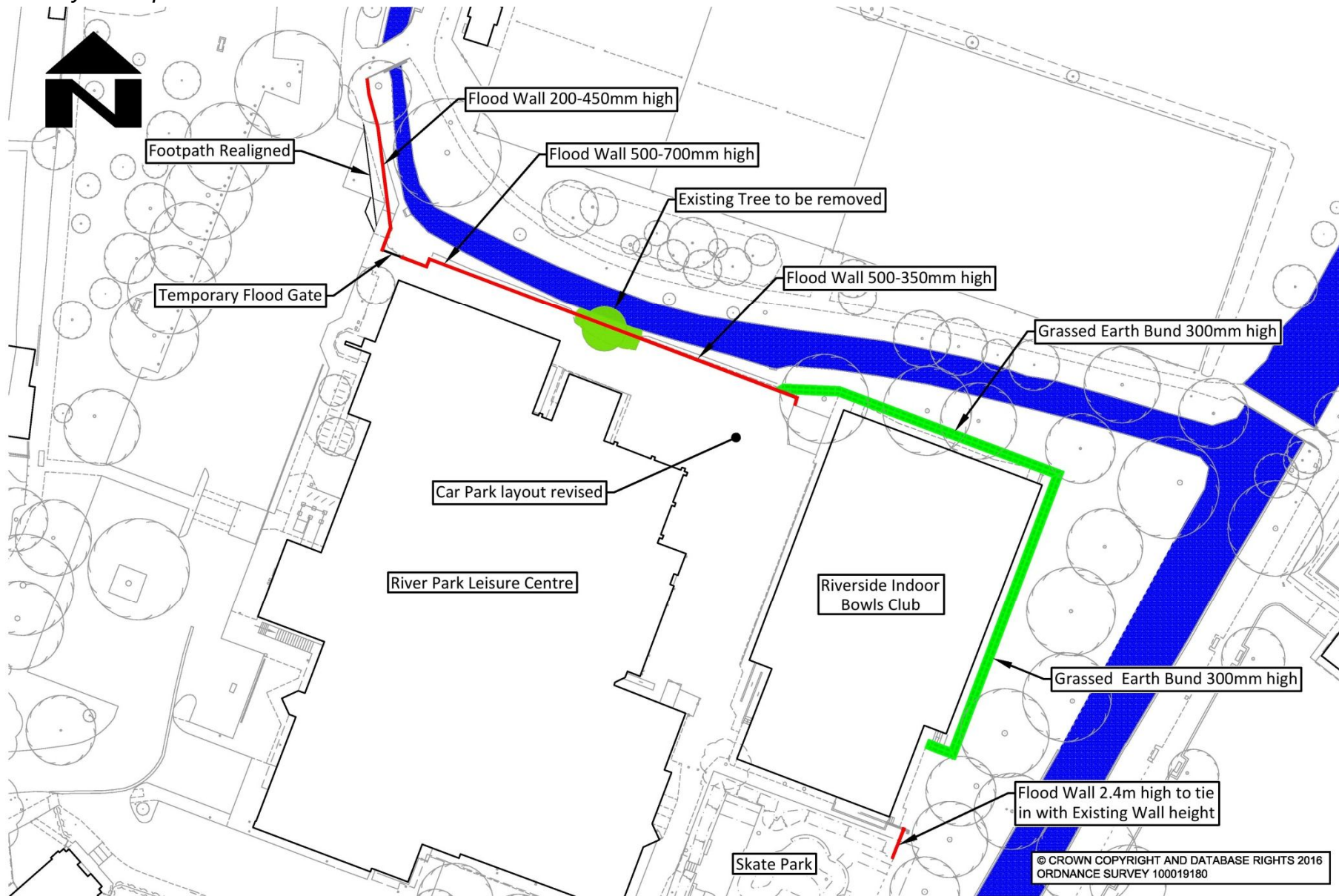
Where will the works be carried out and will it cause any disruption?

'The works will be carried out in the summer 2016 until Autumn 2016.'

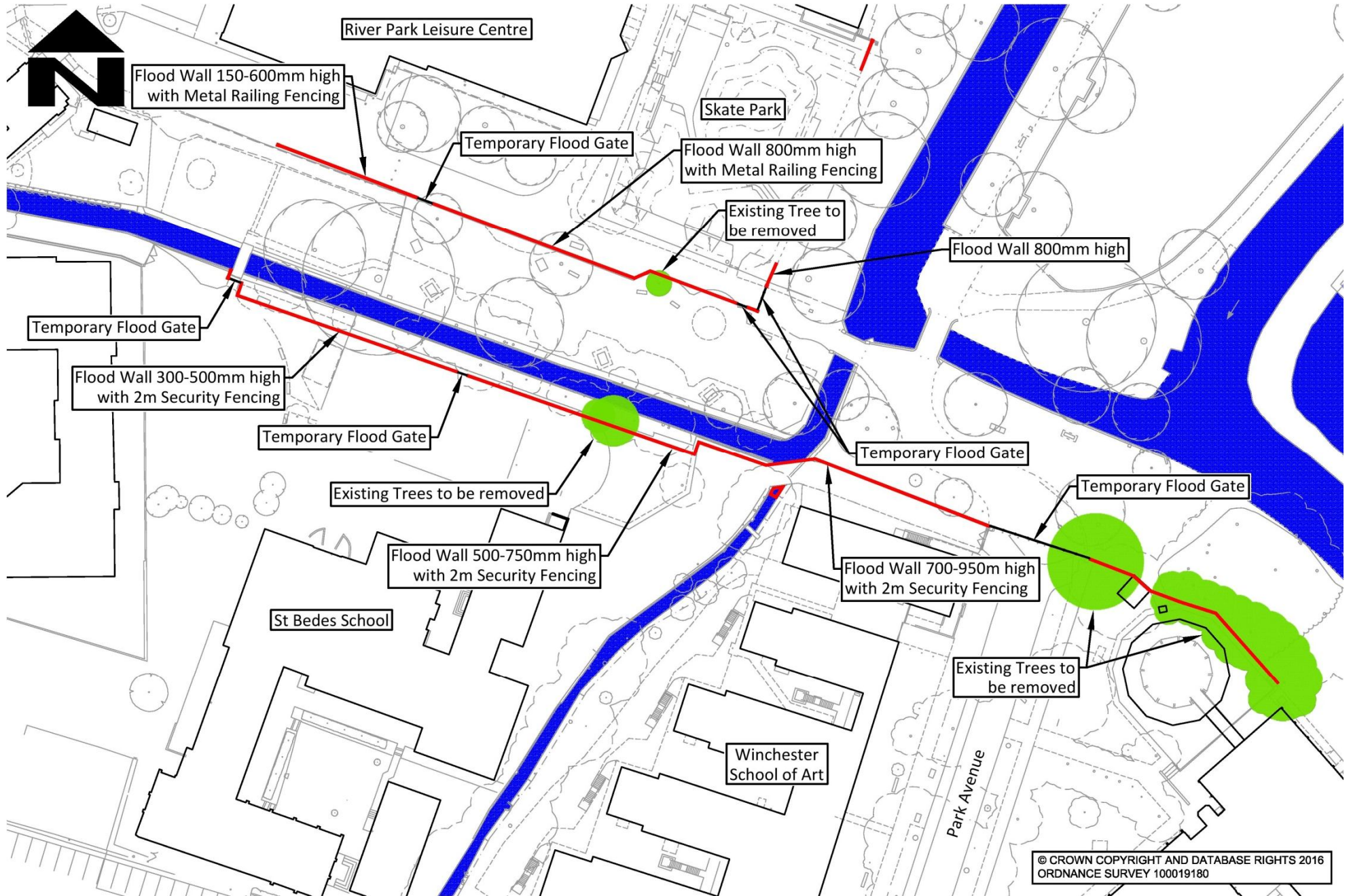
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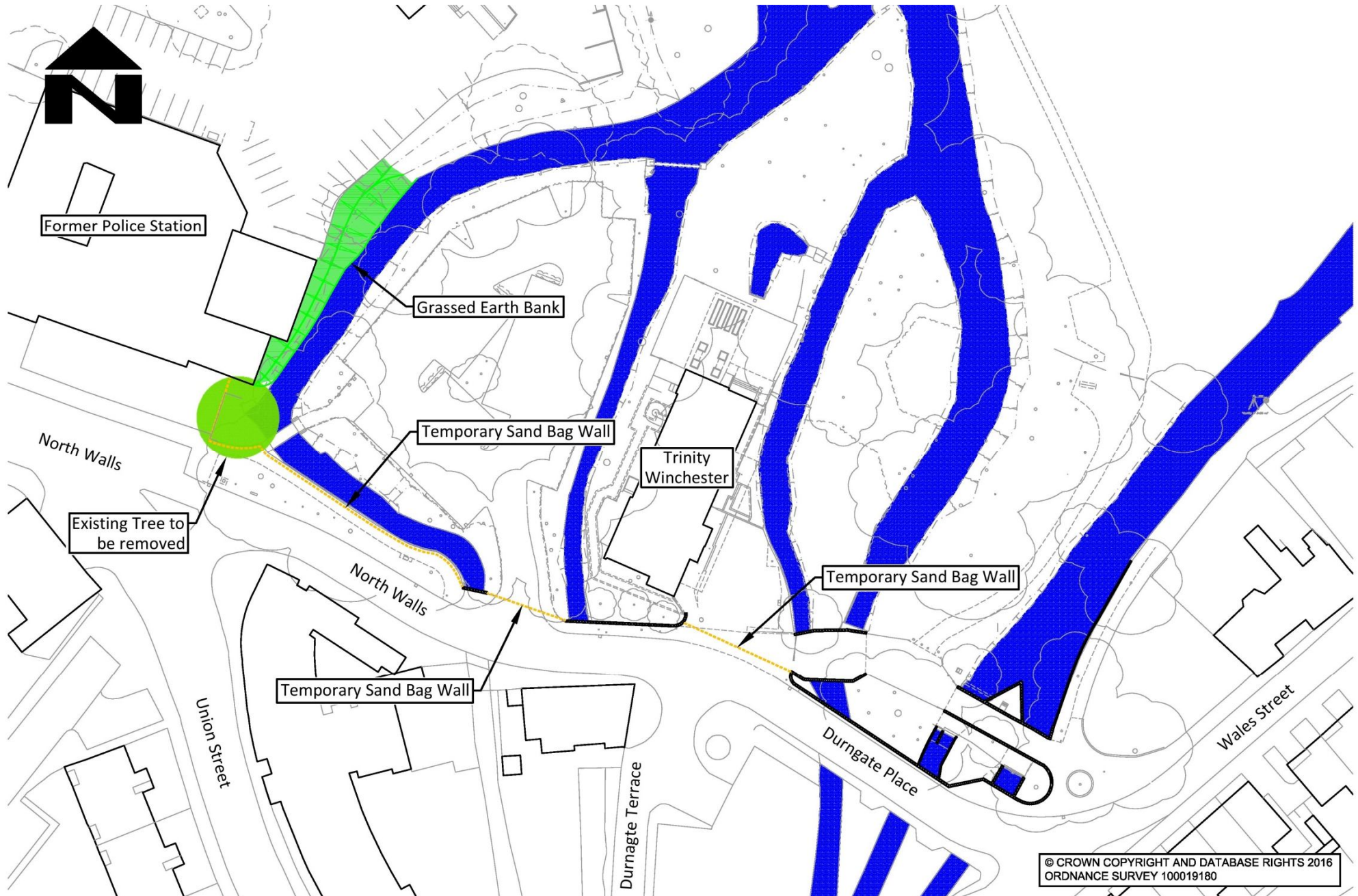
'The works will be carried out as indicated on the following plans. There is likely to be minimal disruption however some temporary footpath diversions may be required.'



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Hampshire
County Council



Winchester
City Council



Environment
Agency

UNIVERSITY OF
Southampton

**THANK YOU FOR TAKING THE TIME TO
VIEW THE EXHIBITION. WE HOPE YOU
FOUND IT INFORMATIVE.**

If you have any questions that we were unable to answer, want to make comments or view the information online please visit (<https://winchester.citizenspace.com/>) before the 12th of February