

NORTH WINCHESTER FLOOD WATER MANAGEMENT SCHEME



WELCOME

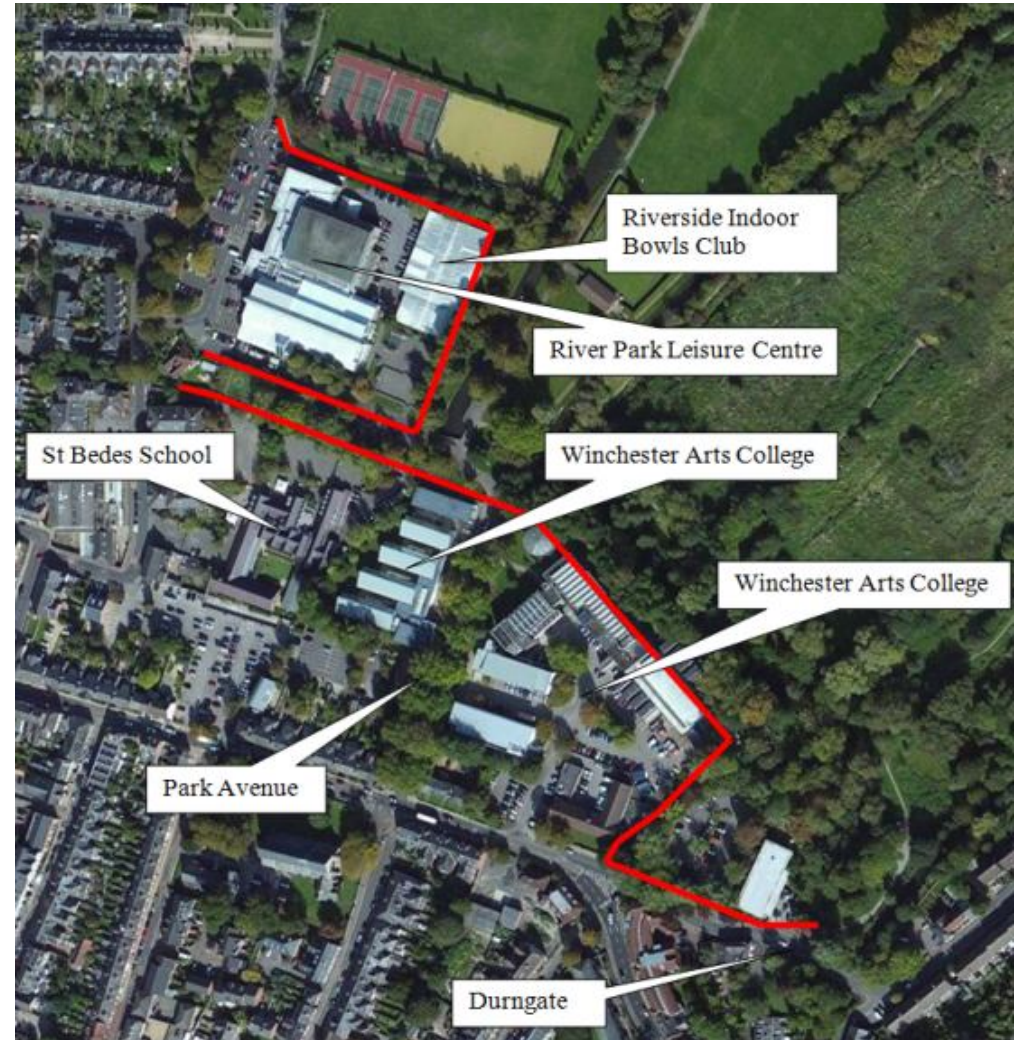
We hope that you find the exhibition informative. Please have a look at the boards, and talk to representatives of the above organisations who are on hand during the event if you have any questions.

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 Durngate 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% annual probability flood (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% annual probability flood +30% climate change water level, this is greater than the highest water level recorded during the 2014 event.

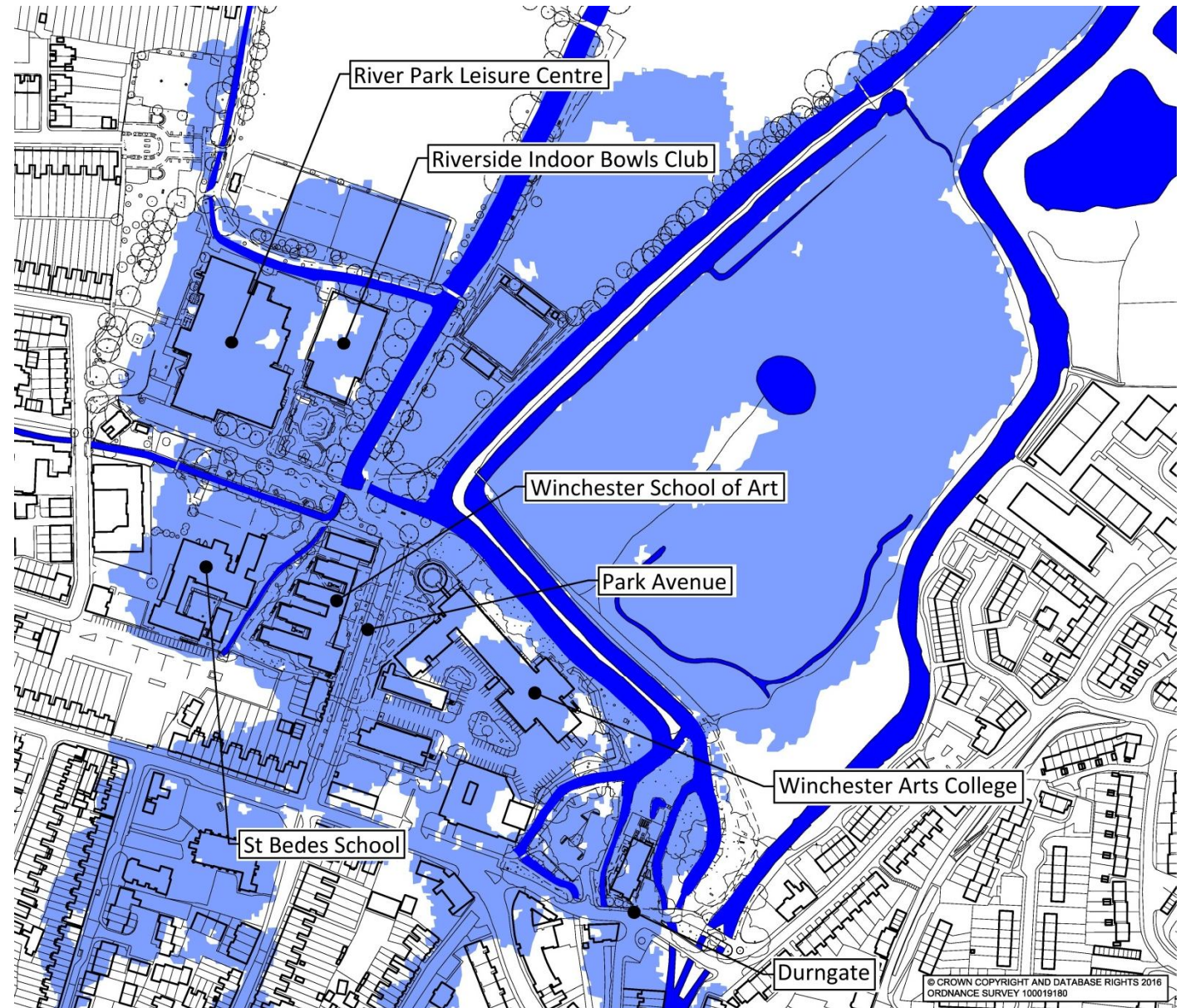
A return period is a magnitude of storm, not an interval between flood events. It does not mean that a 100-year flood will happen regularly every 100 years, or only once in 100 years. In any given 100-year period, a 100-year event may occur once, twice, more, or not at all.

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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Hydraulic modelling was carried out to produce a map that identified the areas within the north of Winchester that are at risk of fluvial flooding during a 1% annual probability flood, including an increase of 30% to allow for climate change. The depth of the flood water can be up to 600mm, dependent on location.

**BEFORE -
(UNDEFENDED)**

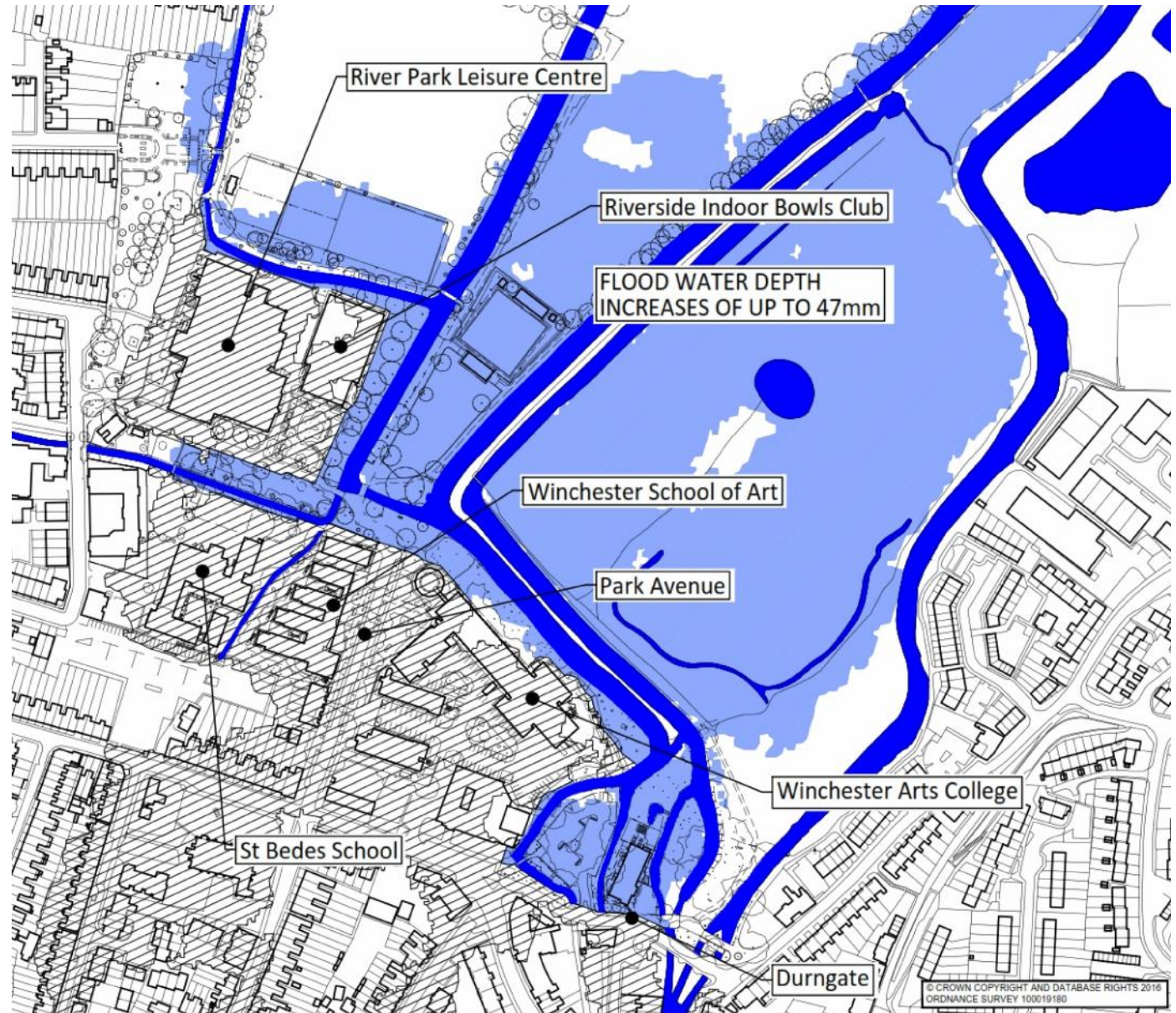


**Figure 1 - Map showing the flood extent of a 1% annual probability flood
(Dark Blue = Rivers, Light Blue = Flood Extent)
WITHOUT FLOOD MANAGEMENT**

NORTH WINCHESTER FLOOD WATER MANAGEMENT SCHEME

The hydraulic model was also used to identify 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 a 1% annual probability flood event as long as the defences are in place and the flood magnitude is not exceeded.



**AFTER -
(DEFENDED)**

**FIGURE 2 - Map showing extent of a 1% annual probability flood
(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 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 <https://www.gov.uk/prepare-for-a-flood> 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 top of the wall has been designed to be 100mm above the 1% annual probability flood event (including a 30% increase to take account of climate change) 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.'

What has been done since the 2014 flooding?

'Careful sluice management in the 2014 floods was a major factor in reducing the impacts of flooding in the city. Since the floods the various organisations and bodies responsible for sluice management and maintenance in the city have formed a Sluice Management Group to ensure that this good work will be repeated in the future. Work has also been carried out by the Environment Agency to replace sluices to enable better flow management.'

The Multi Agency Flood Action for Winchester has been updated to take account of the lessons learnt during the 2014 floods.

NORTH WINCHESTER FLOOD WATER MANAGEMENT SCHEME

A flood defence wall has been constructed within Water Lane to protect against the 1% annual probability flood, including an increase of 30% to account for climate change.'

Will this defence reduce my insurance premium?

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

What will it look like?



Water Lane Flood Defence Wall



Typical Flood Gate

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.

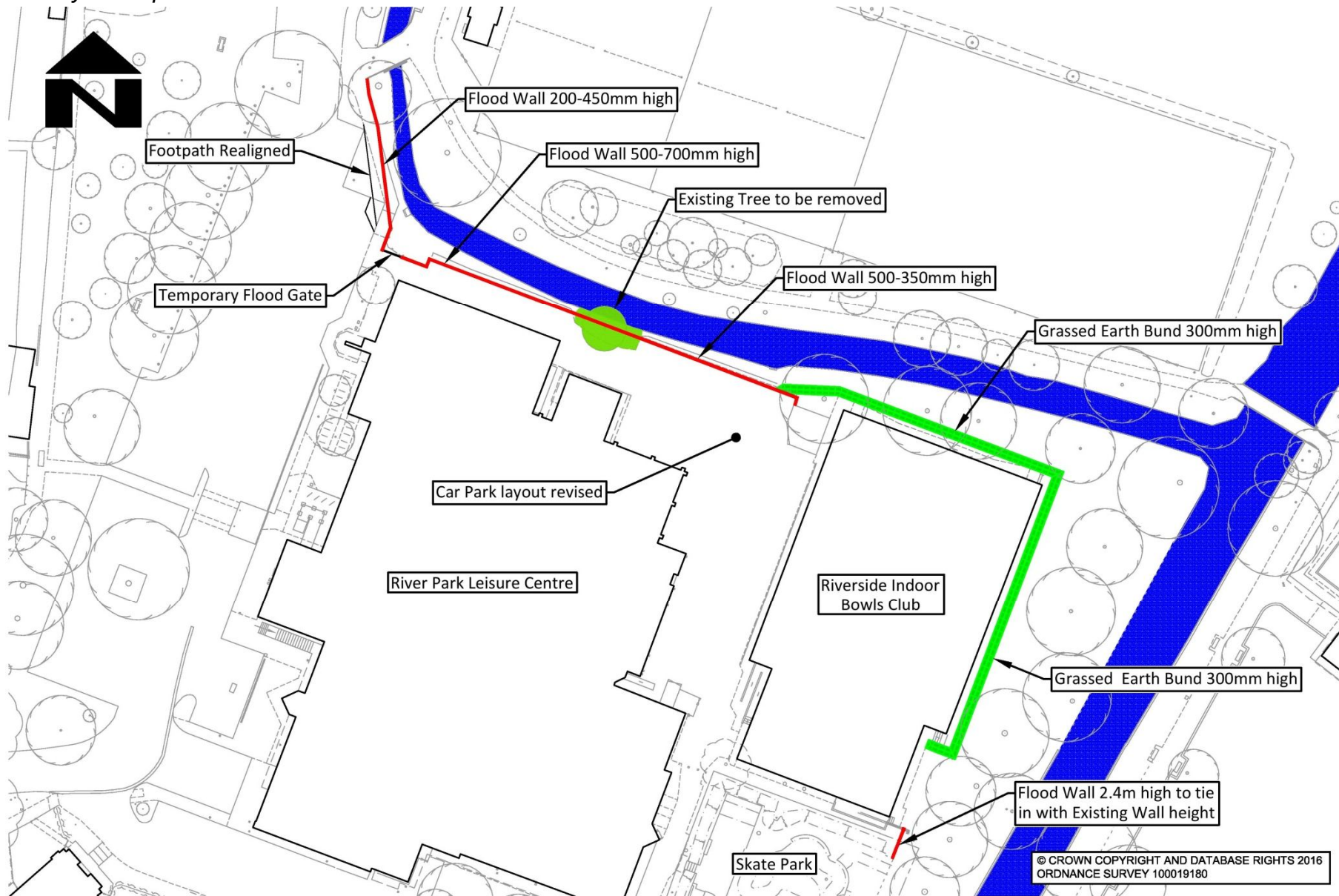
When will the works be carried out?

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

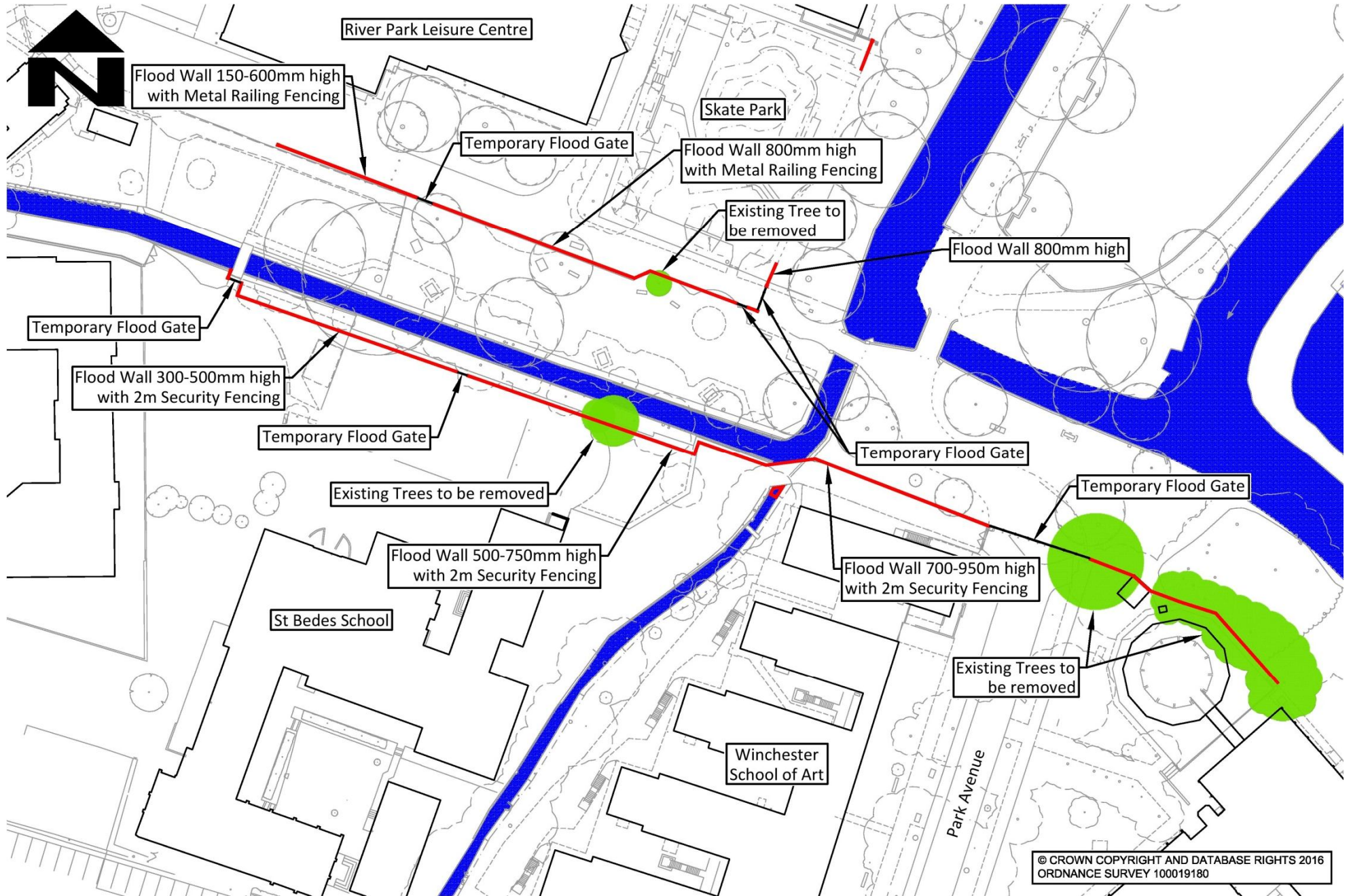
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Where will the works be carried out and will it cause any disruption?

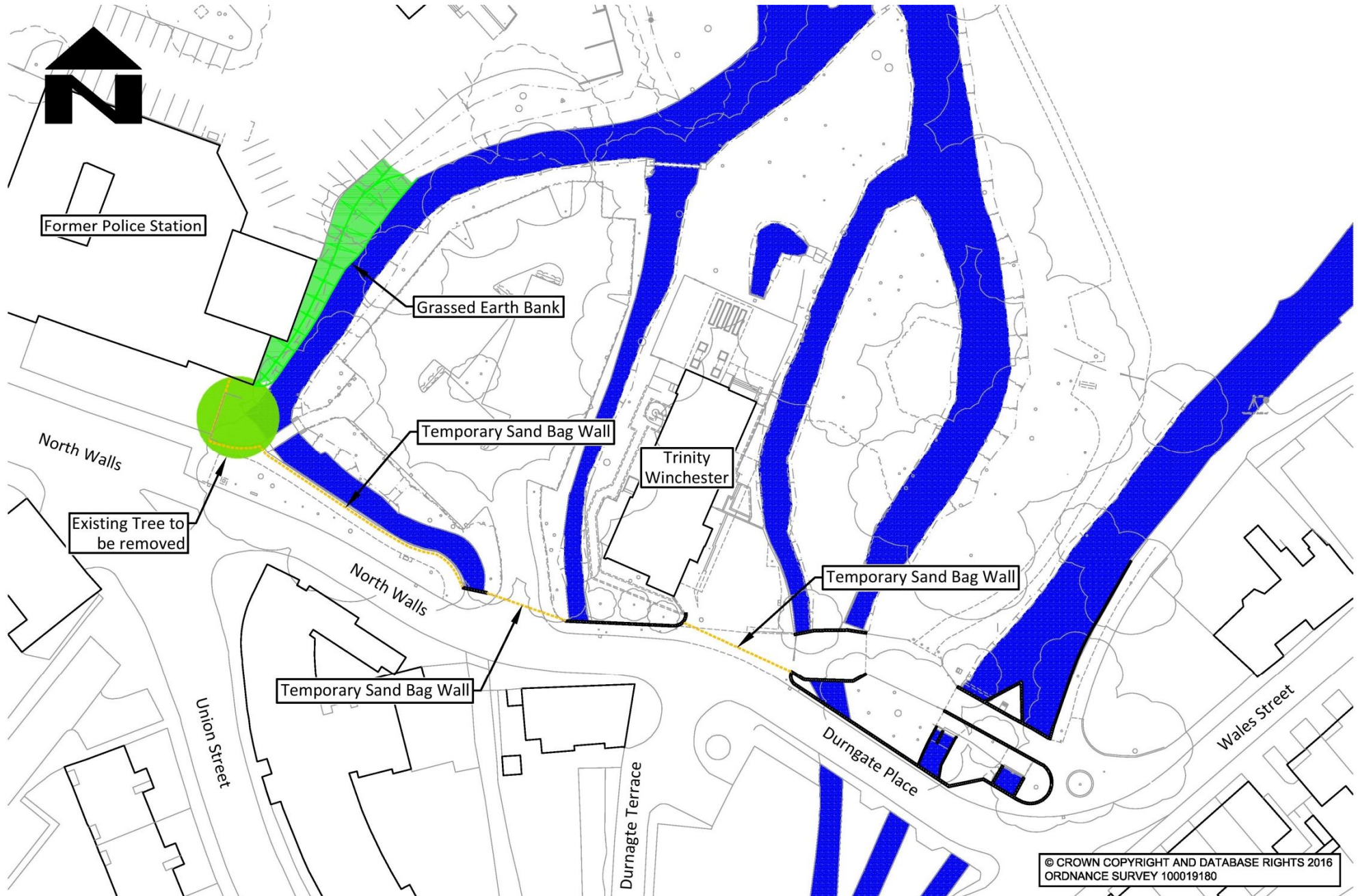
'The works will be carried out as indicated on the following plans. There is likely to be minimal disruption however some temporary footpath diversions may be required.'



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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