

Bridgwater Tidal Barrier Scheme

Reducing flood risk in Bridgwater together

FLOOD DEFENCES DOWNSTREAM OF THE BRIDGWATER TIDAL BARRIER

June 2017

The Bridgwater Tidal Barrier Scheme is being promoted by the Environment Agency and Sedgemoor District Council to reduce the tidal flood risk to Bridgwater and surrounding areas for the next 100 years. The proposed site for the barrier is between Express Park and Chilton Trinity. The scheme will also include improvements to the flood defences downstream of the barrier site and this note explains what is proposed.

The existing tidal flood defences downstream of Bridgwater are lower than the flood defences in the town. During very high tides, water from the Parrett Estuary spills over the top of the tidal defences and into the floodplain. This has historically helped reduce tidal flooding in the town. The extent and depth of flooding in the floodplain depends on the height of the tide; in the most extreme cases the flooding could reach as far as Chilton Trinity and Bridgwater. The flood risk will increase in the future as sea levels rise and we are looking at how to improve the flood defences along with the barrier to better manage this risk. Figure 1 shows the approximate extent of flooding in an extreme tide event that could happen, on average, once every 200 years and based on estimated sea levels in 2055, without the proposed scheme.



Figure 1. Potential extent of flooding in a 1 in 200 year tidal event for 2055 sea levels

The following works are proposed as part of the Bridgwater Tidal Barrier scheme:

- Raise some of the existing tidal flood defences, shown on Figure 2.
- Construct new, secondary, defences at Chilton Trinity, Combwich and Pawlett, shown on Figure 2.
- Assess the flood risk to isolated residential properties in the floodplain and provide improved flood protection measures, if required.

In addition, the Environment Agency will continue to maintain and repair the existing tidal flood defences for the foreseeable future. For example, this summer we will be carrying out improvement works on the tidal defences to the west of the estuary channel downstream of Chilton Trinity (the 'Cannington Bends' scheme).

The proposed works and ongoing maintenance activities will:

- Maintain the current standard of protection against tidal flooding to land and properties between the estuary and the new secondary flood defences for the foreseeable future.
- Reduce the risk of tidal flooding to Bridgwater, Chilton Trinity, Combwich, Dunball and south east of Pawlett.

We have no plans to remove existing tidal flood defences nor do we expect that the frequency of flooding in the floodplain will increase because of the barrier scheme.

The secondary defences and isolated-property protection is the best long term approach to provide a similar standard of protection as that being provided for Bridgwater. The works to the flood defences are planned for 2022 to 2024.

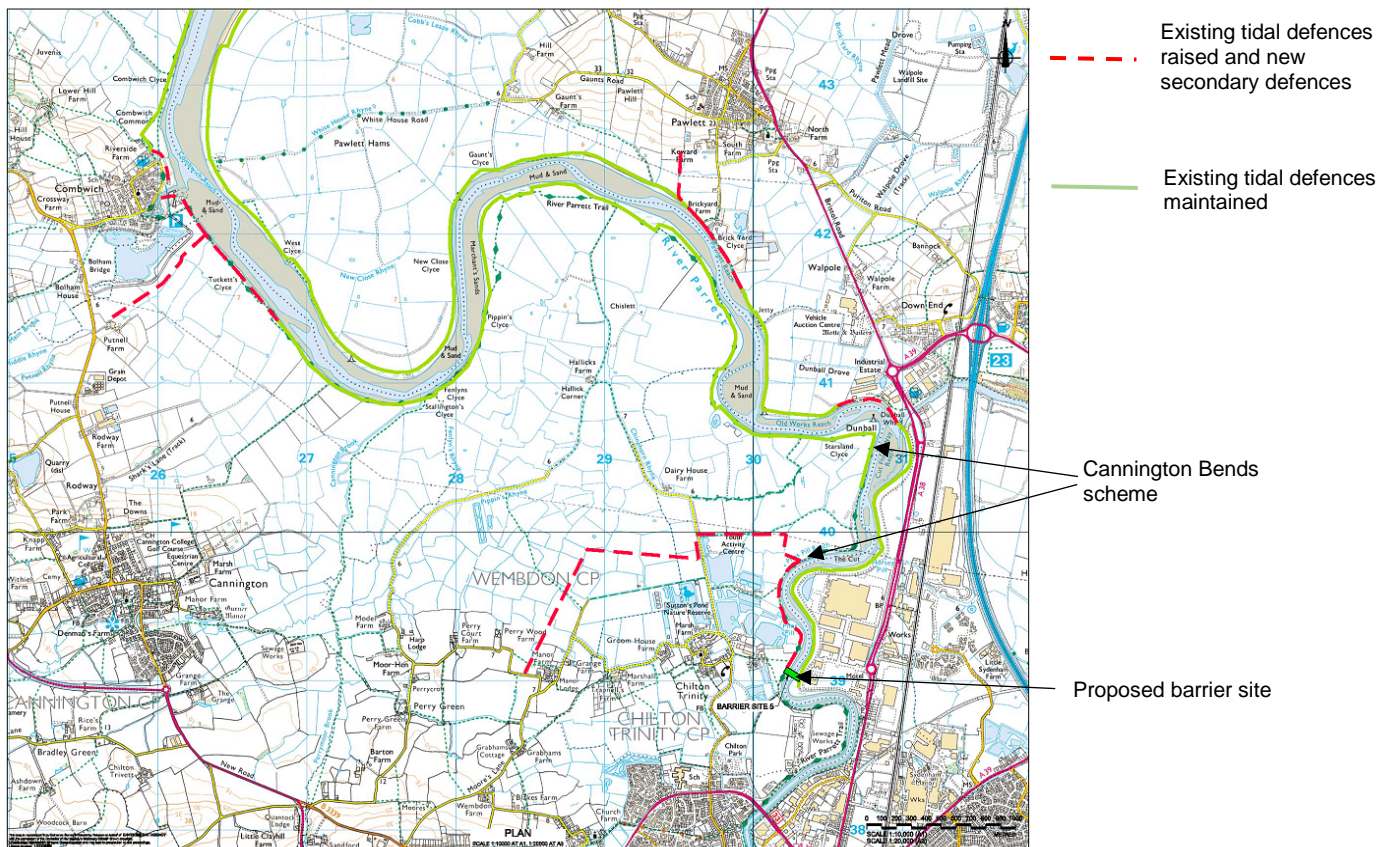


Figure 2. Indicative tidal and secondary flood defences

Parrett Estuary Flood Risk Management Strategy (2010)

This strategic plan demonstrated the need for a tidal barrier and the need to continue to invest in the existing defences to form a robust tidal defence system. The Strategy identified an option to realign flood defences on Pawlett Hams in the long term. Since the Strategy was published, the Environment Agency has taken the position that significant realignments of defences will only be undertaken through negotiation with landowners over purchase of land or compensation and where we have the support of the majority of landowners.

If you would like more information, please contact us at Bridgwater.Barrier@environment-agency.gov.uk