

Bridgwater Tidal Barrier – Update on choice of location and gate type

The construction of a tidal barrier for Bridgwater is a key component of the 20 year flood action plan for Somerset. The Environment Agency and Sedgemoor District Council are working in partnership to deliver the barrier by 2024, subject to funding and approvals. Our previous consultation documents can be viewed at:

<http://www.sedgemoor.gov.uk/bridgewaterbarrier> and
<http://www.somersetiversauthority.org.uk>

Site location - A consultation was held in September to consider two locations to site the new Bridgwater Tidal Barrier. These were:

- Site 4 - approximately halfway between Dunball Wharf and Express Park
- Site 5 - between Express Park and Chilton Trinity Village

During the consultation period, social media posts were viewed over 3700 times and approximately 150 people attended the meetings and events held for the public, stakeholders and local businesses. A total of 78 responses to the consultation were received indicating there is continued support for a barrier. Over half of the 78 responses favoured Site 4 as the preferred location for the barrier.

Feedback in support of Site 4 included:

- Would provide more opportunities for development along Bristol Road and to the west of the river
- Provides a better opportunity for a future road crossing to help traffic flows in Bridgwater
- Provides the most storage capacity for river flows when the barrier is closed
- Might have more space available to build a visitor centre
- Could be less disruptive during construction

Feedback in support of Site 5 included:

- More affordable than Site 4
- Less risk of silt build-up and impact on navigation around Dunball Wharf than Site 4
- Less impact on the natural environment

Conclusion - Site location

Following technical assessments and consideration of all points raised, the Environment Agency and Sedgemoor District Council have jointly concluded that the best solution for Bridgwater is to locate the barrier at Site 5, which is between Express Park and Chilton Trinity village. Our reasons for this are:

- We have the greatest confidence of achieving the permissions for construction at this location and it is the least cost site
- It leaves the narrowest point in the river available for any future road crossing and northern by-pass
- Our investigations have shown that the channel is less stable at Site 4, which makes it more difficult to predict the impact a barrier would have on the river and navigation
- There are several access points available for construction, to help manage

disruption

- There is less risk of unpredictable siltation issues near Dunball Wharf, which would require costly maintenance dredging
- The width of the river is narrower at Site 5, meaning the structure will be smaller requiring less maintenance costs
- It fits with aspirations in Sedgemoor District Council's Green Network Plan for a pedestrian bridge linking Chilton Trinity with Express Park. This aligns with the principles and aims of the Bridgwater Vision

Gate type

During the consultation, we also introduced the two different types of gate that could be used to form the barrier, a vertical lift gate or a rising sector gate. Our investigations show that the best design for the Bridgwater Tidal Barrier is a vertical lift gate, comprising two gates. Two gates give the best flexibility and reliability for operation generally and allows for continued navigation during maintenance.

A vertical lift gate offers:

- Proven reliability in a very silty, tidal environment
- Lower maintenance and operational costs
- Similar technology to other Somerset sluices which means that there are no requirements for specialist staff
- Ability to be used to pen water for potential future amenity uses
- Potential to flush silt beneath the gate to assist maintenance
- Potential to add pedestrian bridge and cycleway

Summary

Site 5, between Express Park and Chilton Trinity village has been selected as the optimum site for the Bridgwater Tidal Barrier.

Next steps

Selection of the optimum location and gate type allows us to progress the

scheme design. We will be developing ideas for the appearance of the barrier and landscaping of the site over the next few months. At the same time we will make more detailed assessments of the impacts the barrier may have during construction and in the longer term. We will share our thoughts in a consultation period in the summer / early autumn, at which time we will also be seeking your views on the above. In the meantime, if you would like to contact the project team, please email:

bridgwater.barrier@environment-agency.gov.uk

