

MARCH 27TH, 2025



[Bridgwater Tidal Barrier \(somerset.gov.uk\)](https://somerset.gov.uk)

NEWSLETTER

BRIDGWATER TIDAL BARRIER

Creating a community resilient to flooding and coastal change



The Bridgwater Tidal Barrier scheme has been developed by the Environment Agency and Somerset Council due to the increasing tidal flood risk to Bridgwater town centre and the surrounding area. The scheme will deliver a tidal barrier and improvements to downstream defences on the River Parrett near Chilton Trinity, and will reduce tidal flood risk to 11,300 homes and 1,500 businesses.

The whole scheme comprises:

- Constructing a tidal barrier on the River Parrett, next to Express Park, Bridgwater
- Improving existing downstream riverside banks and constructing new secondary flood banks
- Improving fish and eel passage at 12 upstream sites on the rivers Parrett and Tone

Hi all,

Welcome to the March edition of our Bridgwater Tidal Barrier (BTB) Newsletter. I'm thrilled to share updates on this significant infrastructure project, that will not only protect our community from tidal flooding but also forge a resilient and sustainable future for Bridgwater and the surrounding areas.

In this edition, our focus is on sustainability and innovation. We're leveraging cutting-edge smart digital tools including comprehensive 3D modelling to track and reduce our carbon footprint as we build the Bridgwater Tidal Barrier. This innovative system helps us measure our environmental impact in real time, allowing us to make more sustainable choices throughout the project to effectively drive our decision-making and minimise our carbon footprint.

Our collaboration with AtkinsRéalis and Kier has enabled us to transform project design into a living model, ensuring every phase of construction is efficient, environmentally responsible, and prepared for the challenges of climate change.

Sustainable practices are at the core of our work, from using low-carbon cement and locally sourced materials to installing solar panels to power our operations.

You'll also read about the extensive progress Kier have made on the scheme site since the beginning of 2025. Comprehensive piling work is creating barrier foundations, utilising technology that uses hydraulic pressure to embed each pile into the ground. This enables the process to be quieter than general conventional methods. Work is also ongoing to ensure access routes are optimised and a dramatic silhouette on the horizon that can now be seen in Bridgwater for our next key milestone is the arrival of the jack up barge.

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In addition, we're enhancing our engagement with the community. On Monday, 10 March, we launched the BTB Scheme Facebook page, a dedicated platform to share project milestones, facilitate dialogue, and showcase our progress. This new channel is designed to increase transparency and invite feedback as we move into the construction phase.

Thank you for your continued support and commitment as we work together to build not only a critical flood defence but a legacy of sustainability and resilience for future generations.

Sincerely,

Dr Rachel Burden
Bridgwater Tidal Barrier Scheme Project Sponsor



What's been happening?

Pre-cast concrete pile installation



Load transfer platform (West bank)

At the end of January, Kier and AtkinsRéalis successfully installed 834 pre-cast concrete piles on the East bank of the River Parrett to support the approach to the tidal barrier, help establish the load transfer platform, and reduce long-term settlement of the soft riverbank deposits.

Following this, the 834 piles were cropped down to the agreed design level and each has had a pile cap installed via a concrete pour.

This will provide a stable foundation for the load transfer platform, which the crane will sit on for the next stage of in-river piling works.

Pims Clyce piling works complete

Piling works have also been completed on the west bank of the River Parrett at Pims Clyce Outfall Structure, where the river connects to Wildmarsh Rhyne.

Upgrades have been made to the existing outfall structure – a surface water drain that discharges into the River Parrett – and a new sheet-piled retaining wall has been constructed, enabling the defence level to be raised as part of flood bank improvements. Tie rods and capping beams have also been installed to strengthen the wall and increase its rigidity.

These piles were installed with machinery from GIKEN that uses hydraulic pressure to embed each pile into the ground. This type of pile press-in enables the operation to be quieter than general conventional piling methods.



Pims Clyce outfall structure upgrade

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What's been happening? (*continued*)

Saltlands Lane resurfacing

Across a few evenings in February, resurfacing works have been completed along Saltlands Lane to establish an entrance to the Bridgwater Tidal Barrier site.

Liaison with local businesses meant that evening access requirements were accommodated throughout by utilising the recently installed third lane that will become a cycle path when the project is completed.



Saltlands Lane resurfacing

Jack up barge arrival

A major milestone has been reached in the construction of the Bridgwater Tidal Barrier with the arrival of a jack up barge from Liverpool.

Jack up barges provide a stable working platform for the construction and servicing of structures in marine or fluvial environments.

Arriving in Bridgwater on 13 March, the Haven SeaSeven will enable construction of the cofferdam, an enclosure pumped dry to allow work below the water level, and bearing piles for the barrier's foundations.



Measuring 30.5m long, 18.3m wide, with a hull depth of over 2m, the impressive structure will be a dominant feature on the Bridgwater landscape as construction progresses over the coming months.

The journey from Liverpool Docks, which began on 27 February, required careful planning, taking into account optimal tides to ensure a safe and efficient voyage.

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What's been happening? (*continued*)

Straight Drove diversion progress

Good progress has been made on the Straight Drove diversion works in Chilton Trinity.

The construction of the diversion road is underway and Wessex Water are undertaking works to divert existing water connections.

These connection works will need to be completed, before the road can be diverted.



Straight drove diversion works

What's happening over the next 3 months?



- The arrival of the jack up barge will allow us to undertake in-river piling for the west cofferdam and is a starting point for the basic construction of the barrier's sub structure.
- Piling works will also continue for the bypass channel – the river diversion around the barrier site – and will be undertaken from land using an impact hammer suspended on a crane. A steel sheet-piled wall will be installed before the excavation of the bypass channel later in the year.
- To enable these piling operations to happen, steel sheet pile deliveries to the Bridgwater Tidal Barrier site will be continuing and will make use of the third lane installed at Saltlands lane.
- As we enter the new earthworks season in April, we will continue our progress on the primary embankment raising on the West bank of the river. We will also be finishing the 370m long trial embankment in Chilton Trinity that we referenced in the December newsletter. This will then form part of the new secondary embankment.



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Sustainability and Innovation

Building a Greener Future

Sustainability and innovation are at the core of the success of the BTB Scheme, designed to protect 11,300 homes and 1,500 businesses from tidal flooding, but also in delivering a resilient and sustainable future for Bridgwater.

By working collaboratively and using innovative approaches including sourcing local material, the project team are minimising carbon impact, reducing costs, and looking to create long-term environmental benefits.

The scheme is keen to actively demonstrate how tidal flood risk reduction and sustainability can go hand in hand during each step of the project from design to construction to implementation, ensuring the best outcomes for communities and nature both now and for generations to come.

Alongside new and improved defences, we will also be building new public spaces, developing wetlands from local borrow pits and even planning a new foot and cycle bridge to connect both sides of the river.



Using Innovation to Realise the Bridgwater Tidal Barrier Scheme

AtkinsRéalis, a world-leading design, engineering, and project management firm, is an integral part of the BTB Scheme project team. They've set up innovation hubs called 'Lava Labs' to drive digital transformation and encourage collaboration among employees, clients, and stakeholders.

Recently, BTB team members visited AtkinsRéalis' Bristol offices to see how the tidal barrier design is built around a comprehensive 3D model that guides decision-making at every stage.

This cutting-edge technology brings the design to life, supporting sustainable construction and energy-efficient operations. As the project evolves, we'll share more examples of this innovative approach.

The BTB Scheme also leverages digital tools to enhance sustainability, particularly in carbon management. One tool, Building Information Modelling (BIM) Analytics Carbon, was developed by AtkinsRéalis to allow teams to work together using a shared, intelligent 3D model enriched with data. This improves design, construction, and maintenance efficiency. BIM calculates live carbon volumes from the model, which appear as a heat map on a custom dashboard—ensuring accurate carbon measurement and highlighting areas where design improvements can reduce emissions. This gives us confidence that the project's carbon footprint is being effectively tracked and managed.

On-site, sustainable practices include using low-carbon cement, installing solar panels to power welfare offices, and using locally sourced clay for flood banks. We are continually exploring new opportunities to make the project as sustainable as possible throughout its design, development, and delivery.

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Further information

The scheme now has its own facebook page

To ensure effective engagement and keep communities informed as the project enters its construction phase, we are enhancing our efforts by launching the BTB Scheme Facebook page.

This new platform will serve as a central hub for updates, dialogue, and storytelling, supporting our wider objectives to increase awareness, maintain confidence, and demonstrate the tangible benefits of the scheme.

We invite you to follow our Facebook page as a further way to stay updated on project milestones, community events, and opportunities for feedback.



Bridgwater Tidal Barrier | Facebook

Community engagement

Since the New Year we have attended meetings with Chilton Trinity, Pawlett Parish Councils, and soon to visit Wembdon too. We also had a very successful drop-in session in Chilton Trinity where over 30 people attended.

We have also been engaging with local businesses by attending the recent Bridgwater Chamber of Commerce AGM and Kier have hosted a Somerset chamber of commerce lunch, as well as recent site visits including an Open Doors event – a construction based careers event – and a visit from geography students from the local Bridgwater & Taunton college.

The next few weeks sees us launch quarterly online webinars for community groups and stakeholders to attend.



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Join a Bridgwater Tidal Barrier Scheme Visit and see the project in action!

We're inviting you to join us for exclusive free site visits to explore this major national infrastructure project up close.

What's included?

- A short briefing by project representatives
- A guided visit to the designated viewing platform
- Insights into how the barrier will protect 11,300 homes and 1,500 businesses
- The chance to learn about our commitment to sustainability and biodiversity

When and where?

- Monthly visits from April – September
- Kier Site Office, Saltlands Lane, Bridgwater, TA6 3JS

Booking your space.

Reserve your spot via TryBooking: <https://www.trybooking.com/uk/EPOS>

Spaces are limited, so book early to avoid disappointment.

For further questions please contact us at bridgwater.barrier@environment-agency.gov.uk

Further information

Working Hours

Our core working hours on site are from 7am to 7pm.

There are certain activities that have been granted extended working hours and this will be communicated to affected stakeholders when required.

If there is anything you would like to see or hear more about in our quarterly newsletter, raise any other questions or concerns, please email

bridgwater.barrier@environment-agency.gov.uk

Would you like the BTB team to give an update at one of your events? Are a community group or school interested in knowing more about the project then please get in touch.

