

SEPTEMBER, 2026

NEWSLETTER

BRIDGWATER TIDAL BARRIER SCHEME

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
- Delivering improvements to fish and eel passes, opening up around 100km of river habitat across the Rivers Parrett and Tone.

Welcome to the latest edition of the Bridgwater Tidal Barrier Scheme newsletter.

It has been another busy few months for the scheme, with significant progress on site and the detailed design of the new look barrier superstructure substantially complete. This will allow construction of the three towers to commence in spring 2027. This marks an important step as the project moves from design into delivery, following the Design Efficiency Review.

But delivering a major infrastructure project is about more than engineering. It is about working with the communities, stakeholders, partners and future generations who will live with the benefits. Over the past few months, we have continued to create opportunities for people to visit the site, ask questions, learn more about the scheme and understand our thinking and goals for its successful delivery.

Those conversations are important to us. They help us understand what matters to the people and communities around the scheme and ensure that engagement is a two-way process, not simply an opportunity for us to share information, but to listen and learn too.

In this edition, you'll find out more about how we are bringing the scheme to life through our new LEGO® flood model, how the barrier design has evolved, what has been happening on site and some of the conversations we've been having with communities, schools and stakeholders.

There is plenty to share, and I hope you enjoy reading about the progress being made across the scheme.



Dr. Rachel Burden
Project Sponsor
Environment Agency

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Construction update – What's been happening?

Progress on Downstream Defences

Combwich

Excellent progress continues on the downstream defences, particularly in Combwich where construction works are nearing completion. The new permanent culverts (a closed tunnel or conduit that channels water beneath a road, railway, or path) have been installed, and the embankments finished with the public right of way now reinstated on the crest of the primary embankment. This follows completion of the access track, which will enable the Environment Agency to carry out monitoring and maintenance work of the new and improved defences.



Tucketts Clyce outfall structure and the primary embankment near Combwich



Crew applying stone on the crest of the primary embankment near Combwich, which will form part of the public right of way

Pawlett

In Pawlett the piling work has finished with 205 sheets of steel now providing protection at the end of River Road, at what was a vulnerable section of the River Parrett. Work on widening the primary embankment has progressed and construction works for this will soon be complete. Borrow pit excavation work has ended and near to 45,000 tonnes of material made available for embankments along the river.

Chilton Trinity

In Chilton Trinity five permanent culverts have been completed, and Straight Drove is again straight, having been diverted for more than a year while we worked on the primary and secondary embankments. The capping beam now tops off the underground steel wall at Perry Wood. This will stop water seepage at Chilton Trinity where the soil is sandy, and reduce the risk of its porous nature undermining the defence works.



Pawlett primary embankment



Seepage cutoff wall at Perry Wood

Progress on the Tidal Barrier site

Work is continuing at great pace on the barrier site. There are three dry working areas called cofferdams, within the River Parrett, and the foundations for each are carefully being built up using a mix of materials including aggregate and reinforced concrete. All of this material is added into and around the tubular steel piles, which are 20m in length and nearly 1.5 m in diameter. This foundation provides the strength needed for the superstructure.

Several significant concrete pours have successfully taken place and both the East and West abutments (the end support structure that connects a bridge deck to the ground) now have the permanent foundation concrete slabs in place. The abutments will support the barrier and act as the anchor point where the structure connects to the riverbank. Already over 400 tonnes of steel have been used.

The installation of the reinforced concrete compression slab in the central cofferdam has enabled the removal of the red temporary framework – another key milestone in the construction programme.

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Construction update – What's been happening? (Continued)

Progress on the Tidal Barrier site



Steel tubular pile within cofferdam



Internal view of central cofferdam before props removed



Removal of prop system



Looking downstream with cofferdams being accessed by crane

Construction update – What's next?

Tidal Barrier

On the tidal barrier, complex construction work continues in the cofferdams, where the substructure for the tidal barrier is coming together.

Alongside this there will be the significant matter of constructing the three towers and the two vertical gates. The precast concrete towers will be built off-site and then assembled in Bridgwater. Work on constructing the two vertical drop gates has started.

Downstream Defences

In both **Pawlett** and **Combwich**, as groundwork nears completion, final quality checks are being carried out as the team prepares for the autumn growing season. This will include applying soil and then seeding the embankments.

Once the grass establishes it will naturally improve the integrity of the embankments as well as enhancing the landscape. The borrow pits, which have yielded such useful local clay to build the embankments will be shaped, ready for the landscaping phase.

In **Chilton Trinity** work on the primary embankment continues. The sections of both the primary and secondary embankments that are finished will be landscaped and seeded in preparation for the growing season.

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Bringing the scheme to life – the LEGO® flood model

How do you explain a complex flood risk reduction scheme to someone who isn't an engineer?

The Bridgwater Tidal Barrier Scheme team has found a hands-on answer; a bespoke LEGO® flood model! This model has been developed by AtkinsRéalis and the Environment Agency as an innovative engagement and Science, Technology, Engineering, and Mathematics (STEM) education tool.

The model represents the barrier and the wider connected flood defence system, using recognisable local landmarks and features to help people understand where the scheme sits within the landscape and what it will protect. It isn't an engineering-scale replica, but a visual and interactive way to bring complex ideas to life.

During demonstrations, water can be introduced to the model to show how flooding occurs and how water levels change. Participants can even build their own temporary flood defences before seeing how the permanent tidal barrier and wider defences help reduce tidal flood risk.

The model has already proved particularly popular with young people, community groups and at flood conferences, providing an opportunity to explore flood risk, climate resilience and the science behind flood risk management. By turning complex engineering into something people can see, touch and interact with, the model is helping to start conversations about flood risk, climate change and the future resilience of Bridgwater and surrounding communities.



Lego model landmarks

And... did you know?

The LEGO® model design used real flood mapping and topographical information to create a simplified representation of the landscape around Bridgwater.



Lego model

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Behind the Design: Shaping the Bridgwater Tidal Barrier



Bridgwater Tidal Barrier Digital Design. How the barrier will sit within the landscape

When we picture a major engineering project, it can be easy to imagine that the first concept design simply becomes the finished structure. In reality, major infrastructure projects evolve as they move from concept to construction, with every element tested, challenged and refined.

Over the past year, the Bridgwater Tidal Barrier design has been through this process as part of the Design Efficiency Review, bringing together engineers, architects, environmental specialists, contractors and operators to explore how the design could be optimised for construction, operation and long-term maintenance. The result is a simpler, more efficient and easier-to-maintain design, while maintaining the scheme's agreed flood risk reduction benefits, operational resilience and approved design intent.

Some of the changes are visible. The barrier retains its defining three-tower design, supporting two vertical lift gates across the River Parrett, but the towers have been reduced in height by around 10 metres and will now be approximately 15 metres high. Mechanical equipment has also been relocated to improve access for inspection and maintenance, while the enclosed overbridge has evolved into lightweight operational walkways between the towers.

These refinements have also helped reduce construction complexity, material use and embodied carbon, while considering how the barrier can be safely operated and maintained throughout its 100-year design life.

Since the Design Efficiency Review updates shared in January 2026, the project has progressed with the outline and detailed design changes for the barrier superstructure, allowing construction of the towers to commence in spring 2027.

The Design Efficiency Review does not reduce the approved scheme cost. Instead, it has helped mitigate the impact of inflation, market conditions and design complexity, while ensuring the scheme continues to deliver long-term value.

The journey from concept to final design demonstrates that good engineering is about more than how a structure looks. It is about continually asking how it can be safer to build, easier to maintain, more efficient to operate and resilient for future generations.

As the final design takes shape, we look forward to sharing more about how the barrier will become a distinctive new landmark on the River Parrett.



Bridgwater Tidal Barrier Digital Design. Front view of the Tidal Barrier in the River Parrett

Read more on our website
[Bridgwater Tidal Barrier Scheme](#) ➔

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Connecting with our Communities

Over the past three months, the Bridgwater Tidal Barrier Scheme team has continued to engage with communities, schools, stakeholders and future engineers, creating opportunities to see progress first-hand, ask questions and learn more about how the scheme is being delivered.

June saw a wide range of engagement, including a visit from representatives of the Internal Drainage Board, who explored the progress of the scheme and the future operation and maintenance of the tidal outfalls. We also welcomed more than 15 county and town councillors for an update on progress and an opportunity to discuss issues and ask questions.



Community engagement



Berrow Conservation Group

In July, education and future skills were a strong focus. Around 90 Year 6 pupils at Hamp Academy explored how climate change can increase flood risk and how the scheme will help protect Bridgwater and surrounding communities. More than 200 Year 10 pupils at Haygrove School also took part in a mock interview day, building confidence and gaining experience of speaking with employers and professionals.

We also welcomed professional engineering students to site through the Institution of Civil Engineers (ICE) Queen's Jubilee Scholarship Trust, giving future engineers first-hand experience of delivering major infrastructure projects and demonstrating the breadth of skills involved in building climate resilience.

Public site visits continued to be fully booked in June, July and August, with 20+ people attending each session. Visitors have been asking questions about everything from how the barrier will operate, to concrete and corrosion, boat navigation, solar panels, archaeology and the future restoration of borrow pits.

Across all of these activities, the questions and conversations are helping us understand what matters to the communities and stakeholders around the scheme, while giving people the opportunity to see how the project is progressing and understand the thinking behind it.

Coming Soon!

Latest Construction Quarterly Video

It's been a productive few months on the Bridgwater Tidal Barrier Scheme, with plenty of progress taking place at both the tidal barrier site and across work on the downstream defences.

Our **Construction Quarterly Videos** take a look at what's been happening across the scheme, from key construction milestones to the work taking place to deliver a connected flood risk reduction system for Bridgwater and surrounding communities.

The video is coming very soon – keep an eye on your inbox for the full update!