

MARCH 31, 2026

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 up to 12 upstream sites on the rivers Parrett and Tone

Welcome to the first newsletter of 2026. These first few months of the year, have seen the Bridgwater Tidal Barrier (BTB) Scheme continue to make strong progress, both on site and behind the scenes, it's hard to believe we are already a quarter of the way into the year!

Construction has recently reached another important milestone with the installation of the final tubular piles for the barrier substructure, marking a significant step forward in preparing the foundations for the construction of the tidal barrier itself.

Alongside this incredible progress on site, the scheme has also been undertaking a Design Efficiency Review to ensure the scheme continues to deliver the required level of flood protection, while achieving the best possible value for money. This review has helped us refine elements of the design, particularly the barrier superstructure, while maintaining the scheme's core purpose; protecting homes, businesses and infrastructure from tidal flooding.

Work is continuing at pace across the downstream defence stages at Chilton Trinity, Pawlett and Comwich to strengthen embankments and improve resilience across the whole flood defence network. Together with the tidal barrier, these elements will operate as one connected system to provide long-term flood risk reduction for the area – read more in our feature below.

We continue to engage closely with local communities and stakeholders, via parish council meetings, stakeholder briefings, letter drops, archaeology activities with local schools and community groups, and discussions in relation to opportunities to support local initiatives.

Thank you to everyone who continues to take an interest in the BTB Scheme and engage with the project team. Your feedback and support are an important part of helping us deliver this once-in-a-generation investment in flood risk reduction for Bridgwater and the surrounding communities.

Dr Rachel Burden
Project Sponsor, Environment Agency



MARCH 31, 2026

What's been happening?

Progress of the tidal barrier

The tidal barrier has been progressing well among what has been Somerset's second wettest January on record. January saw more than 1.2 million cubic metres of water per hour moving through the Parrett and Tone catchments and the persistent wet weather continued into February. By the middle of the month, the county had already seen nearly double the average rainfall.

But despite the rain, a number of key construction milestones have been achieved by the team in the past few weeks.

The bypass channel is now complete and officially flowing. This entailed the final material excavation and the 60 tonne (t) excavator, dredging barge and hopper barge have now been taken offsite. Making use of the river's natural tidal range, all scour protection (rock riprap preventing the underwater erosion of soil) has been installed in readiness for the permanent works and the site received the final delivery of tubular piles, for when the bypass channel is closed in the future.



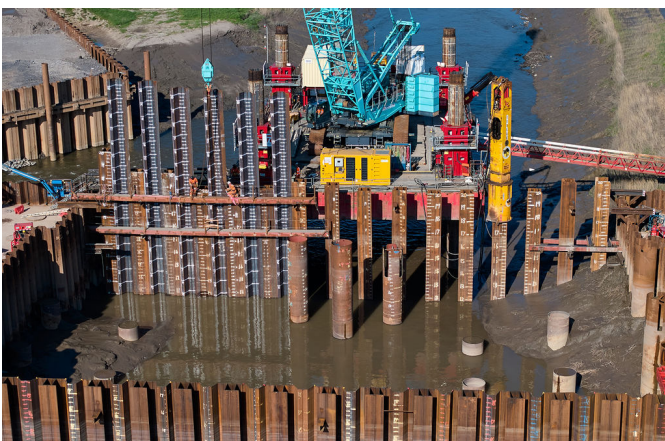
Bypass channel is now complete and in use

The installation of the final tubular piles for the substructure is underway. The Central Cofferdam's southern wall sheet pile has been completed, closing the main river channel and diverting water through the bypass channel. Through the last couple of weeks, 60 tubular piles were installed across the East, West and Central Cofferdams.

The piling is now taking place for the northern wall of the Central Cofferdam which, on completion, will close off the central area from the river. This will allow construction to begin for the central tower of the barrier.

The East Wing walls have been cut down to level at Express Park, in readiness for the capping beam installation.

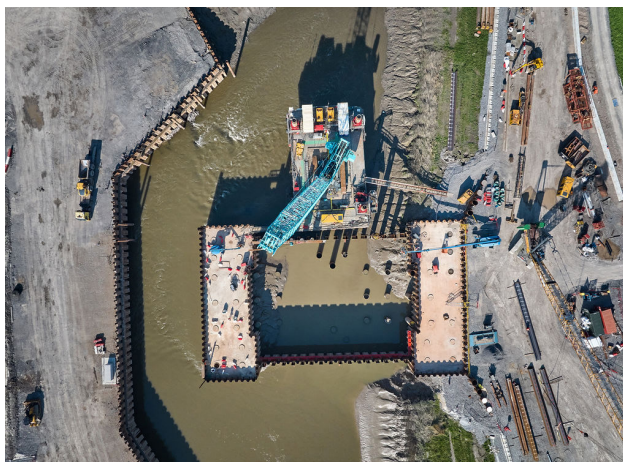
The concrete pour for the temporary tension slab in the East Cofferdam has been completed. This included 55t of rebar and 205m³ of concrete poured with an 36m pump. Similar to the temporary tension slab installed at the West Cofferdam, this will stabilise the East Cofferdam during its temporary state until the permanent concrete slab is poured.



Installation stage of the northern central cofferdam sheet pile wall



Southern central cofferdam sheet pile wall is complete



Birds eye view of the west, central and east cofferdam

MARCH 31, 2026

What's been happening? (continued)

Downstream Defence Progress

Alongside the ongoing piling works at the site for the tidal barrier, progress continues on downstream defences. Some of the highlights include:

Chilton Trinity

At Chilton Trinity the team has finished installing the capping beam along the top of the sheet pile wall at Pims Clyse Outfall Structure. A total of 40m³ concrete was placed across seven sectional pours.

Before the pouring could take place, the team welded shear studs to the sheet piles, fabricated and lifted steel reinforcement cages into position and installed sectional formwork shuttering. The shuttering included compressible boards that allowed for movement. Once the concrete works were completed, the shuttering was removed and sealant applied to all the movement joints creating a durable outfall structure.

Conventional sheet piling methods were used alongside a crane pile gate and Giken equipment. The team installed wailing beams on both the wet and dry sides before excavating the centre of the pile lines for tie rod installation. This was then tensioned and backfilled, completing the structural system which allowed for the installation of the steel beam sections. The supports once delivered to site, were positioned and welded completing the structure.



Pims Clyse Outfall Structure concrete capping beam



Piling mat installation



Seepage cut off wall piling installation has begun



Continuation of the secondary embankment

Another highlight has been the completion of substantial groundwork and preparation between Chilton Trinity and Perry Green. This included constructing 800 mm-thick piling mats, using 7,049 m³ of stone across an area of 8,812 m². These mats are essential preparation for the seepage cut-off wall piling works, due to start in March 2026. Sheet piles will arrive over a 35-day period, with around four deliveries each day.

Other notable highlights include

- The large archaeological dig at Chilton Trinity was completed at the end of 2025 and enabled the installation and completion of the piling mats.
- The first of several permanent culvert installations began in February and preparing for the future installation of the precast headwall culverts.
- The Moores Lane compound has been successfully dismantled with smaller ground hog units distributed across the active areas of Chilton Trinity.

In preparation for high spring tides and water levels that surround the in-land waterways, the team liaised effectively with the Internal Drainage Board and Environment Agency. This was integral to monitoring the water on site, particularly during.

MARCH 31, 2026

What's been happening? (continued)

Pawlett

We have safely finished the demolition of the three cottages at the end of River Road, with some material waiting to be exported from the area.

The haul road has been completed all the way up to the former cottage site reaching 1131m in length and using 4989m³ of stone tonnage. Coordinating this safely alongside the ongoing archaeological works at the 19th century brickworks factory was key. The team are now able to continue the haul road to the north, enabling the construction of the primary and secondary defence works.

The works have been timed to accommodate the Marsh Harrier, which nests in Pawlett from February to June. Due to this, the excavation of the cottages and the lime kilns discovered at Pawlett has been paused until the nesting season comes to a close.



Continuation of the haul road construction

Archaeology in Pawlett

Lime kilns were discovered as part of the 19th century brickworks located at Pawlett. Excavation has started to progress to develop a full understanding of the kilns, although paused to accommodate the Marsh Harrier. At a later date, photogrammetry will take place to further gain insight into the historical use of these kilns.

In early February, the team hosted an archaeology day alongside partners Oxford Archaeology. The day started out with a tour alongside the 19th century brickworks excavation site in Pawlett with enthusiastic local residents, who came with historical maps and information passed down the generations. The team then moved to the local primary school where they found the same enthusiasm, and a desire to engage and learn. The children were really excited to meet actual archaeologists, and two said, 'that it is what they want to be when they grow up'.

We delivered presentations all about the Bridgwater Tidal Barrier and Lime kiln discoveries. This was a fantastic opportunity to meet with the local village archaeology enthusiasts and inspire the children across KS1 and KS2.



(To the left on site Kier, AtkinsRealis and Oxford Archaeology team members explaining the ongoing archaeological works at Pawlett to the local historical interest group)

(To the right Kier and Oxford Archaeology team members explaining the ongoing archaeological works to Pawlett Primary School students)



MARCH 31, 2026

What's happening over the next 3 months?

Chilton Trinity

- Continue with the construction of the seepage cut-off wall
- Commencement of the capping beam installation once the seepage cut off wall piling is complete
- Installation of a number of permanent culverts

Pawlett

- Construction of a piling mat
- Haul road construction up to the secondary defence flood embankment
- Receiving deliveries of sheet piles in readiness for the sheet pile wall installation
- Commencement of the piling of the flood defence
- Commencement of the borrow pit excavation

Combwich

- Public right of way diversion from the 20th April 2026
- Piling works at Tucketts Clyse will commence with a capping beam installation following the completion of the piling work

Tidal Barrier

- Installation of the temporary footbridge to establish access to the west abutment
- Completion of the east wing wall capping beam installation
- Permanent 1.2 metre thick reinforced concrete slab to be installed on West Abutment
- Installation of propping in the central cofferdam and the excavation and ground improvement, commencement of the compression slab within the central cofferdam
- Bypass channel materials processing at northern borrow pit
- Removal of the material processing lagoon



Birds eye view of the barrier substructure



Propping on site and ready for installation

Design Efficiency Review

As the scheme progresses, the project team continues to balance ambition with affordability to ensure the scheme delivers long-term value for communities.

The recent implementation of a Design Efficiency Review has provided an opportunity to reassess and refine elements of the scheme. The review focuses on delivering the agreed flood risk reduction outcomes as efficiently as possible by applying value engineering, exploring newer technologies and ensuring decisions prioritise long-term value, carbon reduction and operational efficiency.

The primary focus for the review to date has been on the tidal barrier superstructure. Through the review, the design of the tidal barrier has been simplified while maintaining the same level of flood protection. The revised concept design still features three sculptural towers supporting two vertical lift gates across the River Parrett, while creating a cleaner and more efficient structure and retaining a strong architectural identity.

Earlier this year, after focussed key stakeholder engagement, the project team launched the Design Efficiency Review publicly through a series of in-person and online engagement events, providing an opportunity for stakeholders and the community to learn more about the scheme's progress and the work being undertaken.

The review is ongoing, with further work underway to assess opportunities for efficiencies in areas such as the operational building and landscape design. Once this work is complete, an updated project timeline will be shared.

More detailed information is available on the [project website](#).

MARCH 31, 2026

A review of the scheme

The Bridgwater Tidal Barrier (BTB) Scheme operates as a single, connected flood protection system, rather than a series of standalone flood risk management structures and it is important our messaging reflects this. The tidal barrier will control extreme tidal surges and work alongside primary and secondary downstream flood defences.

Adaptability, and Why Design Life differs across the BTB scheme

What do we mean by design life?

The design life of a flood defence refers to the period over which it is designed to provide its stated level of protection. This is based on current climate change projections, sea level rise, and modelling assumptions. It does not mean that a defence will stop working or fail once that date is reached. Instead, the design life indicates when additional intervention, adaptation or enhancement may be required to maintain the same standard of protection.

Why can't we just increase the height of the existing banks and not build a surge barrier?

The main difficulties with this approach relate to the defences within Bridgwater, which realistically have a further effective life of about 20 to 35 years with appropriate normal maintenance. Existing bridges, including historic structures such as Town Bridge, would need to be rebuilt or raised. The height of the new defences in many places would have a significant impact on both the urban landscape and feel of the town centre environment. Surface water drainage behind raised defences will become increasingly difficult and is likely to require expensive collection, storage and pumping arrangements. Many of the tidal defence embankments upstream and downstream of Bridgwater do not meet current standards e.g. for maintenance access and are often very old structures with variable construction. They would require re-building in order to achieve a higher defence level.

Why are downstream defences designed to 2055?

Some downstream defences are currently designed to around 2055 to reflect both the nature of these assets and a flexible, long-term approach to managing flood risk. Climate projections become more uncertain further into the future, so this approach allows plans to be reviewed and refined as we gain a clearer understanding of future conditions.

These defences, mainly earth embankments, naturally settle over time and have a shorter design life than major structures. However, they have been intentionally designed to be adaptable, meaning they can be raised or strengthened in the future if needed. Because they are more accessible, this can be done in a practical and cost-effective way.

Importantly, 2055 is not a stop date. The defences will continue to function beyond this point, but they will be reviewed to ensure they continue to provide the required level of protection. This phased approach allows investment to be made at the right time, avoiding unnecessary over-engineering while maintaining flood resilience for the long term.

What does a 1:200-year level of protection mean?

A 1:200-year level of protection means there is a 0.5% chance in any given year of a flood event exceeding the design level. It does not mean flooding will only happen once every 200 years. This standard is commonly used for major flood defence schemes protecting large numbers of homes and critical infrastructure. The BTB Scheme provides this level of protection to approximately 12,800 homes and businesses.

Why are downstream defences focused on Comwich, Chilton Trinity and Pawlett?

Downstream defences have been prioritised where flood risk to people, homes, infrastructure, and transport links is highest. This includes villages, the A38, the railway line, and areas where overtopping could lead to significant impacts.

Flood risk varies along the River Parrett, and different locations require different solutions. Other areas, such as Cannington and Pawlett Hams, are subject to other sources of flood risk and therefore to separate flood risk assessments and, where appropriate, standalone Environment Agency projects.

MARCH 31, 2026

Water Flow

The Bridgwater Tidal Barrier (BTB) Scheme has been carefully designed and modelled to ensure it does not increase flood risk either within the scheme area or upstream and downstream of it. Before approval, the design underwent detailed hydraulic modelling and independent review to confirm the barrier would not create unintended impacts, such as increasing flood risk elsewhere.

A tidal surge occurs when strong winds and low atmospheric pressure during storms push seawater towards the coast, causing sea levels to rise higher than normal tides. When this happens at the same time as a high tide, water levels in estuaries such as the River Parrett can increase significantly, raising the risk of flooding for nearby communities. Climate change is increasing sea levels and the frequency of severe storms, meaning these events are expected to occur more often in the future.

The barrier is designed to operate during these tidal surge conditions. Most of the time, the barrier gates will remain open, allowing the River Parrett to flow naturally. When exceptionally high tides are forecast, the barrier will close to prevent tidal water moving upriver. This closure typically takes place near low tide and may remain in place for up to around six hours.

Once the highest tidal level has passed and water levels downstream from the barrier begin to fall, the gates are gradually reopened. This allows the river water that has been temporarily retained upstream to be safely released, avoiding sudden surges.

During periods of high river flow, the barrier can also provide an additional benefit upstream. By preventing the incoming tide from raising river levels, more space is available in the channel to temporarily store river water. This allows water to drain away for longer and provides a slightly longer window for pumping flood water from Northmoor, Saltmoor and Currymoor.

Together, these measures form a once-in-a-generation investment to improve flood resilience for Bridgwater and surrounding communities.

Dredging

Why not just dredge the river?

We know dredging is an ongoing topic of debate locally, which is why we are featuring it again in this newsletter. Dredging, in a tidal environment, temporarily deepens or widens a river by removing silt. While it can increase the capacity of the channel in the short term, it doesn't provide lasting flood protection, it is expensive and can have significant environmental impacts. Silt deposition occurs with every tide gradually building until the river reaches its natural equilibrium again.

Although it is part of the solution in some places, it's not a long-term solution to rising sea levels and the scale of tidal flood risk Bridgwater faces.

The Bridgwater Tidal Barrier Scheme offers a more resilient and sustainable answer, protecting thousands of homes and businesses into the future. Alongside this, we're also working with nature, restoring wetlands, planting trees, and creating upstream water storage areas. These 'slow the flow' techniques reduce flood peaks, improve water quality, and provide vital new habitats for wildlife.

By combining modern engineering with natural solutions, we're creating protection that lasts for people, places, and nature.

For more info on dredging [see here](#)



MARCH 31, 2026

Community and Environment Update

As construction progresses on the Bridgwater Tidal Barrier, our teams continue to work in step with the natural environment and the communities around us. From planning work around tides and weather to engaging with schools, colleges, and partner organisations, we're committed to delivering the Scheme responsibly and collaboratively.

Here's a snapshot of what we've been involved in this season.

Design Efficiency Review – Online Stakeholder Event

An online event was held in addition to in person engagement activities, to give key stakeholders an opportunity to learn more about the Bridgwater Tidal Barrier Scheme's Design Efficiency Review.

Attendees included representatives from local authorities, statutory bodies and partner organisations. The session provided an overview of the review process, the areas being explored to improve efficiency while maintaining the scheme's flood protection objectives, and offered stakeholders the chance to ask questions and share feedback.

Pawlett Parish Council Update

Project representatives attended Pawlett Parish Council to provide updates on the Bridgwater Tidal Barrier Scheme and the Pawlett Hams works. The meeting included an overview of the urgent works that began in early February on Pawlett Hams, where temporary piling has now been completed to secure an eroding flood bank. The session also provided an opportunity to discuss the Parrett Estuary Strategy and answer questions on topics including silt in the estuary, barrier design and future sea level rise. Overall, the meeting provided a positive opportunity to share updates and respond to local community questions.

Site visit from EA apprentices studying at Cannington College (University Centre Somerset College Group)

On Thursday 26 February we welcomed a group of EA apprentices studying at Cannington College (University Centre Somerset College Group) to the Barrier site where the EA and Kier gave a presentation on the scheme and fielded questions. This visit followed a visit earlier in the week which EA colleagues hosted to the Somerset Levels & Moors. The two visits worked well together to provide a good overview of both fluvial and tidal flood risk in and around Bridgwater.

Public Site Visits

Our ever-popular monthly public site visits for 2026 booked up in record time this year. We are looking to see if we can add in some additional dates and will keep you informed. We do get cancellations so to be informed about extra dates or to be notified of cancellations, please sign up to our wait list.

Email: bridgwater.barrier@environment-agency.gov.uk



Cannington College EA Apprenticeship site visit



Working Hours

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

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