



**June 2025**

# **The Bridgwater Tidal Barrier Scheme Community Response to Noise Disruption**



This information pack has been developed in response to community feedback and concerns on noise disruption on the Bridgwater Tidal Barrier (BTB) Scheme construction site.

This pack contains important information about current construction activity, how we're working to minimise disruption, and how your feedback is shaping our approach.

In addition to this information pack, we're holding a further drop-in session on **Wednesday 18 June at Chilton Trinity Village Hall from 4.30pm - 7.30pm**. We look forward to seeing you there.

For questions, please contact: [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk)

## Why the Bridgwater Tidal Barrier Scheme matters

The Bridgwater Tidal Barrier Scheme will protect over 11,300 homes and 1,500 businesses from tidal flooding.

While the existing flood defences in Bridgwater and downstream are doing their job for now, the risk of tidal flooding is increasing. Just over 10 years ago, a combination of high tides and river flows nearly led to severe flooding in the town. Without this scheme, rising sea levels and storm surges would place Bridgwater and surrounding communities at increasing risk of flooding.

Flood defences will be required downstream of the barrier to prevent flood water bypassing the barrier and to better protect the villages of Combswich, Chilton Trinity and Pawlett, the A38, the railway and farmland. We will do this by improving the existing flood defences and building new secondary defences.

Villages protected by the River Parrett flood banks are low lying, with some areas lower than 7 metres Above Ordnance Datum (AOD) and much of the area below 8 metres AOD. In Bridgwater Bay, and hence in the River Parrett, the 1 in 20-year extreme tide level is fast approaching 8 metres AOD. In 100 years, it will be nearly 9 metres AOD.

Not only must our local operatives continue to maintain the existing flood banks, but we also have to raise and improve the banks where needed to keep ahead of the rising tide levels.

Without these essential works the banks would overtop or breach, and the whole area would be at risk of filling up with tidal waters, potentially to depths of up to 1 to 2 metres.

The economics for the Barrier show that for every pound spent there is a benefit of £7.50.

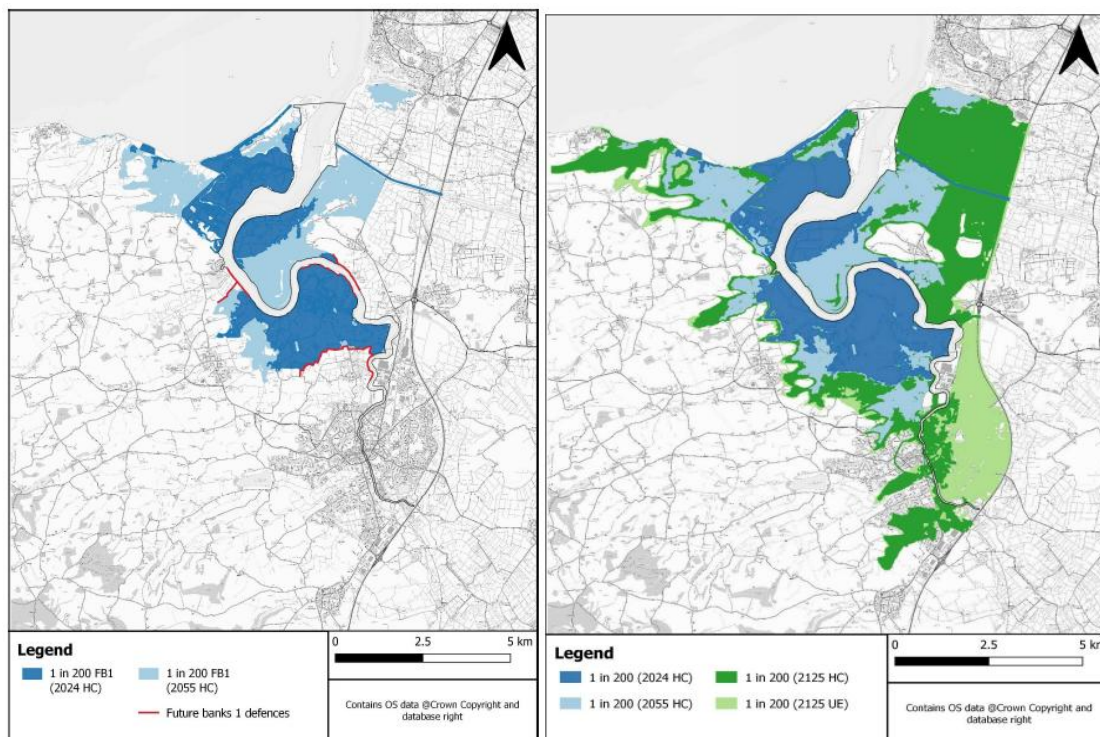


Figure 1 – With Barrier and defences

Figure 2 – Without Barrier and defences

The impact of flooding is far reaching, it's about homes, businesses, schools, roads and lives being disrupted significantly with a great emotional, physical and financial impact, that can take years for individuals and communities to recover from.

Each year, around 700 flood events are recorded in England, causing £2.4 billion in damages to homes, businesses, and infrastructure. Without action, these costs could rise to £3.6 billion annually by 2050. Therefore, investing in flood defences is one of the smartest things we can do. [\[from Public First\]](#)

- The BTB scheme will deliver a 1 in 200-year standard protection up to 2125 for the town of Bridgwater, and up to 2055 for the communities of Combswich, Chilton Trinity, and Pawlett.
- The proposed design of the scheme will ensure that the flood defences are able to adapt to climate change over the next 100 years, allowing it to cope with the expected rise in sea level during this time of 0.75 to 1 metre.
- The Scheme comprises more than just a barrier; the BTB includes new and improved downstream flood defences and better fish and eel passage at 12 key locations.

This scheme is not just about protection, it's about creating a resilient, thriving future for Bridgwater.

Delivering this vital scheme is complex, but wherever possible, we are working to balance the need to minimise disruption to communities and the environment with the importance of completing the tidal barrier and defences efficiently and effectively as possible.

### Why this work can be disruptive

Infrastructure projects as extensive as the BTB Scheme, inevitably involve significant construction works and can create some short-term disruption to the local area. Project teams, therefore, work to balance delivery programmes taking into consideration the communities and environment that surround the project.

The foundation work is one of the most critical elements, especially on a large project such as the BTB Scheme. Techniques such as piling are essential to ensure the barrier's long-term strength and stability, particularly in areas with soft or unstable ground. While this work is temporarily disruptive and will see greater and lesser periods of intensity and therefore noise and vibrations, a shorter construction programme means less long-term disruption.

Piling involves driving steel supports (piles) deep into the ground to create solid foundations. For the BTB Scheme, we use a crawler crane with a suspended hammer or a leader rig depending on ground conditions.

Piling has been planned and phased to minimise the periods of intense noise wherever possible, but this means there still will be times of intensity. The project is using numerous mitigation methods to date, we have employed a selection of the most appropriate methods for project piling methods, including installing acoustic noise matting and monitors to monitor both vibration and noise levels. Piling works will continue intermittently until mid-2026, with intensity decreasing after current peak phases.



### What we're doing to minimise disruption



Use of quieter piling techniques where possible	Monitoring to ensure noise stays within set limits
Acoustic matting and hoarding	Work timed during daytime hours (as far as practical)
Smaller hammers used than initially proposed	Notice given to residents in advance of increased noise activity

## Legal, Planning and Technical Standards

### Working hours and legal exceptions

The control of working hours is a fundamental means of controlling noise and vibration impact. We are working under the permitted working hours of the Transport and Works Act Order (TWAO), which is the order that authorises the construction of the BTB Scheme.

Core working hours have been set between 07:00 and 19:00 hours Mondays to Fridays and 07:00 and 13:00 hours on Saturdays (excluding public holidays).

Construction work shall only take place during core working hours subject to the following exceptions:

- *In Channel Works may take place on Mondays to Fridays between the hours of 05:00 and 20:00*
- *In Channel Works may additionally take place on Saturday or Sunday between the hours of 07:00 and 20:00 hours*
- *With the prior approval, in writing, of the Local Planning Authority, the completion of works which have been delayed by severe weather conditions which disrupted or interrupted normal construction activities may additionally take place on a Saturday or Sunday between the hours of 07:00 and 20:00 hours.*
- *Works required to be undertaken in the event of an emergency or for reasons of safety.*
- *The completion of operations commenced during Core Working Hours which cannot safely be stopped.*
- *Works inside any building.*
- *The operation of pumps required to dewater any part of the site.*
- *Any highway works which the local highway authority reasonably requests be undertaken outside core working hours*

### Noise thresholds and what they mean

This is the level of noise emitting from the site and attributable to the construction works. It is measured at the façade of the nearest occupied commercial or residential building. Noise is measured in decibels (dB) and LAeq1hr, which is the average noise level over a one-hour period, adjusted to reflect how humans hear different frequencies. The noise is not just about peaks (like a hammer hit), but the 'overall experience of noise over that hour.

**These measures shall not:**

(a) exceed 75 decibels (dB) LAeq1hr:	(b) in the case of In Channel Works, exceed 75dB LAeq1hr:
before 07:30 hours or after 19.30 hours Monday to Saturday; or	before 06.00 hours or after 20.00 hours Monday to Saturday; or
at any time on a Sunday; or	at any time on a Sunday.

*For monitoring noise during working hours, we comply with British Standard (BS) 5228:2009 + A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites - Part 1: Noise has been used.*

## How we monitor noise and vibration

Noise monitoring on site, is *not* continuous over weeks and months. When a new construction activity commences on site, for example piling in one area, Kier employs a combination of attended and unattended noise monitoring initially to gauge the noise impact.

Unattended monitors are strategically placed to continuously record noise levels, while attended monitoring is conducted periodically to assess specific activities or investigate complaints. This dual approach ensures comprehensive coverage and responsiveness to potential issues.

Unattended monitors provide continuous data in those initial stages of a new construction activity, allowing for analysis of noise levels at any given time. This data can be averaged over specific periods (e.g., hourly, daily) to assess compliance with permitted limits during working hours. Attended monitoring captures data at specific times and locations to provide context-specific insights.

Measurements are location specific. Monitors are placed at strategic points, particularly near sensitive receptors, to capture accurate data reflective of the noise experienced at those locations. Averaging across the entire site would not provide meaningful information for assessing localised impacts.

Vibration is monitored too. Vibration monitoring is crucial for assessing potential impacts on nearby structures and ensuring compliance with relevant standards, such as BS 5228-2:2009+A1:2014.

## Wider construction activity and environmental impact

Works are scheduled and sequenced to reduce disruption to traffic and daily life, and therefore the project works hard to ensure there are not too many different noisy activities at any one time. A Noise and Vibration Management Plan (N&VMP) which has been approved by Somerset Council, guides mitigation actions.

## Listening, responding and supporting the community

At the recent drop-in, we heard a range of questions from noise disruption to construction timelines, traffic disruption, to how the scheme will work and leave a positive legacy for Bridgwater. This pack focuses on noise disruption feedback response, but other feedback is being reviewed and an update on this will be shared soon.

We are also planning further drop-in events this summer and will share dates nearer the time. We continue to welcome any suggestions for additional ways we can keep you informed.

## Social value in action

The organisations and contractors working on the BTB Scheme are committed to supporting local communities in addition to building the scheme.

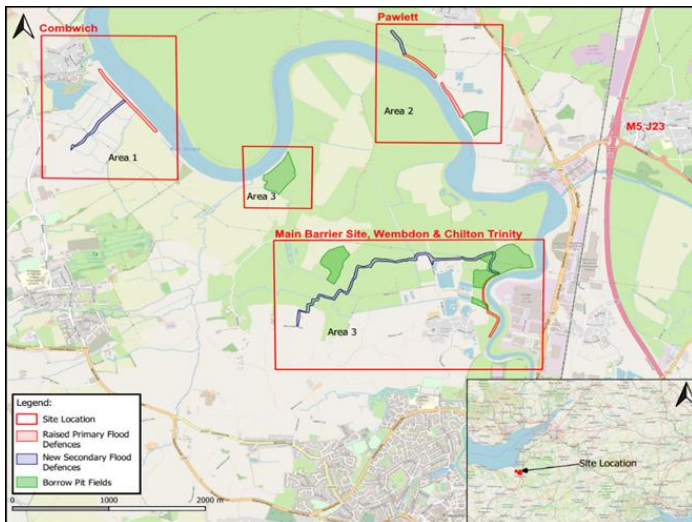
- Local employment and apprenticeships supported by the contractor.
- Work with local schools or colleges e.g. Science, Technology, Engineering and Mathematics (STEM) education and careers talks.
- Supplier diversity e.g. use of local procurement.
- Volunteering or community support efforts by project teams.
- Open door event.
- Sustainable Urban Drainage Systems (SuDS) Projects and Environmental Enhancements.
- Wembdon Primary School Improvement Project.
- Material donations.
- 'Man overboard' drill with local Fire and Rescue Service.

## What happens next

In addition to sharing this information pack, we are holding a community response drop-in session on **Wednesday 18 June**. Delivering this vital scheme is complex, but wherever possible, we are working to balance the need to minimise disruption to communities and the environment with the importance of completing the barrier and defences efficiently and effectively.

The site is split across three geographical areas

Area 1 Combwich	Area 2 Pawlett	Area 3 Chilton Trinity
-----------------	----------------	------------------------



Work is split into Development Stages to Discharge Planning Conditions

Stage 1: Western Access Road (now known as Barrier Way) & Compound (Blue)

Stage 2: Enabling Works for Barrier (Pink)

Stage 3: Pims Clyce (Yellow)

Stage 4: Enabling Works Chilton Trinity East (Purple)

Stage 5: Chilton Trinity East and West works (Green)

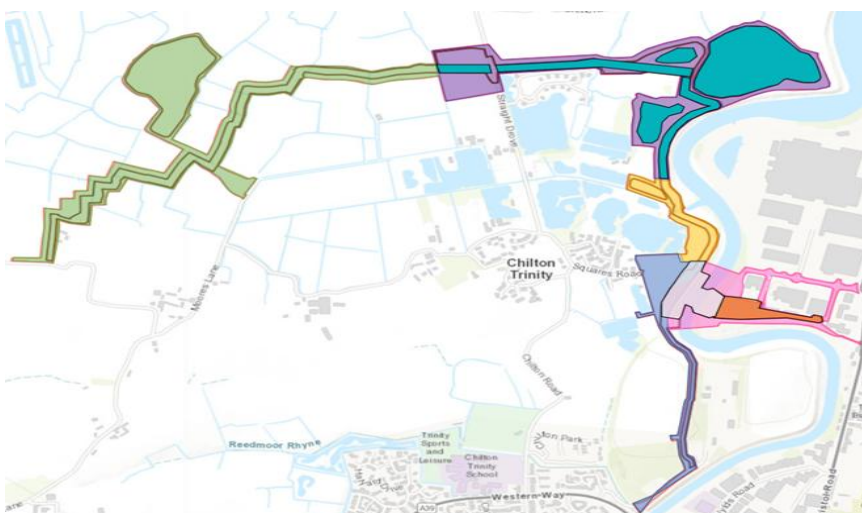
Stage 6: Barrier (Grey)

Stage 7: Operations Building (Orange)

Stage 8: Pawlett main works

Stage 9: Combwich Main works

Stage 10: Fish and Eel passes



The Environment Agency is committed to being a good neighbour by actively listening to and engaging with residents throughout the duration of the project, and by providing feedback and solutions wherever possible.

For further questions or queries please email: [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk)

Between Monday 14 April and Friday 25 April 2025 (excluding bank holidays), the BTB Scheme contractors carried out monitoring as part of the Bridgwater Tidal Barrier construction works.

This monitoring focused on activities such as piling for the bypass channel and cofferdam, in line with our N&VMP.

Each time a new activity commences on site, attended and unattended noise monitoring takes place.

### Why we monitor noise

Noise or wider noise monitoring is a key part of our commitment to being a good neighbour. It helps ensure that construction activity stays within agreed noise limits, and that any potential disturbance is picked up early and can be addressed.

Our monitoring of noise levels is based on:

- Legal requirements under the Transport and Works Act Order (TWAO), which sets specific limits on core working hours. Follow link for details: [Working hours](#)
- A planning condition which sets a specific limit on noise outside core working hours
- The N&VMP which has been approved by Somerset Council and sets out all the measures which have been put in place to limit and mitigate construction noise.
- National standards, including British Standard BS 5228, which guide how construction noise is assessed and mitigated.

### Where monitoring took place

Noise levels were recorded at key locations near construction works:

- Brickyard Cottages
- Mallard Court
- Redrow Estate

Most monitoring was carried out at Brickyard Cottages, with microphones placed close to buildings to measure noise at residents' facades, as per the regulations.

### How we monitor noise

Unattended monitors are strategically placed to record noise levels, while attended monitoring is conducted periodically to assess specific activities or investigate complaints. This dual approach ensures comprehensive coverage and responsiveness to potential issues.

Unattended data can be analysed over set periods to check compliance with noise limits during working hours. Attended monitoring offers context-specific insights by capturing noise levels at times and locations, with monitoring was undertaken for up to 8 hours every weekday.

Measurements are location specific, and monitors are placed at strategic points, particularly near sensitive receptors, to capture accurate data reflective of the noise experienced at those locations. The equipment used has a calibration history that is traceable to a certified calibration institution. Under BS EN 61672-1, noise level meters are required for calibration every two years, with acoustic calibrators requiring calibration annually. Calibration certificates for all noise monitoring equipment can be provided if requested.

### What we found

Most measured noise levels remained below our internal and regulatory limits.

The highest recorded level was 72 dB LAeqT on Tuesday 15 April at Brickyard Cottages, which is within working-hours limits and aligned with predicted levels for that activity (piling). This level is below the worst-case prediction using the 65t Impact Hammer and 350t Crawler Crane (which predicted 81 dB).



Some short-term fluctuations were expected, especially during piling, which is a noisier part of construction. These levels had already been predicted in our planning stages.

Date	Location	Measured Level (LAeqT)	Key Activities
14 April	Brickyard Cottages	52 dB	Site setup and piling prep
15 April	Brickyard Cottages	72 dB	Piling for bypass channel
16 April	Brickyard Cottages	59 dB	Equipment movement, minor piling
16 April	Mallard Court	62 dB	Site activities, no piling
17 April	Brickyard Cottages	70 dB	Bypass channel piling
22–24 April	Brickyard Cottages	65–68 dB	Piling and framing activities

Detailed graphs on this noise monitoring exercise will be uploaded to Somerset Council website for you to view using the following link: [Bridgwater Tidal Barrier](#)

### Looking ahead

We will continue to apply best practice noise mitigation, for example using quieter equipment where possible, and further monitoring will take place when new construction activity commences to ensure the project stays on track.

If you have concerns or queries to raise on construction noise, please email [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk)

### Frequently asked questions

Here are answers to some of the common questions raised by residents and stakeholders. If your question isn't listed, please email us at [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk)

#### How long will the noisy works last in my area?

Piling and other higher-noise activities are expected to continue intermittently until spring 2026, depending on weather and ground conditions. Most noisy works will be concentrated in specific areas for set periods, and we'll notify you in advance whenever possible.

#### Will there be breaks in piling or quieter periods?

Yes. Piling is not continuous and will be carried out in planned bursts followed by quieter periods for follow-up construction. Breaks are also built into the schedule to protect community, environment and workforce wellbeing and manage noise impact.

### **What restrictions are there on construction noise?**

The Bridgwater Tidal Barrier Order 2022 (TWAO) made under the Transport & Works Act 1992 gives authority for the construction of the Tidal Barrier scheme, and grants planning permission for the scheme.

The scheme is subject to planning conditions restricting hours of work (“core working hours”) and limiting construction noise levels. Noisy activities are limited to approved core working hours, with a limited number of exceptions. All the works will be carried out in conformity with a Construction Noise & Vibration Management Plan which has been approved by Somerset Council.

### **What happens if noise or vibration levels go over the permitted limits?**

As shared in the data fact sheet, noise and vibration are closely monitored. If levels approach or exceed thresholds set by local authority consents, work is paused, reviewed, and mitigation measures are adjusted immediately.

### **What does a ‘peak’ on the graph actually indicate?**

A peak shows a momentary rise in noise or vibration — usually from a specific activity like a hammer strike during piling. Not all peaks indicate a breach. They are compared to both: Permitted limits and baseline/background levels.

### **Will weekend working continue throughout the project?**

Saturday morning working between 7.00 and 13.00 is within core working hours. Wider weekend working is currently limited to exceptional cases, such as to meet tidal or safety-critical timelines. We aim to give advance notice if any weekend work is scheduled.

### **How is local wildlife being protected during works?**

This includes:

- Ecological surveys before and during works
- Habitat protection zones
- Specialist ecologists on site when needed
- Noise limits and restrictions during bird nesting and fish migration seasons

### **What are the environmental enhancements and benefits of the scheme?**

We want to leave an environmental legacy on completion of the project which will provide wider benefits than flood defence. We are looking at opportunities to provide additional environmental, social and economic enhancements. These include, providing enhanced habitats for wildlife; encouraging increased biodiversity across the scheme; the potential for restoring historic kilns for public display and improving cycleway and footpath links.

The operational site will be landscaped, and the project is seeking partnership funding for public realm improvements around the barrier site including a potential riverside park. Borrow pits dug to provide clays for flood bank construction will be designed to provide improved biodiversity in the area (approximately 4 ha) and ‘stepping stone’ linkages between core wetland habitats in Somerset. WWT and Bridgwater’s Blue Heritage project are our partners on environmental enhancement initiatives.

### **When will the whole project be finished?**

We've recently updated our programme delivery timeline to reflect the complexity of this infrastructure project, and the overall timeline is likely to be 2030 although the barrier will be operational a couple of years before this. Work on the surrounding area of the barrier will continue, including final elements of the downstream flood defences, landscaping, and enhancements to riverside public spaces.

This phased approach, ensures that while flood protection to Bridgwater and its surrounding area is delivered as early as possible, we also leave behind a legacy of environmental and community benefit.

### **What will the barrier look like and how big will it be?**

The barrier will comprise of three towers - one on each bank and one in-channel - which support a high-level bridge and two vertical lift gates. The three towers will be 25m high. The two outer towers, situated on the banks will be 6.4m wide while the in-channel, central tower will be 5.2m wide. The two vertical gates will be approximately 15m wide.

When not in use, the two vertical lift gates will be raised out of the water and will only be closed on exceptional high tides. The three towers will be connected by a high-level bridge which is where the lifting equipment will be stored. There will be a pedestrian/cycleway bridge that crosses the river at the barrier.

### **How long will this barrier protect Bridgwater for?**

The BTB scheme will deliver a 1 in 200-year standard protection up to 2125 for the town of Bridgwater, and up to 2055 for the communities of Combswich, Chilton Trinity, and Pawlett.

The proposed design of the scheme will ensure that the flood defences are able to adapt to climate change over the next 100 years, allowing it to cope with the expected rise in sea level during this time of 0.75 to 1 metre.

### **Will there be any long-term benefit for the local community?**

Yes. In addition to flood protection, the scheme will, enable future housing and business development, improve resilience for existing communities and include new public spaces and landscaping. Nature-based tourism opportunities will help boost local engagement and economic development.

### **How can I report noise concerns?**

Please email: [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk) All reports are logged and investigated via a noise and vibration complaints process.

### **What happens after I make a complaint?**

We will acknowledge your complaint within 3 working days, investigate promptly, and follow up with a response and any action taken. We are reviewing feedback and comments on a regular basis and communicating the results to our contractors. Persistent issues are escalated to senior project and local authority teams.

### **Is compensation available for disturbance caused by construction?**

There is no right for the public to claim or receive compensation in respect of activities authorised by the TWAO. in relation to the impacts of construction noise.

We recognise that the noise may have impacts upon you and your home, but this does not in itself make you eligible to receive statutory compensation. In signing the TWAO, the Secretary of State gave statutory authority for the Bridgwater Tidal Barrier to be constructed. There is no right to compensation in respect of the usual disturbance associated with noisy construction activities, which are treated as the normal consequence of major construction projects.

### **What about if noise is seriously affecting my health?**

If you believe that your health is being adversely affected by construction noise, you should consult a medical professional. You can also contact the project team so that we are aware of your situation and concerns and have an opportunity to explore whether additional mitigations may be available and appropriate.

### **How can I get regular updates or attend future drop-in sessions?**

Future events will be advertised locally and on social media. You can also sign up for updates and our newsletter by contacting us at [bridgwater.barrier@environment-agency.gov.uk](mailto:bridgwater.barrier@environment-agency.gov.uk)

### **Where can I find the latest project updates online?**

We are in the process of updating our website pages available on the following link: [Bridgwater Tidal Barrier](#)