

Starcross and Cockwood Tidal Defence Scheme

The Starcross and Cockwood Tidal Defence Scheme is located on the Exe Estuary in South Devon. The scheme reduces flood risk to over 650 properties in the two communities of Starcross and Cockwood and is one of the priority schemes recommended in the Exe Estuary Flood and Coastal Erosion Risk Management Strategy.

The project team (including Environment Agency functions, contractors and consultants) has delivered the scheme within five years from strategy, through business case and detailed design, to construction, community volunteer training for floodgate training and updated flood mapping, with completion in February 2019.

Early strategic analysis of the flood risks highlighted the potential flood routes between the two communities. This approach enabled flood defence improvements to be combined across two communities, where it would be difficult to justify separately.

The Starcross & Cockwood Tidal Defence Scheme required the construction of significant civil engineering elements within some challenging and unique locations. 110 metres of king post and sheet pile was installed metres away from grade 2 listed buildings, with pre-augering and vibration monitoring completed to mitigate the risks. Permeable causeways were constructed to maximise working windows within the tidal harbour. Complex design and construction techniques were required to build new structures adjacent existing (and often historic) walls and features, most notably the careful re-profiling of the slipway surface above the grade 1 listed Brunellian structures found at Starcross.

Continual and open engagement with the public highlighted improvements important to the community, including amenity, pedestrian and road safety. Interactive 3D models were displayed at consultation events to visualise the scheme before starting work. During construction the site team became part of the local community. The team responded to community engagement by improving safety and amenity through improved road, pedestrian and boat-user access, mooring rings and even flower planter irrigation to ensure a positive legacy.

Engagement with the public resulted in delivery of improvements to pedestrian and road safety around Cockwood Harbour, habitat niches, and flood gate, wall and railing finishes that reflected the local character. This was in addition to the flood risk benefits of the scheme.

Through consultation and thoughtful design, the finished project is sympathetic to local heritage. Councillor Connett (Teignbridge District Council) highlights "We've all seen the old concrete ..schemes but (this) project couldn't be more different. It's been designed in sympathy with the historic nature of the communities it protects. In my view.. this is an exemplar scheme that blends so well with the established structures, you don't really know it's there."

