





Shotley is located at the southern tip of the Shotley Peninsula, nestled between the Rivers Stour and Orwell. Shotley Gate, the 'wet end' of Shotley faces Harwich to the South, and the Port of Felixstowe to the East.

Like many other coastal communities, the storms of 1953 caused extensive coastal damage, though thankfully no lives were lost at Shotley. At that time, the dry training ship 'HMS Ganges' was still operational, and our community had the benefit of the Royal Navy's expertise, muscle, spending power and machinery to repair the damage.

Extensive sheetpiling was installed to much of the foreshore along shotley cliff, a distance of around 850

metres.



Wind the clock forward to 2008. This was the shoreline at Shotley Cliff four years ago. The resources of the Royal Navy have long gone – HMS Ganges closed in 1976, leaving behind a community whose economy and social calendar had largely been dependant on the vibrant military activity associated with the Ganges. The Naval Housing stock – Senior Officers houses, Wren accomodation and staff familyhomes at the top of Shotley Cliff are now in private ownership and the resident Shotley Gate Community has doubled in size with the sale and development of former Navy land at 'Kitchener Way'.

The community has worked hard to rebuild a local identity with many volunteer groups forming the backbone of social activity. It was through the formation of one such local group that this particular

story unfolds.





In 2008, the sheet piles at Shotley Cliff, with over fifty years of exposure to the ravages of this tidal part of the River Stour had begun to show signs of age. A serious breach had occurred in a section of steelwork that made the well used public footpath that runs behind the top of the piles impassible at even the most modest of high tides. Further West along the toe of Shotley Cliff, a stretch of concrete piles had collapsed, rendering access to the public footpath very hazardous.

Shotley Parish Council, realising the seriousness of the problem, and in response to the concerns of many local residents, approached Babergh District Council to seek help to repair the damage. Babergh passed the buck to Suffolk County Council who referred us at that time to the Environment Agency. What began to emerge was a confusion of responsibilities, a lack of ownership and a community at Shotley that now felt

rather isolated.



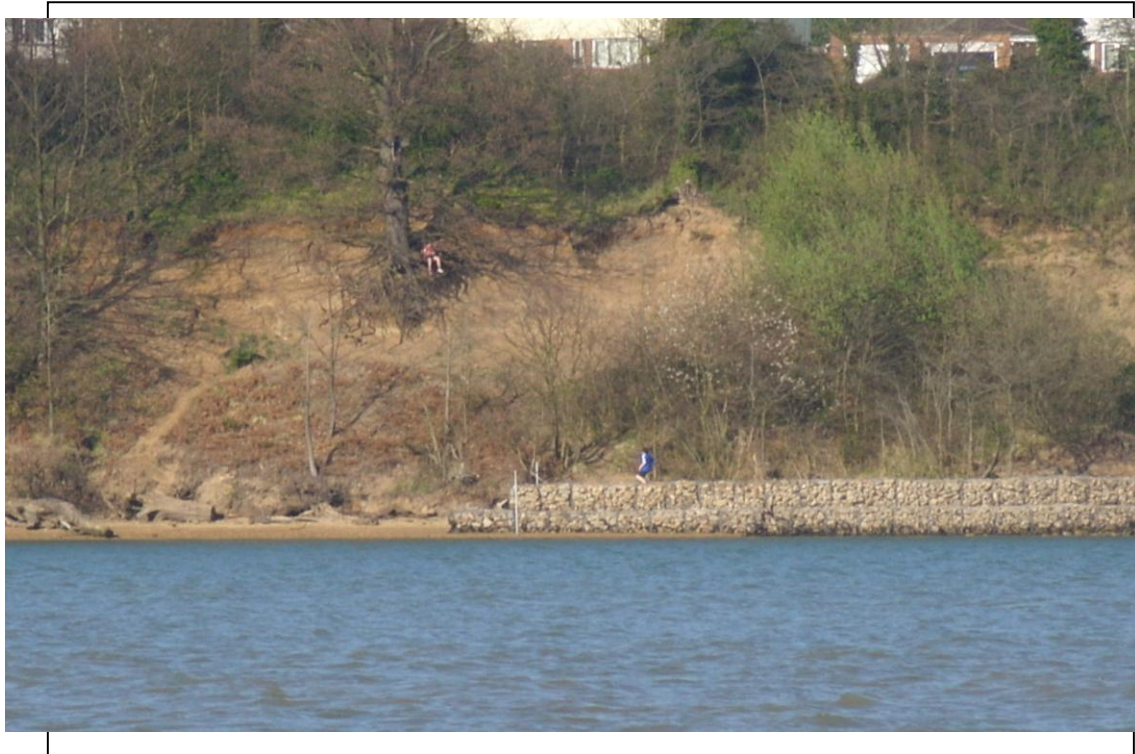
A few concerned residents were beginning to feel the frustration at the lack of urgency to carry out essential repairs. Surely someone, some 'body' had responsibility to stop the loss of our crumbling shoreline, with a local footpath, picnic area and houses at risk of collapse in future years. Further digging around by frustrated people found that the Coastal Protection Act 1949 didn't provide access to funding for the banks of the Rivers Stour and Orwell. The Coastal Protection Act reached as far as Landguard Fort at Felixstow, and conveniently 'hopped across' to Dovercourt, Harwich. A nice straight line on a wiggly map. Doors of hope were being closed and we had to do something.

At this time, coincidentally, Shotley Marina was doing major work in installing a new access road, and had marine contractors on site. A few phone calls, a huge amount of goodwill, and a bit of pleading to the contractors 'while you are in Shotley, could you just do a little job for us for not much money...', the Parish Council took a leap of faith and initiated the repairs. Encouraged, and perhaps more understanding of our plight, SCC and Babergh also contributed to the costs of the repairs.

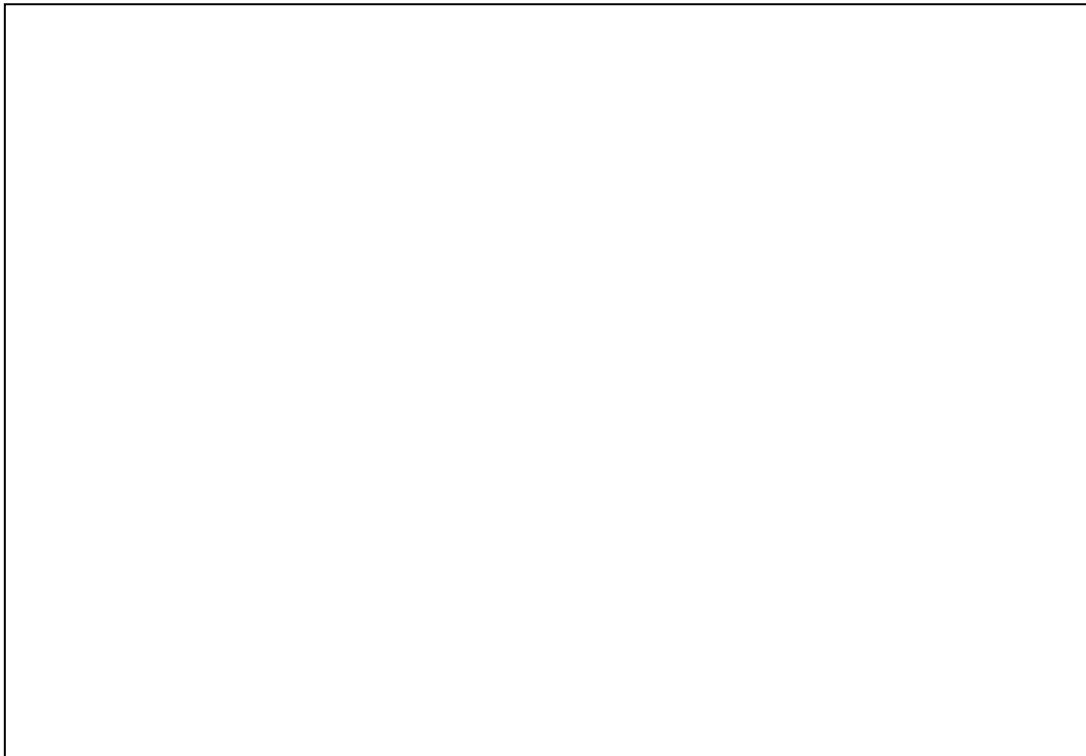




So far so good. Well, not quite. More people were now aware of the crumbling cliff at Shotley Gate. The coastal footpath is rather unique in that it affords outstanding views across the Stour, accessible to many people, both locals and visitors. At the top of Shotley Cliff is a seven acre woodland home to many species of flora and fauna. And of course, at the back of the wood are the former officers houses, many residents formerly unaware of the rapidly eroding cliff. Now it became apparent that the cliff had 'slumped' in many places exposing bare roots of mature trees, with the living trees in danger of collapse. This is why the Shotley Stour Footpath Renovation Group formed, and set about creating a formal project plan that was to change the face of Shotley Cliff forever.



The group began to understand the bigger picture that underpins the landscape. The area is an Area of Outstanding Natural Beauty, a Site of Special Scientific Interest, a Special Protected Area and has an RSPB reserve on the mudflats adjacent to the cliff. What a mix of designations, nearly a full house – what about an Archeological Dig – bring it on!



But it is, after all, a very special and unique area of National and International significance, and these designation are what keeps it so. We found out that the Enviroment Agency was holding a Shoreline Management Plan Stakeholder Consultation meeting in the Autumn of 2009, and half a dozen of our group attended. This was to be the turning point for our project. The point at which we begin to understand the future process for managing the UK's shoreline. And more importantly for us, our chance to influence the strategy for possible protection of the crumbling cliff at Shotley Gate.

We met people who were to be instrumental in helping put measures in place when the odds for funding at the present time were stacked against us.



We found out about the Suffolk Coast and Heaths AONB team, who had an Estuaries Officer responsible for the River Orwell and the Stour. Suffolk County Council had a Flood and Coastal Policy Team, and we began to understand the role the Environment Agency played in dealing with flood and erosion risk management. By this time, in late 2009, our group had become more organised.





In a desperate attempt to prevent further loss of Shotley Cliff we had mirrored some erosion protection measures carried out in the mid 1990's on the foreshore at Copperas Wood, Essex using old tyres. Unfortunately this put us into contact with another part of the Environmental Agency, and with Babergh District Councils 'Enforcement Officer'. Things change, and Environmental legislation changes, and we had to work together with our new found Statutory Partners to replace our crude 'diy' defences with something acceptable to us all.





During the early part of 2010, with a huge amount of discussion, listening, learning, understanding and respect, a working partnership of Statutory Bodies and the Community Group at Shotley – comprising the AONB Unit at Suffolk Coast and Heaths, SCC Coastal and Flood Management Unit, SCC Rights of Way team, The Environment Agency, Babergh DC, Harwich Haven Authority, Hutchison Ports, Natural England, and Shotley Parish Council agreed a design for erosion protection to an unprotected 258 metre section of Shotley Cliff. The design work was done by Hawes Associates of Aldeburgh, and a number of options were considered. The favoured design comprises marine grade gabion boxes filled with locally sourced recycled concrete. Funding was, as mentioned earlier, not coming from Defra as the Coastal Protection Act funds were not accessible. The work was to be done in two phases, phase 1 focussed on the first 90 metres, which would see all of the temporary tyres removed. Funding commitments began to emerge – a few thousand pounds from the community group's local fund raising initiatives, Shotley Parish Council put up £3500. Hutchison Ports contribute £5000, and a further £1500 from our County Councillor's locality budget. The biggest contribution came from Suffolk County Council, who recognised the impact that this scheme would have in the long term.



Phase1 was completed and opened in October 2010, much to the delight of locals. It looks innocent enough in a picture like this, though in a storm.....



In a storm the defences earn their money, protecting against undercutting of the cliff leading to further slump and damage higher up. The gabion stepped design and fragmented surface area provide attenuation of the wave energy, minimising wave reflection that could cause damage to the opposite shoreline.

The gabions also allow surface water that runs down the cliff to drain through, which prevents waterlogging.

This can be contrasted with the effect of the same storm against sheet piles.....





The wave energy is reflected not absorbed, a high degree of splashover is occurring with the resultant path flooding not able to drain back into the river due to the non porosity of the sheet piles.

This is a far more expensive, less effective form of erosion protection for a situation such as this.



Phase 2 of the scheme was completed in August 2011. A relatively low cost simple form of erosion protection that will take us through the next 25 years and beyond.

Thorough the work of the Shotley Partnership, the Essex and South Suffolk Shoreline Management Plan recognises the Shotley Gate situation as a status of 'Managed realignment' overall for Erwarton Bay, with 'Managed Intervention' to protect those most vulnerable situations - i.e. valuable woodlands, amenity land and houses at risk.

The Shotley Partnership is continuing to look at further phases of erosion protection to safeguard the sheet



piles against further deterioration.



I hope you have enjoyed this journey through the Shotley Project. The work has not been without it's challenges, though the Partnership has always managed to remain level headed and positive.

The processes are complex – Planning Permission, The Marine Management Licence for doing work within mean high water, Waste Transportation, Storage and Use in Construction Licences, Drainage Consents, Quotations, Contractor Selection, and not least dealing with the day to day queries.

It' s not been easy, and the result is Outstanding!