



EIA Quality Mark Case Study



Shaldon and Ringmore Tidal Defence Scheme

Shaldon

Winner of the Project Excellence Award 2012 (Health Safety and Environment)
Considerate Constructor Association Silver Award



Key Issues –

At the opening ceremony of the Shaldon and Ringmore Tidal Defence Scheme, Chairman of the Environment Agency Lord Chris Smith said:

“This was an extensive and complex scheme. All the work put in by the Environment Agency, its consultants, contractors and the local community finally paid off and the people of Shaldon and Ringmore now have a flood defence scheme they can be proud of.”
(September 2011)

Amongst the many environmental successes this paper will concentrate on 3 which benefited from close NEAS involvement.

1. Building Trust with Communities
2. prioritised approach to landscaping
3. micro-habitat niches

Shaldon and Ringmore villages are designated as Conservation Areas, a popular choice for retirement and holiday homes. The attractions include the location on the Teign estuary by the sea, the views of Dartmoor and the Georgian heritage of this former fishing village.

The challenge was to build a flood defence scheme to protect 418 homes and businesses along the 1.7km frontage, without significant encroachment onto the foreshore and without detriment to the villages.

The solution involved helping the local community to identify what they valued about their environment, then using this knowledge to create a flood defence solution that is entirely in keeping with its surroundings. The complex scheme achieved its aims, well below budget, thanks to the professionalism of the completely integrated team including Environment Agency, Atkins, Peter Brett, Interserve and the specialist sub-contractors (especially Riviera Stonemasons), and Lindsev Colbourne Associates.

Purpose of the project

The tidal defence scheme is intended to reduce the risk of flooding to a 1 in 300 year standard of protection, where previously there were no flood defences. The Georgian village of Shaldon sits in a natural basin, fronted by an old harbour wall.

The foreshore comprises beach and heavily compacted mud and gravel, all extensively used for mooring, as a long distance footpath connecting to Dartmoor National Park and the South West Coast Path, and for the usual beach activities. A network of historic passages connect the foreshore to the heart of the village. Regattas naturally form a significant part of the village life. Many businesses rely predominantly on tourism.

Description of the project

This complex project required a solution that maintained the opportunities for people to continue to enjoy their interactions with the foreshore and estuary, whilst maintaining the ecological condition of the estuary.

The scheme involved construction of raised flood walls, punctuated by gates (that the local community close), flood proofing of riparian properties and exceptionally the use of glass panels. The footprint of the scheme resulted in negligible encroachment into the estuary, and a new approach to the provision of habitat was trialled.

The historic village presents a very heterogeneous environment, which the wall finishes have enhanced. Previous experience led the Flood Defence Manager to expect opposition to a scheme so this location was used to pilot *Building Trust with Communities*

EIA Learning Outcomes

Lessons learnt

Building Trust with Communities necessitated a very thorough stakeholder analysis and Communications Plan. Every contact with the public required meticulous planning and information preparation beforehand, with analysis afterwards. Thus by predicting what issues the community might raise at each stage, and agreeing as a team what our responses would be, the appraisal was kept on track and the community brought with us.

The community cared very much about what the wall would look like, and how it would affect their interactions with the beach and estuary. Through liaison we helped them to appreciate what the precise qualities were that they wished to retain, and were able to develop our designs to conserve and enhance these aspects. The community also came to realise that some things weren't perfect, and that we could make them better.

The local community became very educated about the scheme, and its constraints, to our ultimate benefit. They helped to select the most appropriate mitigation and enhancements from the lists that we provided. Our suggestions were derived from our knowledge of the area, gathered during the EIA process, coupled with the information we had picked up through consultation. And with NEAS present at every meeting, the community took comfort from the knowledge that care for the environment is firmly integrated into the engineering solution. There were no objections to the planning application.

All appreciated the care with which we presented our public exhibitions. We all benefited from the advice of the professional facilitator. Working so closely as a team, we had to examine our own contributions and those of the other team members. It built the strongest bonds of trust within the team, meaning we trusted each other to supply both innovation and value. And the community acknowledge that they continued to benefit from our Considerate Construction.

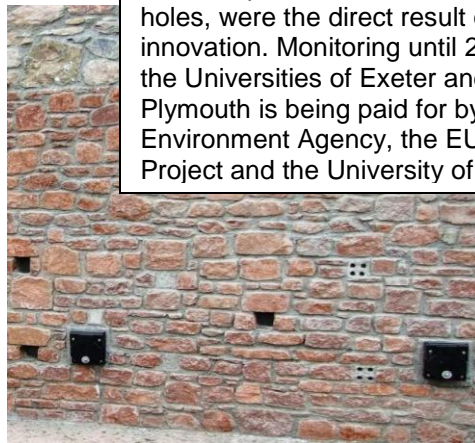
Contact details

Deborah Dunsford: Environmental Project Manager for the scheme
deborah.dunsford@environment-agency.gov.uk

Jo Murphy: NEAS IEMA Quality Mark lead contact
joanne.murphy@environment-agency.gov.uk

The experimental habitat niches:

mini rockpools in the recesses, and holes, were the direct result of NEAS innovation. Monitoring until 2014 by the Universities of Exeter and Plymouth is being paid for by the Environment Agency, the EU Theseus Project and the University of Exeter.



Lessons learnt cont. -

Wall finishes were always going to be important so NEAS wanted the decisions related to the visual appearance to be prioritised, transparent and repeatable. The landscape architects at Atkins interpreted this requirement in a very effective and efficient way. They analysed which parts of the wall were most critical requiring a more expensive finish, differentiating between those locations where a less expensive finish would not cause significant visual detriment. Small details in the wall finish were used to recreate the effect of a visually heterogeneous landscape, the wall looked as if it had always been there, whilst simultaneously leading to savings compared with the uniform application of a more expensive finish.

The experimental habitat niches are unique, as a trial, in the world. NEAS thought that the foreshore was ecologically depauperate, confirmed by the Ecological Appraisal team, but this did not stop the team, including the engineers and landscape architects, from minimising scheme encroachment. Our observations of marine organisms on the foreshore, led NEAS to consider the walls as a potential vertical extension of the intertidal habitat from which sprung the concept of the habitat niches. NEAS prepared sketches of many innovations of this type, at a very early stage in the project appraisal.

The monitoring has shown increases in diversity and abundance of organisms using the niches. We never predicted the amount of excitement that these niches have generated within the scientific community.

For access to more EIA case studies and hundreds of non-technical summaries of Environmental Statements visit:

www.iema.net/qmark