RIVER DEBEN ASSOCIATION
Minutes of a special saltmarsh meeting held on Tuesday 21 January 2014 at the offices of Barker Gotelee at 10.30am

1. Present: Robin Whittle (Chairman), Robert Simper, James Skellorn, Rob Hughes , John Symes, Christine Block, Carol Reid and Trazar Astley-Reid
Apologies: Simon Read, Karen Thomas

Robin thanked James for hosting the meeting at his office and welcomed everyone to the meeting to discuss the state of the saltmarshes on the River Deben.

2. Presentation of the current situation by Robert Simper: Robert showed slides of the effects of the recent flood (Friday 6 December 2013). The river walls had been over-topped in several places and three or four breaches had occurred. The height of the flood was higher than that of 1953 throughout the tidal length of the river. There had been an 'orange peeling' effect at the edges of the saltmarsh at Hemley Point caused by the flooding. Many of the breaches had occurred where there was little protection from saltmarsh, such as the large breach near Martlesham Creek (John Symes' land).
Slides showed where the mud had been dug out close to the river walls after the 1953 flood, used to strengthen the existing wall. This had left large trenches which had filled with water causing channels to open up through the saltmarsh, including at Falkenham. In some cases this had caused more erosion of the saltmarsh. Recent erosion (of both saltmarsh and mudflat) had taken place on the inside of the bend opposite the Rocks on the Hemley side (probably caused by changes to the channel). In a few places new signs of saltmarshes were appearing (e.g. just upstream of Ramsholt).
One slide showed gullies running straight down from the Hemley saltmarsh and mudflat. These had formed quite recently.
Robert noted that all the islands along the river appeared to eroding. This was confirmed by the Geomatics report on the '*Deben Estuary saltmarsh Mapping and Change analysis 2000 – 2011*'
Some of the slides showed where shore crabs had burrowed into the edges of the saltmarsh, and in some places causing the edge of the saltmarsh to collapse after about 18 months. This had left a ragged inclined mud face to the saltmarsh instead of the cliff. Robert noted that he had put his arm up some of the burrows and had had his fingers nipped by the crabs inside. In some case he had manage to catch hold of one and bring it out.
He also showed some slides of a saltmarsh in Cornwall (at Looe) where there were no signs of shore crabs burrows.
Rob Hughes noted that shore crabs burrow in backwards and scoop out the mud from behind forming conical tunnels and caverns of all shapes. Chinese mitten crabs had been suggested as being responsible for the tunnels but he also noted that mitten crabs only attacked banks in fresh water habitats.

3. Falkenham saltmarsh: James noted that he had spent several hours helping Simon Read with his work on the Falkenham saltmarsh project. He had had a chat with Simon Read a few days before the meeting in which Simon had emphasised his close cooperation with the EA and AONB. The project would provide valuable data for any future project. Carol had carried out the base line survey. Trazar emphasised how important the Work of Simon Read was to future work. Trazar Astley-Reid commented that the Falkenham project was already accreting sediment but was in need of some additional maintenance after extreme weather conditions. At the Sutton Hoo project carried out by the DEP the accretion monitoring and

fixed point photography at Sutton Hoo carried out by the National Trust was showing promising results with accretion occurring at the back of the site as expected, illustrating the structures are capturing sediment in transit and dredgings from the boatyard. She also mentioned that the RDA Tidal buffer project opposite the Tide Mill was an important project and appeared to be slowing down erosion (pers comm Simon Read).

6. Erosion of saltmarshes: Carol noted that the report mapping changes in extent of the Deben saltmarsh prepared by the Institution of Estuarine and Coastal Studies for Natural England showed a loss 14 hectares between 2000 and 2007. The Geomatics report on the '*Deben Estuary saltmarsh Mapping and Change analysis 2000 – 2011*' indicated a loss of less than 2 hectares. She added that this report included a fragmentation index but this alone would not fully account for the changes in quality of the saltmarsh. She said that mapping technology had developed since the earlier saltmarsh mapping studies and quoted recent Essex estuaries saltmarsh study where the rates of saltmarsh loss appeared to have reduced significantly compared with the rates reported in previous work. This could be partly due to improved mapping techniques. Robin noted that the biggest changes recorded in that report were the erosion of the saltmarshes on Stoner, Loder's Cut and Flea Islands. Otherwise the report showed little change during the period of ten years. Carol noted that she had noticed the presence of more cord grass (a feature of low level saltmarsh) particularly in the upper estuary. She believed that this could be associated with an increase in frequency of flooding of the saltmarsh. Trazar Astley-Reid concurred and explained that this had been expressed by many people on the estuary. This is backed up by very recent results of the National Vegetation Classification work on the Deben which sows that over the last twety years the pioneer and low to mid saltmarsh have increased by a total of 31%, squeezing th emidto upper saltmarsh towards the sea walls. This increase in these communities is in direct response to tidal changes within the estuary system. Both Robert and Robin expressed surprise as neither had noticed any increase in such flooding. Rob Hughes expressed surprise as saltmarshes keep pace with rising sea level and only rarely is it known that they do not, and then for reasons of sediment deficiency through coastal mismanagement. Furthermore cord grass naturally grows at any elevation on saltmarshes and any increase does not necessarily indicate a relative lowering of the surface. Robin noted that there is plenty of evidence to show that there was a net increase of sediment in the river. This clearly showed in the reaches at Methersgate and above. Many of the moorings above this point were drying out causing the Fairway Committees to reduce the number of moorings available. Carol also noted that there had been a lot of rain in 2013 and this may have had an effect on the saltmarsh and mudflat. A National Vegetation Classification report vegetation produced for Natural England will be published shortly.

John Symes confirmed that he had noticed a large change in the saltmarsh at Loders Cut. He had a direct view of it from his house and stated that he now sees the saltmarsh covered by most tides as he remembers at High Tide he could still see the saltmarsh greenery from his house but now it was covered by most tides. He had also noticed that in some places in Martlesham Creek the saltmarsh had been washed away but cord grass was reappearing on the ooze. Christine asked if it would be appropriate to plant saltmarsh plants on the ooze. Carol was doubtful that this would have the desired effect. Trazar explained that trials had been done at Tollesbury and Wallasea Island in Essex and the results were disappointing. Christine wondered if Marsh Samphire could be harvested commercially. This has been done in the Wash area. Trazar explained that samphire could be picked for the plate but not for commercial market from designated sites without Natural England permission. Permission for picking samphire for any use would need landowner permission to access land.

6. Proposal for a new project: Robin proposed that Loders Cut Island should be the focus of a new project. It was clearly being eroded and saltmarsh is being lost. It would be useful to monitor what is happening in detail. Carol agreed this would be an excellent site to set up a monitoring system in addition to others. She suggested that in the longer term it might be used as an example to demonstrate the effects of recharging with sediment from boatyards or the channel and that this kind of intervention could make a positive contribution to addressing erosion. This was supported by Robert Simper and James Skellorn. She proposed that the system for measurement should be set up so that volunteers could take readings at the required times (every 6 months/ year as appropriate). She agreed to draft the specification for this and before the end of January. **ACTION Carol Reid**

Robin noted that he hoped that the RDA would be prepared to put forward funding to set up the monitoring equipment and provide the necessary support to collect and hold the data. It would also arrange for volunteers to take the readings.
John Symes noted that he believed the Island was leased to the Kyson's Fairway Committee for which he was a Trustee [he later confirmed this]. He added that he had an aerial photograph taken in the 1970s which could be used with the new data. Trazar said she would request aerials from the EA from the 40s. Rob Hughes noted that old photographs could be very helpful to understanding the history. Robin agreed to discuss the proposed project with the Chairman of the Kyson Fairway committee (David Poole).

ACTION Robin Whittle

7. Sediment for recharging saltmarshes: Trazar, Carol and Rob Hughes noted that recharging Horsey Island Saltmarsh with sediment from Harwich harbour had been a great success. Carol shared experience of work undertaken at Maldon using a grab and simply putting dredgings on top of the saltmarsh. Profiling of the muds on the front cliff can assist in reducing erosion. Trazar said that pumping sediment from the Suffolk Yacht harbour on to the saltmarsh at Levington was about to commence and she would be using lessons learnt from Falkenham and Sutton Hoo. Carol said that the high cost of sediment testing and obtaining a licence from the MMO were the major limiting factors in undertaking small recharge projects and that she is currently in negotiation with the MMO to try and get costs reduced. She is involved with the Waldringfield Boatyard in obtaining a licence to dredge around the jetty and deposit on Stonner Island. This involves less than $500m^3$ of material but costs currently quoted by the MMO are disproportionate to the cost of the work on the ground. Others are also seeking a much more flexible MMO attitude towards local shifting of sediment in the estuaries such as the river Deben. This is an urgent issue for those involved in trying to control the build up sediment in the upper reaches of the river.

8. General Policy for saltmarsh protection: Christine noted that there were lessons to be learnt from the recent flood. It was very fortunate that Flood Cell 1 had not been breached. It was known that it was the most vulnerable of the walls in need of further protection work. The saltmarsh in front of the wall was probably a large factor in saving it from a breach. It was vital to have an action plan in place now – it cannot wait another five years. She was very keen to link the different needs (those of restoring saltmarshes with those of maintaining safe walls). A typical example was the short wall at Kirton Creek which should be linked with the large area of saltmarsh upstream adjacent to Hemley.

She noted that it was important to develop a 'toolkit' of techniques for restoring saltmarshes, specific for the River Deben. Trazar noted that she and Karen Thomas were currently writing

such a document. Rob Hughes considered the saltmarsh restoration projects that are being delivered by communities in Suffolk was the way forward and that trying to capture sediments in transit was a useful approach in addition to beneficial use of dredgings for saltmarsh restoration.

This concluded the discussion. Robin thanked everyone for their contributions and James for hosting the meeting and for lunch.

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