

## BRADWELL YACHT CLUBS COMMENTS ON BRADWELL ES AMENDMENTS

- 1 Has the 150m zone been examined in relation to existing navigation marks and access routes to the creek entrance? In undertaking this assessment consideration must be given to the shallow water between the barrier and the beach and the shallow waters in the creek entrance with particularly attention to the bar of shallow water just North West of the creek Entrance Beacon. Boats with 5ft or 6ft draft already ground in these areas from about half tide.

The 150 meter exclusion zone is likely to restrict boats in navigating into the creek. The restricted navigation entrance to the creek starts at the Creek Entrance Beacon which is very close to the baffle wall, possibly within 150m

Does the safety zone suggested and the patrolling vessels effectively mean the creek entrance is closed?

The 150m safety zone around the construction works will be mobile and move along towards the central structure on the barrier wall as piles are removed. Therefore, the period of time when the safety zone will extend near to the creek entrance will be very limited. It is not anticipated that the creek entrance will be restricted, but vessels will need to be aware of the safety zones as they approach the creek entrance. The timing of the works and the safety zone will all be communicated to the recreational sailing community through public notices prior to any works being undertaken.

- 2 The dredging operation is now significantly increased (10 times the estimated volume) The bucket grab mechanism proposed is very basic scope and deposit, which in the strong tides is going to result in considerable plumage of solids in suspension. If your own silting assessments have any credence it is suggested that disturbed materials will continue to be dispersed on following tides.

In determination of silt dispersion no allowance appears to have been made for deflection into the creek, particularly at lower stages of tide. The silting levels suggested look terribly optimistic and this optimism is extended in the suggestion that the following spring tide will re disperse takes no account of known local conditions. I.e. the creek entrance silts, the bar at the entrance is growing and there is a suggestion that the deeper water route is being deflected since the outflow from the PowerStation ceased. The silt and mud suspension in solution is highly tactile and once settled is unlikely to move unless deliberately disturbed.

The restricted navigation entrance to the creek starts at the creek Entrance Beacon. The narrow channel is marked by withies and port hand cans from this point. As already stated a shallow bar exists to the north west of the beacon which also represents a navigation hazard at lower states of tide. The Creek Entrance Beacon is quite close to the western end of the baffle and could even be within 150 m.

The sediment plume modelling has been undertaken by HR Wallingford, who are experts in this field. Results were based on existing current and tidal patterns in the estuary and these models are recognised by the regulators as the most accurate way to realistically predict the sediment patterns from construction activities. Cefas has agreed that the modelling undertaken by HR Wallingford is a reliable prediction of the sedimentation as they are the technical experts, and based on their predictions there is unlikely to be any impact on the creek following the dredging. Magnox will ensure to undertake both a pre- and post construction survey and should any notable deposition be noted in the creek following the works appropriate action will be taken, as agreed with the regulators.

- 3 Can we arrange for Bradwell Quay yacht club and the Fairways Committee to have copies of the hydrographical survey results from the February 2011 survey? Also could we have copies of the survey results taken prior to the work being undertaken?

Magna is happy to provide Bradwell Quay Yacht Club and the Fairways Committee with copies of the hydrographic survey results from February 2011. Provision of the pre-construction survey results can also be arranged, Magna will send these at the earliest opportunity.

- 4 The barge proposed is 16m (52ft) x 8.2m (26.65ft) x 1.71m (5.6ft draft. Assumed flat bottomed. This barge will be restricted by its draft in navigation at anything less than ½ tide. Its width in the fairway is such that other boats in transit in or out could not pass.

Why once per day; as this together with the crew movements means a significant amount of traffic. Surely fully loading one or two barges with all materials and then towing away from the site to offload in the Thames close to the disposal site makes more sense.

Magna has now decided that the waste will be transported to Tilbury in the Thames by barge and therefore there will be no requirement for barge movements in and around the creek and marina. There will still be a requirement to transport staff and some equipment to the site from Bradwell Marina, but this will involve the use of much smaller vessels.

- 5 When is the work to be carried out? The only reference to timing is outside of the main tourist season. When is this? The sailing season if full on from Easter until late October.

Work is planned to be undertaken in autumn / winter 2011, with the potential to extend into January 2012, dependant on the start date. Works are due to start in October 2011 so there will be some overlap with the sailing season, however this period will be very limited.

- 6 The fishing and winter sailing season is continuous all year round. Whilst we acknowledge that many yachts are removed and laid up for the sever winter months, a significant number of yachts and other vessels remain secured in the creek throughout the year.

The removal of the barrier wall is an essential part of the decommissioning process for Bradwell Nuclear Power Station. Magnox has considered the potential constraints to the timing of the work and it was agreed with the regulatory stakeholders that the autumn / winter period would be the least disruptive period to the most sensitive receptors in the Blackwater Estuary. In terms of recreational sailing the proposed construction will coincide with the latter end of the peak season, as you have acknowledged, and now that the decision has been taken to transport the waste by barge to Tilbury rather than using the marina, it is considered that the impacts to recreational vessels have been reduced considerably.

- 7 The marina channel is some considerable distance from the creek entrance and would require the pushed barge to pass through densely populated mooring areas and whilst navigating several tight turns. In one instance approx 90 degrees inside 40ft or so in rounding the starboard hand channel marker buoy.

The barge complete with one tug is likely to be 26 to 30m (84.5ft to 97.5) long plus fenders.

The barge is approx 28 ft wide. What would be the required channel width to navigate and turn safely, especially whilst trying to avoid wash from very powerful thrusters?

Has the width of the fairway between mooring with sufficient depth been determined?

Has the width of the fairway between moored boats been determined? My own boat is currently moored in the deep water mooring trots that follow the navigable channel. With a draft of 1.4m she regularly grounds. With a length of 9.4 metre she is regularly laying across the fairway significantly reducing the channel width to less than required to navigate the proposed barge safely. I would therefore require my boat to be removed from the mooring as there is a very high potential of contact between vessels.

[The decision has now been taken to transport the waste material by barge to Tilbury in the Thames, thereby avoiding the creek and marina.](#)

- 8 This completely underestimates the consequence of a coming together of a heavy barge and a light construction, often plastic boat. Fendering of the barge would not protect the yachts for damage to hulls rubbing stakes and guard wires etc. Yacht owners would not expect the risks proposed.

Any boat left on the moorings could potentially be swung across the channel at any time and present a complete barrier to the pontoon and its tugs. If these boats are just pushed out of the way there is a very high prospect for damage to the boat and its moorings.

Realistically all boats left on mooring either side of the channel would have to be removed.

[See comment above.](#)

- 9 There must be a very high potential of disturbance of the creek bed and banks up to the marina and the site and stability of moor tackle along the area travelled by the tugs when they are controlling a barge of the size and mass proposed. Who will bear the cost of surveying all mooring tackle after the work has been completed? If the creek bed is disturbed there is a possibility that the moorings will no longer be suitable for the craft on them. We already have experience of club members going to court on these matters.

[See comment above.](#)

- 10 Manoeuvring a barge of the size proposed on a daily basis will create considerable wash from the powerful engines of the tugs in the close confines of the marina berth. Berths are full of leisure boats all rear round unless deliberately cleared for dredging purposes.

How do you prevent wind drift of rust etc as the scrap metal is removed from the barge for loading to lorries? Expensive highly polished glass fibre boats will be in berths and stored in close vicinity of the works.

[See comment above.](#)

- 11 Lots of reference to marina but little apparent consideration for the creek where the majority of the disturbance will take place.

[See comment above.](#)

- 12 A barge of the size proposed with fore and aft tugs is just too big to navigate safely in this very restricted creek and marina without considerable disruption and specialist precautions taken.

[See comment above.](#)

- 13 Bradwell Marina has a waste disposal licence?

There is no disturbance to estuary users from a couple of barges being towed into the Thames. This in fact is probably the most economic, energy efficient and environmental effective way of handling and transporting the waste materials.

Whilst we would encourage the use of local resources and employment opportunity the disruption and risk within the confines of the creek outweigh this consideration based on the current proposal.

[See comment above.](#)

[Transportation of the waste will now be by barge to Tilbury.](#)

- 14 Mooring in the fairway are not the direct responsibility of the marina. Use of the moorings is overseen by the Fairways Committee on behalf of Bradwell outdoors and Bradwell Quay Yacht Club. The marina is a local member of the fairways committee together with a number of other stake holders.

[Magnox has noted this comment.](#)

- 15 If the work is to proceed on a local basis Magnox should take a broader stance and look to leave a positive legacy to the local sailing and boating community in recognition of the disruption and change taking place by removal of the baffle wall. Remember the wall is not seen as a negative contributor. In fact it offers some considerable benefits to the harbor in affording a degree of protection to the creek and boats waiting to enter.

The removal of the barrier wall is considered to be an essential construction activity both for the decommissioning of Bradwell Nuclear Power Station and also in the interest of public safety in the Blackwater Estuary given the age and deteriorating condition of the barrier wall. It is anticipated that the removal of the barrier wall will, in fact, provide a positive benefit to the local residents as the view across the estuary from the beach adjacent to the barrier wall will be unrestricted and the obstruction to local fishermen will be removed. Given that the majority of the works associated with the construction will now be directed elsewhere, away from the marina and the creek, it is considered that the short-term activity will result in very limited disruption to the local sailing and boating community.

- 16 If moorings in the main fairway were reorganized on 'posts', such that the moored boat laid under control in the direction of the navigable channel the fairway would accommodate the barges. This arrangement has the potential of offer additional mooring capacity and modernization of the facilities within the creek. Whilst Bradwell Quay Yacht Club proposes to make an approach to the company with this objective in mind it would be nice if Magnox were able to take the initiative and lead on such a suggestion.

This is no longer relevant as the barges will be traveling to the Thames to unload the waste material and will not affect the mooring in the channel.