



Scour Mitigation Works Pagham Beach

Planning Statement

Including: Design & Access Statement / Flood Risk /
Assessment / Waste Disposal Statement

In support of a Planning Application for the
**Construction of a Rock Revetment at
the West End of West Front Road**

Vn 1.1
August 2013



Introduction

The proposal is intended to reduce the amount of scour that is experienced during high spring tides and long period wave conditions that can threaten approximately 15 properties in the area.

The coastal defences fronting the built up area of Pagham Beach are managed by Arun District Council.

The last 'coastal' Application at Pagham related to beach nourishment which was undertaken to better protect a section of beach to the east of the current area of concern.

This application relates to the western end and the proposed structure (revetment) joins to the most westerly groyne, which was last part of an Application in 1992 – (PU/1/92/).

The area is environmentally designated and discussions have been on-going with Natural England; a Marine Licence has been applied for from the Marine and Maritime Organisation (MMO). An Environment Agency land drainage consent will also be necessary as, whilst the beach was 'open coast' until recently, the Church Norton spit has grown and deviated the Pagham Harbour channel (which is classed as 'Main River') resulting in the area now fronting the harbour channel.

Deliveries of the rock will be made by barge thus road usage will be limited to delivery and removal of the necessary plant and day to day operator transport. The established route for gaining vehicular access to the beach for this type of operation is between 9 and 11 West Front Road.

This has the benefit of reducing disturbance of the vegetated shingle to one small area. The contract for the works will fencing and other measures to ensure that vegetation is avoided; the contract will also provide for reparation of other areas where unavoidable damage has been caused in the past.

Existing Policy Context

The proposal does not go against any policies within the national Planning Policy Framework of the Regional Spatial Strategy.

With regard to Arun's Local Plan (2003), the proposal contributes to aspirations of the Plan and in particular meets the following policies

GEN3 (Protection of the Countryside) – the proposal is sited on the coastal fringe of the built-up area and would help maintain an area currently used for quiet informal recreation.

GEN9 (Foul and Surface Water Drainage), GEN11 (Inland Flooding) & GEN23 (The Water Environment) – a consideration used to arrive at the preferred option was the

minimal impact that the revetment would have on the existing flows in the Harbour Channel. Compliance with the Water Framework Directive was also considered; the proposals are deemed not to have an adverse impact.

GEN13 (Public Access to the Coast) & GEN17 (Access for People with Disabilities) - There are no adverse effects, generated by the proposal, over the current situation – See Access below.

GEN19 (Coast Protection and Sea Defence Works) - i) & iii) and ii) as far as is practicable.

Being only 120m long, on a much wider beach frontage, the proposal would not have an adverse effect on local tourism or business.

Design and Access Statement

The design has been undertaken following a meeting of relevant risk management authorities with an interest in the area (inc. Arun DC, West Sussex CC, Environment Agency, Natural England). This meeting formulated a long list of options.

All of the 'long list' options were assessed against a number of criteria, including:

- Speed of implementation (approval process, contract lead-in and installation time [onset of benefit])
- Longevity (duration of benefit)
- Level of Environmental Impact Assessment risk (linked to approval process time)
- Outline likely Cost
- Likelihood of success (technical merit)
- Effect on adjacent beaches (including effect on sediment transport regime)
- Damage to nearby property (construction risk)
- Residual benefit (value of asset after current risk addressed)

The favoured option was to construct a revetment as soon as practicable and to continue with small scale shingle movements in the short term whilst the design and preparation of the revetment works were underway.

Access - Shingle beaches with a high tidal range (as is the case with most of Arun's frontage) naturally present inherent challenges to the disabled. There are no adverse effects, generated by the proposal, over the current situation.

Coastal rock structures are usually designed with a high proportion of voids (between rocks) to absorb wave energy – these voids can sometimes be seen as presenting hazards for children. The revetment proposed here will be designed with a lower void ratio to help resist and deflect currents and should therefore be potentially safer than some other rock structures.

Immediately adjacent beaches are composed of sandy shingle with steep seaward faces.

Streetscene / Landscape

The structure is entirely on the coast and will not be visible from nearby roads. The top of the structure is intended to have a crest height at a similar height to the adjacent beach crest and as such there will be minimal visual impact when viewed from nearby property.

The overall height of the structure (foundation to crest) will be in the order of 5.0m; the portions exposed will vary with prevailing conditions but it is anticipated that approx. 80% of the width of the seaward face will be exposed at any time and that exposure will vary between 0 and 2½ - 3.0m.

The structure will be composed of large rock, each piece being between 4 and 8t each (cubes of an average 1.3m on each side). The colour will be dependent upon the source (country ∴ rock type) and the individual quarry.

The two main likely materials are Syenite (from Norway) which is a coarse-grained alkaline igneous rock (similar to granite and used locally for the Elmer coastal defence scheme) and Carboniferous limestone (from France) which is a sedimentary rock used in 1992 for the groynes at Pagham.

Syenite is a darker material with bright flecks, whereas the French limestone is a lighter coloured material. Both are sufficiently dense, durable and robust for their intended purpose and both would gather algae and other flora and fauna and 'weather' over time to a similar appearance.

Environmental Considerations

The site is within or adjacent to a Special Protection Area, a Ramsar site, a Site of Special Scientific Interest and a local nature reserve. A separate Environmental Report is available.

Following a formal request to the Marine Management Organisation [MMO] it has been confirmed that an Environmental Impact Assessment is not necessary (MMO letter of 19 July 2013 & associated report is appended to this Statement). The works have been designed to have the minimum impact on the environmental designations and to comply with the recommendations contained within the Conclusions of the Report.

A request has been made by Natural England that following damage to the vegetated shingle habitat, unavoidably sustained during previous recycling operations and potentially as part of the current proposals, the area around the head of the groyne at the eastern end of the revetment should be subject to reparation.

This environmental mitigation will consist of returning the area as far as is practicable to its former condition, with ruts removed and disturbed shingle sorted and re-seeded with suitable, non-invasive species of maritime plants.

Flood Risk Assessment

The works are intended to provide a decreased erosion risk. The 15 properties at risk are outside of the Environment Agency's Flood Zones 2 and 3. There is therefore no direct flood risk at present and the proposals will not change that. However, if the erosion were allowed to continue unchecked then properties landward of those currently at (erosion) risk would be at greater risk of tidal flooding.

Waste Disposal Statement

There are no permanent works within the proposals that would generate waste. The Contractor may produce 'construction waste' – this will be dealt with in accordance with current best practise and legal requirements.

Timing of the construction

Due to the environmental sensitivity of the site, the works will be limited to certain periods as outlined in the Environmental Report.

During permissible working periods working hours will be as follows:

Seaborne deliveries (including off-loading) – 24 hour working (2 – 3 days per barge)

All other operations (e.g. rock movement / revetment construction / excavation / shingle recycling) – 7:00 a.m. to 7:00 p.m.

Conclusion

The proposal will be in accordance with the provisions of planning policy and design guidance. Flood risk will not be affected and the temporary location will be in keeping with the streetscene and landscape of the area.

It is respectfully suggested that this application should be approved

Appendix

130719_Decision letter from the MMO.pdf

plus associated

130719_Response Report.pdf