



**Marine
Management
Organisation**

The Marine Works (Environmental Impact Assessment) Regulations 2007, as amended ("the Regulations

Title: Screening Opinion
Location: Pagham Harbour
Operator: Arun District Council
Application no: MLP/2013/00095

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Location: Marine
Management Organisation

Proposal

Arun District Council proposes to construct a Coastal Defence Scheme at Pagham Harbour in the form of rock revetments.

The village of Pagham lies adjacent to the eastern side of the Harbour with a number of residential developments located on the northern spit (Pagham Beach). Over the years, the Church Norton spit has migrated towards Pagham at a rapid rate which has altered the tidal flows around the Harbour entrance.

Over the winter period of 2012/2013, four separate storm incidences resulting in the same wave direction and wave period severely eroded the Pagham coastline between the end of the Church Norton spit and the first of four groynes located north of the Harbour entrance. Before the 2012/2013 winter storms there was approximately 25m of beach front separating the properties behind from the sea. Each successive storm reduced this width of the beach front, leaving only 20m protecting the properties from flooding and further erosion.

Potential impacts

The proposed scheme is located within the Pagham Harbour Site of Special Scientific Interest (SSSI). The SSSI is part of the Pagham Harbour SPA, Pagham Harbour Ramsar site and Pagham Harbour proposed Marine Conservation Zone (pMCZ).

There is potential to cause damage to Pagham Harbour by construction and plant machinery used in the excavation and placement process, this will need to be taken into consideration when producing a detailed methodology.

There is potential that the placement of the scheme may have an effect on coastal processes and hydrodynamic receptors. The effects on the ebb tidal delta entrance and entrance to the spits and adjacent beaches may be impacted due to hydrodynamic changes and there is potential for wave energy to be refracted along the revetment and the possibility of increased erosion at other parts of the Pagham frontage. These potential impacts will need to be considered and assessed.

The potential increase in suspended sediments during the construction phase may have an impact on water quality within the designated bathing areas. There may be an increase in sediment-bound bacteria that has the potential to effect the bathing water quality and as the bathing season continues until the end of September the applicant will need to consider the effects of this.

Conclusion

The proposed works fall within Annex II of the Marine Works (Environmental Impact Assessment) Regulations 2007 section 10(k) Coastal Work to combat erosion and maritime work capable of altering the coast through constructions. However, due to the projects nature and scale I do not believe it will have a significant adverse affect on the environment and, therefore, do not believe a formal EIA will be required. The works will require a marine licence under Part 4 of the Marine and Coastal Access Act 2009.

During the consultation process a number of recommendations were made that we would expect you to consider and include in any future marine licence application and accompanying report(s). This should include, but not be limited to;

- Pagham Harbour is a pMCZ and as such you will need to show that you have considered the interest features in this area, and how potential impacts will be avoided;
- Consideration will need to be given to the circumstances under which the defences, should they no longer be needed (for example as a result of changes to the spit which alter the channel location) would be removed and potentially repositioned. The proposal should detail the circumstances under which this may occur, how shingle beach and vegetative restoration would be dealt with and how as a whole the removal would be undertaken in such a sensitive area;
- The proposed works are planned to take place during September and October, while this is outside of the main over wintering bird season a contingency plan will need to be considered if the works were to over run. The majority of birds use the inner harbour however some wading birds and gull species will feed in the intertidal zone early on in the season and this may present a local temporary risk of disturbance, ways of working to avoid this will need to be considered; and
- Further studies will need to be undertaken to consider what effect the construction will have on the coastal processes in the area and whether the revetment will alter the physical conditions and processes within the channel.