



Councillor Geoff Jung (Chair of Advisory Group) and
Mr Tom Buxton-Smith (EDDC's Engineer)
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BY EMAIL ONLY

Briefing for Sidmouth & East Beach BMP Advisory Group 15 July 2021

Dear Cllr. Jung and Mr Buxton-Smith

Natural England have reviewed the recording of the above Advisory Group meeting and would like to make the following comments.

Natural England have engaged with East Devon District Council (EDDC) providing detailed advice on, inter alia, the protected landscapes, geodiversity and nature conservation interests in this area, to inform the decisions necessary throughout the formation of the Sidmouth & East Beach BMP to achieve a sustainable long term solution.

We appreciate that any agreed preferred option will be the result of environmental, technical, and financial feasibility. We understand that EDDC have secured additional funding, and we welcome the opportunity that these funds present to the Council in terms of reconsidering their assessment of the short-list options previously presented and those that were rejected on financial feasibility grounds, and the ability to look for alternative options.

Natural England would like to take this opportunity to reiterate our position on the BMP and short-list options and also reaffirm our commitment to work with EDDC on the formation of sustainable solutions. As we have previously detailed in our response to the Short-list Options Appraisal 14 July 2016 (Annex A), none of the options presented is likely to be impact-free on the protected landscapes and the designated sites around Sidmouth, and below is a broad summary of our advice on the options to date.

Groyne Options/Town Based Supergroyne Option

As detailed in our previous responses to consultations, Natural England have advised against options to construct groynes on East Beach as they are likely to result in direct impacts upon the designated geodiversity, landscape and nature conservation interests in that area.

There is also a risk that groynes on East Beach would also affect sediment supply to Pennington Point. Evidence suggests that this frontage relies upon sediment movement from the east during phases of dominant easterly and south-easterly waves to create and retain a healthy beach. A groyne would trap much of this material, preventing the east-west movement of sediment to this frontage.

As a member of the Project Group Natural England accepted the ‘preferred option’ of groynes at that time, as a compromise solution given the limitation to finances. Changes to the EA funding mechanisms and with the EDDC additional funding secured, now allows for this option to be reviewed.

Offshore Option/Breakwaters

These interventions do not always behave as expected once in place and this has the greatest uncertainty associated with it however, as previously stated we regard this type of intervention as offering the ‘least worst’ solution with regard to the natural environment, depending upon the detailed design, and this is likely to provide the most acceptable option.

Further assessment of the option for breakwaters will be needed to confidently predict the impacts which might result from their installation. Assessment and numerical modelling will be required to demonstrate that a suitable solution can be achieved and to provide the detailed design of such an option, giving consideration to the impact on coastal processes and near-shore sediment dynamics.

Rock Armour (against the cliff toe)

We have expressed serious concerns with rock armour due to the environmental acceptability with impacts to the foreshore, designated sites, and cliff geology. Other issues include its damage to the outstanding universal value (OUV) for which the Dorset and East Devon World Heritage Site (WHS) is inscribed and the associated Geological Conservation Review interests, adverse impact on the setting of the Dorset and East Devon WHS, and adverse impacts on the landscape of the East Devon AONB/Heritage Coast.

A rock revetment at the toe of the cliff will not halt recession of the cliff, erosion would continue until a stable profile is found. Whilst a small rock revetment may slow erosion and therefore recession of the cliff, it will not halt erosion. Erosion would likely continue at the top of the cliff due to subaerial processes.

Due to some of the comments made during this advisory group meeting we do not have confidence that any rock revetment would be removed once in place and would therefore be ‘temporary’ in nature.

Jurassic Coast World Heritage Site

World Heritage Status the highest conservation designation possible and one that the UK government has committed to protecting through an international convention administered by a specialist agency of the United Nations, as these sites are considered to be of outstanding value to humanity.

The World Heritage Site (WHS) is protected via the statutory designations, mainly the SSSI and the AONB, and it is given the highest level of significance in the NPPF. It adds value to the economies of Dorset and East Devon and any development resulting in a negative impact to the OUV of the WHS will only be acceptable if it is both essential and unavoidable. In these circumstances mitigation measures must be undertaken, and if any damage was extensive enough to compromise the integrity of the site the risk here is that the World Heritage Site status is lost in entirety for the Jurassic Coast.

We also found the rhetoric in the advisory group meeting regarding the natural environment and World Heritage Site disappointing, and give our full support to the comments and issues raised by The Jurassic Coast Trust and the value of the WHS in their response letter.

Natural England are committed to working with EDDC on the formation of a sustainable Sidmouth & East Beach BMP, and if you feel that our engagement with this process would be useful at this time we would recommend inviting us to be part of any project board with the relevant decision making authority.

Yours Sincerely,

Gareth

Gareth Townsend
Lead Adviser (Sustainable Development)
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Annex A

14 July 2016



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Dear Dave

Sidmouth and East Beach Management Plan: Short-list Options Appraisal

Thank you for your consultation on the above dated 10 June 2016 which was received by Natural England on the same day

Natural England recognises the problems for the local community posed by coastal erosion at Sidmouth and East Beach. We are committed to working with your Authority, through the Beach Management Plan (BMP) steering group, to identify a solution which provides the required Flood and Coastal Erosion Risk Management (FCERM) benefits whilst avoiding impacts upon the designated interest features at East Beach and beyond.

Our role is to provide advice to your authority regarding protected landscapes, geodiversity and nature conservation interests in this area, so that you can make the necessary decisions to achieve a sustainable long term solution.

We have considered the assessment of short-list option presented in the appraisals document. None of these options is likely to be impact-free on the protected landscapes and designated sites around Sidmouth and our experience from around the country shows that such interventions do not always behave as expected once in place. However, our advice on the relative impact of each option is below:

Options S1 – S3 – “Groynes” Options

Natural England would advise against options to construct groynes on East Beach as these are likely to result in direct impacts upon the designated geodiversity, landscape and nature conservation interests in that area. It therefore follows that two groynes would have a greater impact than a single terminal groyne.

There is also a risk that groynes on East Beach would also affect sediment supply to Pennington

Point. Evidence suggests that this frontage relies upon sediment movement from the east during phases of dominant easterly and south-easterly waves to create and retain a healthy beach. A groyne would trap much of this material, preventing the east-west movement of sediment to this frontage.

Shortening of the River Training Wall (RTW) and/or East Pier Groyne (EPG) would promote greater sediment connectivity between the town frontage and East Beach which could partially offset the effects of a terminal groyne on East Beach. However, T-head groynes (options S2 and S3) would have a greater trapping efficiency than the current linear groynes so, whilst being more efficient at retaining a beach along the town frontage, they would offset the enhanced connectivity benefits derived from modifying the RTW or EPG by significantly reducing W-E sediment supply to East Beach.

It would be necessary to conduct more detailed assessment before a conclusion could be reached regarding the performance of these options and the extent of predicted impacts upon the interest features of the designated sites.

Option S4 (including sensitivity test 5)

This option has the greatest uncertainty associated with it but may potentially offer the “least worst” solution with regard to the natural environment, depending upon the detailed design. It is not possible, at this stage, to confidently predict the impacts which might result from the installation of additional breakwaters. We therefore consider that further assessment, including numerical modelling, is required to demonstrate that a suitable solution can be achieved and to provide the detailed design of such an option.

Issues for consideration:

- Impact on coastal processes and near-shore sediment dynamics – Subject to detailed design (number, height, size, orientation, position) breakwaters should have a lesser impact on longshore sediment transport than groynes. A more detailed assessment of near-shore sediment dynamics would provide greater certainty regarding its significance to the supply of sediment to the beaches and the implications of disrupting it.
- Cumulative impact – a greater number of breakwaters will result in a greater magnitude of impact on coastal processes, terminal erosion, diffraction of near-shore waves and hence the beach and tombolos in their lee, regardless of the fact that they are reducing in size.
- Impact on protected sites - Reefs 3 and 4 have the potential to negatively impact the designated site interests on East Beach depending on the degree to which they modify or obstruct sediment movement. In the extreme they could result in an increase in beach volume to such an extent that cliff erosion was halted, with resulting impacts upon WHS and SSSI geological exposures and SAC/SSSI vegetation communities. The objective of the BMP is to slow the rate of erosion not to prevent it.

In summary:

Based on the information presented in the Short-list options appraisal Natural England considers that a variant of Option S4 is likely to provide the most acceptable option. However, this is subject to detailed assessment, including numerical modelling, to provide greater certainty regarding predicted impacts upon coastal processes and the features of the landscape and designated site interest features at East Beach.

In their response the World Heritage Site team has raised the question of whether a terminal groyne

would be required on East Beach regardless of which option were to be selected as the preferred option. If it is determined that a terminal groyne will be required as part of a preferred option, in addition to additional breakwaters, we would wish to revise our advice.

For any queries relating to the specific advice in this letter only please contact me on the email or telephone number below. For any new consultations, or to provide further information on this consultation please send your correspondence to consultations@naturalengland.org.uk.

Yours sincerely

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