

Open Report on behalf of Andy Gutherson, Acting Executive Director for Place

Report to:	Executive Councillor for Economy and Place
Date:	Between 01 February 2019 and 15 February 2019
Subject:	Change of Shoreline Management Plan Policy for period up to 2025 at Bulldog Bank
Decision Reference:	I017114
Key decision?	No

Summary:

A legacy coastal defence structure, Bulldog Bank, was significantly breached in 2013. It protects no properties, and is very unlikely to attract capital funding to support its reinstatement. An alternative proposal which can be funded has been proposed for delivery by the Environment Agency replacing Bulldog Bank with a new defence on a different alignment. The existing policies in the Shoreline Management Plan were agreed by the Environment Agency, Lincolnshire County Council and District Councils, and were endorsed by the Council's Executive in January 2011. In order to enable the proposed defence amendment, it is necessary to change the existing Shoreline Management Plan policy covering one section of coastline for the period up to 2025. The 'Hold the Line' policy for the subsequent period 2025-2055 would remain in place and unaffected.

Recommendation(s):

That the Executive Councillor for Economy and Place approves a change to the management policy for Policy Unit P of the Flamborough Head to Gibraltar Point Shoreline Management Plan from 'Hold the Line' to 'Managed Realignment' for the first epoch of the plan (up to 2025) only.

Alternatives Considered:

1. Not to change the Shoreline Management Plan policy.

Reasons for Recommendation:

At present the defence line under the existing policy remains ineffective, and cannot be reinstated through existing funding channels. The policy change will facilitate provision on behalf of the Environment Agency, the authority with operational responsibility for coastal defence in this area, of an alternate defence line that will restore the originally intended standard of protection under the present policy.

1. Background

In order to adapt to changing circumstances Shoreline Management Plans (SMPs) must be kept valid by updating them as necessary. There are various reasons which justify a change to an SMP, which includes 'a severe event has made an element of the existing SMP policy or action plan untenable'. This business justification is made in accordance with 'Strategic planning for flood and coastal risk management: Shoreline management plans-monitoring, change and reporting' Operational Instruction D12_34, and the change process chart from this Operational Instruction, is replicated in Appendix A.

1.1 Context

In the tidal surge of December 2013, Bulldog bank, a 400m cross bank within a wide dune system, breached in five locations. The tidal surge was in excess of the 0.5% design tide and no residential or commercial buildings were flooded at this location as a result of these breaches. Bulldog Bank is shown within the Humber Estuary Coastal Authorities Group (HECAG) SMP in Policy Unit P Map.

1.2 Current situation

In early 2014 repairs to uplift known low spots within the dune system were completed, under the recovery package, to ensure continuity of design tidal defence standard to the wider flood cell, while the future justification of Bulldog Bank was explored. This work was undertaken within the designated site, under licence from Natural England.

As part of the evidence for the proposed works in 2017/18 Lincolnshire Wildlife Trust was the client for the Gibraltar Point Coastal Wetland Adaptation Study, which was conducted by HR Wallingford. This was produced with data from the EA and open source elevation data. On receipt of the study, it was reviewed by both NE and the EA, which enabled all parties to highlight any problem areas. This highlighted that more investigation was required to ensure a true reflection of any possible inundation was provided.

Meetings between the interested partners (LWT, NE, EA, LCC) were conducted to discuss the way forward and any additional works required. There was an agreement to delay the works and the change process for the SMP until further investigation was carried out on the extent of inundation and to provide evidence that no properties would be affected. Further investigation led to the following conclusions.

Hydraulic modelling outputs for the current day design tide, that has a 0.5% chance of occurring in any one year, show that the Bulldog Bank dune does not benefit residential properties. Water is shown to be migrating across the tidal floodplain, to a greater extent when compared to the scenario prior to Bulldog Banks failure.

The topography shows that for the short duration of overtopping, the existing residential properties will not be impacted, as shown in Fig 1. It is anticipated that the local watercourses and arable land can accommodate these limited overland flows that are generated and it would be reasonable to have a proactive engagement plan in place for dissemination of information.

If further reassurances are required, then minor adjustments within the dunal system inside the golf course could be made to further limit the volumes of overtopping entering the tidal floodplain for this design tide scenario, which could be discussed with the golf club.

Bulldog Bank Elevation Mapping - created April 2018

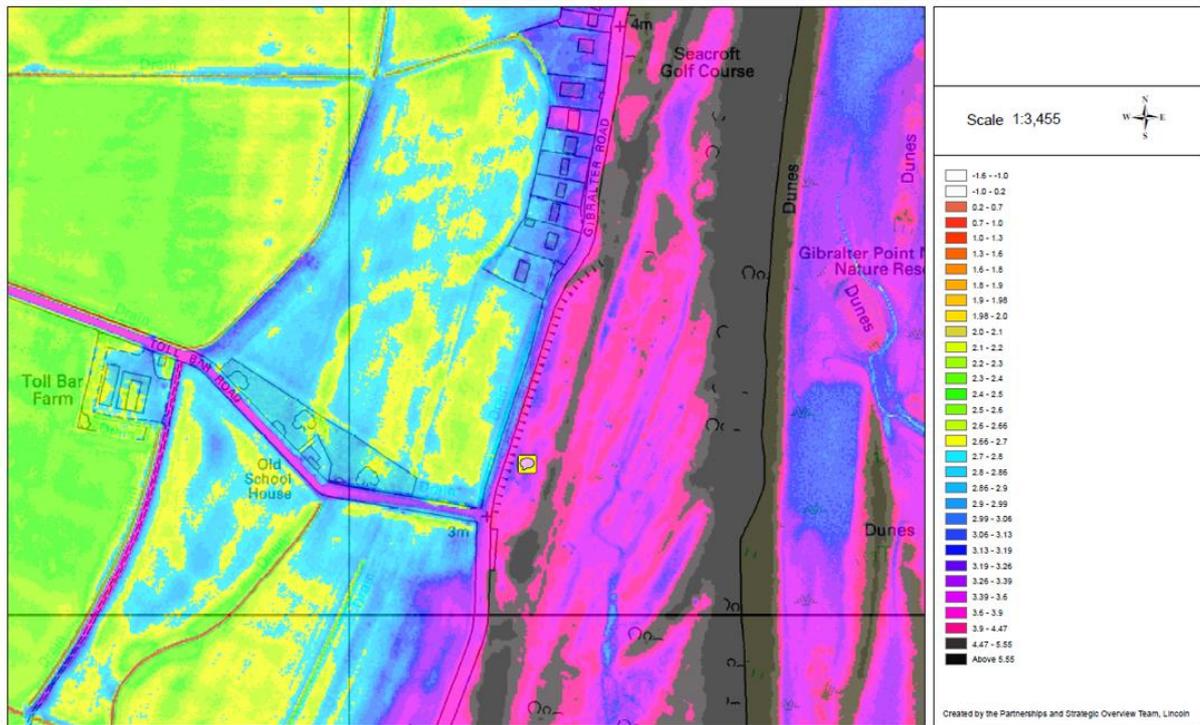


Figure 1

1.3 Case for Change

The policy direction for this area is to ensure continued protection against coastal flooding to the same standard as today. This amendment to Policy Unit P does not seek to amend this principle of continuation of protecting people and property.

The aspirations within the epochs for Policy Unit P remain valid, although it is the last epoch of 2055-2105 where realignment is mentioned to sustain other defences and compensate for potential deterioration of designated sites. The SMP could not foresee that Bulldog Bank would incur multiple failures during a large surge tide. This case for change seeks approval to duplicate the Managed Realignment option into Epoch 1 – present day to 2025, whilst retaining the principle to sustain flood risk to people and properties at current levels.

1.4 Business needs

The justification to repair Bulldog Bank has been examined. The economic and benefits assessment do not support the case for Flood Risk Grant in Aid, as there are no residential properties (Outcome Measure 2) at risk and a small area of golf course.

Initial costings suggest that the repair or replacement cost associated with Bulldog Bank would be between £70k and £350k, depending on the material source; extent of repair or replacement; and any constraints associated with working within a designated site of National and International importance.

Bulldog Bank is located within Gibraltar Point Site of Special Scientific Interest, Saltfleetby-Theddlethorpe Dunes & Gibraltar Point Special Areas of Conservation, Gibraltar Point Ramsar (Wetland of International Importance under the Convention on Wetlands of International Importance, especially as waterfowl habitat) and Gibraltar

Point Special Protection Area; in addition to being within these designations, it is also directly adjacent to The Greater Wash *Potential* Special Protection Area and The Wash & North Norfolk Coast Special Areas of Conservation. The freshwater habitat behind Bulldog Bank is already adapting to the saline intrusion. The designations of the wider site are focused on various dune types, coastal geomorphology and associated coastal flora and fauna.

1.5 Benefits

There are benefits to this approach to the restoration of brackish habitat within the dune slack, behind the line of Bulldog Bank, this occurs within a designated site and Natural England are a partner in making this case for change. This early adaptation may also reduce, to some small degree, the future SMP risks of coastal squeeze associated with the current Policy 'Hold the Line' in this designated site.

1.6 Mitigation of Risk

The low spots in the existing dune system were raised in 2014 to ensure continuity of flood risk reduction to the properties on Aylmer Avenue. Land at the end of the golf course was flooded in 2013 and did benefit from Bulldog Bank. The golf course is in discussion with Natural England about the construction of a new bank, which would fall within the designated site but on land owned by the golf course, where the golf course would be the sole beneficiary.

Hydraulic modelling has shown that a cross bank may be required in this area as sea levels rise; the SMP Policy Plan, as proposed, would support this future requirement as a further action to sustain current levels of flood risk into the future.

1.7 Options Considered

The following options have been considered at the time:

a. Repair Bulldog Bank:

Cost est. £70,000. Reconstruct bank to make repair to fill breach gaps. This option would utilise existing material 'on-site' from the redundant bank around the south of the borrow pits, provided Natural England were satisfied that this material was accessible and classified as suitable.

Access to the site is difficult and new roadways to provide adequate egress for plant and machinery may have to be formed at additional cost, with required Natural England licences.

The bank would only be reinstated back to its original condition – i.e. it is likely to fail again due to the inadequacy of materials and width during a similar high tide event. There is also the possibility that failure would occur at other points along the bank adjacent to the repair locations.

This does not provide an 'engineered solution' and only utilises silt/sand material for reinstatement. Additionally the bank will be denuded for a period until suitable growth has taken hold leaving sections vulnerable to erosion.

This option is very unlikely to obtain funding as it appears that this does not protect any properties during the current day 0.5% design tide.

b. Replace Bulldog Bank:

Cost circa £300,000 Replace entire 450m of Bulldog bank with an engineered bank utilising an engineered core and re-profiled to a greater width for wave erosion protection.

This option would require the importation of materials onto site to form the bank. Natural England would need to be consulted and approve any scheme. It is unlikely that as the site is a SSSI that material from off site would conform to site requirements. Difficulties with access and transportation as in option a. Replacement would provide an improved level of protection to part of the golf course. This option is very unlikely to obtain approval as it appears that this bank does not protect any properties and may be considered 'state aid'.

c. Move primary defence line to a strengthened Western dune

Recovery funded works are complete to fill low spots in existing dune system, with valley gap at Aylmer Avenue being raised to a minimum 5.6m OADN by utilising spare on site material. Access to carry out these works was easier as transportation was available along Gibraltar Road and Aylmer Avenue.

Future maintenance of the bank has been improved as it is easier to access for future repairs if this section were to be adopted in place of Bulldog Bank as primary sea bank protection. This natural dune system is sheltered and has reasonable grass and vegetation cover. The northern end of this bank now forms a continuous line of defence. This option leaves the golf course to construct a new flood defence along the southern boundary of their land or increase the height of the existing dunes within the golf course.

d. Move primary tidal defence to the western sandbank and instigate revised flood warning thresholds

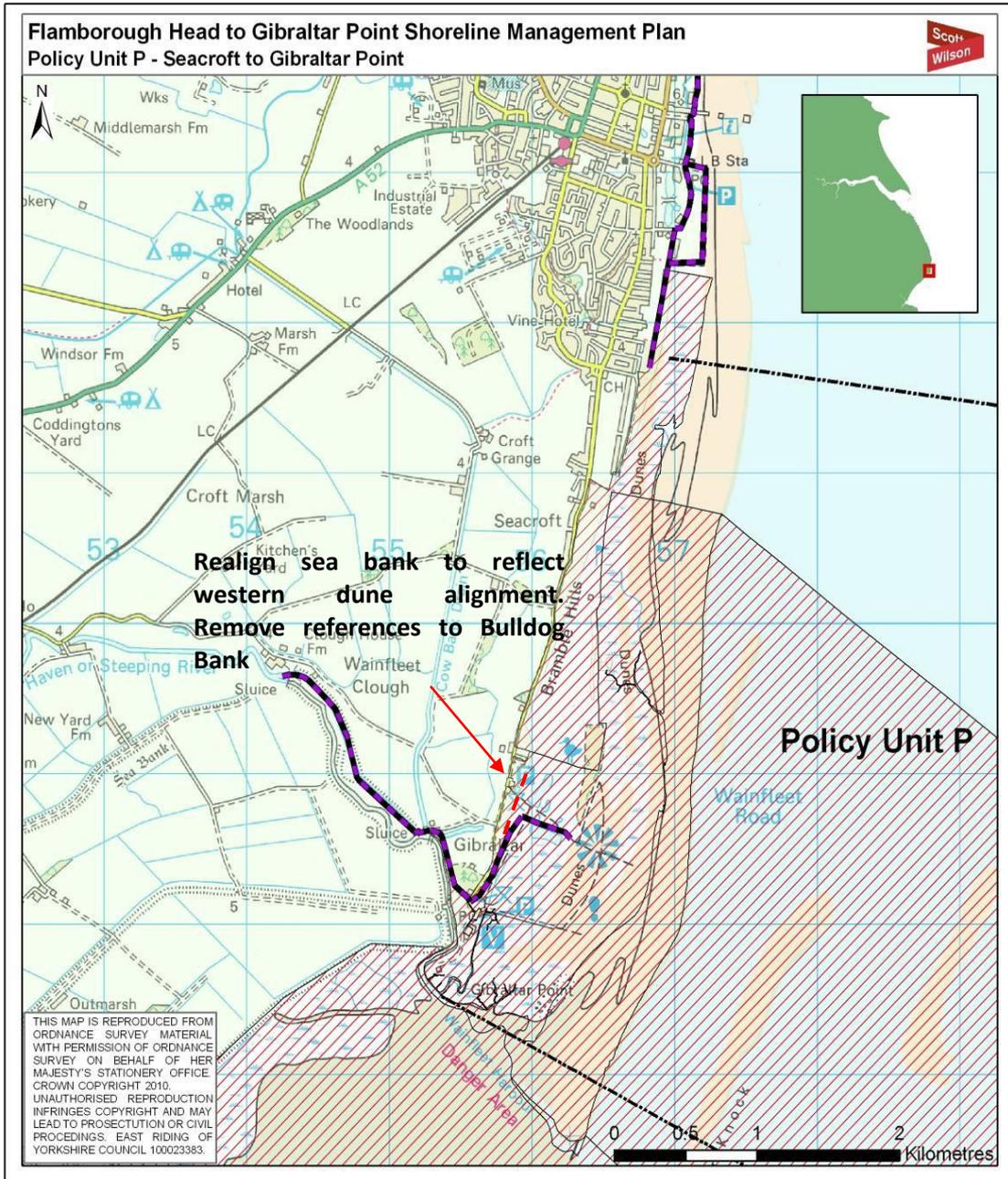
Cost minimal, primarily administration. No properties' thresholds are compromised by the 0.5% tide, with initial observations suggesting that property thresholds were some 500mm above the extreme tide on 5 December 2013. A Temporary Management/Warning Plan was put in place for the specific properties to ensure evacuation procedures robust during extreme high tide events.

1.8 Promoted approach

On the basis of the above:

- Option d was instigated on a short term basis until option c is agreed through this change process.
- Options a and b were neither economically viable nor environmentally acceptable.
- Recovery grant was optimised to undertake the filling of low spots along the wide Western dune as the most immediate and cost beneficial option to accord with Recovery Grant principles.
- The promoted approach does not impact on delivery of SMP Actions P1 and P2.
- It is **recommended that option c** be used to update the HECAG SMP Policy Unit

1.9 Future look of Policy Unit P: Seacroft to Gibraltar Point



Key: Policy (for full details see relevant policy statement)

Short Term (present day to 2025)	Medium Term (2025 to 2055)	Long Term (2055 to 2105)
Hold the Line with Managed Realignment (P4)	Hold the Line (P4)	Hold the Line or Managed Realignment (P4)

The policies for the long term are conditional. They depend on the results of monitoring and research into climate change, shoreline response and the role of defences.

Legend

Current defences(EA maintained)	Environment Agency Tidal Flood Zone 3
Policy Unit boundaries	Internationally Designated Sites
Scheduled Monuments	

2. Legal Issues:

Equality Act 2010

Under section 149 of the Equality Act 2010, the Council must, in the exercise of its functions, have due regard to the need to:

- * Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act
- * Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it
- * Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation

Having due regard to the need to advance equality of opportunity involves having due regard, in particular, to the need to:

- * Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic
- * Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it
- * Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low

The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities

Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to tackle prejudice, and promote understanding

Compliance with the duties in section 149 may involve treating some persons more favourably than others

The duty cannot be delegated and must be discharged by the decision-maker. To discharge the statutory duty the decision-maker must analyse all the relevant material with the specific statutory obligations in mind. If a risk of adverse impact is identified consideration must be given to measures to avoid that impact as part of the decision making process

An equalities impact assessment was undertaken in relation to the Shoreline Management Plan in 2011 as described above. The present amendment does not materially affect these conclusions, but it will be responsibility of delivery bodies to ensure that any works undertaken comply with legislation.

Joint Strategic Needs Analysis (JSNA and the Joint Health and Wellbeing Strategy (JHWS)

The Council must have regard to the Joint Strategic Needs Assessment (JSNA) and the Joint Health & Well Being Strategy (JHWS) in coming to a decision

The policy change will facilitate provision of coastal flood risk management works which will contribute to the protection all communities and businesses in the locality in the event of coastal inundation.

Crime and Disorder

Under section 17 of the Crime and Disorder Act 1998, the Council must exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment), the misuse of drugs, alcohol and other substances in its area and re-offending in its area

The proposed policy change will have no adverse impacts on crime and disorder in the area, but will contribute to the resilience of coastal communities and businesses to the risk of coastal inundation.

3. Conclusion

It is recommended that in order to facilitate an appropriate and pragmatic response to breaching of the defence line known as Bulldog Bank at Gibraltar Point, the Shoreline Management Plan policy for epoch 1 in Policy Unit 'P' should be amended to 'Managed Realignment'. This applies to this epoch only, and the policy of 'Hold the Line' will be retained for the subsequent period 2025-55.

4. Legal Comments:

The Council has the power to approve the recommendation. The decisions is consistent with the Policy Framework and within the remit of the Executive Councillor

5. Resource Comments:

Accepting the recommendation within this report, should have no material impact on the budgets of the Council.

6. Consultation

a) Has Local Member Been Consulted?

Yes

b) Has Executive Councillor Been Consulted?

Yes

c) Scrutiny Comments

The Flood and Water Management Scrutiny Committee has supported the proposed course of action, and the Environment and Economy Scrutiny Committee will be considering the proposal on 15th January 2019. The comments of the Environment and Economy Scrutiny Committee will be reported to the Executive Councillor prior to the decision being taken

d) Have Risks and Impact Analysis been carried out?

Yes

e) Risks and Impact Analysis

An equalities impact assessment was undertaken on the original Shoreline Management Plan, which concluded that it should be monitored to ensure that access to the coast remains available to all. The revised policy for the Gibraltar Point / Bulldog Bank area does not require any deviation from this conclusion, while any works to be carried out will be the responsibility of the Environment Agency or bodies acting on behalf of the Environment Agency. Appropriate impact assessments should be undertaken by those bodies in respect of specific works programmes to be proposed and implemented.

7. Background Papers

The following Background Papers within the meaning of section 100D of the Local Government Act 1972 were used in the preparation of this Report

Background Paper	Where it can be found
Executive Report 5 January 2011 – Shoreline Management Plan for Flamborough Head to Gibraltar Point	Democratic Services
Shoreline Management Plan	https://www.eastriding.gov.uk/EasySiteWeb/GatewayLink.aspx?allId=128637

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