

Reference: 06/13/0685/F

Parish: Hopton on Sea

Officer: D Minns

Expiry Date: 08-04-2014

Applicant: Bourne Leisure Limited

Proposal: Proposed Coastal Protection Scheme

Site: Hopton Beach (Adj Hopton Holiday Village) Warren Road

REPORT

1. Background / History :-

1.1 This is full planning application accompanied by an Environmental Statement to construct a coastal protection scheme at Hopton-on-Sea. Located approximately 3.5km south of Great Yarmouth, Hopton Beach is situated between Gorleston in the north and Corton in the south, near the border of Great Yarmouth and Waveney Borough/District Councils.

1.2 Members will be familiar with the fact that this was once a wide sandy beach which has been subject to significant erosion in recent years with the loss of much of the sand itself. As a consequence the historical coastal defences (comprising of a linear wooden revetment running along the beach and wooden groynes pointing out to sea) are being degraded and without the protection of the sandy beach they are ineffective at protecting the low, soft cliff behind, which is now subject to more regular erosion by the sea. The propose of the scheme is to halt erosion of the cliff and protect Hopton Holiday Village which is located on the cliff immediately landward of the beach.

1.3 Emergency works have been and continue to be installed to protect the base of the cliff. This protection comprises of large (2.5 to 6 tonne) rocks placed strategically along the beach. This protection however does not afford the cliff, or the Holiday Village, sufficient protection from the largest storm events and associated surges as the figure below shows. The proposed scheme will provide for long-term protection of the cliffs and the Holiday Village.

1.4 It is predicted (who by) that if the currently experienced level of erosion is allowed to continue without any mitigation then the shoreline will relocate around 50m to landward of present involving the loss of 147 caravan spaces over the next 20 years.

1.5 The severe coastal erosion experienced at the site is of concern on a number of levels, including: degradation of the coast's recreational and visual attractiveness;

safety of beach users and of guests of Hopton Holiday Village; severance of beach access; economic impacts to local businesses in an area largely dependent on tourism; and long-term concerns over the threat to the village itself and associated infrastructure.

1.6 The scheme will be entirely financed by applicant's Bourne Leisure Limited (the owners of the holiday village) with no impact on the public purse.

2.0 The Proposal

2.1 The proposed scheme will comprise of the following elements. A 900m long rock revetment constructed at the base of the cliff immediately in front of Hopton Holiday Village. This structure will be comprised of 2.5 to 6 tonne granite-like rocks with a maximum structure height of up to 4.5m above beach level. The revetment will be approximately 12.5m wide

2.2 Ten rock groynes will be constructed and tied-in to the linear rock revetment to form a single structure – with pedestrian access provided at the junctions. The groynes will be spaced at 100m intervals and will be 50m in length, jutting out in to the North Sea from the base of the revetment. Such spacing mimics the current dimensions of the existing wooden groynes. The groynes will be constructed of similar sized armour rock to the revetment, imported from Scandinavia and each groyne will be 5.5 to 6.0m wide at its base.

2.3 It is also proposed to establish a stockpile of rock armour outside of the two end groynes. These rocks will be used to provide localised protection (up to 100m either side of the end groynes) if monitoring identifies any localised erosion.

2.4 It is anticipated the scheme will have a service life of 20 years.

2.5 The construction phase is once the appropriate approvals have been obtained is considered by the applicants approximately 6months to complete and will be staged to minimise exposure risks between removal of the old and construction of the new defences. Normal working hours will be Monday to Friday 07:30 – 17:00 and Saturdays 08:00 – 1300 with no working on Sundays or Bank Holidays, unless there is an emergency.

2.6 However, it is recognised that the rock dumping from the barge is tidally dependant and some, infrequent working outside of these hours may be required in to the evening in front of Hopton Holiday Village (not residential properties), although no night time work is anticipated (e.g. 22:00 to 05:00). Any working outside of normal working hours will be agreed in advance with Councils Environmental Heath Officers.

2.7 The historical, wooden defences will be removed using land based plant and the large rock deliveries from Scandinavia will be brought to the beach by flat topped barge where they will be deposited in 'dump zones' and moved in to location by plant operating on the beach.

2.8 The applicants propose that three site compounds will be established: in Potters Leisure Resort car park (workers car park, general storage and workshop); off Beach Road on the field owned by Potters Leisure Resort (storage, welfare facilities and

site office); and within Hopton Holiday Village itself (overnight plant parking). There may, on occasion, be the need to bring in smaller stone, terram and other similar materials and any such deliveries will be made to Potters Leisure Resort car park and transferred to the site compound using dumper trucks along Beach Road.

2.8 All construction will be carried out in line with good industry practice and a Construction Environmental Management Plan (CEMP) will be prepared and approved prior to commencement of construction.

2.9 Bourne Leisure has undertaken an Environmental Impact Assessment (EIA) for the scheme, to ensure that no unacceptable, adverse effects result to the environment or local residents. The EIA has been undertaken in line with the following two pieces of legislation, relevant to the planning application and marine works the Town & Country Planning (Environmental Impact Assessment) Regulations (2011) and Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended).

A scoping report was agreed with the Borough Council to cover the following issues

- Geology (construction phase);
- Water quality (construction phase);
- Sediment quality;
- Marine ecology;
- Fish and Fisheries (construction phase);
- Ornithology;
- Marine Navigation;
- Terrestrial Ecology;
- Traffic and Transport;
- Noise and Vibration (Operational phase); and
- Air Quality

3. Consultations :-

3.1 **Hopton-on-Sea Parish Council:** No objection to planning application 06/13/0685/F and gives its full support to the proposals put forward.

3.2 **Notice/Neighbours:** 43 emails/letters of support (sample letters attached)
Appendix 1

4 letters raising concern/objection to the proposal(copies attached)Appendix 2

3.3 **Waveney District Council Coastal Management** – Overall, we are generally supportive of the proposed scheme as it will provide, without drain on the public purse, coastal protection to a significant tourism and leisure facility, together with a number of residential facilities. However, we have a number of comments regarding the planning application which are outlined below:-

3.4 In the current (2012) Shoreline Management Plan (SMP) the short term policy for Policy Unit 6.20 (PU6.20) is to Hold the Line by maintaining the existing coastal defences but not through enhancement or replacement of the defences which the proposed scheme clearly is. The scheme is therefore not in accordance with the textual description of the SMP policy.

3.5 The application seeks to justify that the proposed scheme is in accordance with the SMP policy as it is not possible to extend the life of the existing coastal defences by maintenance alone due to their deteriorated condition. In addition, the application states that the SMP policy is based on out of date information and data and indicates that the policy for PU6.20 is no longer viable.

3.6 We would agree that the baseline has changed to that on which the SMP policy was formulated. The revision to the SMP policy, if any, will be considered during the forthcoming development of the Gorleston to Lowestoft Coastal Strategy. In the meantime, the applicant should seek to implement the policy change procedure for Policy Unit PU6.20 which is allowed for under the SMP. We would strongly suggest that the determination of the application is deferred until this procedure has been substantially completed.

3.7 The proposed works must be decommissioned after 20 years. This may be altered during the SMP revision process. We would be able to conditionally agree to the life of the proposed works being greater than 20 years subject to:-

- compliance with a future SMP policy revision that the life of the proposed works must not be extended, or
- if the forthcoming strategy rules against such an extension of the life of the proposed works, or
- if the works are shown to have a deleterious effect of WDC's coastal frontage and/or defences.

3.8 The existing and proposed emergency rock works, which we consider at a stretch are "maintenance of the existing defences" should be able to provide the required protection until the action in 3 above has been implemented. It should be noted that we were not formally consulted during the consenting process for the emergency works either under the Coast Protection Act or by the MMO.

3.9 Consent for the proposed scheme will be required under Section 16 of the Coast Protection Act. Details of this have been omitted from the EIA. We await to be formally consulted as part of the consenting process under the Act.

3.10 We would agree that the longshore drift along the frontage in recent years has generally been south to north. However, historically there has been substantial quantities of sediment moving in the opposite direction. The change in direction occurred before the Outer Harbour was constructed. We consider that it is feasible, not hypothetical, that the longshore drift will revert to north to south during the lifetime of the proposed works. How is the 200m length assigned to the potential zone affected south of the southern limit of the proposed scheme determined?

3.11 We agree that a monitoring system needs to be included as a condition of the application determination. Any deleterious effect on WDC's coastal frontage and/or defences as a result of the proposed scheme which is identified from the monitoring would then need to be rectified at the applicant's expense.(Attached to this report is a response from Dr Barber on behalf of the applicants Appendix 3).The relevant extracts relating to the Hopton area from the Shoreline Management Plan (appendix 4)

3.12 Great Yarmouth Port Company Ltd – In summary, our review identifies that the risk of direct impact to GYPC's operations from the scheme is insignificant but there is a requirement for clarity over the detail Monitoring Agreement that Bourne Leisure are presuming will be part of the permit conditions for the works. With an appropriate Agreement and the relevant stakeholders being signatories to the Agreement, potential concerns that we raised in the Scoping Response regarding the shoreline erosion between the Hopton Scheme and Gorleston can be managed avoiding the risk of misinterpretation of the impacts of the two schemes. (Full comments attached (Appendix 5) In addition also attached is a response to these comments from Dr Barber on behalf of the applicants. Appendix 6)

3.13 Ramblers Association – We would request that Hopton Footpath 2a is kept open during any works, but as we can see from the current presumably emergency works, safety considerations may require temporary closure at times. We have also informed the Natural England personnel concerned with coastal access routes

3.14 Natural England: No objection does not consider that that this application poses any likely or significant risk to those features of the natural environment for which would other wise provide a more detailed consultation response and does not wish to make specific comment on the details of the consultation.

3.15 Hopton Coastal Action Group – We wish to give full support to Bourne Leisure's proposed sea defences. This will safeguard business's jobs and homes in our village for many years to come. Hopton is and always will be a holiday result and puts into the local economy upwards of £42m per annum and provides anything upwards of 1,000 jobs. Villagers are extremely grateful for Bourne Leisure's commitment

3.16 Footpaths Officer- Footpath No.2a – The proposed scheme is adjacent to the public right of way but does not appear to affect it. The footpath must not be obstructed during construction works.

3.17 Norfolk County Highways: requires further information on traffic movement and vehicle compounds – further responses to be reported.

3.18 Environment Agency: No objection

3.19 Environmental Health: No objection subject to conditions (see attached Appendix 7)

3.20 Norfolk Historic Environment Service: No objection subject to imposition of archaeological condition

3.21 Marine Management Organisation – Please can you inform the applicant that they may require a licence under the Marine and Coastal Act (2009)

4. Policy :-

4.1 Planning Policy

The National Planning Policy Framework(NPPF) sets out the Governments planning policies. The principles of sustainable development underpin the NPPF and its associated technical guidance with the three pillars of sustainable development (environment, social and economic) viewed as the golden thread running through.

The document in 'Meeting the challenge of climate change, flooding and coastal change' in (Paragraphs 93 to 108).

(Paragraph 93) states that planning plays a key role in minimising vulnerability and providing resilience to the impacts of climate change (Para 94) and (reiterated Para 99) states that local planning authorities adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply demands and considerations.

(Para 105) states that in coastal areas, local planning authorities should take account of the UK Marine Policy Statement and marine plans and apply Integrated Coastal Zone management across local authority and land/sea boundaries, ensuring integration of the terrestrial and marine planning regimes.

(Para 106) states that local planning authorities should identify as a Coastal Change Management Area any area likely to be affected by physical changes to the coast, and at (Para 107) when assessing applications, authorities should consider development in a Coastal Change Management Area appropriate where it is demonstrated that:

- it will be safe over its planned lifetime and will not have an unacceptable impact on coastal change;
- the character of the coast including designations is not compromised;
- the development provides wider sustainability benefits; and
- the development does not hinder the creation and maintenance of a continuous signed and managed route around the coast.

5.0 Marine Planning and East In Shore Marine Plan

The Marine and Coastal Access (2009) established a legislative basis for a system of marine planning in England. The aim of the system is to achieve sustainable development in the marine area. The UK Marine Policy Statement 2011 provides the overarching policy framework and a number of geographically based plans will translate the Marine Policy Statement into detailed policy and guidance for particular areas. Parts of the Statement relevant and with specific ref to here states that coastal erosion risk management if not managed properly, may result in direct effects on the coastline, seabed marine ecology, heritage assets and biodiversity.

2.6.8.3 states that indirect changes to the coastline and seabed might also arise as a result in response to some of these direct changes. This could lead to localised or more widespread coastal erosion or accretion and changes to offshore features such as submerged banks and ridges. Interruption or changes to the supply of sediment due to infrastructure has the potential to affect physical habitats along the coast or in estuaries.

2.6.8.4 states when developing Marine Plans marine plan authorities should liaise with terrestrial planning authorities, drawing on Shoreline Management Plans and equivalent plans where available. It further states Marine plan authorities should be satisfied that activities and developments will themselves be resilient to risks of coastal change and flooding and will not have an unacceptable impact on coastal change. A precautionary and risk-based approach, in accordance with the sustainable development policies of the UK Administrations, should be taken in terms of understanding emerging evidence on coastal processes.

2.6.8.5 Marine plan authorities should consider existing terrestrial planning and management policies for coastal development under which inappropriate development should be avoided in areas of highest vulnerability to coastal change and flooding. Development will need to be safe over its planned lifetime and not cause or exacerbate flood and coastal erosion risk elsewhere.

2.6.8.6 Marine plan authorities should not consider development which may affect areas at high risk and probability of coastal change unless the impacts upon it can be managed. Marine plan authorities should seek to minimise and mitigate any geomorphological changes that an activity or development will have on coastal processes, including sediment movement.

The draft East Inshore Marine Plan (MMO 2013) consultation commenced on July 16 2013 by the Marine Management Organisation. The East Inshore Marine Plan Area includes the coastline stretching from Flamborough Head to Felixstowe, extending from mean high water out to 12 nautical miles, including inland areas such as the Broads and other waters subject to tidal influence, and covers an area of 6,000 square kilometres. The aim of marine plans is to help ensure the sustainable development of the marine area. Marine plans will contribute to economic growth in a way that benefits society whilst respecting the needs of local communities and protecting the marine ecosystem.

(Paras 190 to Para195) discusses coastal change management that during the preparation of an application for development, there is significant value in looking at these SMPs to ensure the activity does not increase the risk of coastal erosion or flooding stating at (Para 193) 'compatibility and integration with these plans is paramount to managing the risk of coastal erosion and flood risk'. This approach is consistent with the Marine Policy statement and the approach advocated in the NNPF.

The East Inshore area includes part of the scheme at Hopton and would come under new Marine planning regime depending on the timeframe. Irrespective of the time framework for the designation a licence for and approval of the works will be

required from the MMO and the application has been published stating as much in local papers in Suffolk and Norfolk.

The marine plans come into effect once they are adopted by the Secretary of State and published; until that point the draft plans are a 'relevant consideration'. The MCAA requires that all public authorities taking authorisation or enforcement decisions, must do so in accordance with marine policy documents (marine plans and the Marine Policy Statement) unless relevant considerations indicate otherwise. Where a relevant decision is not taken in accordance with the marine plans, the public authority must state its reasons.

6.0 Great Yarmouth Local Plan 2001 saved policy INF16 states:

When considering applications for new development in coastal areas where there are no significant environmental or landscape conservation considerations, but which may be in an area susceptible to marine erosion and associated land instability as shown on the proposals map, the Council will require the application to demonstrate conclusively that:

- a) there would be no significant risk that the proposal would be adversely affected by marine erosion or land instability within its lifetime; or,
- b) the proposed development would be capable of withstanding the effects of any anticipated erosion/instability or would be protected from here.

Emerging Core Strategy (Regulation 19)

Sept 2013 . Adoption of the emerging Core Strategy is not envisaged to the summer of this year however NNPF states that decision makers from the day of publication of (NNPF) decision-takers may also give weight to relevant policies in emerging plans according to:

- the stage of preparation of the emerging plan (the more advanced the preparation, the greater the weight that may be given);
- the extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater the weight that may be given); and
- the degree of consistency of the relevant policies in the emerging plan to the policies in this Framework (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given)

Policy CS13 – Protecting areas at risk of flooding or coastal erosion states the risk of flooding and coastal change is expected to increase with climate change. This presents a challenge for property business owners and service providers in susceptible areas. It goes on to state that the Council will ensure a practical and sustainable approach to flood risk and coastal protection.

7.0. Assessment

7.1 In the main there is little overall objection in the statutory consultees responses to this application. Local support is weighed heavily in favour of the proposal which continues the emergency works already undertaken to reinforce the coastline and is anticipated to give some 20 years protection to the coast as identified above.

7.2 Operational details in as far as they amount to onshore activities associated with the works are in the main considered to be minimal and the Environmental Health is satisfied that subject to the conditions of hours of working there should be little disturbance to local residents during unsociable hours.

7.3 In terms of highway movements apart from those identified above these are anticipated to be minimal with the heavy duty rock being transported to the site by water and not road.

7.4 On the technical side there are comprehensive responses to the proposals from the Great Yarmouth Port Authority Ltd experts which states that the impact upon the port operations is insignificant but questions some aspects of the proposal on a point of detail - which the applicant has responded to – including comments on the monitoring agreement and stakeholders party to the agreement.

7.5 Waveney District Councils coastal engineers have set out the context of the Shoreline Management Plan and how it relates to this scheme. It is clear in procedural terms that the scheme - which does not involve the public purse- has support including an acknowledgement that the baseline data has changed to that on which the SMP policy was formulated. However it is suggested by Waveney that the application is deferred pending a revision to the SMP policy, if any, to be considered during the forthcoming development of the Gorleston to Lowestoft Coastal Strategy. In the meantime, the applicant should seek to implement the policy change procedure for Policy Unit PU6.20 which is allowed for under the SMP.

7.6 In this respect and to give an overall of the scheme the views of the GYBC Coastal Manager are set out below and set out the officer view and recommendations for these proposals.

7.7 The following comments relate to the proposal by Bourne Leisure Ltd. to construct sea defence structures to protect their site at Hopton. This area of coastline has been the subject of erosion for many years and the existing defences have, in places, reached the end of their serviceable life.

7.8 The proposal can be divided into two parts for coastal engineering purposes; the first is the Rock Revetment. This is to be constructed along the base of the soft cliffs and set above mean high water. This is intended to provide protection to the toe of the cliffs and control the existing erosion caused by the wave action during adverse storm or surge conditions. As this part of the defence would normally be out of the sea it should not impede the coastal processes. With the use of rock, there will be a reduction in the effect of reflected wave as compared to that of the existing defence structures which will help to encourage the retention of the beach.

7.9 The second part of the proposal is to construct ten number rock fishtail groynes 50m long and at 100m spacing along the length of the area covered by the rock revetment. These rock groynes do not project seaward as far as the existing timber and steel groynes, and they will be spaced closer together than the existing. The existing groynes along this section are considered to be in a poor condition and it is proposed that they are removed following the installation of the rock groynes. Similarly the existing timber revetment will be removed as the work progresses.

7.10 Having studied the technical report submitted by Bourne Leisure and the response from HR Wallingford it is understood that it is not possible to determine exactly the effects this scheme will have on the adjacent areas. Given that the proposed groynes are not as intrusive as the existing field it is not envisaged that there will be any significant detrimental effect to the coastal processes.

7.11 It is intended to have in place a monitoring agreement and an agreed action plan with trigger levels to enable all concerned to understand any changes, should they occur, to the coastal processes and respond appropriately. From the Bourne Leisure report the areas that may be affected are those immediately to the north and south of the proposed scheme location. HR Wallingford considers that there may be some effect further afield than this, but the degree of influence is not quantified. It is intended to include the neighbouring authority (Waveney District Council) in the monitoring agreement and any other relevant authority or agency with a direct interest in this area.

7.12 The Shoreline Management Plan (SMP) policy for this area states “hold the line” up to year 2025 and then “managed realignment”. Following consultation with the SMP delivery group it is proposed to review this policy within the current Gorleston to Lowestoft Strategy Review and to take account of the more recent information. It is not thought that the proposed works will present an obstacle to the objective of the SMP, which is to provide a sustainable coastline for this area.

7.13 In conclusion It is recognised that these works will help the sustainability of the Bourne Leisure site, provide stability to the remaining defence structures and help alleviate the concerns of the local community.

With the proviso of an agreed monitoring agreement, action plan and trigger levels it is recommended that these coastal works be approved under section 16 of the Coast Protection Act 1949.

8.0 RECOMMENDATION :-

8.1 APPROVE subject to the conditions outlined above.

Background Papers and full list of residents comments available on planning file 06/13/0685/F and Council website.

Appendix 1

20th February 2014

For the attention of Mr D Minns

Planning Services Department
Great Yarmouth Borough Council
Town Hall
Hall Plain
Great Yarmouth
NR30 2QF

Dear Sirs

Ref: Planning Application 06/13/0685/F Hopton on Sea Coastal Protection Scheme

I am writing to express my support for the above planning application submitted by Bourne Leisure Group to protect our coastline.

I consider it to be an excellent proposal and am very grateful to Bourne Leisure for agreeing to fund this project which can only benefit the residents of Hopton as well as the numerous visitors we have here each year who provide revenue for our village.

We can no longer bury our heads in the sand – we haven't got any!

Yours faithfully

Mr J Fakes
Mr P J Howard



Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 10:01
To: Elaine Helsdon
Subject: FW: Planning app 06/130685f Hopton coastal protection

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk

Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

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It takes 24 trees to produce 1 ton of office paper! Think... is it really necessary to print this email?

-----Original Message-----

From: Ruth Head [REDACTED]
Sent: 20 February 2014 17:53
To: Dean A. Minns
Subject: Planning app 06/130685f Hopton coastal protection

Hi I am writing as a resident of the village to confirm I am in favour of the above application to protect the village from further erosion.
Ruth head

Sent from my iPhone

Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 10:05
To: Elaine Helsdon
Subject: FW: Sea defences at Hopton

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

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From: Joanne Ruddock
Sent: 23 February 2014 15:08
To: Dean A. Minns
Subject: Sea defences at Hopton

Dear Mr Minns,

I am writing to you in regard of our support for the application 06/13/0685/F, sea defence, it has come to our attention that there has been some opposition to the application from Bourne Leisure. We are amazed that anyone who lives in the village could oppose this. The rate that the cliffs have eroded in the last few years is quite scary and only living around 800 ft from the sea without the new defences my home would be at a considerable risk along side many others nearby. What Bourne Leisure are doing at this moment is only a sticking plaster and are by no means a permanent solution we are very grateful for their help to save our coastline and so far have done an excellent job. The money which they have already spent would be money down the drain if the further sea defence does not go ahead as this will not last long. At present the wooden revetments are no longer protecting the cliffs and look ugly and very dangerous so I feel it would be in Hopton's best interests to allow the scheme to proceed therefore giving us the best protection against the sea and saving homes and businesses in the area.

Kind regards Mr and Mrs Ruddock 23 Seaview Rise, Hopton

Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 10:06
To: Elaine Helsdon
Subject: FW: Bourne Leisure Sea Defence Plans Hopton

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 646420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

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From: Robyn Ollington [mailto:~~robyn.ollington@great-yarmouth.gov.uk~~]
Sent: 23 February 2014 21:37
To: ~~Elaine Helsdon~~
Subject: Bourne Leisure Sea Defence Plans Hopton

Dear Mr Minns

I write in support of Bourne Leisure's sea defence plans off the coast at Hopton. I am the owner of a cliff top property south of Hopton Holiday Village and am deeply concerned about the extent of erosion at Hopton. The sea frequently pounds the piling and concrete apron at the foot of the cliffs below, which, in the event of a storm with any element of easterly wind, especially combined with a spring tide, would be under serious threat.

I am witnessing firsthand the continuous onslaught on our immediate coast line and am in no doubt of the need for prompt action in respect of putting in place some form of sea defence. As far as I am aware, Great Yarmouth Borough Council do not have any such plans and, therefore, fully support Bourne Leisure in their fight to protect our coastline.

Yours sincerely

Mrs Robyn Ollington
15 Beach Road
Hopton
Great Yarmouth
Norfolk NR31 9SQ

06/13/0685/F

Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 10:06
To: Elaine Helsdon
Subject: FW: Planning Application 06/13/0685/F Hopton on Sea Coastal Protection Scheme

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
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Website: www.great-yarmouth.gov.uk
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From: David Smith
Sent: 23 February 2014 09:16
To: Dean A. Minns
Subject: Planning Application 06/13/0685/F Hopton on Sea Coastal Protection Scheme.

Mr D L Smith
5 St Andrew Close
Hopton
NR31 9ST

Dear sir/Madam,

As a resident of Hopton I am in agreement with the plans by Bourne Leisure to carry out measures to protect the village from further coastal erosion.

I think it is important to protect Hopton, not only for the residents, but for the Holiday Parks who bring in valuable income for the community.

Kind Regards,

David Smith.

Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 10:06
To: Elaine Helsdon
Subject: FW: hopton sea defence

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

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From: dean.gensberg [mailto:dean.gensberg@hopton-sea-defence.co.uk]
Sent: 24 February 2014 07:45
To: Dean A. Minns
Subject: hopton sea defence

hello my name is Anna Gensberg 51 sea view rise hopton on sea NR319SE
i would like to show my full support for the planned construction of the new sea defences at hopton on
sea
regards anna gensberg

06/13/0625/F

Elaine Helsdon

From: Dean A. Minns
Sent: 24 February 2014 11:50
To: Elaine Helsdon
Subject: FW: Re PLANNING APPLICATION 06/13/0685/F HOPTON ON SEA COASTAL PROTECTION SCHEME

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
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-----Original Message-----

From: PAUL MASON [REDACTED]
Sent: 24 February 2014 11:08
To: Dean A. Minns
Subject: Re PLANNING APPLICATION 06/13/0685/F HOPTON ON SEA COASTAL PROTECTION SCHEME

Dear Mr Minns

I am writing to express my full support for Bourne Leisure's vital plans to protect our Village. I see the damage done to the coast line several times a week when I play golf on the Gorleston Golf Club course and in over 20 years of membership I have never seen so much erosion at Hopton as in the last 2 years. Effective sea defences are now an essential requirement.

Yours faithfully

Paul Mason
5 Rogers Close
Hopton
Gt Yarmouth
NR31 9RS

Elaine Helsdon

From: Dean A. Minns
Sent: 03 March 2014 09:45
To: Elaine Helsdon
Subject: FW: Planning Application 06/13/0685/F

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: damin@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

Great Yarmouth Borough Council - Customer Focused, Performance Driven

It takes 24 trees to produce 1 ton of office paper! Think is it really necessary to print this email?

From: [REDACTED]
Sent: 01 March 2014 17:02
To: Dean A. Minns
Subject: Planning Application 06/13/0685/F

Dear Mr Minns,

As new home owners since December 2013, and residents since April 2012 in Hopton my wife and I would like to register our support for the above planning application (Hopton on sea coastal protection scheme) not only to protect the village and its heritage but also the surrounding area and its thriving holiday resorts. Please do not hesitate to contact us for any views that you would want from residents and closely affected people with the above planning permission.

Regards,

Vishal Upadhyay
42 Sea View Rise,
Hopton on sea,
Great Yarmouth,
Norfolk, NR31 9SE



Get your own **FREE** website, **FREE** domain & **FREE** mobile app with Company email. [Know More >](#)

Elaine Helsdon

From: Dean A. Minns
Sent: 03 March 2014 09:41
To: Elaine Helsdon
Subject: FW: Supporters of Bourne Leisure Coastal Protection

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dmin@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk
Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

Great Yarmouth Borough Council - Customer Focused, Performance Driven

It takes 24 trees to produce 1 ton of office paper! Think... is it really necessary to print this email?

From: ron bent [REDACTED]
Sent: 01 March 2014 10:25
To: Dean A. Minns
Subject: Supporters of Bourne Leisure Coastal Protection

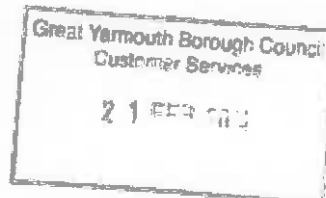
Dear Mr Minns,

My Wife and I are supporters of your good work and Application No. 06/13/0685/F also supporting Bourne Leisure on coastal protection scheme. These rock form fish tails are also in evidence at Southwold for coastal protection. The people of Hopton are keen supporters to keep our beach for leisure and business purposes.

Best Regards
Ron Bent
Angela Halifax Bent

S
GORLESTON
GOLF CLUB
LIMITED

Great Yarmouth Borough Council
 Planning Department
 Town Hall
 Hall Plain
 Great Yarmouth
 NR30 2QF



18th February 2014

Planning Application No. 06/13/0685/F

Dear Sirs,

Gorleston Golf Club wholly supports the planning application for a coastal protection scheme made by Messrs. Bourne Leisure.

Yours faithfully,

David James
 Secretary / Manager

EM



Warren Road, Gorleston on Sea
 Great Yarmouth, Norfolk NR31 6JT

Secretary: 01493 661811
 Facsimile: 01493 661811
 Email:
 manager@gorlestongolfclub.co.uk
 jmc@gorlestongolfclub.co.uk

Club House: 01493 661060
 Professionals: 01493 662103
 Restaurant: 01493 441822

S

Elaine Helsdon

From: Dean A. Minns
Sent: 18 February 2014 10:25
To: Elaine Helsdon
Subject: FW: Planning application 06/13/0685/F

Dean Minns
Group Manager Planning
Great Yarmouth Borough Council

Telephone: 01493 846420
E-mail: dam@great-yarmouth.gov.uk

Website: www.great-yarmouth.gov.uk

Correspondence Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk NR30 2QF

Great Yarmouth Borough Council - Customer Focused, Performance Driven

It takes 24 trees to produce 1 ton of office paper! Think... is it really necessary to print this email?

-----Original Message-----

From: Julie Thompson [REDACTED]
Sent: 18 February 2014 09:44
To: Dean A. Minns
Subject: Planning application 06/13/0685/F

Just to say my husband and I fully support the plans for a sea defence and Mrs Thompson 38 sea view rise Hopton on sea nr31 9se Sent from my iPad

Jill K. Smith

From: ~~XXXXXXXXXXXX~~
Sent: 07 January 2014 15:12
To: plan
Subject: Proposed coastal protection - Hopton Beach

Ronald F. Brown & Mrs. Mary J. Baker
57 Sea view Rise Hopton on Sea Gt.Yarmouth Norfolk NR31 9SE Monday 7th January
2014

Attention Mrs. E. Helsdon: Gt. Yarmouth Borough Council Planning Services

Dear Mrs. Helsdon

Re APPLICATION 06/13/0685/F
Proposed coastal Protection Scheme at Hopton on Sea
Hopton Beach

As residents of a sea front property in Hopton on Sea we strongly support this application and are indeed grateful for the support and help that Bourne Leisure are providing to the area. The continuing erosion of Hopton Beach affects the whole village and if this is resolved everyone living in Hopton will once again enjoy the beach facility.

We would appreciate being advised of the date/time of the public meeting.

Yours faithfully

Ronald F. Brown & Mary Jean Baker

Planning Department
Gt Yarmouth Borough Council
Town Hall
GT YARMOUTH
NR31

48 Sea View Rise
Hopton on Sea
GT YARMOUTH
NR31 9SE

29 January 2014

Dear Sirs

Re: Planning Application 06/13/0685/F Hopton Beach Sea Defences

First, may we thank Bourne Leisure for all their efforts to protect, not only their own Holiday park, but Hopton itself which of course includes the properties on the cliff. For this we are eternally grateful. Without the efforts of Bourne Leisure, our properties would have no value whatsoever. Something we did not envisage when we purchased the land - plot 77 - way back in 1991. At that time, The Shoreline Management Plan was to "hold the line". We therefore went ahead and purchased the land from Persimmon and built our home.

The proposal of the Sea Defence Scheme put forward by Bourne Leisure is so important to us all in Hopton. They have engaged the top people in the country to put the details of the scheme together. I am sure Bourne Leisure would not have gone to all this trouble if they did not feel it would be successful.

I have read the letter sent to you by Valerie McGee in amazement. It would appear to me that a third party has been engaged to provide such a technically detailed letter.

As a long standing resident of Hopton, it surprises me that she feels the Bourne Leisure Sea Defence plan would be of no value.

In her letter dated 21 January 2014 - comment 2. she refers to Potters having accepted the loss of the cliff at sometime in the future.

I am not sure what is meant by this comment because, in May 1997, Potters actually put in a planning application - 06/96/0525/F - 28 additional chalets to be built beyond the building line of the existing 5 private properties on the cliff to the North. The application also included a sports hall and an extension of an existing chalet block for 2 storey luxury bedroom units.

This planning application was objected to by those residents on the cliff.

Although the whole of the application was agreed in the December, the Planning

16th February 2014

For the attention of Mr D Minns

Planning Services Department
Great Yarmouth Borough Council
Town Hall
Hall Plain
Great Yarmouth
NR30 2QF

Dear Sirs

Ref: Planning Application 06/13/0685/F Hopton on Sea Coastal Protection Scheme

I am writing to express my support for the above planning application submitted by Bourne Leisure Group to protect our coastline.

I consider it to be an excellent proposal and am very grateful to Bourne Leisure for agreeing to fund this project which can only benefit the residents of Hopton as well as the numerous visitors we have here each year who provide revenue for our village.

Yours faithfully



Mr E Cossey

16th February 2014

For the attention of Mr D Minns

Planning Services Department
Great Yarmouth Borough Council
Town Hall
Hall Plain
Great Yarmouth
NR30 2QF

Dear Sirs

Ref: Planning Application 06/13/0685/F Hopton on Sea Coastal Protection Scheme

I am writing to express my support for the above planning application submitted by Bourne Leisure Group to protect our coastline.

I consider it to be an excellent proposal and am very grateful to Bourne Leisure for agreeing to fund this project which can only benefit the residents of Hopton as well as the numerous visitors we have here each year who provide revenue for our village.

Yours faithfully

Stuart A Rumsby
Susan Rumsby



HOPTON COASTAL ACTION GROUP

Chairman Brian Hardisty
55 Sea View Rise
Hopton on Sea
Great Yarmouth
Norfolk
NR31 9SE

28th January, 2014

Planning Department
Town Hall
Hail Plain
Great Yarmouth
Norfolk

Planning Application 06/13/0685/F re: Sea Defence for Hopton Beach.

Dear Sir,

We wish to give full support to Bourne Leisure's proposed sea defence. This will safeguard business's, jobs and homes in our village for many years to come.

Hopton is and always will be a holiday resort and puts into the local economy upwards of £42 million pounds per annum and provides anything up to 1000 jobs.

Village residents are extremely grateful for Bourne Leisure's commitment and willingness to finance this project.

Yours faithfully

Brian Hardisty
Chairman
Hopton Coastal Action Group.

D-M

Group Planning Manager
Planning Services Department
Great Yarmouth Borough Council
Town Hall
Hall Plain
Great Yarmouth
Norfolk
NR30 2QF

7th February 2014



Dear Sirs

Planning Application 06/13/0685/F – Hopton on Sea Coastal Protection Scheme.

We wish to record our concerns and objection, as a company, regarding the above.

1. The proposals wholly disregard the adopted Shoreline Management Plan.

The relevant, short term, policy is set out at 6.20 of the SMP, namely "to continue to defend the coast through routine and reactive maintenance of the existing defences".

However, what is proposed are entirely new, standalone, sea defences along a short stretch of coast, forming no part of any cohesive overall coastal protection strategy. The construction of ten (rock) groynes, each projecting 50m out to sea, must possess indisputable potential to influence natural coastal factors, in particular along adjacent stretches of shoreline lying to the north and south of the proposed location.

2. Broadland Sands Holiday Park lies less than a mile to the south of these proposals.

The mass of technical data and text accompanying this application appears to have a singularly insular focus with dismissive regard to the likelihood of any "knock on" effects up and/or down the coast that these works may trigger.

Furthermore, no evidence or argument to support their lack of concern in this fundamental regard, or provide any degree of comfort/re-assurance to other nearby occupiers on this same stretch of coast, is put forward.

It is precisely this phenomena, but in the context of the Outer Harbour extension, that the applicants themselves have long since and continue to allege is the cause of the marked escalation of erosion issues at Hopton and the perceived need for these works in the first place.

Ladycroft Limited
Broadland Sands Holiday Park, Coast Road, Corton, Lowestoft, Suffolk NR32 5LQ
Telephone: 01502 730939 Fax: 01502 730071
Email: admin@broadlandsands.co.uk Web: www.broadlandsands.co.uk

3. The technical appraisal/comment contained in a report dated 31/01/14 by H.R. Wallingford, to their clients International Port Holdings, clearly highlights a number of shortcomings, questionable assumptions (some of which they would directly challenge) and omissions in the EIA prepared by ABPmer that accompanies the application.

The conclusions drawn, particularly the potential for adverse impact on adjoining stretches of coastline from drift trend (itself open to influence by the proposal), currently a northerly flow but one that may well reverse, serve only to re-enforce the validity of our concerns that erosion along our shoreline frontage may be significantly worsened, as suggested in (1) above.

4. Given that a study to review the SMP between Gorleston and Lowestoft has been commissioned, any such coastal defence projects should only be considered in the context of the whole, not in isolation, thus the current application is therefore premature and should be deferred pending the outcome of this review.

Any mere suggestion of a similar proposal by ourselves, in front of our own shoreline, with the additional layers of conflicts/concerns/controversy that this assuredly would throw up, must surely illustrate the point. As a matter of record and, in the context, as near cliff top neighbours, neither the applicants nor their advisors have sought to discuss their proposals, or any aspect of them, with us prior to submission.

5. We assume that Gt Yarmouth Borough Council would require undertakings from Bourne Leisure for both monitoring and mitigation, the mechanism/trigger of which (for both elements) should be a fundamental pre-condition before even considering any such project, as accountability and responsibility for their actions must be provided by the applicants to fellow shoreline landowners.
6. Whilst it is accepted that rock beam sea defences have a track record, we can find no evidence of ABPmer's similar sector experience and, together with the questions now raised by H.R. Wallingford's report, coupled with intrinsically complex/specialist marine engineering issues and data that is incomprehensible to the majority of lay persons, we trust that the Borough Council will engage a suitably experienced consultancy for a wholly independent appraisal of this high profile application and the far reaching consequences it possesses.

Yours faithfully



S. Ames

General Manager, Ladycroft Ltd t/a Broadland Sands Holiday Park.

23 JAN 2014



Hopton on Sea
Great Yarmouth
Norfolk
NR31 9BN

Tuesday 21st January 2014

Dear Sir,

Planning Application 06/13/0685/F – Hopton Beach

I write with regard to the above planning application and, as an affected householder, would be grateful if you would consider/answer my comments/questions.

1. Supporting Documents/Reports:

With reference to Bourne Leisure's own reports and supporting material which, despite their volume, are extremely vague and non-committal regarding the effectiveness of this scheme. Indeed, all these supporting documents come to the same conclusion that:
"the long-term response is difficult to predict" (page 22)

2. Use of materials:

Are rocks and webbing suitable material for a sand coastline? Bourne Leisure's reports state that there will be erosion of the groynes, so I have serious doubts as to the success of this whole scheme. I understand that a similar attempt at Sea Palling has had a very limited effect, and lasted less than 2 years.

A more aesthetic and environmentally sensitive option would be for Bourne Leisure to move caravans back, accepting some degree of cliff loss (as Potters and Golf Club have always done), and to create green spaces that would not put owners property at risk.

3. Consequences of this scheme:

What consequences will there be for properties/businesses either side of this scheme? Has the possibility of further erosion and scouring at the north and south ends of the development been considered? I fear this will lead to a string of legal battles as adjacent business/residents consider suing Bourne Leisure in a similar way that Bourne Leisure is seeking compensation from the Outer Harbour development.

4. Health and safety:

Signs that say "Do not climb on rocks" have not deterred people climbing on them. Is the intention for fish-tail groynes to be accessible to public? For a so-called "family friendly" beach, this increases the possibility of accidents.

5. Public Access to the beach:

I understand that the metal steps at the north end of this scheme are the property of the Parish Council, are likely to be replaced through insurance processes. Can I ask when this is likely to happen? Also, although it is not mentioned in this application, will disabled access be provided by Bourne Leisure to create proper safe access for holiday-makers and residents to the beach?

Closure of Cliff top Footpath:

The public right of way 2a has been closed since October, presumably on health and safety grounds. I note that the Development Control Manager, in his input to this plan, comments that "Footpath must not be obstructed during construction works". What action will be taken to remedy this please? Will the residents of Hopton receive assurances that this footpath will be permanently preserved?

I also have concerns about the gas pipes laid by Bourne Leisure along the top of the cliff about 2 years ago. The laying of these pipes, within 1 metre of the perimeter fence, immediately caused slippage along the cliff-top, long before any storm damage occurred. Can residents be assured that there are there plans for this potential hazard to be dealt with should any further cliff erosion take place?

7. Ownership/Responsibility:

If this application is approved, who owns and, therefore, takes responsibility for monitoring future erosion, the financial costs of maintenance and the settling of any litigious claims arising from accidents/damage to individuals and/or adjacent properties? Similarly, would you also please confirm whose is the responsibility/liability for the work currently being done at the foot of the cliffs?

In summary, my concerns about this application are as follows:

Supporting reports and other evidence appear to suggest that, in the long term, this scheme will be ineffective. Is a "quick fix" the answer?

Public rights of way on the beach and cliff-top are/will be put at risk

Due to the materials used for these groynes and at the foot of the cliffs, health and safety hazards will be created for the public on what is reputed to be a "family-friendly" beach.

Would you please clarify ownership/liability for this plan, so that residents and businesses know where to go to seek any future compensation?

In conclusion, I have no objection to a defence plan if it is likely to be successful in the long term. However, I do object to is what appears to be the ugly fortification of Hopton Beach with what is a partial defence of a coast where previous revetments stretched from Gorleston Pier to Corton. Time has told this whole-line approach has been successful for 60 years.

Finally, Is this proposed scheme being considered with the current application for dredging by CEMEX Ltd, the wind-farm, and the ongoing litigation that Bourne Leisure has initiated against the Outer Harbour? All these, in my view, must be currently influencing and contributing to the long term effect on the whole coastline, and any development must surely include careful consideration of all these factors.

Yours faithfully

Valerie McGee

Valerie McGee

ACK 24/1/14

S

Great Yarmouth Borough Council
Customer Services

22 JAN 2014

4, Cliff Cottages, Warren Rd

Hopton. NR31 9BN

17/1/2014



Planning Dept.

Great Yarmouth Borough Council

Planning Application by Bourne Leisure 06/13/0685/F Hopton Erosion/sea defences.

I would like to raise the following issues regarding this proposed planning application.

- 1) Much has been said about this kind of project having been implemented "all over the country". A little research has revealed the following relevant facts:-
 - a) The majority of such projects have been using rocks to support existing sea defences (usually concrete) – not unstable, sandy cliffs.
 - b) As the cliff falls prior to the surge tide were from the top of the cliff (not the bottom) they were the result of wind erosion and irresponsible development at the top of the cliff. No amount of rocks at the base of the cliff would have stopped that.
 - c) Projects where rocks have been backfilled to support sea defences have inevitably used material with a high capacity of drainage – usually shingle. I notice that Bourne Leisure are using pure soil which has a lesser drainage capacity than the cliff or rocks. This will mean its density will vary according to saturation levels and temperature. When lashed by wind and sea there is likely to be seepage causing massive pollution to the beach and to the sea quality – not only at Hopton but further along the coast too.
 - d) There appears to be much agreement that this kind of sea defence is both ugly and potentially hazardous to users of the beach.
- 2) The revetments and wooden groynes have been quite effective at defending our coastline and would continue to do so if properly repaired and maintained. They most certainly should not be removed in the mistaken idea that the rocks will provide a sufficient defence.
- 3) When the recent surge tide hit the northern end of Hopton beach, the rocks merely pushed the water behind themselves and against the cliff face – probably causing more erosion than would otherwise have taken place.
- 4) Having watched Bourne Leisure construct a rock wall at the bottom of the beach access slope last year, encased in a metal cage, and been assured that it "would stand up to anything", it was amusing to see that it toppled over on the first occasion that the sea reached it! This begs the question about how stable the rock groynes (fish tail or otherwise) would be. Are they going to collapse and cause even more of a hazard to the general public?
- 5) The independent reports about the effectiveness of the rock groynes all seem to agree that they are unlikely to be of any use. Hopton beach already looks like a badly organised quarry – should this be made any worse if there are no advantages?
- 6) Beach Access. The plans do not make any provision for access to Hopton Beach. Any access ramps etc should be subject to planning permission and should comply with the laws regarding Disability Access. I believe that the people of Hopton have historical right of access to the beach and this should be maintained at all times.

- 7) Coastal Path. There appears to be no justification for closing this public Right of Way. As the legal requirements (notices & alternative routes) have not been carried out, can we assume that this has been dropped? If it is felt that the work on the beach may cause instability at the cliff top, then it would appear logical that all the cliff top caravans should be removed and the gas pipe (which was laid just a few feet from the cliff edge) should be permanently disconnected. A fracture of this pipe could present far more Health and Safety issues than anything else.
- 8) Finally, may I appeal for a bit more realism over this issue! Everyone knows that this coast is liable to erosion and both Potters Leisure Complex and Gorleston Golf Course have made sensible provision for this. Bourne Leisure (unless they were badly advised) should have been made aware of this when they bought the site. The best we can do is to try and preserve what we have by using the cliff tops sensibly and accept that gradually we may have to take steps backwards and let nature have its way.

Yours.....



Vilda M Steady (Ms)

Response of Dr P Barber to Waveney D.C email dated 21st January 2014

Regarding the Waveney response -

1. The emergency works provide short-term protection dependent upon the ongoing presence of the timber revetment to reduce wave exposure. The timber revetment is deteriorating rapidly removing this protection and rendering the beach unsafe due to the dangerous condition of the collapsing timber revetment. It is not considered reasonable to delay implementation of the permanent scheme in order to follow what will inevitably be a lengthy non-statutory procedure due to the number of parties involved. There is a real risk to the considerable investment made by Bourne Leisure alongside an increasing risk to public safety. All relevant parties to the SMP regarding the situation at Hopton have been visited by BL consultants and there were no serious reservations raised over the accommodation of the present situation within the SMP and the indication from all parties was that the SMP could be modified outside the consenting process for the scheme.
2. There will be a public consultation on the strategy and BL will input at that stage to ensure that the strategy takes account of the altered shoreline management in the Hopton area.
3. Evidence from the monitoring and studies of effects from the Outer Harbour have shown that the effects to the south of the harbour may be divided into a zone of accretion applying along a section of shoreline about twice the distance of the on-offshore blockage caused by the harbour and a zone of erosion applying across a section of shoreline south of the first section extending south to four times the distance of the on-offshore blockage of the Outer Harbour. Applying similar and therefore conservative ratios to the proposed scheme at Hopton gives an accretion zone of around 100 m. and then an erosion zone of around 100 m. the ABP mer modelling confirmed the location of the changeover of effects of accretion to erosion at around 100 m. beyond the southern limit of the works. In the event of a drift reversal over the 20 year service life of the proposed works, for which there is currently no evidence, there may be some worsening of effect but its longshore limits are not likely to change greatly using the available model results as a guide.

longshore movement of sediments to the adjacent frontages. These sediments will deposit further offshore than under pre-scheme conditions as longshore flows decelerate moving away from the scheme frontage but the deposition will still be within the established (ABPmer studies) cross-shore transport zone allowing return of sediments to the upper beach under appropriate wave conditions. As a consequence the beach behaviour along adjacent shorelines to the scheme may be disrupted but will not be 'starved' of sediment due to the scheme. The proposed accommodation works are designed to deal with any disruptive effects to adjacent shorelines as appropriate.

6. The conclusions of the HR Wallingford (June 2013) report to GYPC are accepted subject to the significant limitations explained in points 4 and 5 above. It is not necessary to consider 'more-representative' wave conditions, as suggested by HR Wallingford when extreme conditions interact with emerged structures in depth-averaged models. If the groyne field was submerged for significant periods of the tidal cycle of normal tides then such considerations may be more pertinent.
7. The validation of the ABPmer model was effectively undertaken by running the same storm-series used in the HR Wallingford modelling for Bourne Leisure and comparing the results. After adjustment of variable parameters the comparison of results was considered to be satisfactory thereby avoiding a repeat of validation work already carried out by HR Wallingford. HR Wallingford reported that the validation of their model was considered to be satisfactory.
8. The potential variability of the offshore banks will be taken into account in the scheme design regarding stability of the armour stone. Any alterations to the longshore drift will need assessment under the monitoring protocol to be conditioned within any consent but it is considered that the proposed mitigation of any longshore effects would remain appropriate even though its extent and shape may need to be changed. Effects on scheme performance regarding the safeguarding of beach levels across the frontage have not been assessed due to the unknown nature and extent of future offshore bank changes. However scheme design includes provision for variation in wave and tide exposure and also uses an adaptive form of construction.
9. The Waveney DC frontage is over 500 m. to the south of the southern scheme limit.
10. The proposed scheme monitoring will comprise full plan surveys of intertidal and sub-tidal sea bed levels on a regular basis extending across the scheme frontage and to either side longshore. Monitoring will also include assessment of shoreline exposure conditions between surveys and allow for a re-run of the model if required. Effects of the scheme will be readily discernible from other effects such as those from the Outer Harbour whose monitoring is much more limited in scope.

Location reference: Gorleston to Hopton

Policy Unit reference: 6.19

SUMMARY OF PLAN RECOMMENDATIONS AND JUSTIFICATION

Plan:

The long-term Plan is for cliff retreat to allow sediment to be sourced from cliff erosion and to pass freely along this frontage. This sediment feed from here is vital to feed beaches and enhance protection to areas north and south, where defence is a priority along this length of coast. It is estimated that erosion of cliffs between Gorleston and Lowestoft provides up to 10% of the total SMP area sediment and frontages along this stretch rely heavily upon this local source of sediment, due to the continued interruption to supply from areas further north within the SMP. Therefore the long-term Plan for this section of coast is to allow retreat, enabling a naturally functioning coast with minimal human interference. This will not result in the loss of any built assets but will have an impact upon the golf course. However, when these defences eventually fail, there will be the potential for outflanking of the sea walls at the southern end of Gorleston and the northern end of Hopton. As a consequence there may be impacts on these defences in the next 10-15 years.

Policies to implement Plan:

From present day: The policy option is to allow retreat by not maintain existing defences, however some intervention may be required to make safe defences that are no longer effective. The policy is therefore managed realignment. However, the timber revetments along this frontage have an estimated residual life of between 10 and 15 years, so during this period will continue to slow retreat and erosion along the seaward edge of the golf course. These defences will not be replaced as they reach the end of their effective life.

Further investigations will be undertaken to identify technical options and establish an appropriate package of social mitigation measures, to address the potential outflanking of defences in Gorleston and Hopton and subsequent impact on property and people. Where it can be financially justified, minor temporary works (for example placement of areas of rock, beach replenishment etc) may be undertaken at selected areas to slow the rate of coastal erosion, but not with a view to protecting the coast within the management unit into the medium or long term. As and when a suitable package of social, economic and planning measures is identified, maintenance and minor repair of defences will cease, and the coastline will be allowed to continue its natural regression.

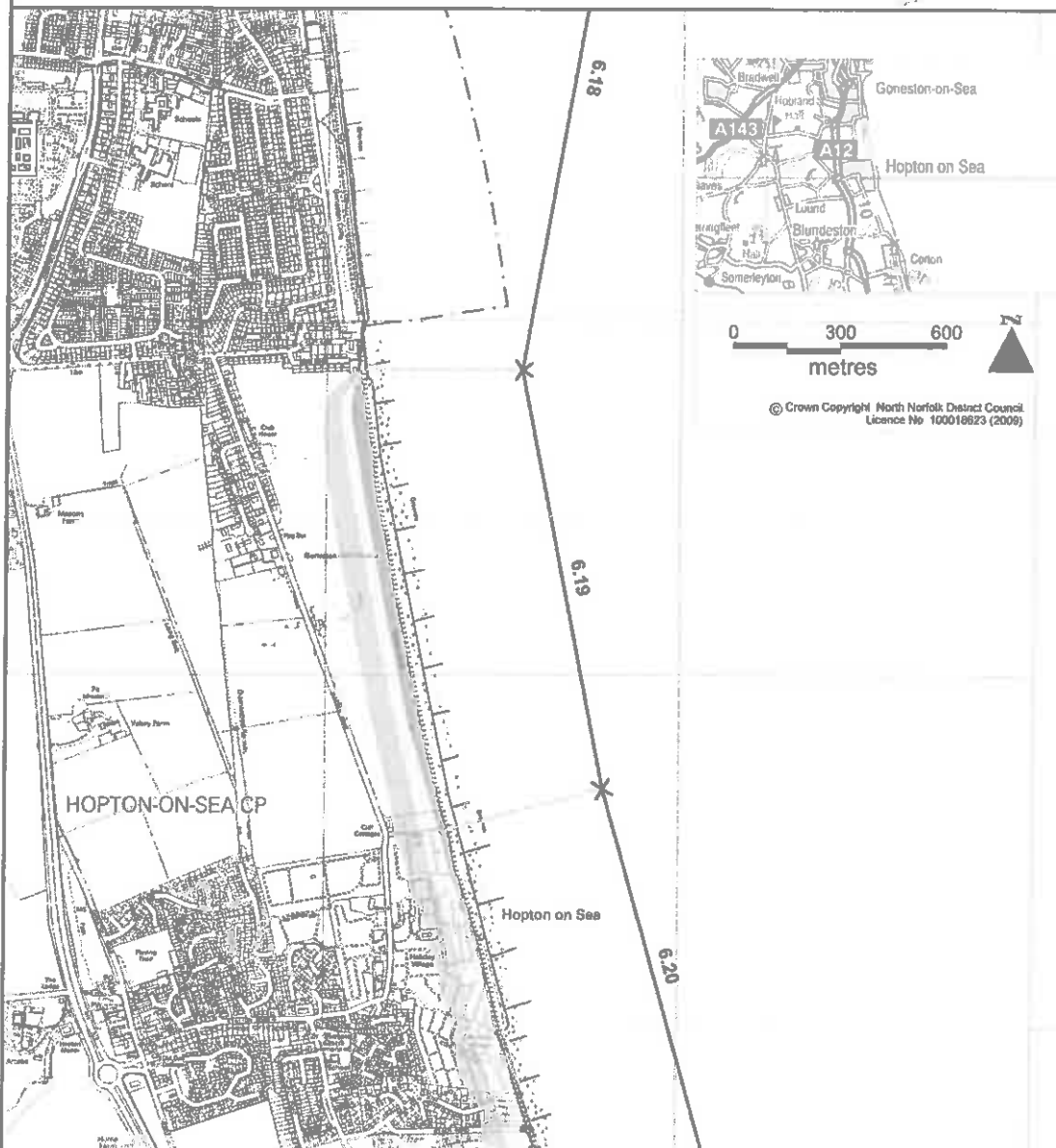
This approach is consistent with the long-term Plan for this section of shoreline.

Medium-term: In the medium-term, the policy option is no active intervention, as it is likely that the previous defences will no longer function, and will have been safely removed.. This policy option will begin to have significant technical benefits through providing sediment feed to adjacent frontages.

Long-term: No change from the medium-term policy option of no active intervention.

Kelling to Lowestoft Ness Shoreline Management Plan
Policy Unit 6.19: Gorleston to Hopton

ACAG



FOR FULL DETAILS SEE RELEVANT POLICY STATEMENT

Indicative Erosion Zones Based on Current Policy Aims

- Indicative erosion zone up to 2025
- Indicative erosion zone up to 2105
- Indicative erosion zone up to 2055
- Policy Unit boundary

<i>Location reference:</i>	Gorleston to Hopton
<i>Policy Unit reference:</i>	6.19

PREDICTED IMPLICATIONS OF THE PLAN FOR THIS LOCATION

<i>Time Period</i>	<i>Property & Land Use</i>	<i>Nature Conservation</i>	<i>Landscape</i>	<i>Historic Environment</i>	<i>Amenity & Recreational Use</i>
<i>By 2025</i>	Loss of golf course land, including holes.	No nature conservation objectives identified.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.
<i>By 2055</i>	Further loss of golf course.	No nature conservation objectives identified, but naturally functioning coast promoted.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.
<i>By 2105</i>	Further loss of golf course.	No nature conservation objectives identified, but naturally functioning coast promoted.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.

Location reference: Gorleston to Hopton

Policy Unit reference: 6.19

SUMMARY OF PLAN RECOMMENDATIONS AND JUSTIFICATION

Plan:

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Policies to implement Plan:

From present day: The policy option is to allow retreat by not maintain existing defences, however some intervention may be required to make safe defences that are no longer effective. The policy is therefore managed realignment. However, the timber revetments along this frontage have an estimated residual life of between 10 and 15 years, so during this period will continue to slow retreat and erosion along the seaward edge of the golf course. These defences will not be replaced as they reach the end of their effective life.

Further investigations will be undertaken to identify technical options and establish an appropriate package of social mitigation measures, to address the potential outflanking of defences in Gorleston and Hopton and subsequent impact on property and people. Where it can be financially justified, minor temporary works (for example placement of areas of rock, beach replenishment etc) may be undertaken at selected areas to slow the rate of coastal erosion, but not with a view to protecting the coast within the management unit into the medium or long term. As and when a suitable package of social, economic and planning measures is identified, maintenance and minor repair of defences will cease, and the coastline will be allowed to continue its natural regression.

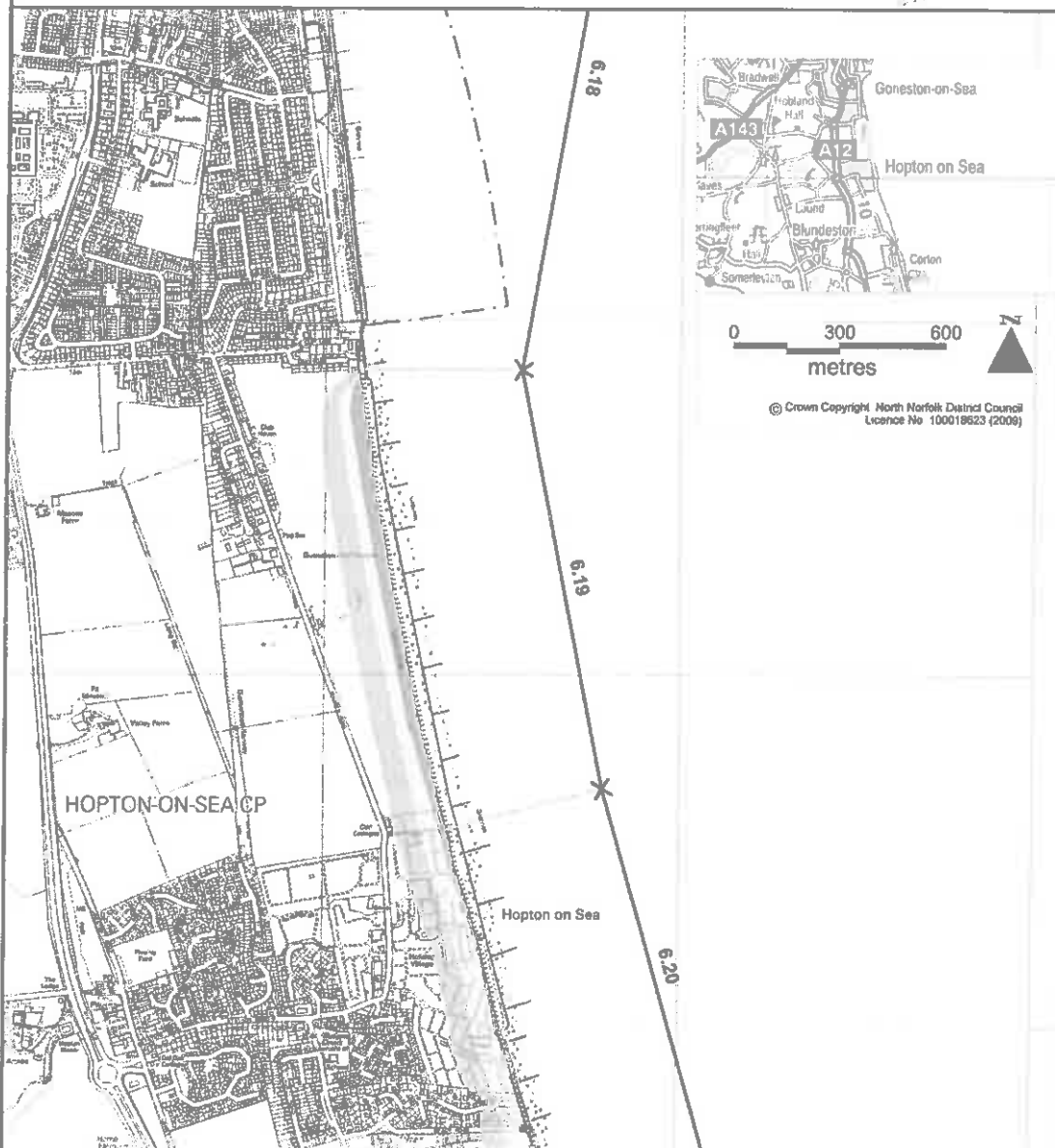
This approach is consistent with the long-term Plan for this section of shoreline.

Medium-term: In the medium-term, the policy option is no active intervention, as it is likely that the previous defences will no longer function, and will have been safely removed.. This policy option will begin to have significant technical benefits through providing sediment feed to adjacent frontages.

Long-term: No change from the medium-term policy option of no active intervention.

Kelling to Lowestoft Ness Shoreline Management Plan **Policy Unit 6.19: Gorleston to Hopton**

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FOR FULL DETAILS SEE RELEVANT POLICY STATEMENT

Indicative Erosion Zones Based on Current Policy Aims

- Indicative erosion zone up to 2025
- Indicative erosion zone up to 2105
- Indicative erosion zone up to 2055
- Policy Unit boundary

<i>Location reference:</i>	Gorleston to Hopton
<i>Policy Unit reference:</i>	6.19

PREDICTED IMPLICATIONS OF THE PLAN FOR THIS LOCATION

<i>Time Period</i>	<i>Property & Land Use</i>	<i>Nature Conservation</i>	<i>Landscape</i>	<i>Historic Environment</i>	<i>Amenity & Recreational Use</i>
<i>By 2025</i>	Loss of golf course land, including holes.	No nature conservation objectives identified.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.
<i>By 2055</i>	Further loss of golf course.	No nature conservation objectives identified, but naturally functioning coast promoted.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.
<i>By 2105</i>	Further loss of golf course.	No nature conservation objectives identified, but naturally functioning coast promoted.	No landscape objectives identified.	No heritage objectives identified.	No objectives identified, other than the golf course.

Location reference: Hopton

Policy Unit reference: 6.20

SUMMARY OF PLAN RECOMMENDATIONS AND JUSTIFICATION

Plan:

There is a requirement to avoid a promontory being formed along this section, which would impact on the sediment supply along this coast and be detrimental for the defence of adjacent areas. Therefore in the ultimate policy which will need to be implemented, possibly beyond the timeline of this plan, will be no active intervention, This would improve sediment input and throughput. However, this policy can only be put in place once measures to offset social impacts have been implemented, and existing defence ruins made safe. Social impacts could result from effects on seafront properties at Hopton; therefore measures need to be put in place to manage the risk and potential relocation/ mitigation of loss of properties and land. Due to the seafront assets, it is recommended that this retreat be managed through continued maintenance of existing defences, whilst technically and economically acceptable.

Policies to implement Plan:

From present day: The policy option for the immediate future is to hold the line and to continue to defend the coast through routine and reactive maintenance of the existing defences until they reach the end of their effective life (i.e. minor repairs may be carried out during this period). However, these defences would not be enhanced or replaced. With maintenance, the concrete seawall along the southern section of this frontage is estimated to have a residual life of 15 to 20 years, although the timber revetment and groynes may fail before this. This policy option will continue to protect assets so that measures can be put in place to manage or mitigate for loss.

In parallel, investigations will be undertaken to identify technical options and establish an appropriate package of social mitigation measures, in preparation for the transition to the long term policy aim. Only when such adequate mitigating social measures are identified to limit the impact on the lives of individuals and the community, would the change to managed realignment be implemented.

Medium-term: Once the existing defences fail, it would be neither economically viable nor technically appropriate to replace them with similar structures. There is also a need to ensure sediment input to adjacent shorelines to enhance defence there. However there may be a need to undertake minor works to slow the rate of erosion to allow time for social mitigation measures to be implemented, The measures investigated in the short term period of the plan will need to be in place to manage the impact on individuals and community that may result from the eventual loss of cliff top land and a number of (mainly holiday) properties. The policy option must also allow for the removal of defence ruins. Therefore the medium-term policy option is to allow the coast to retreat, but through a policy option of managed realignment.

This policy option will not be detrimental to the long-term Plan due to the rapid nature of shoreline response along this coastline once defences are no longer in place.

Long-term:

The long-term policy option is to allow coastal retreat, but to continue to do this via managed realignment to ensure a sediment supply to this and downdrift frontages, where the material from cliff erosion is necessary to allow beaches to build. There could, however, be continued loss of cliff-top properties and associated facilities but this would have been planned for under the social mitigation measures.

**Kelling to Lowestoft Ness Shoreline Management Plan
Policy Unit 6.20: Hopton**

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metres



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FOR FULL DETAILS SEE RELEVANT POLICY STATEMENT

Indicative Erosion Zones Based on Current Policy Aims

- | | |
|--|--|
|  Indicative erosion zone up to 2025 |  Indicative erosion zone up to 2105 |
|  Indicative erosion zone up to 2055 |  Policy Unit boundary |

<i>Location reference:</i>	Hopton
<i>Policy Unit reference:</i>	6.20

PREDICTED IMPLICATIONS OF THE PLAN FOR THIS LOCATION

<i>Time Period</i>	<i>Property & Land Use</i>	<i>Nature Conservation</i>	<i>Landscape</i>	<i>Historic Environment</i>	<i>Amenity & Recreational Use</i>
<i>By 2025</i>	No loss of cliff top land or property.	No nature conservation objectives identified.	No landscape objectives identified.	No heritage objectives identified.	No loss of community or tourist facilities. Beach present, but likely to be narrower.
<i>By 2055</i>	Loss of less than 5 seafront properties and heart of village not affected by erosion. Loss of seafront tourist accommodation and associated infrastructure.	No nature conservation objectives identified, but promotion of naturally-functioning coast.	No landscape objectives identified.	No heritage objectives identified.	Heart of village not affected by erosion – but playing fields lost along coastal strip. Loss of tourist facilities associated with Holiday village. Loss of promenade. Beach present, but existing access lost.
<i>By 2105</i>	Cumulative loss of less than circa 15 seafront properties, but heart of village not affected by erosion. Further loss of seafront tourist accommodation and associated infrastructure.	No nature conservation objectives identified, but promotion of naturally-functioning coast.	No landscape objectives identified.	No heritage objectives identified.	Heart of village not affected by erosion – further loss of tourist and recreational facilities along seafront. Loss of promenade. Beach present, but existing access lost.

Location reference: *Hopton to Corton*

Policy Unit reference: 6.21

SUMMARY OF PLAN RECOMMENDATIONS AND JUSTIFICATION

Plan:

The long-term Plan is for retreat to allow sediment to be sourced from cliff erosion and to pass freely along this frontage. The sediment from here is vital to feed beaches and enhance protection to areas north and south, where defence is a priority along this length of coast. It is estimated that erosion of cliffs between Gorleston and Lowestoft provides up to 10% of the total SMP area sediment and frontages along this stretch rely heavily upon this local source of sediment, due to the continued interruption to supply from areas further north within the SMP. Therefore the long-term Plan for this section of coast is to allow cliff retreat, enabling a naturally functioning coast with minimal human interference. The timber revetments and groynes have failed and there is subsequent erosion of the cliff. Part of the concrete seawall at the northern end of this unit collapsed in October 2009. Full failure of this part of the seawall is expected to occur in the near future which will result in erosion of the cliff behind. However, as there are some socio-economic assets that would be affected by this policy option, including one residential property, the preferred policy option is managed realignment, but only to allow removal of ruined defences.

Policies to implement Plan:

From present day: The approach is to not maintain existing defences, but through a policy option of managed realignment, to allow defunct defences to be managed. During this period the defences will not be maintained and although they may continue to slow erosion for a short while, they will eventually cease to function. These defences will not be replaced. Consideration will be given to removing defunct defences where these pose a risk to public safety, or a significant impact on the landscape. In addition, a disused MoD bunker may start to be exposed in this epoch, and its management will need to be considered in the update of the coastal strategy. There will be loss of agricultural and caravan park land over this period.

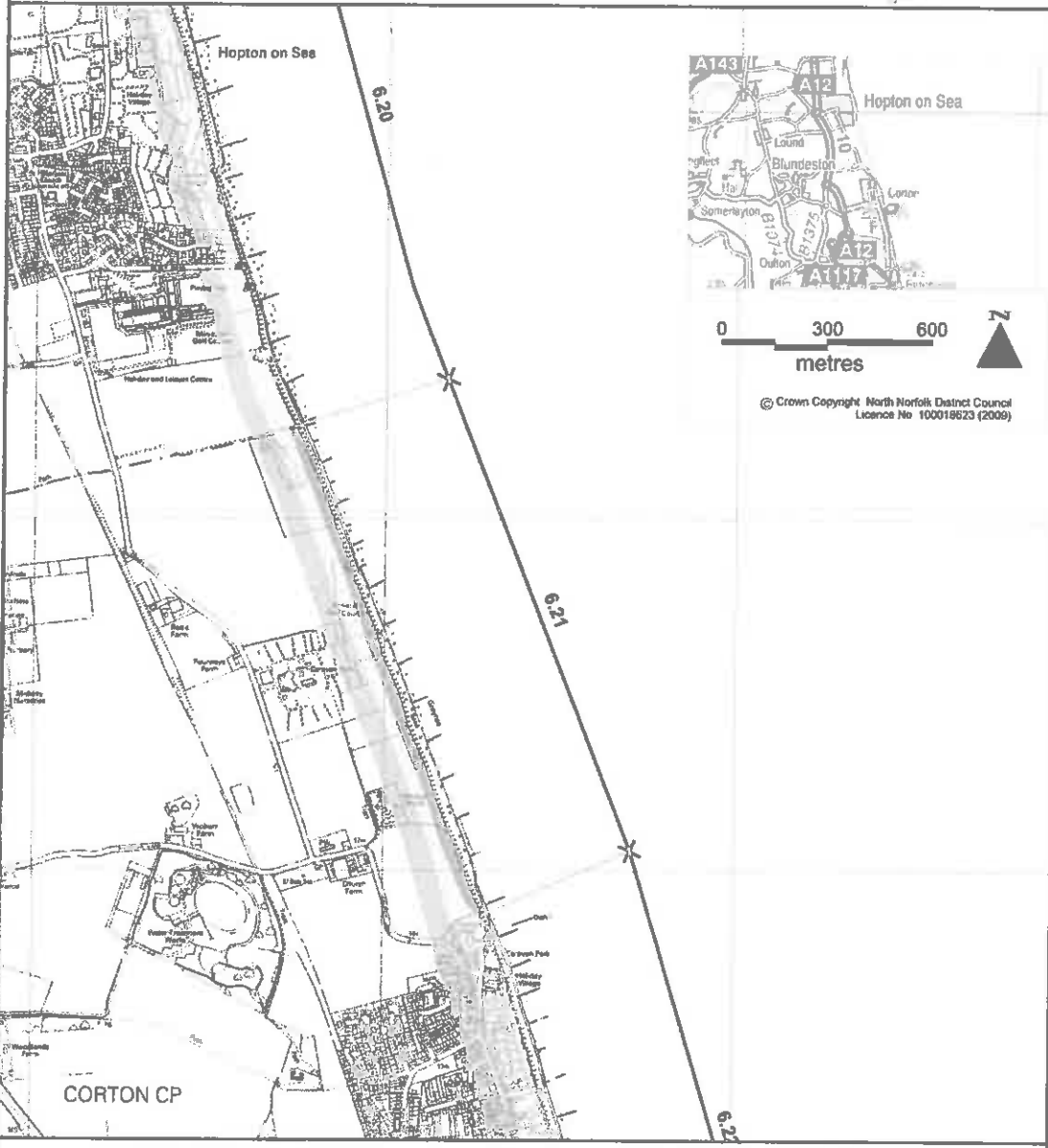
Further investigations will be undertaken to establish an appropriate package of social mitigation measures, to address the potential impact on the lives of individuals that may be affected, in the long term, in particular the occupants of the single residential property. *This approach is consistent with the long-term Plan for this section of shoreline.*

Medium-term: There will be a policy of managed realignment, unless and until all defunct defences have been removed, in which case the policy will change to no active intervention. This policy option will enable a naturally-functioning coastline to operate, with cliff inputs maintaining a beach along this frontage and feed beaches to the south. There will be loss of agricultural and caravan park land and possibly one residential property close to the boundary with the PU20. The residential property risk will be influenced by the approach to management of defences at the junction with the frontage to the north. Measures put in place in the short term will help to mitigate any socio-economic impacts resulting from this policy option.

Long-term:

No change in policy option from no active intervention. This will continue to assist the defence of other frontages.

**Kelling to Lowestoft Ness Shoreline Management Plan
Policy Unit 6.21: Hopton to Corton**



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FOR FULL DETAILS SEE RELEVANT POLICY STATEMENT

Indicative Erosion Zones Based on Current Policy Aims

- Indicative erosion zone up to 2025
- Indicative erosion zone up to 2105
- Indicative erosion zone up to 2055
- Policy Unit boundary

Location reference:	Hopton to Corton
Policy Unit reference:	6.21

PREDICTED IMPLICATIONS OF THE PLAN FOR THIS LOCATION

Time Period	Property & Land Use	Nature Conservation	Landscape	Historic Environment	Amenity & Recreational Use
By 2025	Loss of Grade 2 agricultural land. No loss of Broadland Sands main resort, but loss of land.	Naturally-functioning coast. Possible habitat improvement.	Exposed bunker and defunct defences may be unsightly.	No heritage objectives identified.	Beach inaccessible due to defence ruins.
By 2055	Possible loss of 1 residence. Further loss of Grade 2 agricultural land. Further loss of Broadland Sands land.	Naturally-functioning coast. Possible habitat improvement.	No issues subject to removal of MoD bunker and defunct defences.	No heritage objectives identified.	Assuming failed defences are removed – the amenity beach will be restored. Access to beach will need proactive management.
By 2105	Total loss of Grade 2 agricultural land of up to approximately 25 hectares. Further loss of Broadland Sands land, including existing pitches. Loss of some of the Pumping Station site.	Naturally-functioning coast. Possible habitat improvement.	No issues subject to removal of MoD bunker and defunct defences.	No heritage objectives identified.	Assuming failed defences are removed – the amenity beach will be restored. Access to beach will need proactive management.

GREAT YARMOUTH PORT COMPANY LIMITED

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Date: 3rd February 2014
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Our Ref: EJOT/dh

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Group Planning Manager
Planning Services Department
Great Yarmouth Borough Council
Town Hall
Hall Plain
Great Yarmouth NR30 2QF



Dear Sir

Planning Application Reference:- 06/13/0685/F

Please find attached our consultee response on the above referenced planning application which comprises:

- 1 A letter dated 31 January 2014 from H R Wallingford to Great Yarmouth Port Company Ltd, and
- 2 The Littoral Drift Study (June 2013) referenced in the aforementioned letter of 31 January 2014;
and
- 3 Letter from Burgess Salmon (our lawyers) to the Applicant's consultant dated 25 November 2013;
and
- 4 Letter from Burgess Salmon to Great Yarmouth Borough Council dated 25 November 2013.

Yours faithfully

For and On Behalf
Deputy Chair
Great Yarmouth Port Company Ltd

Encs



Eliza O'Toole
Deputy Chair
International Port Holdings
The Peak - 6th Floor
5 Wilton Road
London
SW1V 1AN

31 January 2014

Dear Eliza

GYBC Planning Application - Hopton Coastal Protection Scheme

This letter provides HR Wallingford's comments on the coastal process aspects of the above Planning Application.

In summary, our review identifies that the risk of direct impact to GYPC's operations from the scheme is insignificant but there is a requirement for clarity over the detail of the Monitoring Agreement that Bournemouth are presuming will be part of the permit conditions for the works. With an appropriate Agreement and the relevant stakeholders being signatories to the Agreement, potential concerns that we have raised in the Scoping Response regarding shoreline erosion between the Hopton scheme and Gorleston can be managed avoiding the risk of misinterpretation of impacts associated with the two schemes.

We note that the coastal process studies underpinning the EIA consider only extreme events, which might more typically be considered as part of the design process. The EIA considers that short term hydrodynamic and associated sediment transport changes will extend up to about 100m either side of the proposed scheme. The EIA does not consider the potential for the scheme to trap a proportion of the littoral drift occurring at Hopton with the potential for consequential erosion occurring downdrift. Our view is, given the presently prevailing northerly drift at this site, that there is a risk of erosion occurring between the scheme and Gorleston as a result of the proposed construction. We would expect this erosion to occur within months of the construction of the groynes commencing and will not be constrained to an area within 100m of the construction footprint but may more likely extend along the shoreline for several kilometres. This concern needs to be addressed by Bournemouth, and the proposed Monitoring Agreement needs to cover this risk.

In the following we comment on whether the information presented in the application addresses concerns raised by GYPC in their response on the EIA Scoping Report (Burgess Salmon, dated 25 November 2013).

Causes of beach erosion and the effects of the Outer Harbour development at Hopton-on-Sea

Please note that the EIA and accompanying appendices make reference in various places to the 2013 report of Dr Phil Barber on the causes of beach erosion and the effects of the Outer Harbour development at Hopton-on-Sea as part of scene setting regarding the general description of baseline



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HR Wallingford

coastal processes at Hopton. We do not accept all of this description/interpretation and the comments we make below should not be seen as endorsing all aspects of the baseline understanding for the area that are presented in the EIA or to that within documents referenced by the EIA.

Scheme Design

The coastal protection scheme outlined in the planning application is a rock revetment of about 900m in length and a series of ten 50m rock groynes extending seawards from the revetment about the same distance offshore as the present timber groynes. The scheme does not include any beach nourishment after construction of the rock revetment and groynes. Accretion of beach material is anticipated within the groyne embayments over time and the groynes have been designed so as to encourage retention of such material to assist in protection of the rock revetment and cliff.

At either end of the scheme it is planned to create an additional stockpile of rock that can, in the future, be used to assist in the management of any shoreline erosion that occurs locally to the scheme.

Information on two alternative schemes that were considered has been presented in the ABPmer reports included in the Appendices to the EIA. One of these schemes was an earlier version of the revetment and groyne field, the other included for a revetment and three larger fish-tail groynes.

Impact Assessment

The impact assessment for coastal processes has been based upon the work undertaken by ABPmer on behalf of Bournemouth Leisure. This work has used 2D area models of flow, waves and wave induced currents and sediment transport to examine the short term impact of the scheme compared against baseline at times of peak flood and ebb flows under extreme (1:35 year return period) wave conditions. ABPmer conclude that the alongshore impact footprint on hydrodynamic and sediment transport processes is confined within about 100m north and south of the scheme extents. They also conclude that as a result of reducing wave and current induced flows within the embayments of the groyne field the proposed scheme will provide some protection to the existing defences and beach levels at Hopton-on-Sea by retaining beach material in these areas.

ABPmer have only presented results for extreme wave conditions and then only at instances in time it is therefore not possible to establish what is the overall impact on sediment fluxes past the scheme. Illustrating the scheme impact with the use of extreme waves will produce the largest short term footprint of impact on the hydrodynamics but does not give information on the effects of the scheme on more representative conditions which we consider is also required for purposes of informing the EIA.

During the extreme conditions examined most of the sediment transport is occurring seaward of the groynes and no doubt there is also much complex cross-shore transport. Under more representative conditions we would anticipate that some transport would be occurring higher up the beach profile which would be directly intercepted by the groyne field. Our assessment for GYPC (Report DDM7027-RT0001-R01, June 2013) indicates that about 80% of the net transport is in this zone. During periods of northerly transport this would lead to accumulation to the south of the southernmost groyne end to some extent within the groyne field. During southerly transport, which



HR Wallingford

occurs at a lower rate, the reverse would happen. A new dynamic equilibrium will establish as a result of the rock structures. There will be summer-winter variability in this equilibrium.

Neither the ABPmer reports nor the EIA make reference to the potential for the scheme to trap a proportion of the beach material moving naturally along this foreshore over time. Photographs included in the EIA clearly illustrate the existing timber groynes creating this effect within the groyne embayments. Given the present net northerly drift that occurs at this site the expectation is that the scheme will, in the medium term, lead to a reduction in northerly sediment flux past the scheme with a consequential effect of reduced supply to the north leading to a degree of erosion to the north.

The scheme does not include beach nourishment, and any trapping effect within the groyne field will thus also be dependent on beach levels at the time of the construction. The potential trapping effect should be broadly quantified as part of the EIA process and contrasted with the expected transport rates past the site to assess the risk of erosion down-drift of the scheme.

ABPmer do not present validation of the 2D modelling approach they use for assessment of the impact of the schemes, stating that Shoreline Management Partnership (Dr Barber) agreed that detailed model validation was not required for the present study. We would challenge this assumption regarding the application of numerical models to support an EIA.

Direct impact on Great Yarmouth Port

Based on the scale of the proposed scheme, our view is that the potential for direct impact on either the Outer Harbour or the Inner Harbour is not likely to be significant. Any short term releases of sands and finer material during construction of the rock groynes and removal of the existing timber structures will be small and at low rates.

Impact on monitoring obligations

Risk of impacts to the north of Hoxton-on-Sea

As noted above, the EIA does not consider medium and longer term impacts on shoreline morphology and therefore does not quantify the potential scale of any impacts down-drift (at present to the north) of the scheme. The EIA does not state that these are negligible. Some degree of quantification of this potential effect is required in order to inform the issues raised by GYPC regarding the risk of misinterpreting beach monitoring which GYPC is required to undertake through the Monitoring Agreement for the Outer Harbour.

Extent to which variability in long shore drift is investigated

Variability in the long shore drift is not investigated nor assessed. The model results are presented only as snap shots at times of spring tide peak ebb and flood during conditions of extreme wave action. From the information presented it is not possible to assess whether there is a through-tide impact on sediment fluxes past the scheme. No consideration of representative wave conditions driving the seasonal and inter-annual variability in littoral drift is made in the EIA.

Assessment of variability in the position of the offshore banks

A single bathymetry for the offshore banks has been used in the modelling studies. The bathymetry is taken from a variety of UKHO sources. No modelling is reported in the EIA on the sensitivity of nearshore wave conditions to variability in the location and level of the offshore banks, despite this being a known significant factor affecting the longshore drift at this location.



HR Wallingford

The design life proposed for the scheme is 20 years. Based upon observed historical rates of change it is possible that the positions of the offshore banks could change significantly over such a period. The morphological impact of the scheme would be different under a scenario of net southerly drift at Hopton. Section 3.2.5 of the EIA recognises that there could be a different footprint of impact of the scheme for a scenario of southerly drift at this site but states that there would be no impact on the coastline to the south (which is under the jurisdiction of Waveney District Council).

Monitoring Agreement for the Hopton Coastal Protection Scheme

Section 4.9 of the EIA states that a monitoring protocol will be agreed with the relevant parties in advance of any construction being undertaken. The details of such monitoring are yet to be confirmed but the EIA states that it is likely to include beach monitoring at pre-determined locations up and down the coast extending out beyond MLWS. The frequency of the monitoring will reflect seasonal variability in the beach response and be used to determine stability of the cross shore profile and any zones of erosion along the coastline caused by a reduction in alongshore sediment transport. It is presumed in the EIA that the monitoring extent and frequency and requirements for reporting and mitigation will form part of the consent conditions. Unless the monitoring is to rely solely upon existing data already being monitored by the Environment Agency there will be a requirement for a programme of baseline monitoring to commence well in advance of the construction works.

It is interesting to note that the EIA presumes monitoring will be required to determine any zones of erosion along the coastline caused by a reduction in alongshore sediment transport because the EIA also clearly states that the footprint of impact of the scheme will be within about 100m of either end of the scheme itself with no impacts beyond this. Importantly the Hopton Monitoring Agreement should recognise that the underlying regime of coastal transport at Hopton could be subject to change if the offshore bank position altered. Section 3.2.5 of the EIA confirms that the Monitoring and Mitigation Agreement would cover the situation of a reversal in drift.

The Monitoring Agreement for the Hopton scheme needs to be an agreement with appropriate stakeholders. Some of these stakeholders will also be signatories to the Monitoring Agreement for the Outer Harbour. In their role as Harbour Authority GYPC could be considered as a stakeholder. It is important that the existing Outer Harbour Agreements and a new Hopton Agreement can work side by side with clarity over responsibilities for monitoring and action if impacts are identified.

Yours sincerely

pp

Mike Deemailey
Director

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Our ref: MB06/40433.1/BARLO

Your ref:

25 November 2013

When telephoning please ask for: Michael Barber

Dear Sirs

Hopton Beach Coastal Defence Scheme - EIA Scoping Report

We act for Great Yarmouth Port Company Ltd in relation to the above matter.

We note from correspondence between Marine Planning Consultants and our client in relation to the above EIA Scoping Report that you are responsible for reviewing the Scoping Report. We also note from that correspondence that the date for providing direct comments to you has passed.

However, you should be aware that our client did not receive notification of the EIA Scoping Report from Marine Planning Consultants until 13 November 2013 when the deadline had already expired. As a result, our client has urgently carried out a preliminary review of the Scoping Report with its consultants. Based on their recommendations, we have today responded to Marine Planning Consultants (a copy of our letter is enclosed).

You will note that, as well as commenting on the effect of the proposed scheme on Great Yarmouth Harbour, the main area of our client's concern is the impact of the proposed scheme on our client's ability to undertake its statutorily-derived monitoring obligations arising from the construction of the Outer Harbour. It is essential that, if the proposed scheme goes ahead, the effect on our client's on-going monitoring obligations is reviewed and revised as necessary.

We are copying this letter and its enclosure to the Marine Management Organisation and the other parties to the Monitoring Agreement dated 14 August 2008.

Yours faithfully

BURGESS SALMON LLP

CC Dr C Beardall, Environment Agency

WQFIK20032291v.4

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Our ref: MB06/40433.1/BARLO

Your ref:

25 November 2013

When telephoning please ask for: Michael Barlow

Dear Sirs

Hopton Beach Coastal Defence Scheme - EIA Scoping Report

We act for Great Yarmouth Port Company Limited, the operator of Great Yarmouth Port. Our client trades as EastPort UK.

It is unfortunate that your email of 6 November 2013 to our client was undelivered. As you will know, as a result, our clients did not receive the EIA Scoping Report until 13 November 2013. Despite the short timetable for comment our client has reviewed the scoping report with its consultants and discussed those findings with us. We have been instructed to set out our client's position in relation to the Scoping Report.

Before dealing with the impacts on our client of the proposed scheme we note that the Scoping Report makes reference to the 2013 report of Dr Phil Barber on the causes of beach erosion and the effects of the Outer Harbour development at Hopton-On-Sea. We should note that our client does not accept all of Dr Barber's conclusions and the comments we make below do not endorse his report or its findings.

While it does not currently appear that the proposed scheme will have any direct effect on the Outer Harbour, it will be necessary to assess the impact on the Inner Harbour. However, more importantly, our client has significant concerns about the potential for the scheme to affect its statutorily-derived monitoring obligations. This is explained further below.

Direct impact on Great Yarmouth Port

From the information provided, it does not appear to our client that there are likely to be any significant material impacts associated with the proposed scheme in terms of changes to tidal stream lines (affecting navigation) or sediment transport pathways that would affect navigation or give rise to sedimentation within the Outer Harbour.

Having said that, it is important that the risks of sediment mobilised during the construction period, leading to the potential for sediment ingress into the Yare are assessed as part of the EIA - this would have a direct effect on operations within the Inner Harbour.

Impact on monitoring obligations

You will be aware that pursuant to the Great Yarmouth Outer Harbour Act 1986 (as amended by the Great Yarmouth Outer Harbour Revision Order 2005) our client has certain obligations which arise if specified effects are noted as a result of works carried out to the Outer Harbour by our client.

WORK/20032540/w 4

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Page 2
25 November 2013



As a result, a Monitoring Agreement was agreed between Great Yarmouth Port Authority (our client's predecessor) and Associated British Ports, English Nature, the Environment Agency, Great Yarmouth Borough Council and Waveney District Council. This Agreement places an obligation on our client to monitor and analyse the effects (if any) on coastal processes resulting directly from the construction of the Outer Harbour.

Our client is extremely concerned that, by implementing an engineering scheme in the area defined within the area covered by the Monitoring Agreement, it will prove extremely difficult (if not impossible) to interpret any shoreline changes. Our client's consultants have advised that there is a real risk that the proposed scheme will affect Gorleston Beach to the North and these effects could be misinterpreted as being caused by the works to the Outer Harbour.

While our client is not saying that the proposed scheme cannot go ahead as a result of this, the following steps should be taken (as a minimum):

- 1 It is essential that our client's consultant is provided with an opportunity to review the findings of the EIA studies to assess the extent to which the variability in the long shore drift is investigated;
- 2 It is essential that variability in the position of the offshore banks (together with variability in the offshore wave climate) is included in the EIA studies (we note the scoping study correctly identifies the effect of the offshore banks on the long shore drift as an area which needs to be assessed);
- 3 It is essential that your client enters into a monitoring agreement with (at least) the Environment Agency, Natural England and Great Yarmouth Borough Council whereby it is required to:
 - (a) report annually on its own monitoring of the potential impacts of its works on the area set out in Schedules 1 and 2 of the Monitoring Agreement dated 14 August 2003 for a minimum period of 6 years; and
 - (b) mitigate at their cost any negative impacts arising to the Outer Harbour or the Outer Harbour's monitoring regime.

Any increase in the costs of monitoring that existed prior to the date of implementation of your client's works needs to fall solely to its account in a legally binding manner, together with any mitigation work that is triggered by or results from your client's works or a combination of those with other non-triggering factors.

Further, it is imperative that all the relevant parties acknowledge the potential for impacts of the proposed works on the existing regime set out in the Monitoring Agreement and an agreement is put in place between your client and the monitoring parties whereby additional monitoring and the additional costs of monitoring resulting from these works are for your client's account. We have written to Great Yarmouth Borough Council and the EA separately to make this point.

Yours faithfully

BURGES SALMON LLP

cc Managing Director (Great Yarmouth Borough Council)

WORK\20032540w.4

Response of Dr P Barber to the letter by HR Wallingford to Eliza O'Toole dated 31st January 2014

I have examined the letter from HR Wallingford to the GYPC dated 31/01/2014 as presented on the GYBC planning web site. I provide the following observations for consideration in the preparation of any formal response from BL to GYBC on the planning application consultation responses -

1. The longshore impact of the proposed scheme will commence at around 100 m. from the scheme longshore limits. This is where the incident wave conditions will re-establish themselves after interacting with the scheme. As a consequence longshore drift will be effectively increased locally from lower levels nearer the scheme back to pre-scheme conditions. Where longshore drift rates are accelerated there will be sea bed erosion (in the absence of any extraneous inputs of sediment) resulting in some shoreline realignment to reduce wave obliquity and thereby longshore movement of sediment. Where such shoreline adjustment is unacceptable then the proposed scheme includes for suitable mitigation to control the location of the shoreline.
2. Any entrapment of sand by the scheme will be of finite volume which will fluctuate with climatic exposure of the shoreline. After the initial adjustment of the sediment regime the typical longshore drift rates of around 40,000 m³ / annum will continue. Whilst there may be some adjustment of the sea bed morphology and the beaches to either side of the scheme any net storage of sand within the scheme will rapidly become trivial relative to the overall longshore transport regime.
3. In the studies carried out by HR Wallingford for the Outer Harbour in 1998 it was concluded that the effects of the harbour would be limited to around twice the on-offshore extent of the construction. Applying a similar rationale to the proposed scheme at Hopton would accord with the ABPmer modelling conclusions. It is therefore difficult to reconcile an on-offshore obstruction of 50 m. causing shoreline disruption over several kilometres.
4. The difficulty for HR Wallingford appears to be that their studies to date have not considered the issue of wave-induced cross-shore transport interacting with the tidal flow regime. This is evident from the restricted length of the present GYPC beach profiles and absence of post-storm monitoring surveys for the Outer Harbour monitoring neither of which have received any mention in any of the HR Wallingford annual monitoring reports. Their most recent report (June 2013) on littoral drift at Hopton acknowledges that there is significant longshore transport within the sub-tidal zone but does not consider the interaction of that transport with the tidal flow field.
5. Following completion of the proposed scheme wave-induced and tidal flows will be diverted and accelerated across the seaward limit of the new groyne field. This will result in lower sea bed levels affecting wave obliquity at the shoreline across the scheme frontage but, more importantly, will sustain

MEMORANDUM From Environmental Health



To: Development Control Manager
Attention: Dean Minns

Date: 6 January 2014

Our ref: HO/0000/000000/000000 - GB/DS

Your ref: 06/13/0685/11

Please ask for: Glenn Buck

Extension No: 413

PROPOSED COAST PROTECTION SCHEME HOPTON ON SEA GREAT YARMOUTH

I refer to the above consultation.

I have already had pre application discussions with the applicant's acoustic consultant and am satisfied with their proposals contained within the application. It is appreciated that due to the nature of the works, some of which may be tide dependent, some working at unsocial hours may be necessary. However, where possible contractors should aim to adhere to the following hours of work:-

Monday to Friday 0730 – 1700 hours
Saturday 0800 – 1300 hours
No working Sundays or Bank Holidays.

Where the contractors have the necessity to work outside these times please ensure that the matter is agreed with the Environmental Services Department of Great Yarmouth Borough Council.

It is recommended that the contractors appoint a person with responsibility for public liaison, and that residents are kept informed of the progress of the works including notification of work at unsocial hours

I have already been in touch with the agent, Mr A Tindle, about concerns surrounding the possibility of encountering buried oil. I attach a copy of my email


Glenn Buck
Community Protection Manager

Enc

06/13/0685/F

1-4 CLIFF COTTAGES
POTTERS LEISURE

53,55,57 SEAVIEW RISE
15 BEACH ROAD

44,42,40,36,34,28,26,5,3,1
SEAVIEW RISE

4,5,6,7 SANDS CLOSE

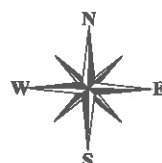
1,3 BEACH ROAD

7,8,12 MANOR GARDENS



GREAT YARMOUTH
BOROUGH COUNCIL

Planning and Business Services,
Town Hall, Great Yarmouth,
Norfolk NR30 2QF



25 0 25 50 75 100 125 150 175 200
Metres

Scale = 1:5000 @ A4

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