

Robin Hoods Bay Project Appraisal Report

Appendix N: Environmental Reports

August 2015

Scarborough Borough Council

Town Hall, St Nicholas Street, Scarborough, YO11 2HG

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
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Robin Hood's Bay Sea Defence Wall

EIA Screening Request

June 2014

Scarborough Borough Council

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Scarborough Borough Council

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Revision	Date	Originator	Checker	Approver	Description	Standard
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1 Introduction

1.1 Introduction

Mott MacDonald on behalf of Scarborough Borough Council ('The Applicant') is seeking a screening opinion for the potential works to the seawall at Robin Hoods Bay (hereinafter referred to as the 'the proposed development'). Scarborough Borough Council plans to implement the recommended capital works and coastal management activities arising from the Robin Hood's Bay Coastal Strategy Study (CSS).

The sea defences along the coastline of Robin Hood's Bay consist of a newly built sea wall with rock armour protection at the toe at the northern point of the bay. An undefended section of shale cliff face forms the transition zone between the newly built sea wall and the concrete wall within the site boundary. The concrete within wall has visually deteriorated and there is evidence of corrosion with associated cracking and rust staining.

The area for which this screening opinion is being sought, covers approximately 0.2ha, (hereinafter referred to as 'the Site') comprises the footprint of the concrete sea defence wall and associated promenade and a section of the beach required for safe working.

Mott MacDonald has carried out an environmental baseline review in order to assess the possible environmental impacts of the proposed development and to assess if an Environmental Impact Assessment (EIA) would be required.

The results of these investigations are described in this Report, and indicate that an EIA for the proposed development will not be required. The Applicant therefore requests that Scarborough Borough Council confirms this view, through the adoption of a screening opinion in accordance with Regulation 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (the 'EIA Regulations').

1.2 Purpose of this Report

This report has been prepared to support a request by the Applicant to Scarborough Borough Council, as the local planning authority, for an EIA screening opinion for the proposed development, under the EIA Regulations.

In accordance with EIA Regulation 5(2), this report provides:

- ☐ A plan sufficient to identify the land; and
- ☐ A brief description of the nature and purpose of the development and of its possible effects on the environment.

This report identifies the likely key planning and environmental constraints for the proposed development and is intended to provide sufficient information to enable the local planning authority to decide whether the proposed works are EIA development thus requiring an EIA to be carried out.

2 The Proposed Development

2.1 Location

The site is located along a 0.5km length of coastal frontage in the village of Robin Hoods Bay located at approximate Grid reference NZ 95330 04902).

The location of the Site is shown on Drawing No MMD-335681-Env-GIS-00-XX-0001 (Appendix A).

2.2 Site and Surrounding Area Description

The site is set within the Robin Hood's Bay, a coastal bay and historic fishing village situated 5 miles south of Whitby and 15 miles north of Scarborough. The Robin Hood's Bay Village is a popular tourist destination marking the end of the coast to coast walk from West Cumbria to the East coast.

The upper part of Robin Hood's Bay Village sits on the till slopes with a near vertical toe cliff which reduces in height to the south. New Road connects the upper part of the village to the lower village and it runs close to the crest of the regressing till slope.

The lower part of the Robin Hood's Bay Village is built on shoulders of land either side of the Kings Beck valley, and is densely developed. Within the site the easterly, seaward facing, shoulder is protected at the coast by a 14m high concrete sea wall (built in 1975), which anchored into the cliffs and extending from Ground Wyke Hole to the slipway at the end of the village. This concrete seawall is showing signs of deterioration.

The slipway from the village within the site to the beach is a cobbled access with masonry side walls. The Bay Hotel and the Bay Town Dock are forming the boundary of the site on King Street at the entrance of the slipway. Properties on King Street that overlook the walkway along the North Wall promenade on the cliffs will form the boundary of the site, where access will be gained for repair works to the promenade.

2.3 Proposed Components of the Development

The following works are proposed:

- Cracks and spalled (broken) areas of concrete are to be repaired.

The access for the proposed works at the seawall will be from the existing spillway; and access to the promenade during construction will also use the existing walkway access.

A section of the beach (approximately 1000m²) and sections of the promenade will be cordoned off temporarily during the construction phase as safety exclusion zones.

Post construction, the wall will be monitored on a three yearly cycle to test for potential deformation, indicating failure of ground anchors. Monitoring of the concrete will also be repeated on a three yearly cycle to test for any areas of loose concrete that might pose a safety risk to beach users. It is expected that

further maintenance works will be required at 30 year intervals. At these intervals the condition of the wall will be reassessed taking into account the results of monitoring and future techniques and technologies.

A detailed and finalised programme for the proposed development works is not available at this early stage in the design process. However it is intended that the proposed works would start in July 2015 and could last for approximately 7 months.

The proposed works is currently in its formative stages and as such this Screening Report does not consider the details of specific activities and their anticipated durations. In accordance with best practice, commencing the environmental appraisal at an early stage provides a good opportunity for the environmental appraisals and consultations to feed into an iterative design process for the development.

A Construction Environmental Management Plan (CEMP), detailing the construction works will be developed, in accordance with best practice guidance including CIRIA C692 guidance- Environmental good practice on site, and the Environment Agency's Pollution Prevention Guidelines: PPG5 - Works and maintenance in or near water. The CEMP will identify the procedures to be adhered to from construction through to the maintenance phases. It will also detail the specific methods of construction and the mitigation measures to be followed, in order to reduce potential nuisance arising from the following for instance:

- Construction traffic
- Safety exclusion zones;
- Changes to access and public rights of way;
- Noise and vibration;
- Dust generation; and
- Waste debris generation

The CEMP will also include details on vehicle types visiting the site; routes to and from the site; the safety of other road users; the frequency of deliveries anticipated at each phase of the proposed development (including those expected of sub-contractors); how materials will be managed and stored, pollution control measures; and if there are to be any off-site compounds.

3 Screening Criteria

3.1 Legislative Setting

The EIA Regulations sets out that projects fall within one of the following categories: Schedule 1 works, which always require an EIA, or Schedule 2 works, which may require an EIA at the discretion of the local planning authority, or neither schedule, requiring no EIA.

Schedule 1 of the EIA Regulations sets out those developments for which an EIA is mandatory. None of the proposed development works are considered to be Schedule 1 development.

Schedule 2 of the EIA Regulations lists those developments which will require an EIA if they fall above a certain threshold. The basic test under Schedule 2 of the EIA regulations is “the likelihood that the development would result in significant adverse effects on the environment”.

Schedule 3 provides details of the criteria for screening Schedule 2 developments.

By virtue of the nature of works, the proposed development is not considered to fall under Schedule 2(10)(m) ‘Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works’.

However under Schedule 2(13) (b) of the EIA Regulations the proposed development can be described as the ‘Any change to or extension of development of a description listed in paragraphs 1 to 12 of column 1 of this table, where that development is already authorised, executed or in the process of being executed’ and the area of works at approximately exceeds the 1ha exclusion threshold and criteria and therefore needs to be screened on the need for EIA.

The need for an EIA for development listed in Schedule 2 of the EIA Regulations is dependent on whether it is likely to have significant effects on the environment by virtue of factors such as its nature, size or location. The Planning Practice Guidance (2014)¹ website gives advice on establishing whether a proposed development requires an EIA in England and identifies two main types of case:

- Developments which are proposed for particularly environmentally sensitive or vulnerable locations; and
- Developments with unusually complex and potentially hazardous environmental effects.

It is made clear that the number of cases of such development will be a very small proportion of the total number of Schedule 2 developments. It is emphasised that the basic test is the likelihood of significant effects on the environment. Paragraph: 032 of Reference ID: 4-032-20140306 of the Planning Practice Guidance provides further clarification in respect of the relevant thresholds and criteria to be used in the assessment as to whether an EIA is required.

¹ <http://planningguidance.planningportal.gov.uk/blog/guidance/environmental-impact-assessment/>

The likely environmental effects of the proposed development, in the context of the Planning Practice Guidance on screening, are discussed in Chapter 4 Environmental Screening of this report.

4 Environmental Screening

4.1 Introduction

In the context of the proposed construction works, a range of potential environmental issues have been identified, which are discussed below and shown in Drawing No MMD-335681-Env-GIS-00-XX-0002, (Appendix A).

The information to identify the potential constraints has been gathered from online and other readily available sources including the following:

- Multi Agency Geographic Information for the Countryside (MAGIC) website;
- Natural England website;
- English Heritage; and
- Environment Agency website.

4.2 Ecology and Nature Conservation

The Site is located within the coastal frontage of the village of Robin Hoods Bay overlooking the North Sea.

There is one European designated site within the 2km of the Site- Beast Cliff- Whitby (Robin Hood's Bay) Special Area of Conservation (SAC) located approximately 260m south of the Site. The SAC qualifies under the Habitats Directive as an internationally important site for its combination of geology, topography and plant communities and it is one of the best examples of vegetated sea cliffs on the north-east coast of England. The underlying geology varies from base-rich to base-poor, and this variation is reflected in a characteristic and diverse flora across the site. Vertical hard cliffs support maritime crevice and ledge vegetation, and the more gently sloping parts of Beast Cliff itself are covered by scrub and woodland. Sandstone boulders support a luxuriant growth of mosses and ferns and pools on the cliff shelf support wetland plants and scrub.

This SAC is unlikely to be adversely impacted by the proposed development due to the nature of the proposed works. There are potential pollution pathways which will need to be considered between the point of proposed works and sea water.

A Habitats Regulations Assessment screening exercise was also carried out as a part of the Robin Hood's Bay Coastal Strategy Study to identify any significant impacts on any nature conservation sites of European importance (Natura 2000 and Ramsar sites). Based on the information from the Habitats Regulation Assessment and subject to future consultation with Natural England and other stakeholders, it concluded considered that there will be no impact on any of the European designated sites and therefore there is it considered that there is no requirement for an Appropriate Assessment for this proposed development.

The site is located within the Robin Hood's Bay: Maw Wyke to Beast Cliff Site of Specific Scientific Interest SSSI. The North York Moors SAC/SSSI is located approximately 2.1 km west of the Site. The Site is also located within the North York Moors National Park.

Robin Hood's Bay: Maw Wyke to Beast Cliff SSSI is designated under the Wildlife and Countryside Act 1981 (as amended) as a nationally important for its low intertidal habitats. The SSSI is approximately 365.25 ha and is designated for five distinct areas of geological interest, the coastal/woodland vegetation at Beast Cliff and the zonation of marine biotopes on the rocky foreshore.

The proposed development will not have any significant impacts on the designated features of the SSSI as it will not materially harm the features either during construction and operation.

The proposed development may impact on the ecology and nature conservation by the interference with, protected species or habitats. A full data search will be conducted in consultation with the local biological records centre, wildlife trust and relevant species specific groups.

A preliminary ecological assessment will be carried out to identify any potential ecological constraints at the Site and in the surrounding areas including potential for protected species. The potential (or confirmed) presence of protected species and habitats, could present a potentially significant constraint to the proposed development. Early identification of protected species within the study area will be needed and appropriate mitigation developed. Works can be stopped should signs of protected species become evident which could cause significant delays to programme. Further ecological works will be determined on the basis of the survey and if necessary relevant mitigation measures identified and licences sought

Assent for works will also be applied for from Natural England for working within the SSSI.

The proposed development will not significantly affect the statutorily designated ecological and nature conservation sites identified, due to the localised nature of the proposed temporary works which will be limited to the sea wall and a small area of the beach..

4.3 Landscape and Visual

There are no statutory designated landscape protection areas or any landscape areas classed as sensitive under the EIA Regulations within the site.

The site is situated within the North Yorkshire and Cleveland Heritage Coast. Heritage Coast is a non-statutory landscape definition although it is an important historic resource.

Natural England's countryside character map divides England's countryside into 159 character areas. The site falls within Character Area - 25 North Yorkshire Moors and Cleveland Hills as defined in the Natural England's countryside character map published by The Countryside Agency (now Natural England) (1999). Key characteristics of this character area which make it distinctive within its type are as follows:

- Upland plateaux, generally below 400 m, dissected by a series of dales –some broad and sweeping but others narrow, steep sided and wooded– creating strong contrasts between open moors and enclosed valleys.
- Extensive areas of heather moorland on plateaux and hills, largely under sporting ownership, including large expanses of upland heathland and blanket bog habitats, creating a sense of space, expansiveness and openness.

- Upland plateau landscape underlain mainly by sandstone and mudstone of Middle Jurassic age and calcareous sandstone and limestone of Upper Jurassic age.
- Mosaics of upland heathland vegetation supporting internationally important populations of breeding merlin and golden plover.
- Some areas of extensive conifer and mixed plantations, especially in the south-east, and broadleaved woodland on steep valley sides.
- Valley landscapes characterised by pastoral farming, with a clear demarcation and strong visual contrast between the enclosed fields with some species-rich grasslands and wetlands, farms and settlements, and the bracken-fringed moorlands above.
- Drystone walls and hedgerows enclosing the small pastures and meadows in dales and fringing farmland, often replaced by fences in arable areas.
- Large-scale arable landscapes to the south and east.
- Jurassic sandstones, mudstones and limestone forming a dramatic coastal landscape of high cliffs, high vegetated maritime slopes, and small coves and bays, with coastal towns and compact fishing villages.
- Sparsely settled, with scattered farmsteads and small villages, and traditional buildings constructed of local sandstone or limestone and with red pantile roofs, creating a strong visual unity.
- A rich archaeological heritage from many different periods, especially on the moorland plateaux.
- Panoramic views over moorland plateaux, ridges and dales and out over surrounding lowland landscapes and the North Sea.

The site is also located within the North York Moors National Park and there are several areas of farmland which are dispersed along the coast.

A Landscape Character Assessment has been carried out by North Yorkshire County Council for the North Yorkshire County in 2011. The Site is classified as a Rugged Cliffs, Coastal Valleys and Bays (Coastal landscape) and the key characteristics of this landscape are as follows:

- Dramatic coastal cliffs and bays which form an edge between landscape and seascape;
- Underlying geological formation from the Jurassic period, result in a rugged, jagged edged coastline in many places;
- Historic quarrying and mining features associated with production of jet, ironstone and alum;
- Small coastal settlements and fishing villages crowded into tight cliff foot locations confined in narrow valleys where they meet the sea;
- Areas of ancient semi-natural woodland on steep valley sides which provide a sense of enclosure;
- Patchworks of arable fields and improved grassland, interspersed with small pockets of deciduous woodland and suburban development;
- Dramatic, open views across an ever-changing open seascape to the east.
- A series of valleys which mark the point at which rivers meet the coastal edge;
- The late 18th/early 19th century Grade II* listed garden at Mulgrave Castle is a key landscape feature;
- There is strong visual unity and settlements have a predominantly historic character; and
- Natural beach, cliff and wave cut platforms are key features.

The Site is a part of a dramatic coastal cliff and bay forming an edge between the landscape and seascape. A footpath runs along the top of the cliff confined in a narrow area with views of the natural beach and seas. The site has extensive open views across the North Sea to the east.

There are a number of sensitive visual receptors that have the potential to be affected by the proposed development:

- ☐ Residential and commercial properties overlooking the works within the village of Robin Hood's Bay;
- ☐ Pedestrians walking along the streets of the village of Robin Hoods Bay, including King Street, New Street and along the Promenade.
- ☐ Users of the Cleveland Way National Trail;
- ☐ Users of the disused railway between Scarborough and Whitby, now a cycle track which runs close to the coast and the Cleveland Way follows the cliff top; and
- ☐ Users of the beach.

The impact on landscape character would largely be during construction involving:

- ☐ Presence of construction traffic, construction plant and equipment;
- ☐ Introduction of a temporary site compound;
- ☐ Construction floodlighting, if required; and
- ☐ Elevated noise affecting enjoyment of public open spaces.

The proposed development will not significantly affect the local landscape character or the setting of the Heritage coast during its construction; impacts will be short term and localised. The construction works will have a temporary and localised adverse impact on the tranquillity of the area including residential properties adjacent to the proposed development. There are no predicted to be any potential effects on the landscape post construction as the proposed development would involve works on an existing structure.

4.4 Historic Environment

The historic environment resource covers designated sites and features including: scheduled monuments, listed buildings, conservation areas, registered battlefields, registered historic parks and gardens and non-designated features of national, regional or local archaeological, historical or architectural interest and value. These non-designated assets can include archaeological remains, palaeoenvironmental deposits, historic buildings, historic open spaces, historic features and the wider historic landscape. Important heritage assets make a valuable contribution to the local distinctiveness of an area and its sense of place.

A search was undertaken of the available online resources for archaeological sites within 250m and designated assets within 500m of the development.

The Site is not a nationally designated (protected) heritage asset and the Site does not lie within a Conservation Area or an Area of Archaeological Potential. There are no Scheduled Monuments within 500m of the Site.

The site is situated within the North Yorkshire and Cleveland Heritage Coast. There are several listed buildings located within the study area, most of which are within the defended area of Robin Hood's Bay. There are approximately a further 160 listed buildings within 500m of the Site.

Given that the sea wall structure will be retained and no further ground works will be required the potential for disturbing any below ground remains is assumed to be low. In light of the factors outlined above, and when considering the localised nature of the proposed development, it is considered that there will be no direct adverse impacts on features in the historic environment. There could be an improvement in the setting and protection of the listed buildings around the site following the completion of the proposed works.

4.5 Noise and Traffic

The land use of the surrounding area is a mixture of commercial, cultural, leisure and residential areas. As the site is located on the sea cliffs adjacent to the North Sea, the ambient noise in the vicinity of the Site is relatively low.

The residential dwellings on Kings Street and King's Beck are the nearest residential receptors within 30m of the existing sea defence walls.

A range of tourist accommodation and public houses are within the study area, most of which are located within Robin Hood's Bay. The Bay has three hotels, two public houses and a caravan site. The Victoria Hotel, to the north of the Bay is the only building immediately at risk from coastal erosion as it is located by a currently undefended frontage. Additionally there is a Youth Hostel located south of Robin Hood's Bay at Boggle Hole.

There are also a number of commercial buildings within the Lower Robin Hood's Bay. These include offices, exhibition centres and shops.

During construction phase, it is expected that there will be a temporary increase in local noise associated with the construction works activities and increased related traffic movements that may impact noise sensitive receptors. There is also potential for vibration during the removal of the parapet wall and promenade slabs.

The proposed CEMP will identify a series of measures to reduce any potentially negative environmental effects (including noise) during the construction period. The CEMP will cover environmental and safety aspects affecting the interests of residents, businesses, all road users and the general public in the vicinity of the measures. Mitigation measures related to noise aspects will be identified and through consultation with the relevant Environmental Health Officer will be documented within the CEMP.

4.6 Geology and Soils

The coastal cliffs and foreshore exposures around Robin Hood's Bay and Ravenscar constitute one of Britain's classic geological localities, and have been studied from at least the 1820s. The Site includes an unrivalled and continuously exposed Lower Jurassic sequence dominated by mudrocks of the Lias Group, and capped by sandstones of the Ravenscar Group of early Middle Jurassic age.

There are no active or historic landfill sites, or recorded pollution events within two kilometres of the proposed development work Environment Agency, 'What's in your backyard' mapping database, 2013).

Due to the localised nature of the works for the proposed development it is considered that there will be no significant adverse impact on the underlying geological formation from the Jurassic period. It is considered that the proposed development will have a long term beneficial impact by helping to protect the cliffs from coastal erosion.

There is a potential for impacts on geology and soils by contaminated land that may be present. Where mobilisation of contamination occurs, contamination may spread and affect a larger area. Such mobilisation may have secondary impacts on water resources and ecological receptors. The mobilisation of contaminated land may also affect human receptors, such as construction workers. Mitigation measures will be employed to eliminate the risk of mobilising contaminants during construction, should it be determined that there is the potential for them to exist.

4.7 Air Quality and Dust Nuisance

The existing air quality in Scarborough Borough is good and monitoring indicates that none of the national air quality objectives are currently exceeded and as such no Air Quality Management Areas (AQMA's) have been declared².

In addition to Local Authority air quality monitoring, Defra provides estimates of background pollution concentrations for oxides of nitrogen (NO_x), nitrogen dioxide (NO₂), and particulate matter (PM₁₀ and PM_{2.5}) across the UK for each one kilometre grid square for every year from 2010 to 2030. Future year projections have been developed on the base year for the background maps which is currently 2010. The maps include a breakdown of background concentrations by emission source, including road and industrial sources which have been calibrated against 2010 UK monitoring data. This Defra data also indicates that background concentrations of pollutants at the Site are very low and well below the national air quality objectives.

The proposed works could lead to dust generation and subsequent nuisance effects to sensitive receptors during construction. The construction activities will lead to emissions to air from construction machinery and equipment. The associated traffic will also generate emissions to air.

² 2013 Air Quality Progress Report for Scarborough Borough Council

Potential impacts on air quality, arising from unmitigated dust emissions from construction site activities are unlikely to occur more than 200 metres from the location in which they are carried out. The development could thus potentially affect residential properties; sensitive community facilities; amenity areas and commercial properties which are sensitive to air emissions. The residential dwellings on Kings Street and King's Beck are the nearest residential receptors within 30m of the existing sea defence walls and the site is in the Robin Hood's Bay Maw Nyke to Beast Cliff SSSI site. However, these impacts are likely to be temporary and minor particularly following the implementation of appropriate mitigation and good practice measures including sensitive design.

Incorporated mitigation related to air quality and dust will also be documented within the proposed CEMP which will be implemented throughout the construction period. Provided the appropriate mitigations are implemented during the construction phase, potential impacts from dust are not considered to be significant and no further assessment is required.

4.8 Traffic, Transportation and Access

The road network within the study area consists of mainly B classified roads. Access to the site will be from the B1447, and then via New Road into the site. The potential impacts of increased road traffic movements upon the local environment have been considered in terms of disruption to local residents and other road users.

The timing of construction traffic movements each day will be carefully controlled through a Construction Traffic Management Plan (CTMP). Opportunities will be identified to reduce construction traffic and/or to avoid additional traffic in peak tourist seasons and peak hours, during the construction. Methods of construction and maintenance that will reduce the level of construction traffic will be employed where possible.

The CTMP will be prepared as part of the CEMP in advance of commencement of the works and will be submitted to the Highways Authority for approval. It will detail measures for the routing and operation of construction traffic. It will also provide details of the proposed mitigation measures required to minimise the impact of construction traffic on local residents and other road users.

The proposed development is anticipated to generate minimal traffic during its construction. The impact of the additional traffic on the local highway network during the construction phase will be negligible, short term and mitigated by a CTMP.

4.9 Water Resources and Flood Risk

The Site falls within Flood Zone 3 (Environment Agency Flood Zones Map, 2014) which is defined as the areas with a high probability of flooding from the sea from (a 0.5 per cent (1 in 200) or greater chance of a flood happening each year).

There are two watercourses within 500m of the proposed development, i.e. The King's Beck and the Marnar Dale Beck. The King's Beck watercourse enters the Robin Hood's Bay Village from west and runs underground from New Road and flows into the North Sea via the slipway next to the sea wall. The current overall status of the King's Beck has been assessed as a Moderate quality (Environment Agency, 2014). The Marnar Dale Beck is located approximately 135m south west of the site. The current overall status of this watercourse is presently unknown.

Impacts on sea water and groundwater during the construction works would be minimised through use of good construction practices, following available guidance such as the Environment Agency's Pollution Prevention Guidelines. The proposed development will not have any impacts on the watercourses and land drainage within the study area.

During the construction works, potential impacts of pollution due to runoff from the site and machinery should be kept to an absolute minimum, particularly due to the presence of highly sensitive areas.

Mitigation must be provided where necessary to stop any potential runoff from machinery and construction activities affecting the local groundwater, particularly so as this is an area within the Robin Hood's Bay: Maw Wyke to Beast Cliff SSSI. The construction works will be undertaken to control potential runoff in areas close to the areas of highest sensitivity. The appropriate mitigations will be implemented during the construction phase via the CEMP.

4.10 Waste

The proposed development have the potential to create several impacts resulting from the management of wastes such as traffic and noise from increased vehicular movements.

Excavation and construction wastes are likely to include:

- General construction wastes including building materials and maintenance waste from the construction phase, inert construction materials, packaging materials and empty containers;
- Sewage sludge from portable toilets and office facilities; and
- Soil from the excavations.

Waste arising from the proposed works will be dealt with by the Principal Contractor in accordance with all current, relevant legislation and practices, notably the Duty of Care, Section 34 of the Environmental Protection Act 1990 and the Environmental Protection (Duty of Care) Regulations 1991, Site Waste Management Plans Regulations 2008 and the European Waste Catalogue 2002.

A Site Waste Management Plan (SWMP) will be prepared prior to the commencement of construction activities, outlining measures to manage, store and dispose of construction waste in an appropriate manner. The SWMP will also include measures for minimisation, re-use and recycling of construction waste and also to facilitate resource efficiency.

The proposed development will generate a small volume of waste. Any unavoidable waste will be disposed of in accordance with relevant legislation and practices by a registered contractor; the impact of waste will be negligible.

4.11 Community Related Impacts

The Cleveland Way National Trail runs along the boundary of the site on New Road. The Cleveland Way National Trail is a 177 Km walking route from Helmley to Finley through the North Yorks moorland and along the North Yorkshire coastline from Saltburn to Finley.

National Trails are designated by the Secretary of State and the Cleveland Way is managed by a National Trail Partnership led by the Managing Authorities of the North York Moors National Park, Redcar & Cleveland, Scarborough and Natural England.

The walkway along the North Wall Promenade is frequently used by residents and tourists visiting the bay. There are seating benches set back along the walkway. After previous construction works, the wall has been left with a bare concrete finish which is now showing signs of spalling, staining and rusting of the attached handrails. Sections of the promenade will have to be closed off during the proposed construction works.

Protecting the sea defence wall for the local community is the principal benefit of the proposed development.

Construction works and associated construction plant, traffic and site compounds (if required) will have temporary localised impacts upon visual amenity and noise for nearby dwellings and the users of the promenade and beach (see Section 4.3). The National Trail will be kept open during the construction phase of the proposed development.

A section of the beach (approximately 1000m²) will have to be cordoned off temporarily during the construction phase as a safety exclusion zone.

Additional traffic generated during construction of the proposed development is likely to have a negligible impact on local highways.

No significant adverse impacts during construction are expected. Overall the impacts are considered to be beneficial to the community through the repair works of the seawall and the promenade.

Local residents and nearby businesses will be kept informed of the proposed development by means of a monthly newsletter.

Traffic management if required will be implemented during construction of the proposed development to minimise disruption during peak tourist seasons and weekends.

There are unlikely to be any significant long term adverse impacts to the community resulting from the proposed development. Minor short term impacts during construction works will be mitigated through consideration of programme, sensitive traffic management and best practice construction methods to control potential noise disturbance. Local residents and businesses will be kept informed of the construction programme and traffic management measures.

5 Conclusion

Regulation 4(5) of the EIA Regulations advises that a local planning authority should have regard to the characteristics, location and nature of potential environmental effects in determining whether a proposal will require an Environmental Impact Assessment.

The indicative thresholds set out in Schedule 2 of the EIA Regulations indicate that the proposed development will not exceed the relevant site area threshold of 1ha.

Whether an EIA is required in the individual circumstances is determined by the criteria in Schedule 3 of the EIA Regulations and Planning Practice Guidance (2014).

This screening exercise undertaken shows that the majority of the potential impacts are likely to arise from the construction of the proposed development. The construction impacts are considered to be temporary (short term) and reversible. Impacts are likely to be minor with the implementation of appropriate mitigation and good practice measures including sensitive design.

A Construction Environmental Management Plan (CEMP) will be produced to define best practice and identify the management measures to be implemented to avoid or mitigate potential environmental impacts during the construction phase.

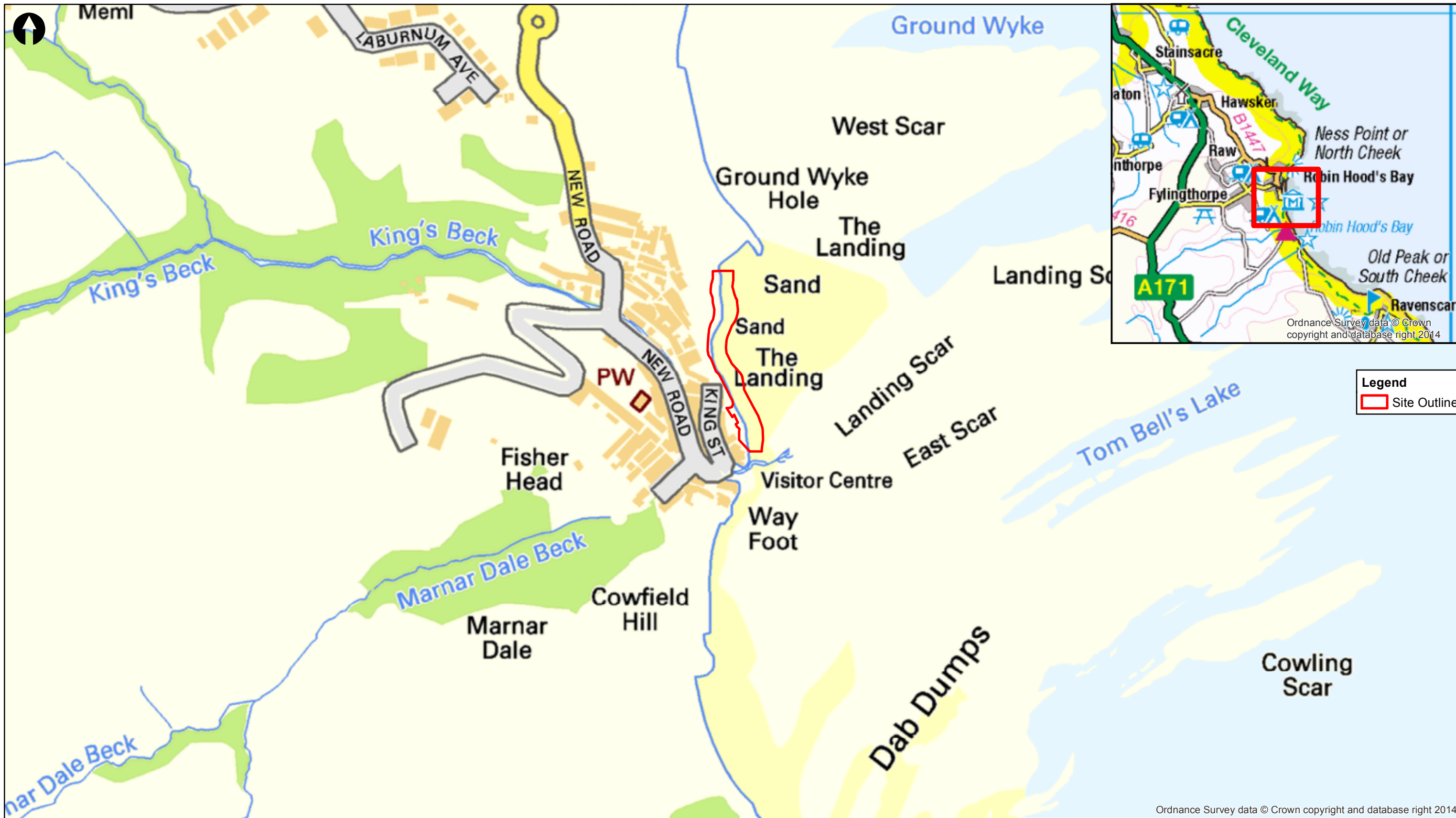
In particular, further environmental surveys and appraisal (as outlined in earlier sections of this Screening Report) will be undertaken to determine the potential for impacts and the extent of mitigation measures that may be required. Surveys will be completed during the preparation of the CEMP; survey results will help the formulation of appropriate mitigation measures for inclusion in the CEMP.

With reference to the criteria in Paragraph: 032 of Reference ID: 4-032-20140306 of the Planning Practice Guidance, the proposed development is only of local significance and will not generate unusually complex and/or potentially hazardous environmental effects. The proposed development is within the Robin Hood's Bay: Maw Wyke to Beast Cliff SSSI; however, the activities related to the construction and operation of the proposed development is not likely to materially harm this SSSI or have an adverse impact on the visual and recreational amenity of nearby residents or commercial operations. The proposed development therefore does not fall within the criteria set out in the Planning Practice Guidance (2014) as to requiring an EIA.

Appendices

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Appendix A. Drawings

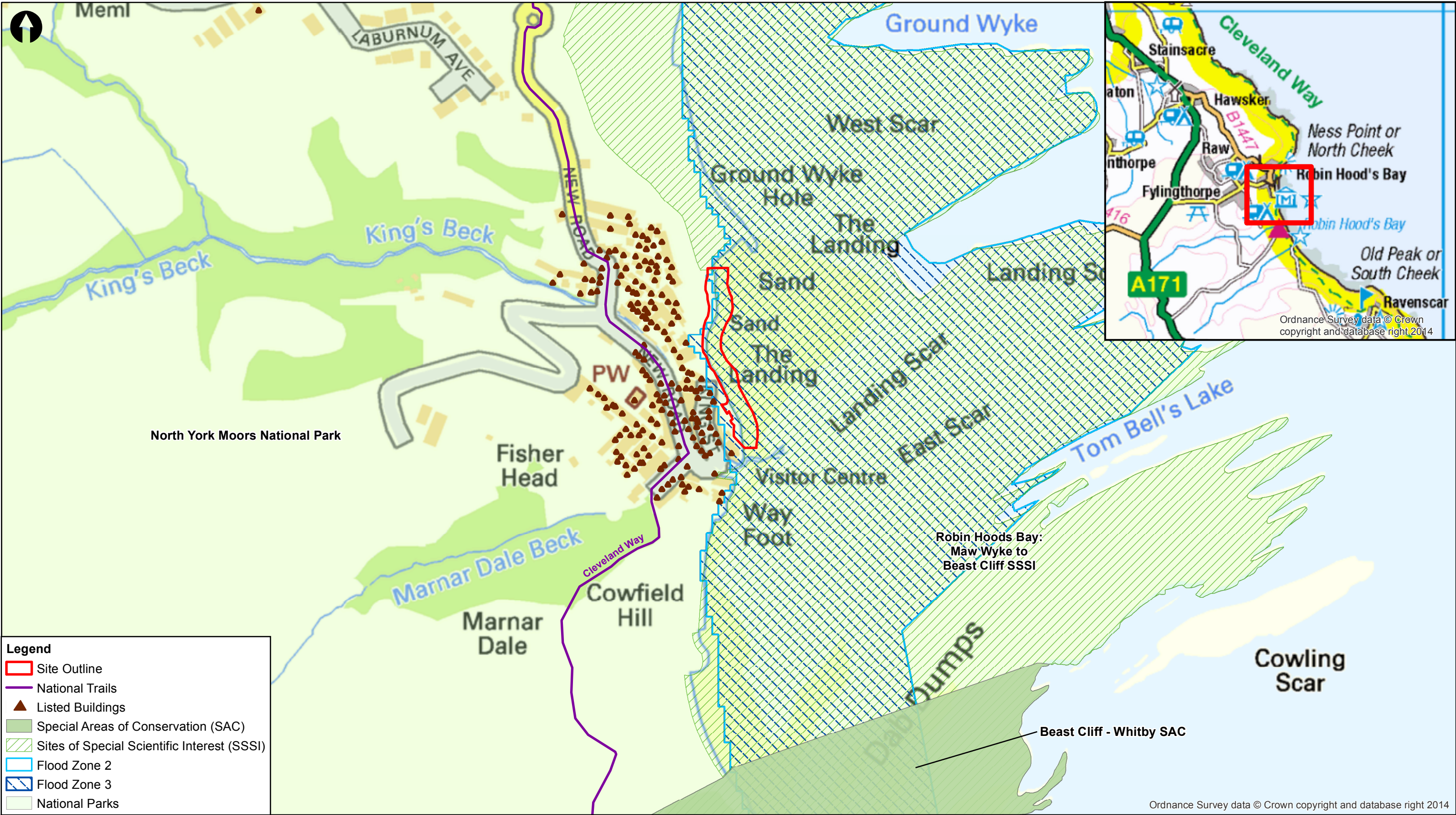


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		01	23/06/14	HDC	For Information	SP	HLB		Checked	SP
									Approved	HLB
									Scale at A3 1:3,000	
									Status INF	Rev 01





Legend

- Site Outline
- National Trails
- Listed Buildings
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Flood Zone 2
- Flood Zone 3
- National Parks

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		01	23/06/14	HDC	For Information	SP	HLB		Checked	SP
									Approved	HLB
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								Drawing No.	Status	Rev
								MMD-335681-Env-GIS-00-XX-0002	INF	01



Robin Hood's Bay Sea Defence Wall

Water Framework Directive Assessment

July 2014

Scarborough Borough Council

Robin Hood's Bay Sea Defence Wall

Water Framework Directive Assessment

July 2014

Scarborough Borough Council

Town Hall, St Nicholas Street, Scarborough,
Yorkshire, YO11 2HG

North

Issue and revision record

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A	1 July 2014	Celia Figueira	Roisin Ni Mhathuna	Caroline McParland	Final document for issue	

Celia Figueira

Roisin Ni Mhathuna

C. McParland

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Acronyms List

CEMP – Construction Environmental Management Plan

CSS - Coastal Strategy Study

FCERM - Flood and Coastal Erosion Risk Management

GES – Good Ecological Status

HRA – Habitats Regulation Assessment

RBMP – River Basin Management Plan

SAC - Special Area of Conservation

SMP2 - Shoreline Management Plan 2

SSSI - Sites of Special Scientific Interest

StAR - Strategy Appraisal Report

WFD – Water Framework Directive

1 Introduction

1.1 Background to the Study

Scarborough Borough Council plans to implement the recommended capital works and coastal management activities arising from the Robin Hood's Bay Coastal Strategy Study (CSS).

A Strategy Appraisal Report (StAR) has been prepared that presents the Flood and Coastal Erosion Risk Management (FCERM) 'business case' for investment in a strategic programme of future capital schemes and coastal management activities between Abbey Cliff and Hundale Point in North Yorkshire. The overall aim is to enable sustainable management of the risks to people and the developed, natural and historic environments from coastal erosion and coastal slope instability over the next 100 years.

The study area boundary of the Robin Hood's Bay CSS follows the areas set out in the North East Shoreline Management Plan 2 (SMP2) and have been referred to in the CSS as Management Areas (MA) 24 (MA24) and 25 (MA25). These MAs are further divided into Policy Units, including Policy Unit 24.1, 25.1 and 25.2.

The key issues identified in the StAR included:

- The coastal erosion and coastal slope instability along undefended sections; and
- The condition of existing coastal defences within the southern section of Robin Hood's Bay village.

The preferred option for Policy Unit 24.1 and 25.1 to address coastal erosion along unprotected sections of the coast is Adaptive Management. This option would allow the coastline to naturally erode landwards. Residential and commercial properties would be abandoned with planning provision for replacement buildings on either the property owner's land or land possibly made available by the North York Moors National Park Authority (Mouchel, 2010a).

The option to address the existing coastal defences in Robin Hood's Bay in MA 25.2 aims to undertake active intervention to sustain/improve the existing defences. If left untouched with no maintenance, these defences would deteriorate in condition over time. Ultimately, the defences would fail and processes of coastal erosion and slope instability would recommence. As a consequence, some 44 properties in this location would become affected by coastal erosion over the next 100 years under a Do Nothing scenario. This WFD assessment focuses on MA25.2 (Robin Hood' Bay) only.

1.2 The Water Framework Directive

The EU Water Framework Directive (WFD) was transposed into law in England and Wales by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. The requirements of the Directive need to be considered at all stages of the river and coastal planning and development process. The WFD further requires that Environmental Objectives be set for all surface and ground waters in each EU Member State.

The WFD requires that the current and future status of a water body be considered when all new activities in the water environment are planned. This assessment considers the potential implications of the

preferred strategic options on the hydromorphological, chemical and physio-chemical elements, and the biological quality elements which they support. There is also the requirement to understand reasons for any failure to reach good status/ potential and to ensure that any options do not prevent a water body achieving good status/potential. This would include consideration of mitigation measures identified within the relevant River Basin Management Plan (RBMP) where a water body is artificial or heavily-modified.

Specific measures are set to ensure water bodies achieve their Environmental Objectives. These are listed within the Programme of Measures for each River Basin Management Plan (RBMP). These measures are intended to mitigate past, current and future impacts caused by human activity, such as flood and coastal defence works, with the aim of enhancing and restoring the quality of the existing environment.

In the context of the WFD, the water environment includes rivers, lakes, estuaries, groundwater and coastal waters out to one nautical mile. These are more broadly classified as surface waters (including natural, artificial and heavily modified water bodies) and ground water.

There is a requirement under the WFD to understand reasons for which a water body may fail to reach 'good status', and to ensure that any options do not prevent good status/potential being achieved. For surface waters, good status is a statement of 'overall status', and has an ecological and a chemical component. Good ecological status is measured on the scale high, good, moderate, poor and bad. Chemical status is measured as good or fail. The overall status of the water body will be determined by the component with the lowest status. Therefore to achieve 'good status' overall, a water body must achieve both good ecological and good chemical status.

Some surface water bodies are designated as 'artificial' or 'heavily modified'. This is because they may have been created or modified for a particular use such as water supply, flood protection, navigation or urban infrastructure. By definition, these are not able to achieve natural conditions and, instead, the classification and objectives for these water bodies are measured against 'ecological potential'. Ecological potential is also measured on the scale high, good, moderate, poor and bad. The chemical status of artificial or heavily modified water bodies is measured in the same way as natural surface water bodies.

For groundwater, good status has a quantitative and a chemical component. Together these provide a single final classification: good or poor status. A groundwater body will be classified as having poor quantitative status in the following circumstances:

- ☐ Where low groundwater levels are responsible for an adverse impact on rivers and wetlands normally reliant on groundwater;
- ☐ Where abstraction of groundwater has led to saline intrusion; and/or
- ☐ Where it is possible that the amount of groundwater abstracted will not be replaced each year by rainfall.

Poor chemical status of groundwater bodies occurs if:

- ☐ There is widespread diffuse pollution within the groundwater body;
- ☐ The quality of the groundwater is having an adverse impact on wetlands or surface waters;
- ☐ There is saline intrusion due to over abstraction; or

- The quality of water used for potable supply is deteriorating significantly.

There are other WFD objectives for groundwater quality in addition to meeting good status. These are the requirements to prevent or limit the input of pollutants to groundwater and to implement measures to reverse significant and sustained rising trends in pollutants in groundwater.

The Environmental objectives considered under the WFD are listed in Table 1.1.

Table 1.1: Water Framework Directive Environmental Objectives

Objectives (from Article 4 of WFD)	Reference and Description
4.1(a)(i)	Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water.
4.1(a)(ii)	Member States shall protect, enhance and restore all bodies of surface water, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, with the aim of achieving good surface water status by 2015.
4.1(a)(iii)	Member States shall protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving good ecological potential and good surface water chemical status by 2015.
4.1(a)(iv)	Progressively reduce pollution from priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances.
Ground Water 4.1(b)(i)	Prevent deterioration in Status and prevent or limit input of pollutants to groundwater.

Source: Water Framework Directive

1.3 Study Objectives

New activities and schemes which could potentially affect water features must be assessed for compliance with the WFD to ensure that they do not cause deterioration or lead to failure of objectives. This report presents the results of the WFD Preliminary Assessment carried out to assess if the proposed option to active intervention on the existing coastal defences at Robin Hood's Bay may impact the WFD objectives for potentially impacted water bodies. Although several options have been considered to undertake the maintenance work, this WFD assessment addresses the final option which is detailed in Section 3 of this report.

This assessment includes the following steps:

- Section 1: Introduction with information on the study background, objectives and methodology;
- Section 2: Baseline information with a description of the study area and water bodies potentially affected by the proposed option;
- Section 3: Option details: description of the proposed works;
- Section 4: WFD Preliminary Assessment; and
- Section 5: Conclusions.

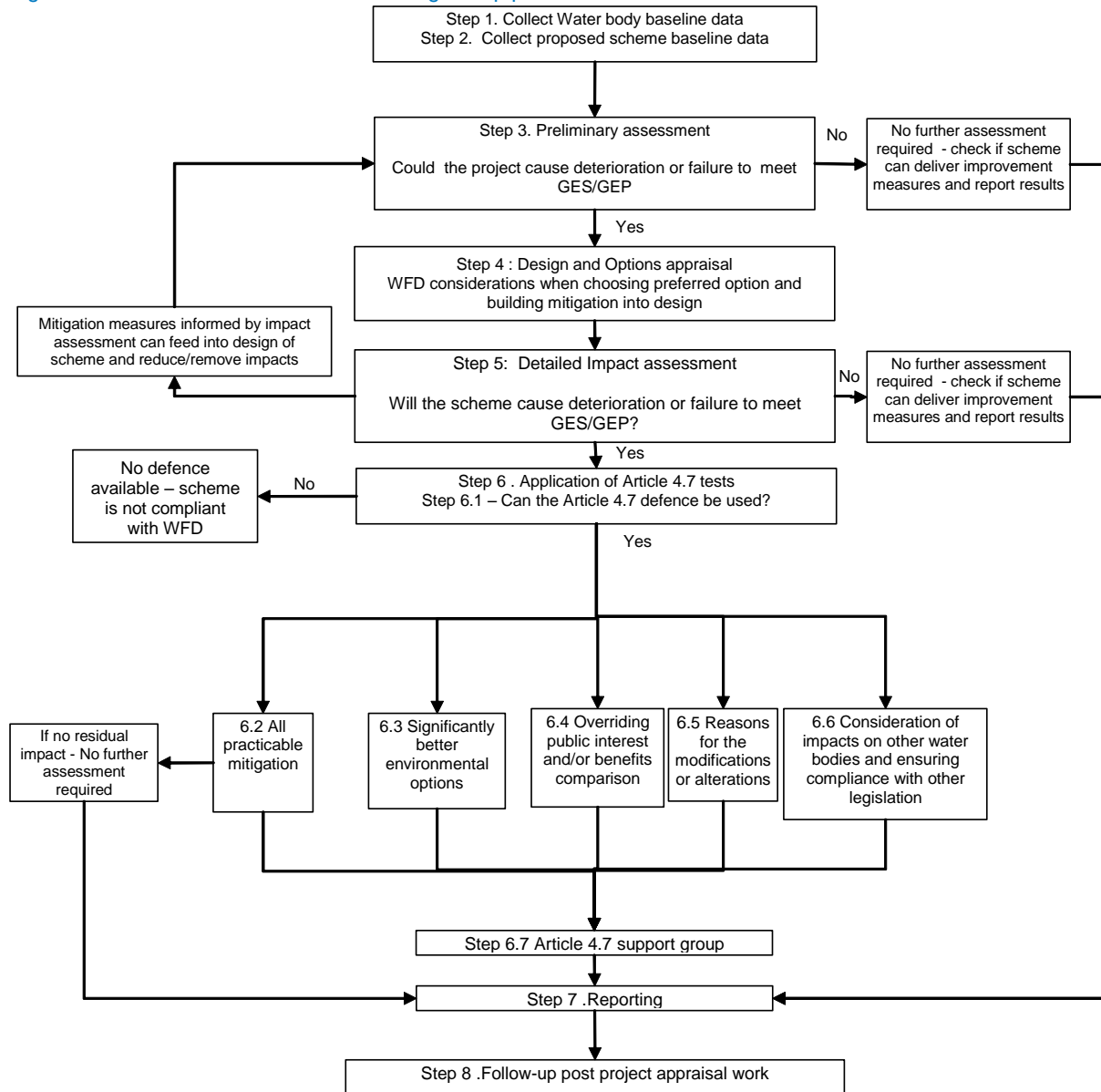
1.4 WFD Assessment Methodology

This assessment considers the preferred option for MU 52.2 along the seawall frontage against the WFD status and objectives for water bodies within this Unit or adjacent to it.

The Environment Agency is the lead authority on the Directive in England and Wales and has produced guidance on assessing impacts of new schemes. This guidance, *Assessing new modifications for compliance with WFD* (EA, 2010), has been followed here.

The Environment Agency's guidance for assessing compliance with WFD describes an eight step process as presented in Figure 1.1. Steps followed in this assessment are described in the following sections.

Figure 1.1: Water Framework Directive eight step process



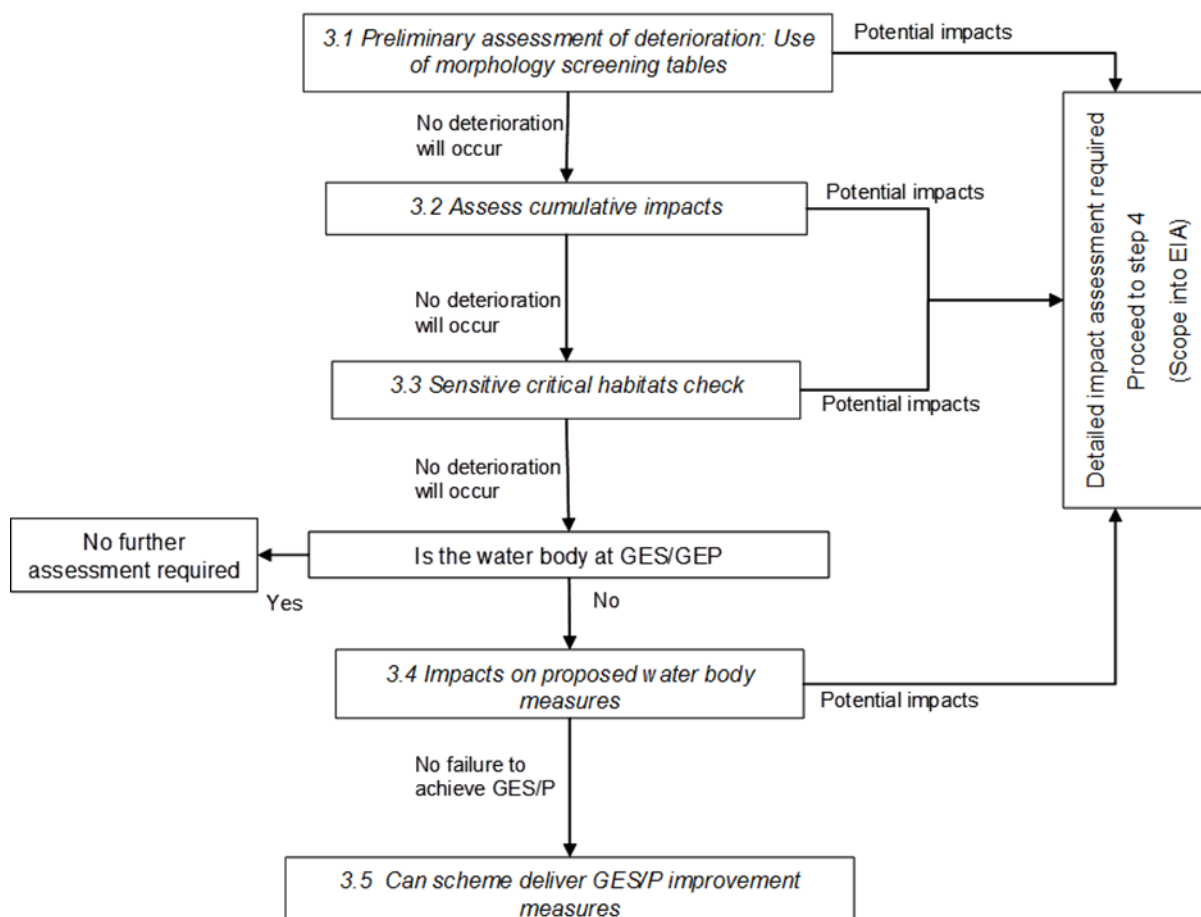
Source: Environment Agency, 2010.

The Preliminary WFD Assessment aims to identify if the proposed option to undertake advanced maintenance on the Robin Hood's Bay seawall could result in an unacceptable impact on WFD objectives.

The assessment tests the option to undertake advanced maintenance of the existing concrete seawall defences against the WFD Objectives for each water body. This step is being done alongside the EIA screening to assess which WFD quality elements need to be scoped into the EIA, if any.

If the option is not likely to result in significant deterioration across any WFD quality elements, and will not prevent achievement of its predicted or potential objectives, then there is no need for further WFD assessment. The preliminary assessment uses Step 3 in the Environment Agency's 8-step guidance on assessing WFD compliance as summarised in Figure 1.2.

Figure 1.2: Preliminary assessment steps



Source: Environment Agency 2010

The following sources were used to inform this assessment:

- River Basin Management Plan (RBMP) Humber River Basin District (Environment Agency, 2009);
- River Basin Management Plan (RBMP) Northumbria River Basin District (Environment Agency, 2009);
- Environment Agency's website: "What's In Your Backyard?";
- Mouchel, 2010a Robin Hood's Bay Coastal Strategy Study. Strategic Environmental Assessment. Produced for Scarborough Borough Council; and
- Mouchel, 2010b Robin Hood's Bay Coastal Strategy Study. Habitats Regulations Assessment: Screening Produced for Scarborough Borough Council;
- Multi Agency Geographic Information for the Countryside (MAGIC) website;
- Natural England website;
- Environment Agency website; and
- Joint Nature Conservation Committee.

2 Study Area Baseline

2.1 Study Area

The study site is located within Robin Hood's Bay, a coastal bay and historic fishing village situated 5 miles south of Whitby and 15 miles north of Scarborough (see Appendix A). The village is a popular tourist destination marking the end of the Coast to Coast walk from West Cumbria to the East coast.

The upper part of Robin Hood's Bay Village sits on the till slopes with a near vertical toe cliff which reduces in height to the south. New Road connects the upper part of the village to the lower village and it runs close to the crest of the regressing till slope.

The densely developed lower village is built on shoulders of land either side of the Kings Beck valley. Within the study area the easterly, seaward facing, shoulder is protected at the coast by a 14m high concrete sea wall (built in 1975), which is showing signs of deterioration, anchored into the cliffs and extending from Ground Wyke Hole to the slipway at the end of the village.

The slipway from the village within the site to the beach is a cobbled access with masonry side walls. The Bay Hotel and the Bay Town Dock are forming the boundary of the site on King Street at the entrance of the slipway. Properties on King Street that overlook the walkway along the North Wall promenade on the cliffs will form the boundary of the site, where access will be gained for repair works to the promenade.

The sea defences along the coastline of Robin Hood's Bay consist of a newly built sea wall with rock armour protection at the toe at the northern point of the bay. An undefended section of shale cliff face forms the transition zone between the newly built sea wall and the concrete wall within the site boundary. The concrete within wall has visually deteriorated and there is evidence of corrosion with associated cracking and rust staining.

The proposed works will cover an area approximately 0.2ha and comprises the footprint of the concrete sea defence wall and associated promenade and a section of the beach required for safe working.

The location of the study area is shown MMD-335681-Env-GIS-00-XX-0001 (Appendix A). The following sections describe the water bodies that may be affected by the proposed works.

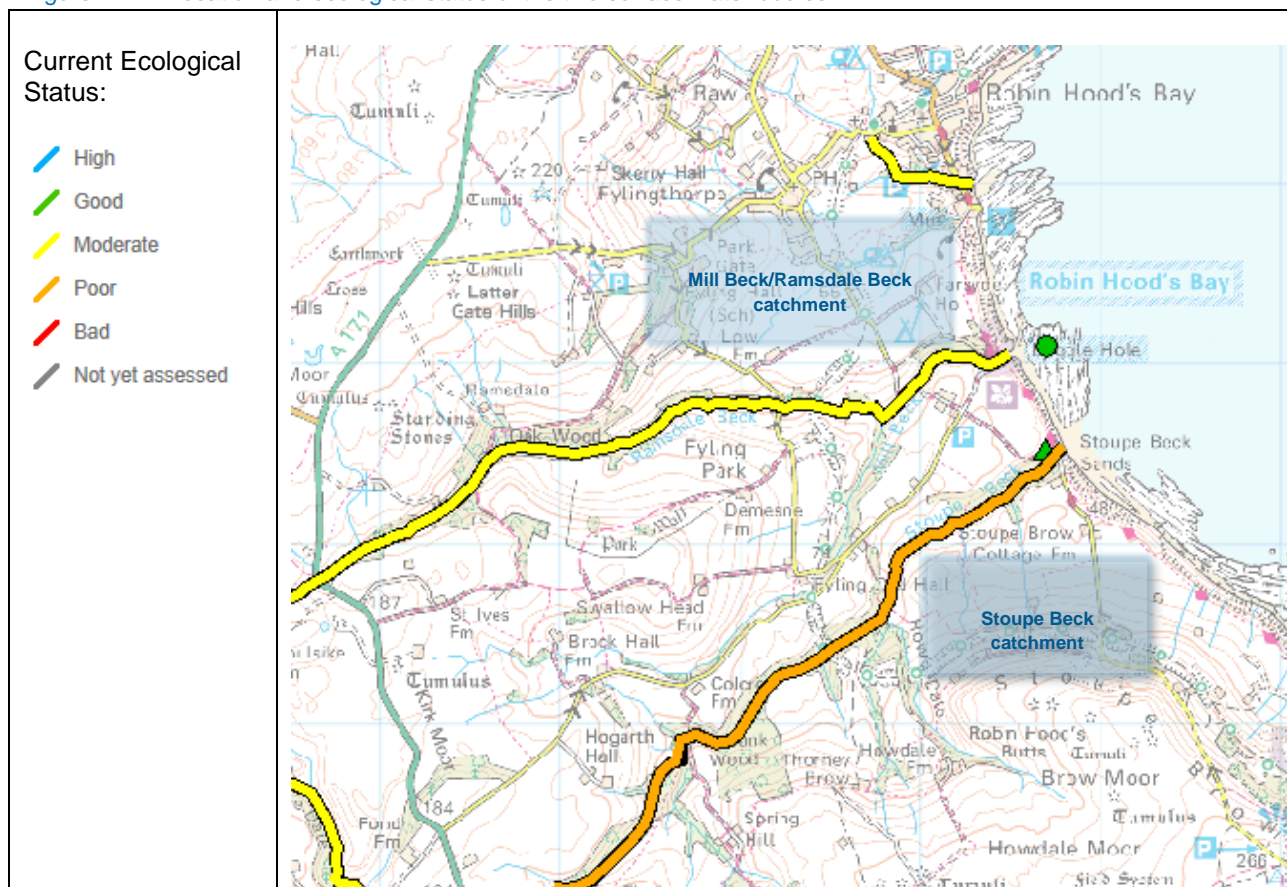
2.2 WFD Water Bodies

The proposed works have the potential to affect four different water bodies:

- Two surface water bodies (rivers)- the Mill Beck/Ramsdale Beck catchment and Stoupe Beck catchment;
- Groundwater – The Esk and Yorkshire Coast Ravenscar; and
- Coastal – Yorkshire North.

The locations of surface water bodies are presented in Figure 2.1.

Figure 2.1: Location and ecological status of the two surface water bodies



Source: Environment Agency website, accessed on the 6 of June 2014.

Within the study area, there are two river water bodies. The current overall ecological status is Moderate (Mill Beck/Ramsdale Beck catchment) and Poor (Stoupe Beck catchment), with an ecological status objective of Good by 2027. It is considered disproportionately expensive and technically infeasible to achieve Good Ecological Status (GES) by 2015; consequently, as required by the WFD, for both water bodies the objectives of achieving GES was set for 2027. Details of the two water bodies are provided in Table 2.1.

Table 2.1: Current status and objectives of the two surface water bodies potentially affected by the proposed option

Information	Stoupe Beck catchment (tributary to the North Sea)	Mill Beck/Ramsdale Beck catchment (tributary to the North Sea)
Water body ID	GB104027068660	GB1040027068670
Current Overall Status	Poor	Moderate
Status Objective (Overall)	Good by 2027	Good by 2027
Ecological Status Objective	Good by 2027	Good by 2027
Chemical Status Objective	-	-

Ecological Status	Good	Moderate (uncertain)
Protected area designation	Freshwater Fish Directive, Habitats Directive, Nitrates Directive.	Bathing Water Directive, Habitats Directive, Freshwater Fish Directive, Nitrates Directive
Hydromorphological designation	Not designated	Not designated
Biological Elements		
Invertebrates	-	-
Macroalgae	-	-
Phytoplankton	-	-
Fish	Poor (very certain)	-
Supporting conditions		
Quantity and dynamics of flow	Supports good	Supports good
Morphology	Supports good	Supports good
Chemical Status	Does not require assessment	Does not require assessment
Mitigation measures	Not addressed	Not addressed

Source: River Basin Management Plan: Northumbria River Basin District (Environment Agency, 2009)

There is one groundwater body in the study area. This is the Esk and Yorkshire Coast Ravenscar. Details are provided in Table 2.2. The current ecological of this water body is Good.

Table 2.2: Current status and objectives of the groundwater body potentially affected by the proposed Option

Information	Esk and Yorkshire Coast Ravenscar
Water body ID	GB40402G702300
Current Overall Status	Good
Status Objective (Overall)	Good by 2015
Quantitative Status Objective	Good by 2015
Chemical Status Objective	Good by 2015
Current Quantitative Status	Good
Current Chemical Status	Good
Saline Intrusion Current Status	Good
Protected Area Designation	Drinking Water Protected Area
Pressures	None mentioned

Source: River Basin Management Plan: Northumbria River Basin District (Environment Agency, 2009)

The study area is within the Yorkshire North coastal water body. The current overall ecological status of this water bodies is Good with some biological and chemical elements achieving High. Details are provided in Table 2.3.

Table 2.3: Current status and objectives of the coastal water body potentially affected by the proposed Option

Information		Yorkshire North
Water body ID		GB650301500003
Current Overall Status		Good
Status Objective (Overall)		Good by 2015
Quantitative Status Objective		Good Ecological Potential by 2015
Chemical Status Objective		Good by 2015
Current Ecological potential		Good
Biological elements	Invertebrates	Good
	Macroalgae	Good
	Phytoplankton	High
Supporting elements	Dissolved Inorganic Nitrogen	Good
	Dissolved Oxygen	High
	Arsenic	High
	Copper	High
	Iron	High
Current Chemical Status		Good
Chemical elements	Cadmium and its compounds	High
	Lead and its compounds	High
	Mercury and its compounds	High
	Nickel and its compounds	High
Protected Area Designation	Drinking Water Protected Area, Habitats Directive, Freshwater Fish Directive.	
Pressures		None mentioned

Source: River Basin Management Plan: Northumbria River Basin District (Environment Agency, 2009)

2.3 Planned Measures for Water Body Improvement

Under the River Basin Management Plans for each river basin district, measures are identified and planned which contribute to improvement of the water body. These measures can include actions to be undertaken by the water industry, agriculture, angling and conservation, government bodies or the Environment Agency. The measures aim to address pressures such as nutrients, hazardous substances, physical modification and habitat manipulation. However, no measures have been identified for any of the water bodies which may be affected by the proposed option.

2.4 Designated Sites

Part of the coastline including Robin Hood's Bay is designated as a Site of Special Scientific Interest (SSSI). The section from just south of Robin Hood's village to just north of Hundale Point is designated as a Special Area of Conservation (SAC): Beast Cliff – Whitby (Robin Hood's Bay). The entire MA is designated as Heritage Coast.

2.4.1 Beast Cliff – Whitby (Robin Hood's Bay) SAC

This SAC is designated for “Vegetated sea cliffs of the Atlantic and Baltic coasts”, for which this is considered to be one of the best areas in the United Kingdom. The cliffs suffer from active erosion, in particular in areas of soft clay undergoing a natural cycle of erosion, landslip and colonization. In certain more stable areas parts of the cliff are colonized by scrub and woodland.

Management of these cliffs is difficult due to their unstable nature, but they are sometimes grazed in conjunction with adjacent cliff-top pastures. More southerly sections of cliff are relatively stable, but due to their steep and inaccessible nature are virtually unmanaged. Any intensification in management may influence the vegetation communities present.

Any coast protection proposals may interfere with natural coastal erosion processes. There is a current Shoreline Management Plan for this section of the coast in which the preferred coastal defence option is outlined as 'do nothing', which should contribute to maintaining active coastal processes.

The SAC was considered through the provision of a Habitats Directive Assessment in 2010, the screening assessment of which concluded that:

“There will be no impact on the integrity of the European sites and their conservation objectives due to the distance of the sites from the Management Area”.

(Mouchel, 2010b)

3 The Robin Hood's Bay Concrete Seawall Defence

3.1 Option Details

The option which is being assessed in this report is identified as 'Advanced Maintenance', with replacement of the parapet wall and promenade proposed. Cracks and spalled areas of concrete are to be repaired. Joints in the base blocks, columns and panels are to be cleaned and sealant replaced. The parapet wall and promenade will be removed and replaced to enable surface water to drain from the promenade through the parapet wall. This may also enable location of the rubbles drains to allow inspection as to their condition and installation of strain gauges to aid measurement of movement of the wall.

The access for the proposed works at the seawall will be from the existing spillway and access to the promenade during construction will also use the existing walkway access.

The works utilities and equipment will be carried from the beach, and it is estimated the working area would extend 10m seaward. A section of the beach (approximately 1000m²) and sections of the promenade will be cordoned off temporarily during the construction phase as safety exclusion zones.

The wall will be monitored on a three yearly cycle to test for potential deformation, indicating failure of ground anchors. Monitoring of the concrete will also be repeated on a three yearly cycle to test for any areas of loose concrete that might pose a safety risk to beach users. It is expected that further maintenance works will be required at 30 year intervals. At these intervals the condition of the wall will be reassessed taking into account the results of monitoring and future techniques and technologies.

A detailed and finalised programme for the proposed development works is not available at this stage in the design process however it is proposed that the works will start in July 2015 and last for approximately 7 months.

A Construction Environmental Management Plan (CEMP), detailing the construction works will be developed, in accordance with best practice guidance including CIRIA C692 guidance- Environmental good practice on site, and the Environment Agency's Pollution Prevention Guidelines: PPG5 - Works and maintenance in or near water. The plan will identify the procedures to be adhered to through the maintenance phases, detailing the specific methods of construction and the mitigation measures to be followed to reduce potential nuisance from the following, for instance:

- ☐ Construction traffic
- ☐ Safety exclusion zones;
- ☐ Changes to access and public rights of way;
- ☐ Noise and vibration;
- ☐ Dust generation; and
- ☐ Waste debris generation

Details will be provided on vehicle types visiting the site; routes to and from the site; the safety of other road users; the frequency of deliveries anticipated at each phase of the proposed development (including

those expected of sub-contractors); how materials will be managed and stored, pollution control measures; and if there are to be any off-site compounds.

4 Assessment Results

4.1 Preliminary Assessment

The preliminary assessment takes into account the water quality elements which might be affected by the strategy options. In the current assessment only the option for active management at the seawall in Unit 52.2 is assessed. These take into account the existing conditions within each water body. Where a quality element is not likely to be affected, it can be screened out of any further assessment.

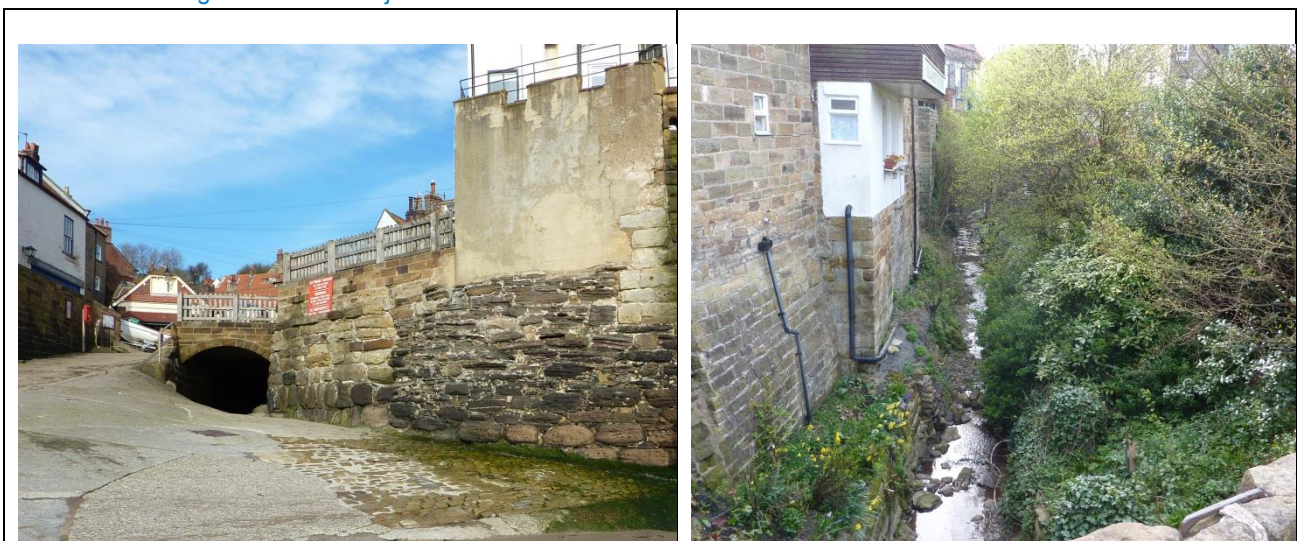
Mill Beck/Ramsdale Beck catchment (GB1040027068670)

The King's Beck (part of the Mill Beck/Ramsdale Beck catchment) discharges within Robin's Hood bay to the south end of the proposed area for works (Photo 4.1). The water body is currently in Moderate Status with an objective to achieve Good Status by 2027. No information or status is provided for each biological element.

The proposed works are localised and planned to be carried out within a short time scale, it is proposed that the work will be finished beginning of 2016. Given that the works will be carried out from the beach it is not envisaged that there will be any impacts likely to affect the Mill Beck/Ramsdale Beck catchment. It is not expected that the methods chosen to undertake the improvements at the seawall will have an effect on the ecological and chemical elements of the water body.

Therefore it is concluded that the proposed option will not prevent achievement of the WFD objectives in this case.

Photo 4.1: King's Beck where it joins the sea



Stoupe Beck catchment (GB104027068660)

This water body is currently in Poor Ecological Status, and the WFD objective for this water body is to achieve Good Ecological Status by 2027. Stoupe Beck is approximately 1.5km south of the proposed area of works. Due to the distance between the site and this water body and the small scale of the proposed works there is no potential for the proposed work to affect this water body.

Therefore it is concluded that the proposed option will not compromise compliance with WFD objectives in this case.

Esk and Yorkshire Coast Ravenscar Groundwater body (GB40402G702300)

This groundwater body is currently in Good Status.

The proposed works will be carried out following best practice guidance including CIRIA C692 guidance- Environmental good practice on site, and the Environment Agency's Pollution Prevention Guidelines: PPG5 - Works and maintenance in or near water. The CEMP will identify and detail the procedures to be adhered to through the maintenance phases, detailing the specific methods of construction and the mitigation measures to be followed to reduce potential effects from any spills that may happen while using different types of machinery. Furthermore the works will be carried out at the beach and therefore the likelihood of saline water transporting any pollutants that will percolate to the aquifer is considered very limited.

It is therefore considered that the works will not affect the Esk and Yorkshire Coast Ravenscar Groundwater Body.

Yorkshire North Coastal Water Body (GB650301500003)

The current status is Good Ecological potential with the objective to remain at Good Ecological Potential by 2015. The scale of the works in light of the coastal water body area is minor and therefore any potential effects on the Yorkshire North Coastal Water Body are considered to be insignificant. Maintenance of the defences at this location means that the contribution of sediments to the coastal water body at this location is reduced but it doesn't constitute a change from current conditions and therefore it is not considered that will results in a deterioration of the ecological potential.

Therefore it is concluded that the proposed option will not result in a deterioration of Good Ecological Potential in this water body.

4.2 Preliminary Assessment of Deterioration - Summary

The methods proposed to deliver the option of maintaining the seawall defences at Robin Hood's Bay are not considered to result in a deterioration of the ecological status or ecological potential of the water bodies within the study area.

4.3 Cumulative Impacts

No other project or plans have been identified that could impact the water bodies in-combination impacts.

4.4 Critical/sensitive Habitats

The section from just south of Robin Hood's village to just north of Hundale Point is designated as a SAC, i.e. the Beast Cliff – Whitby (Robin Hood's Bay) SAC, located south to Robin Hood's Bay and distant approximately 200m at its closest point from the proposed works. The site is designated for "Vegetated sea cliffs of the Atlantic and Baltic coasts". A Habitats Regulations Assessment (HRA) Test of Likely Significance has been undertaken (Mouchel, 2010b) which assessed the potential likely significant effects from the proposed options under the Robin Hood's Bay CSS. It was concluded that the strategy options would not affect the integrity of the European site. The findings of this WFD Assessment are broadly consistent with this conclusion.

4.5 Is the water at Good Ecological Status or Good Ecological Potential?

No pressures or mitigation measures have been identified for any of the water bodies which are not of Good Ecological Status or Good Ecological Potential; therefore an assessment of the effects of the proposed option on improvement measures cannot be undertaken.

5 Conclusions

The proposed option to undertake Advanced Maintenance at Robin Hood's bay seawall are localised and planned to be carried out within a short time scale (to be finished beginning of 2016). Given the small scale of the works it is not envisaged that it will affect significantly any of the water bodies identified within the study area:

- Mill Beck/Ramsdale Beck catchment: It is not expected that the methods chosen to undertake the improvements at the seawall will have an effect on the ecological and chemical elements of the water body and consequently it is not expected that the proposed works will prevent achievement of Good Ecological Status by 2027.
- Stoupe Beck catchment: Due to the distance between the site and this water body and the small scale of the proposed works there is no potential for the proposed works to affect this water body. Therefore it is concluded that the proposed option will not compromise compliance with WFD objective of achieving Good Status by 2027.
- Esk and Yorkshire Coast Ravenscar Groundwater body: The proposed works will be carried out following best practice guidance including CIRIA C692 guidance and the Environment Agency's Pollution Prevention Guidelines. Given that the works will be carried out from the beach, the likelihood that saline water transporting any pollutants will percolate to the aquifer is very limited. It is therefore considered that the proposed works will not affect the Esk and Yorkshire Coast Ravenscar Groundwater Body.
- Yorkshire North Coastal Water Body (GB650301500003): The seawall proposed for maintenance borders this coastal water body. The scale of the works in light of the coastal water body area is minor and therefore any potential effects on the Yorkshire North Coastal Water Body are considered to be insignificant. Maintenance of the defences at this location means that the contribution of sediments to Yorkshire North Coastal Water Body at this location is reduced but it does not constitute a change from current conditions. Therefore it is not considered that the proposed works will result in a deterioration of Good Ecological Potential of the Yorkshire North Coastal Water Body.

An assessment on the potential effects of the proposed option on improvement measures, as set in the WFD objectives for the water bodies, cannot be undertaken as no mitigation measures have been identified for the water bodies. As the proposed option is not expected to cause significant impacts to any of the water bodies that could potentially be affected, no further assessment is required.

References

Environment Agency, 2009. River Basin Management Plan: Northumbria River Basin District.

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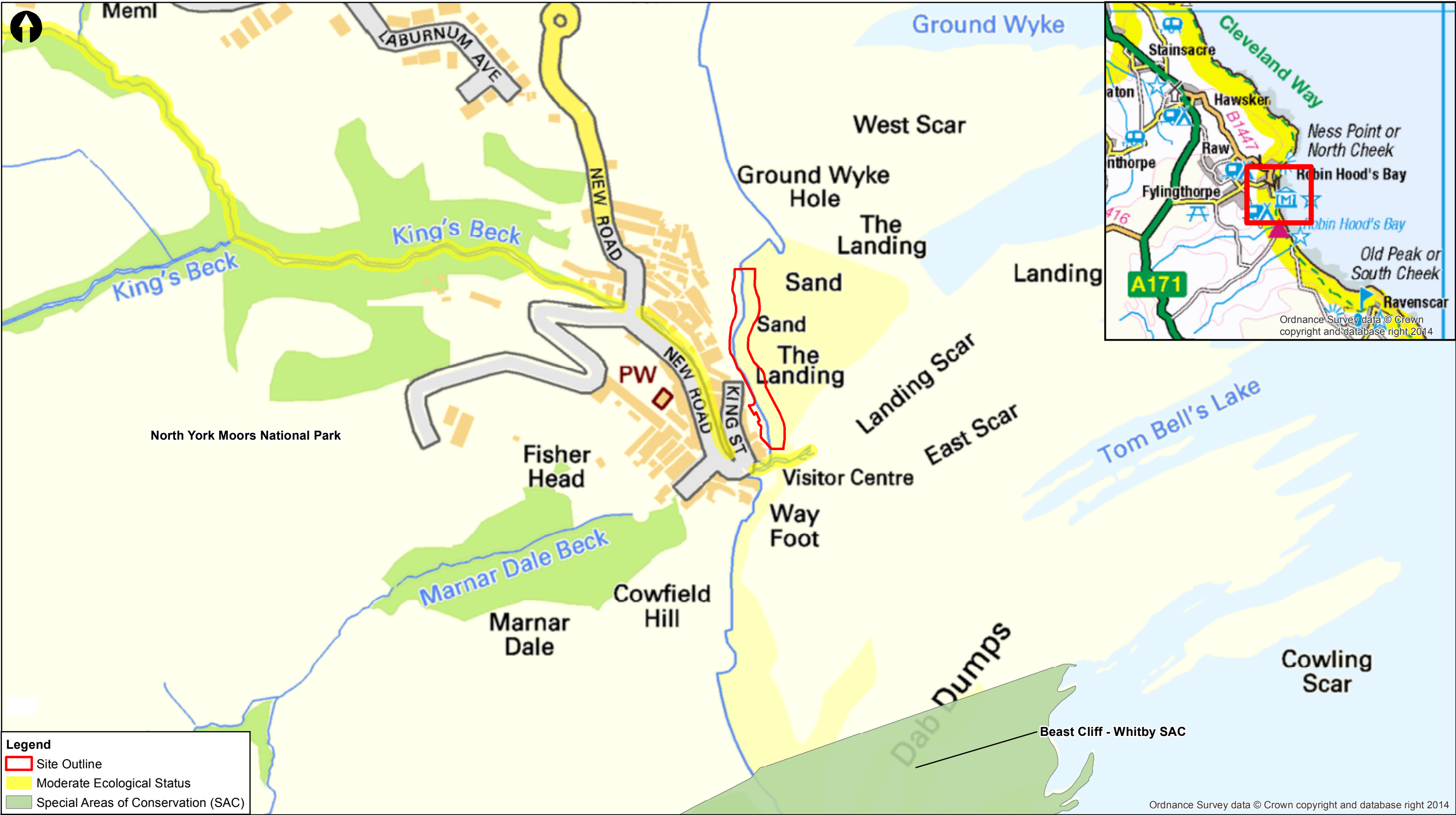
Mouchel, 2010a Robin Hood's Bay Coastal Strategy Study. Strategic Environmental Assessment.
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Mouchel, 2010b Robin Hood's Bay Coastal Strategy Study. Habitats Regulations Assessment: Screening
Produced for Scarborough Borough Council.

Appendices

Appendix A. Site Location	21
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Appendix A. Site Location



Legend

- Site Outline
- Moderate Ecological Status
- Special Areas of Conservation (SAC)

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		01	26/06/14	HDC	For Information	SP	HLB		Checked	SP
									Approved	HLB
									Scale at A3 1:3,000	
									Status	Rev
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