



Scottish Offshore Wind Farms – East Coast

Regional Seascape Character Assessment: Aberdeen to Holy Island

Forth and Tay Offshore Wind Developers Group (FTOWDG)

December 2011

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1 Introduction

- 1.1 As part of the collaborative approach to impact assessment being taken by the Forth and Tay Offshore Windfarm Developer Group (FTOWDG), a common seascape character baseline has been prepared. This note sets out the approach taken to carrying out a regional seascape character assessment (SCA) for FTOWDG.
- 1.2 The use of a common baseline will ensure consistency between SLVIAs for the offshore wind farms in the Forth and Tay area. The SCA was undertaken following discussions between FTOWDG, SNH and local authorities.
- 1.3 The SCA has been developed jointly by three landscape consultants working on behalf of the three developers in the FTOWDG. The methodology and approach was developed and agreed by the three consultants. In order to streamline the characterisation process each consultant was assigned responsibility for characterisation across a separate study area, as set out in Table I.

Table I Consultants involved in the assessment

Consultant	Area of focus
SLR Consulting	Aberdeen to Firth of Tay
Land Use Consultants	Firth of Tay to North Berwick
Pegasus Planning Group	North Berwick to Holy Island

- 1.4 The resulting descriptions and assessments for all areas were reviewed by all three consultants, and the findings were agreed prior to finalisation of this report.
- 1.5 The study area covers the coastline from Aberdeen in the north to Holy Island in the south. This area has been determined using a combined extent of a 50km radius from the boundaries of each of the FTOWDG wind farm areas.

METHODOLOGY

- 1.6 The methodology has been developed based on a simplified and less technical adaptation of the approach set out in ‘*Guide to Best Practice in Seascape Assessment*.’¹ A less technical approach was considered appropriate due to the purpose of the SCA, as a baseline for assessment rather than as a ‘stand-alone’ document. Other documents referred to in developing the approach were ‘*Guidance on Landscape/Seascape Capacity for Aquaculture*,² and *An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms*.’³
- 1.7 Based on desk study, the coastline of the area was initially subdivided into areas of discrete character, based on analysis of coastal morphology and topography, underlying geology, and levels of human influence.
- 1.8 A series of criteria were developed, based on those used in ‘*An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore wind farms*’, to define sensitivity to offshore wind farm development. These were modified to include aspects of seascape covered in ‘*Guidance on Landscape/Seascape Capacity for Aquaculture*’ and are listed in **Table 2**.
- 1.9 It is to be noted that SNH issued an Advice Note on 22nd July 2011 drawing specific attention to the methodology in the ‘*Guidance on Landscape/Seascape Capacity for Aquaculture*’. This guidance document had not been raised previously, and work had already been undertaken on this baseline report prior to 22nd July 2011.
- 1.10 Although the methodology described in the aquaculture document has not been followed, it is considered that the method adopted is fit for purpose. Had the aquaculture methodology been adopted, it is not considered that the outcome would have differed.
- 1.11 This document sets out the key characteristics for the seascape character areas, but does not describe the characteristics of the landward character areas, which are set out in SNH’s Landscape Assessment publications and Natural England’s National Landscape Character Assessment publications for England.

¹ Countryside Council for Wales, Brady Shipman Martin, University College Dublin (2001) *Guide to Best Practice in Seascape Assessment*. Maritime Ireland / Wales INTERREG

² Scottish Natural Heritage (2008) *Guidance on Landscape/Seascape Capacity for Aquaculture*.

³ Scott, K.E., Anderson, C., Dunsford, H., Benson, J.F. and MacFarlane, R. (2005). *An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms*. Scottish Natural Heritage Commissioned Report No.103 (ROAME No. F03AA06).

Table I Assessment criteria

Criteria	Tend to increase sensitivity	Tend to decrease sensitivity
Scale and openness	<p>Small scale, enclosed, views to horizon limited by landform</p> <p>Introduction of an element of scale into previously un-scaled area</p> <p>Where openness is a key characteristic and introduction of built elements would compromise this</p>	Large scale, open views
Form	Intricate, complex, rugged forms	Flat, horizontal or gently undulating Simple forms
Settlement	<p>Small scale, traditional, historic settlements. Small clustered villages</p> <p>Lack of infrastructure</p>	Linear settlements, urban form, larger scale infrastructure
Pattern and foci	<p>Complex or unified pattern which would be disrupted by turbines</p> <p>Important focal points eg headlands, offshore islands, hills, lighthouses</p>	<p>Simple pattern</p> <p>Lack of landmarks or focal points</p>
Lighting	<p>Where the area is unlit at night</p> <p>Little impact of lights from sea and land traffic</p> <p>Where lighting is from scattered small settlements, lighthouses etc and windfarm lighting would introduce a new, different scale</p>	<p>Area is already well lit at night</p> <p>Lights of sea and land traffic present</p>
Movement	<p>Where stillness is a key feature</p> <p>Where/when movement is highly natural, irregular or dramatic (on exposed coastlines, waves crashing) and regular mechanical movement of turbines would distract</p>	<p>In busier areas where turbine movement relates to other forms of mechanical movement present eg cars, boats, aircraft</p> <p>Where/when waves are gentler and slow, regular movement of turbines could compliment lapping of waves</p>
Aspect	<p>Coastal views are aligned towards the location of the potential turbines</p> <p>Aspect towards open sea</p> <p>Turbines would interfere with sunrises and particularly sunsets</p> <p>Where turbines would be most often front lit, thereby increasing contrast and appearing bright against the backcloth of the sea surface</p>	<p>Coastal views are aligned away from the location of the potential turbines</p> <p>Aspect towards inner firths (assuming that the offshore wind farm development is proposed outwith such areas)</p> <p>Turbines would be away from sunrise and sunset positions</p>

Criteria	Tend to increase sensitivity	Tend to decrease sensitivity
How experienced	From secluded coastline, intimate coastal roads and footpaths From important viewpoints and elevated positions where the focus is the view and not the activity Experienced close at hand, with associated maritime sensory experiences (eg sound, smell of the sea)	From main coastal, busy roads. Beaches where focus is on beach activities Maritime sensory experience (eg sound, smell of the sea) more limited or at a remove
Modifications/ Remoteness/ Sense of Naturalness	Undeveloped seascape Natural, unmanaged Remote or isolated	Developed seascape Modified/managed Not remote
Exposure	Sheltered and calm seascapes	Open, windy seascapes
Processes and dynamics	Stable seascape, without significant variation and a less elemental character	Dynamic seascape (changing tides, weather, etc), leading to variations in perception, and a more elemental character
Quality/ condition	Attractive seascapes in better condition, without detractive features	Seascapes which are less attractive and potentially degraded due to development, maintenance, erosion, etc
Designation	Presence of national or local level landscape designations	No designations
Forces for change	Development or other pressures likely to change other criteria towards increased sensitivity	Development or other pressures likely to change other criteria towards decreased sensitivity

- 1.12 Subsequent field visits by landscape architects were undertaken to check and amend the desk-based boundaries, and to gather information on each of the sensitivity criteria.
- 1.13 The final stage was to assign a sensitivity rating to each area. The assessment of sensitivity considers the ability of each seascape area to accept change of the type proposed (ie offshore wind farm development), without detriment to key characteristics. As such it is a judgement of sensitivity to a specific type of change, rather than overall or inherent sensitivity.⁴ Sensitivity has been classed as high, medium or low, as defined in **Table 3**.

⁴ *Landscape Character Assessment: Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity* (2004) Countryside Agency and Scottish Natural Heritage.

Table 3 Sensitivity of Seascape/Landscape Resources

Sensitivity of Receptor	Landscape/Seascape Resource
High	A seascape of particularly distinctive character, which may be nationally designated for its scenic quality and where its key characteristics have limited resilience to change of the type proposed
Medium	A seascape of notable character and where its key characteristics have some/moderate resilience to change of the type proposed
Low	A seascape which is of lower scenic quality and where its key characteristics are such that they are resilient to change of the type proposed

FINDINGS

- 1.14 The SCA defined a total of 21 regional seascape character areas along the coast. These are listed in **Table 4** and illustrated on the accompanying figure, Regional Seascape and Landscape Character Areas.

Table 4 Regional Seascape Character Areas

SCA no.	SCA Name	Sensitivity
SA1	Nigg Bay	High
SA2	Greg Ness to Cove Bay	Medium
SA3	Cove Bay to Milton Ness	Medium
SA4	Montrose Bay	High
SA5	Long Craig	Medium
SA6	Lunan Bay	High
SA7	Lang Craig to the Deil's Head	High
SA8	Arbroath to Monifieth	Medium
SA9	Dundee	Low
SA10	Inner Firth of Tay	Low
SA11	St Andrews Bay	High
SA12	St Andrews to Fife Ness	High
SA13	East Neuk of Fife	High
SA14	Kirkcaldy and Largo Bay	Medium
SA15	Inner Firth of Forth	Low
SA16	Edinburgh to Gullane	Medium
SA17	Eyebroughy to Torness Point	Medium
SA18	Torness Point to St Abbs Head	Medium
SA19	St Abbs Head to Eyemouth	High
SA20	Eyemouth to Berwick upon Tweed	Medium
SA21	Berwick upon Tweed to Holy Island	Medium

2 Seascape Character Area Descriptions

SA1: NIGG BAY

Definition of regional seascape unit boundaries

- 2.1 This unit comprises the small sandy cove of Nigg Bay and its enclosing headlands of the Girdleness peninsula and Greg Ness.

Key characteristics

- Contrast between urban inland area and coastline;
- Proximity of urban development to coastline;
- Contrast between shallow sandy bay and more elevated headlands, particularly the rocky headland of Greg Ness;
- Views of Aberdeen harbour and associated shipping movements;
- Historical buildings of Girdleness Lighthouse, Torry Point Battery and St Fittick's Church; and
- Modern infrastructure such as the waste water treatment works and Edinburgh-Aberdeen railway line.

Scale and Openness

- 2.2 Within the enclosed bay, contained by headlands and urban development inland, the scale of the landscape is small, rising to medium scale within elevated areas of headland, from where longer range views are possible, particularly to the north.

Form

- 2.3 In terms of area, this is a relatively small seascape character unit, and it also displays a relatively simple form comprising flat sandy beach and grassy hinterland enclosed by elevated headlands, which are rocky in places.

Settlement

- 2.4 This seascape unit lies wholly within the boundaries of Aberdeen City Council although most of the undeveloped areas are classified within the Local Plan as Green Belt. Large scale built development and infrastructure are visible in close proximity throughout the character area.

Pattern and foci

- 2.5 The two headlands form natural foci within which the sandy bay is enclosed creating a relatively simple pattern in terms of underlying landform and seascape. The presence of urban development within and adjacent to the character area introduces an overlying layer of complexity through a variety of built form, from harbour and rail infrastructure, to high and low-rise housing, industrial buildings, and other land uses, such as the golf course. Elements of the built form also create additional focal points, such as

Girdleness Lighthouse and the three tower blocks within the Balnagask Estate.

Lighting

- 2.6 There are streetlights along the length of St Fittick's Road and also adjacent to the shoreline along part of Greyhope Road. Lighting from Aberdeen is very visible throughout this area particularly from the elevated areas of land on the headlands. Girdleness Lighthouse is still in operation.

Movement

- 2.7 Movement is obvious throughout this area from the vehicles along St Fittick's Road, Greyhope Road and the foreshore car park to the activity associated with the beach itself, the golf course, and the areas of public open space within the Vale of Tullos and on the headlands. Both the harbour and airport are also sources of movement apparent from this character area and the Aberdeen to Edinburgh railway line cuts through the area before heading south along the coast.

Aspect

- 2.8 Generally, this section of coastline faces east with localised variation. From the beach, views out to sea are due east. From the enclosing headlands, aspect will depend on direction of travel and exact location. Seaward views look out across the North Sea.

How experienced

- 2.9 This coastline is experienced in a range of ways by large numbers of users including residential receptors, recreational users, tourists and other visitors. Many residential receptors have direct views of the coastline and sea, but also use the open space in the Vale of Tullos for dog-walking and other recreational activities. Many visitors will experience the area in views from the coastal roads and rail line, not to mention views obtained towards the coast from arriving and departing boats. The beach is well-used by recreational visitors and the Girdleness Peninsula in particular attracts visitors both for its panoramic views of coast and harbour but also its variety of historical buildings. The golf course also attracts recreational users to the Peninsula.

Modification/Remoteness/Sense of Naturalness

- 2.10 Residential and industrial development associated with Aberdeen extends almost to the coastal edge leaving only a small strip of relatively undeveloped land between sea and the city limits. This combination of built development and infrastructure in close proximity to the coast means there is no sense of remoteness, and a much diminished sense of naturalness. However, there is a strong sense of contrast between the relatively undeveloped and small scale bay and its urban hinterland.

Exposure

- 2.11 The close proximity of, and juxtaposition with, urban residential development may lead to a perception that the coastline is more exposed than it actually is, since the bay is sheltered by its enclosing headlands.

Process and dynamics

- 2.12 The fact that Nigg Bay is a recognised surfing venue indicates the occasional power of the waves to which the bay is subjected. In these circumstances the dynamic character of the coastline may be emphasised.

Quality/condition

- 2.13 The quality and condition of Nigg Bay seascape unit is medium. Although urban development, the industrialised harbour, transport infrastructure and busy shipping lanes provide an overall developed character of relatively poor condition to the landward component of this seascape area, the narrow undeveloped coastal edge which fringes Nigg Bay provides a marked contrast to the hinterland.

Designation

- 2.14 There are no landscape designations associated with this seascape character area.

Sensitivity

- 2.15 This seascape character area is considered to have a **high** sensitivity to offshore wind energy development. This mainly relates to the relatively small scale and enclosed nature of the undeveloped bay area and its immediate coastal edge which contrast with the proximity of large scale urban and industrial development including the harbour, which is a major base for the North Sea. The bay forms a distinctive and small scale feature which contrasts to the larger scale seascapes associated with the long beach to the north and the rocky coastline to the south.

Forces for Change

- 2.16 Although the undeveloped areas immediately adjacent to the bay are classified as Green Belt in the Local Plan, urban development pressures exist in surrounding areas, particularly the industrial locations of the harbour and the East Tullos and Altens Industrial Estates. There are plans to develop an Offshore Wind Deployment Centre, involving testing of commercial scale turbines, just off the coastline to the north of Aberdeen.

SA2: GREG NESS TO COVE BAY

Definition of regional seascape unit boundaries

- 2.17 This unit comprises the rocky coast, low cliffs and narrow strip of agricultural hinterland to the east of the Dundee to Aberdeen railway together with the area of light industrial development to the west of the train line. The unit runs between the headland at Greg Ness and Cove Bay.

Key characteristics

- Contrast between rocky coastline and adjacent agricultural land;
- Contrast between the coastal zone and the hinterland setting of light industry; and

- Main Dundee to Aberdeen railway line running parallel to the coastline, a short distance inland.

Scale and Openness

- 2.18 This is a large scale seascape with open views out to sea and along the coastline. Views westwards are generally curtailed by the rising landform.

Form

- 2.19 The area gently slopes towards the coastal edge where it generally gives way to low-lying cliffs or steep slopes above the sea. The shoreline is rocky and there are no areas of sandy foreshore exposed at low tide aside from the small shingle beach at Cove Bay.

Settlement

- 2.20 To the west of the railway line are two areas of development. Altens Industrial Estate forms a backdrop to the coastal zone of generally one to three storey buildings, mostly industrial or warehouse type structures in a variety of styles, interspersed with a mixture of storage yards and vacant/derelict plots. South of this area is Cove Bay, a mainly residential suburb of Aberdeen. Part of the settlement straddles the railway line and leads down to a small harbour. There are also scattered farms located adjacent to the agricultural land.

Pattern and foci

- 2.21 Although the range of land uses in the hinterland introduces elements of complexity, overall this seascape unit has a relatively simple pattern with a lack of natural focal points.

Lighting

- 2.22 Lighting from the Altens Industrial Estate and adjacent settlement of Cove Bay is visible across the area. Girdleness Lighthouse is still operational and its light is also visible from within this character area.

Movement

- 2.23 There is movement throughout this character area associated with the Dundee to Aberdeen railway line and the coastal road which runs between Aberdeen and Cove Bay. Movement is also obvious within the industrial estate and towards Cove Bay. Although the harbour itself is home to several small fishing boats, only a few are involved in regular fishing activity. Due to the area's relatively close proximity to Aberdeen, shipping movements associated with the harbour, together with planes and helicopters using the airport, are also intermittently apparent.

Aspect

- 2.24 Generally, this section of coastline faces in an easterly to east south easterly direction with localised variations. Views are eastwards towards the open sea.

How experienced

- 2.25 The coastline is viewed and used by a variety of receptors, including residential receptors within Cove Bay, some of whom have direct views of the coast and sea. Although agricultural land continues almost to the cliff edge throughout the length of this area, there is a narrow footpath which hugs the coastline and which attracts a degree of recreational use. Doonies Farm is located to the west of the coastal road and provides a home for endangered farm species which is open to the public. Other recreational use is associated with the small harbour at Cove Bay. Many visitors will experience the area in views from the railway line. Business users and local residents will also experience the coast in views from the road which runs adjacent to the railway.

Modification/Remoteness/Sense of Naturalness

- 2.26 Busy transport routes on land and sea and the large industrial estate to the west of the railway line give a modified feel. Agricultural land extends almost to the coastal edge. As this is primarily grazing land, it creates a buffer zone between the developed land to the west and the coastline itself, which consequently retains more of a naturalistic feel in contrast to the developed hinterland. However, the area is not remote: it is contained entirely within the Aberdeen City local authority boundary.

Exposure

- 2.27 The coastline is exposed particularly to the east due to openness and lack of shelter provided by landform.

Process and dynamics

- 2.28 The presence of waves crashing onto the rocky shore and cliffs tends to heighten the sense of the coastline as a dynamic environment. The coastal environment and cliffs are also subject to a range of erosion processes relating primarily to wave action.

Quality/condition

- 2.29 This is a medium to low quality seascape. Although the coastal edge is generally intact, the presence of the industrial estate, including areas of derelict land, in relatively close proximity to the west, detracts from the condition of the landscape.

Designation

- 2.30 There are no landscape designations associated with this seascape character area.

Sensitivity

- 2.31 This seascape character area is considered to have **medium** sensitivity to offshore wind energy development. Turbines would relate to the large scale seascape and generally linear coastline. Existing development and transport infrastructure already give a localised developed character in places.

Forces for Change

- 2.32 There are development pressures within the industrial and urban parts of this character area particularly around the A956 (Wellington Road) and also associated with the Altens Industrial Estate. There are also quarries just to the south of Cove Bay whose possible future expansion could affect the southern extent of this character area.

SA3: COVE BAY TO MILTON NESS

Definition of regional seascape unit boundaries

- 2.33 This is a large character area extending almost 40km from Cove Bay in the north to the headland of Milton Ness, approximately 3.3km south of the village of Johnshaven. There are several settlements including the town of Stonehaven. The coastline itself comprises a predominantly rocky shore backed by cliffs or steep slopes and giving way to a predominantly agricultural hinterland.

Key characteristics

- Long, east-facing, generally “straight” coastline with many small indentations and few significant headlands;
- Predominantly narrow rocky shoreline interspersed with small coves and shingle beaches;
- Shoreline predominantly backed by mixture of cliffs and steep slopes except for southernmost extent between Milton Ness and Gourdon;
- Some larger beaches including those at Inverbervie Bay and Stonehaven;
- Larger settlements including towns of Portlethen, Newtonhill, Stonehaven, and Inverbervie;
- Smaller coastal fishing villages and harbours including Catterline, Gourdon, and Johnshaven; and,
- Agricultural hinterland of arable fields and grazing land with occasional areas of semi-natural vegetation such as the heathland of Findon Moor.

Scale and Openness

- 2.34 This is generally a large scale seascape with wide, open views out to sea and along the coast. A localised sense of enclosure occurs in certain areas, such as Catterline Bay, where orientation and adjacent headlands create a more sheltered environment.

Form

- 2.35 The landform is not generally complex. The Grampian foothills to the west form a distant backdrop to the coastal zone which comprises rolling farmland which gently slopes to the coastline. Tree cover is largely restricted to the occasional shelterbelt as well as wooded areas around farmhouses and small

settlements. The coastal edge itself provides a contrast to this farmland, comprising primarily of rugged cliffs and steep slopes atop a predominantly rocky shoreline. At the local scale the coastline has many small coves and inlets with sea caves and natural arches being seen together with shingle beaches, rock platforms, and other natural features of the coastal environment.

Settlement

- 2.36 There are a number of small to medium sized towns including Portlethen, Newtonhill and Stonehaven, all of which function primarily as commuter towns to Aberdeen. These are interspersed with frequent smaller fishing and harbour settlements often situated at the top of slopes overlooking the coast. Outside of the settlements, development is limited.

Pattern and foci

- 2.37 Within the generally “straight” coastline, there is a smaller scale pattern of indentations with occasional focal points on rocky promontories including the cliffs of Craig David above Inverbervie, the lighthouse at Tod Head and the famous landmark of Dunnottar Castle. The coastline itself is a key focus, contrasting with the intensively farmed hinterland.

Lighting

- 2.38 Frequent settlements provide limited illumination, increasing in extent around larger towns such as Stonehaven.

Movement

- 2.39 Movement on land is mainly limited to transport corridors and settlements. Due to the openness of the seascape and expansive views, the movement of weather systems across the skies is noticeable in certain conditions. Although becoming less noticeable with increasing distance from Aberdeen, movements of shipping and also aircraft are occasionally apparent.

Aspect

- 2.40 Generally, this section of coastline faces in an easterly to east south easterly direction with localised variations. Views are eastwards towards the open sea and also along the coastline. In places where topography allows, there are views inland to the foothills of the Grampian Mountains.

How experienced

- 2.41 This seascape is experienced by a variety of receptors. There are numerous residential receptors throughout the area, some having direct views of the coastline and sea. A number of major transportation corridors traverse the length of the coastline including the A90, A92 and Dundee to Aberdeen railway line. Therefore much of the time the seascape is experienced by road and rail users, be they local residents or visitors and tourists. Some of the larger towns and villages also attract recreational use both from locals and visitors, especially those places which have accessible shoreline. From the coastal edge the seascape will be experienced by agricultural workers and also by walkers along the cliff-top footpaths. Dunnottar Castle is open daily to the public.

Modification/Remoteness/Sense of Naturalness

- 2.42 Intensively managed farmland extends to the coastal edge thus limiting the sense of naturalness. This contrasts with the coastline and sea itself which has a strong sense of the natural environment, particularly where the waves crash against rugged cliffs. The area does not seem remote due to the presence of settlements and roads adjacent to the coast, although it does feel separated from the main landward area in places due to the steeply rising landform adjacent to the coastal edge.

Exposure

- 2.43 In most parts of this character area the seascape is exposed due to the expansiveness of the sea and lack of shelter. Local features, where more natural shelter is available, are less exposed, for example Stonehaven Bay and some of the smaller bays and coves located along the coast.

Process and dynamics

- 2.44 The rocky coastline is primarily affected by erosion from the sea. Natural erosion is the main influence on the physical structure of cliffs in the area. Slumping of soft cliffs is also noticeable, especially where it affects cliff-top paths squeezed between fields and cliff edges. The sound and movement of wave action against the cliffs and rocky shore edge increases the sense of the coastal zone as a dynamic environment.

Quality/condition

- 2.45 Overall, the quality and condition of the coast is medium to high. There is limited development outside of the settlements and the condition of the agricultural land is generally good.

Designation

- 2.46 There are no landscape designations associated with this seascape character area.

Sensitivity

- 2.47 This seascape character area is considered to have a **medium** sensitivity to offshore wind energy development. The relatively linear nature of the coastline, in conjunction with its simple landform, lack of focal points, openness and the expansive scale of the sea, tends to limit sensitivity to offshore wind development. This is despite the existence of smaller-scale localised coastal features in places.

Forces for Change

- 2.48 There is potential pressure from onshore wind energy development within the Grampians, including an existing wind farm at Meikle Carew in the foothills above Stonehaven, and a consented development at St John's Hill between Stonehaven and Inverbervie. There are several other wind farms currently at scoping or application stage.

SA4: MONTROSE BAY

Definition of regional seascape unit boundaries

- 2.49 This unit comprises Montrose Bay, a wide sandy bay which extends approximately 8 km north north-east from the outflow of the River South Esk at Montrose beyond the mouth of the North Esk, to St Cyrus and Milton Ness.

Key characteristics

- Wide, sandy beach backed by line of dunes and grassland;
- Heughs of St Cyrus and St Cyrus National Nature Reserve;
- Mostly flat agricultural hinterland;
- Coniferous plantations to the south of the North Esk River;
- North and South Esk Rivers; and,
- The coastal town of Montrose with its port and industrial developments.

Scale and Openness

- 2.50 This is a medium scale seascape. The wide sweep of the bay and flat hinterland are contained by Milton Ness to the north and Scurdie Ness to the south, and backed by the higher cliffs of St Cyrus to the north west. Views within the bay and its immediate hinterland are therefore short to medium distance although expansive views out to sea and sky.

Form

- 2.51 This is a mostly flat or gently sloping, and low-lying seascape with a strong horizontal emphasis. Vertical elements are provided by the dunes and the cliffs around St Cyrus and to the west of Milton Ness.

Settlement

- 2.52 The southern end of the character area is largely occupied by the town of Montrose, which is located on a peninsula between the sea and the shallow estuarial Montrose Basin. The town has an important commercial port for the offshore oil and gas industry and is also home to industrial development, both around the port and on the northern outskirts of the town. The only other development of any size is the small village of St Cyrus. The seascape is also influenced locally by the presence of Montrose Links and the resort facilities along the beachfront.

Pattern and foci

- 2.53 This seascape character unit has a simple pattern centring on the wide stretch of sandy beach backed with dunes and grassland. The headlands of Milton Ness and Scurdie Ness are relatively low-lying and the lighthouse at Scurdie Ness provides a focal point and visual “full-stop” at the southern end of the Bay. The dunes themselves are also a focal feature within the seascape rising, as they do, above both beach and grassland. Within the northern half of the character area the cliffs at St Cyrus form another natural focal point.

Lighting

- 2.54 Settlements and scattered farmsteads provide low level illumination in the coastal hinterland with the larger town of Montrose and its industrial developments centred on the port forming a higher concentration of lighting sources, including the prominent lighthouse at Scurdie Ness.

Movement

- 2.55 The A92 runs through the area, although the coast itself is not always visible from the road. There is also local movement associated with the settlements. Aside from motor vehicles, there are movements of shipping coming to and from the port and also recreational users of the beach and sea as well as golfers using the links.

Aspect

- 2.56 Generally east south easterly with some localised variation around the headland of Milton Ness.

How experienced

- 2.57 Montrose is an important service and employment centre for the north east of Angus consequently the area is experienced by a wide variety of receptors. Its location on the A92 coastal tourist route and the rail network makes it a popular place to live as well as a destination for visitors, tourists and business. Residents will experience the seascape from houses as well as the local network of roads. They are also likely to use the beach and dunes for recreational purposes along with tourists and other visitors. Visitors to the area will also generally experience the seascape from the major roads and railway, along with destinations such as the St Cyrus National Nature Reserve (NNR) and resort facilities on the seafront at Montrose. Other recreational users will experience the seascape from the beach and sea and there will also be walkers using the network of coastal paths.

Modification/Remoteness/Sense of Naturalness

- 2.58 Montrose town and its associated developments add a high degree of modification to the seascape at the southern extent of this character area. However, this contrasts strongly with the more natural northern extent of the bay with its sandy beach and dunes backed by the high Heughs of St Cyrus.

Exposure

- 2.59 Some shelter is provided by the enclosing headlands combined with the cliffs on the landward side of the bay. This enclosure together with the varied topography of the sand dunes and areas of coniferous plantation at Kinnaber provide a more sheltered environment in the landward component of the seascape unit which contrasts strongly with the open beach on the seaward side of the dunes which is exposed.

Process and dynamics

- 2.60 Montrose Bay is a well-known example of natural processes influencing the form and character of the seascape over relatively short periods of time.

Examples of this include changes in the position of the outlet of the River North Esk and erosion of Montrose Beach. The dune landscape in particular is constantly changing. Unlike the dunes of Montrose beach to the south, the dunes of St Cyrus are currently growing in size, whereas until relatively recently they were eroding. These processes contribute to the sense of the coastal zone as a dynamic environment.

Quality/condition

- 2.61 Overall this is a medium quality seascape. The southern part of the character area is influenced by development in and around Montrose. To the south of the North River Esk, the square lines of the coniferous plantation belts also introduce a landscape element which feels at odds with the more natural forms of the dunes and beach adjacent. The northern part of the character area, in contrast presents a higher quality and condition of seascape incorporating, as it does, the National Nature Reserve.

Designation

- 2.62 There are no landscape designations associated with this seascape character area.

Sensitivity

- 2.63 This seascape has a **high** sensitivity to change associated with offshore wind development due to its medium scale, fairly enclosed nature with short to medium distance views across the landward component of the seascape unit that contrast with open vistas from the coastal edge.

Forces for Change

- 2.64 The main forces for change relate to development pressures in and around the town of Montrose itself particularly around the port, but also the industrial fringes on the northern edge of the town. The site of the former Montrose Airfield, between the A92 and coast is highlighted within the Angus Local Plan Review (2009) as being an appropriate location for employment uses. There is less development pressure in the north of this character area due primarily to the location of St Cyrus National Nature Reserve.

SA5: LONG CRAIG

Definition of regional seascape unit boundaries

- 2.65 This relatively small seascape unit comprises the rocky headland and associated agricultural hinterland that stretches between Scurdie Ness in the north and Lunan Bay to the south.

Key characteristics

- A low-lying headland with a rocky foreshore;
- Gently sloping agricultural hinterland extending in places up to the coastline;
- Sparse tree cover mainly concentrated around Usan House;

- Scattered farmsteads;
- Landmark of Scurdie Ness Lighthouse; and
- Dundee – Aberdeen railway line defining western extent.

Scale and Openness

- 2.66 Although a small unit in physical extent, this is a large scale seascape with open views out to the North Sea and along the coastline.

Form

- 2.67 The landward component of this seascape unit is gently sloping and low-lying with a strong horizontal emphasis. The agricultural hinterland of arable fields and grassland contrasts with the rocky shoreline most of which is covered at high tide. South of Usan, the coastal edge gains in height with steep grass slopes between the shoreline and the fields above.

Settlement

- 2.68 Settlement is confined to scattered farmsteads and the remains of old fishing villages.

Pattern and foci

- 2.69 This is a simple seascape with few focal points. The rocky shoreline itself is a focal feature of the coast, when contrasted with the regular field patterns of the farmland inland. The derelict tower at Usan and particularly the lighthouse at Scurdie Ness are prominent vertical elements and focal points within this seascape character unit.

Lighting

- 2.70 Scattered farmsteads provide limited low level night time illumination. In the north of the character area, the night time character will be influenced by the lights of Montrose and the lighthouse at Scurdie Ness.

Movement

- 2.71 Movement on land is limited to local traffic on the network of minor roads connecting the various farms as well as trains on the main railway line. At sea, there are movements of vessels to and from the harbour at Montrose.

Aspect

- 2.72 The character area has an east south easterly aspect. From the coastline, views out to sea are due east. From Scurdie Ness, views also look north along the sandy beach of Montrose Bay. Where local topography allows, views inland extend towards the Grampian foothills.

How experienced

- 2.73 The seascape will be experienced mainly from minor roads giving varied and changing views of the coast. It will also be experienced by residential receptors in the various isolated farmsteads, some of whom will have direct views of the coast. Visitors to the area travelling by train will also have views of the coastline, although these views will be intermittent as the line passes through cuttings for part of its length.

Modification/Remoteness/Sense of Naturalness

- 2.74 With agricultural land extending up to, or very close to, the coastal edge, this character area does not possess a strong sense of remoteness. However, the lack of large scale built development in this area and the extensive agricultural landscape lends a sense of naturalness, particularly at the coastal edge where the well-tended fields contrast with the rocky shoreline.

Exposure

- 2.75 This is a relatively exposed seascape with a lack of shelter.

Process and dynamics

- 2.76 Compared to the shifting sands of Montrose Bay, this part of the coastline is subject to a slower process of erosion. However, the proximity of the agricultural land of the rocky shoreline and the contrast between these elements increases the perception of the sea as a dynamic environment, particularly when waves are breaking onto the shoreline.

Quality/condition

- 2.77 This is a medium to good quality/condition seascape.

Designation

- 2.78 There are no landscape designations associated with this character area although the historic landscapes at Craig House and Dunninald Castle, both listed in Historic Scotland's GDL inventory, are located close to the west.

Sensitivity

- 2.79 This seascape character area is considered to have a **medium** sensitivity to offshore wind development, derived from its large scale, open nature with expansive views of the North Sea, coupled with the relatively simple pattern of the seascape.

Forces for Change

- 2.80 Development in and around Montrose may affect the setting of this character area, particularly around Ferryden on the south side of the harbour.

SA6: LUNAN BAY

Definition of regional seascape unit boundaries

- 2.81 Lunan Bay lies to the south of Montrose with the broad sandy beach extending for approximately 3.7km between Boddin Point and the Lang Craig. It is backed by dunes and framed by low cliffs the north and south.

Key characteristics

- Wide sandy beach;
- Well visited by recreational users all year round but particularly during the summer;
- Traditional salmon fishing using nets staked into the sand;

- Lunan Water, which empties into the sea in the middle of the bay;
- Dune system, particularly to the north of Lunan Water;
- Woodland and shelter belts around Lunan;
- Rocky headlands to the north and south; and
- Extensive cultural heritage including the remains of a 15th Century tower at Red Castle overlooking Lunan Water and the beach.

Scale and Openness

- 2.82 This is a medium to large scale seascape. Views out to sea from the bay are expansive, but the headlands to north and south, together with the slopes at the rear of the beach provide a limited sense of enclosure. There are views inland and along the coast from within the agricultural hinterland.

Form

- 2.83 This is a simple seascape unit, where the form is centred on the shallow arc of the sandy bay. The agricultural hinterland is flat or gently sloping lending the area a strong horizontal emphasis. The enclosing headland to the south is relatively low-lying; the cliffs of Rickle Craig to the north are higher, although sloping down to the natural harbour at Boddin and the promontory of Boddin Point.

Settlement

- 2.84 There is no settlement in this character area apart from the small village of Lunan, one or two farmsteads and isolated houses, as well as the collections of holiday cabins and caravans at Corbie Knowe and Ethie Haven at the south end of the bay.

Pattern and foci

- 2.85 A relatively simple seascape unit comprising the wide, sandy bay framed by rocky headlands. The dunes and steep grass slopes to the rear of the bay give way to a relatively undeveloped hinterland comprising a flat or gently sloping agricultural landscape of mostly regular fields divided by hedgerows (gappy in places) with occasional hedgerow trees or linear shelterbelts, but sometimes just by ditches or post-and-wire fencing. The Grampian foothills form a distant backdrop. There are few natural foci aside from the beach and dunes themselves which form a striking contrast to the fields behind. The ruin of Red Castle, standing above the Lunan Water where it discharges into the sea, is a prominent local landmark.

Lighting

- 2.86 Aside from the small settlement of Lunan and isolated farmsteads and holiday enclaves, there is little illumination in this character area.

Movement

- 2.87 Movement is mainly related to recreational activities taking place in the sea, on the beach, or in the dunes and cliff top areas. There are also traffic movements on the surrounding minor roads, by both visitors and local residents. At the north of the bay, the railway line is visible from the beach as

it crosses the viaduct over Buckie Den. Although outside the character area, the A92 coastal tourist route passes by relatively closely and has views towards the bay.

Aspect

- 2.88 The bay itself is east-facing. Views from the headlands to the north and south will depend on orientation but are generally north from Ethie Haven and south-easterly from Boddin.

How experienced

- 2.89 Lunan Bay is a well-known and popular beach, which attracts year-round recreational use by walkers, horse-riders, sightseers and, particularly in the summer, bathers. The bay also attracts surfers, windsurfers and kite-surfers to its waters. There are a number of holiday cottages and caravans in close proximity to the beach. Residential receptors within Lunan and other scattered farmsteads will also experience the seascape, with some having direct views of the coast. Other visitors and travellers may experience the seascape in passing either from the A92 or more often the railway line, which passes much closer to the coastline, in addition to the network of minor roads in the vicinity.

Modification/Remoteness/Sense of Naturalness

- 2.90 Although neither remote nor unmodified, Lunan Bay has remained relatively undeveloped with very few tourism facilities despite its popularity with recreational users. This lack of development increases the sense of naturalness experienced within the character unit.

Exposure

- 2.91 The headlands to north and south add a degree of shelter to the bay.

Process and dynamics

- 2.92 The main coastal process affecting Lunan Bay is erosion. The cliffs to the rear of the bay are slowly eroding inland and there is dune erosion which is likely to be anthropogenic. This erosion is further intensified by wind action. The presence of recreational users on the water, where activities are associated with the waves and wind, is likely to increase the sense of the coast as a dynamic environment.

Quality/condition

- 2.93 This is a good quality seascape unit. Aside from areas subject to pressure from visitors, it is also in good condition.

Designation

- 2.94 There are no designations within this character area although the designed landscape of Dunninald Castle which is listed in Historic Scotland's Inventory of Gardens and Designed Landscapes lies just to the north.

Sensitivity

- 2.95 Overall, this is a **high** sensitivity seascape, due both to the lack of development in the coastal zone and the relatively sheltered nature of the bay when compared to the adjacent rocky coastline.

Forces for Change

- 2.96 Aside from offshore and onshore wind development, change is likely to come from increased pressures associated with recreational use. The dunes in particular are subject to serious erosion by both foot traffic and unauthorised use by off road vehicles and bikes.

SA7: LANG CRAIG TO THE DEIL'S HEID

Definition of regional seascape unit boundaries

- 2.97 This seascape unit comprises a continuous stretch of sea cliffs reaching up to 50m and associated rocky coastline between Lang Craig, to the south of Lunan Bay, and Whiting Ness at the eastern edge of Arbroath by St Ninian's Well.

Key characteristics

- Old Red Sandstone cliffs display a series of erosion features including sea stacks, blowholes, caves, wave cut platforms and arches;
- Small, narrow shingle beaches located on the rock platform at Auchmithie, Carlingheugh Bay and Castlesea Bay;
- Gently sloping agricultural hinterland contrasting strongly with rocky coastline and cliffs;
- Limited areas of grassland at the top of cliffs supporting rare plant species; and
- Coastline important for conservation including large colonies of breeding seabirds on the cliffs, and geological interest. Much of the coast is designated as a SSSI.

Scale and Openness

- 2.98 This is a large scale seascape with expansive views from the cliff top edge out to the North Sea. However, the coastal edge itself is rich in smaller scale detail including the aforementioned bays and inlets, small coves, blowholes and caves.

Form

- 2.99 The wealth of small scale elements which occurs along the coastal edge creates a more complex form, within the context of a rocky foreshore, cliffs and agricultural hinterland with a strong horizontal emphasis.

Settlement

- 2.100 The only settlement within this character area is the former fishing village of Auchmithie which is located approximately 5km northeast of Arbroath at the

top of the cliffs almost 40m above the narrow beach. Aside from Auchmithie, there are also several scattered farms and individual residences. Around Seaton there is a large area of land being cultivated under polytunnels in addition to a caravan park.

Pattern and foci

- 2.101 The predominant land use in this character area is agricultural. This farmed hinterland generally slopes gently towards the coastal edge and lacks natural focal points, aside from areas of woodland and shelterbelt planting. These small woodland areas are often seen in conjunction with collections of farm buildings, which in this relatively flat landscape, form focal points in themselves. In views along the coastline, the cliffs also act as foci, drawing the eye with the sudden dramatic change in level between fields and sea.

Lighting

- 2.102 In the south of the character area, illumination from Arbroath is visible in the night sky. Moving north along the coast, there are some street lights in Auchmithie with associated sources of lighting from the settlement. Otherwise, light sources are associated with farms and scattered houses. The area of sea is generally fairly dark, although some shipping movements are likely to be visible.

Movement

- 2.103 There is some movement on the sea from occasional ships and boats. Otherwise, movement is mainly caused by wind and waves. There is vehicular movement on the network of minor roads linking farms and settlements and also agricultural activity on the farms themselves. Recreational activity and associated movement is limited to the coastal footpaths and beach at Auchmithie.

Aspect

- 2.104 This seascape area is generally east to south easterly facing onto the open North Sea with localised variations along the coastal edge. From farmland areas at the top and behind the cliffs there are views inland to the west.

How experienced

- 2.105 This character area is generally experienced from the network of minor roads connecting farmsteads and small settlements in the agricultural hinterland. The cliff top edge is also a very popular recreational destination, particularly to the north of Arbroath. It attracts both locals and visitors for its views, cultural heritage and bird watching interest. The shingle beach at Auchmithie is also popular for recreational use.

Modification/Remoteness/Sense of Naturalness

- 2.106 As the A92 runs some distance inland, this area feels more remote than similar character areas along other parts of the coast. However, the intensively managed farmland abutting the coastline limits the sense of naturalness. The cliffs along this stretch of the coast are higher and more rugged than those to the north. Coupled with the lack of settlement, this tends to give the coastal edge itself a strong sense of naturalness.

Exposure

- 2.107 From the coastal edge and cliff tops this seascape unit feels exposed due to the expansiveness of the sea and lack of shelter. Inland this sense of exposure is diminished somewhat, especially around areas of woodland and shelterbelt planting.

Process and dynamics

- 2.108 The cliffs are subject to erosion, primarily by wave action, but the rate of changes is very low.

Quality/condition

- 2.109 This is a high quality seascape unit with a wealth of natural features and dramatic, rugged feel to the coastal edge. The agricultural hinterland, although intensively managed, is also in a reasonably good condition.

Designation

- 2.110 There are no landscape designations within this character area.

Sensitivity

- 2.111 This is a **high** sensitivity seascape due to the varied, small scale and distinctive elements associated with the coastal edge, the high quality and good condition of the area, and its sense of naturalness.

Forces for Change

- 2.112 There is little human pressure on the coastal edge when compared with adjacent parts of the coast, apart from the coastal path along the cliffs. Inland, large areas of land cultivated under polytunnels could lead to localised effects on the landscape. There is also the possibility of residential expansion on the outskirts of Arbroath at the southern extent of the character area along with onshore wind development in the hinterland.

SA8: ARBROATH TO MONIFIETH

Definition of regional seascape unit boundaries

- 2.113 This unit comprises the stretch of coastline between Whiting Ness at the eastern end of Arbroath, to the campsite at the eastern edge of Monifieth, including Carnoustie and Barry Links.

Key characteristics

- Low lying coastal edge with extensive rock-cut platform interspersed with sections of sandy beach;
- Areas of dunes, particularly at Barry Links;
- Well settled coast with development focussing on the towns of Arbroath, Carnoustie and Monifieth;
- Active fishing harbour at Arbroath;
- Dundee to Aberdeen railway line running adjacent to coastline;

- Several golf links including the Championship course at Carnoustie;
- Conifers associated particularly with golf links, and larger areas of woodland within Barry Links; and,
- MOD training ground occupying a large area of Barry Links;

Scale and Openness

- 2.114 Overall, this is a medium to large scale seascape particularly in areas to the east of Barry Links, where the flat coastal landform and expanse of open sea increases the scale in the Outer Firth of Tay.

Form

- 2.115 The low lying coastline has a strong horizontal emphasis, heightened on the coastal edge by extensive rocky platforms interspersed with lengths of sandy beach. Low dunes and coniferous plantations add small scale vertical elements in some areas.

Settlement

- 2.116 This is a well-settled coast, having a number of towns interspersed with areas of farmland and other types of open space. Arbroath is the largest town in the council area of Angus with a population of over 20,000.

Pattern and foci

- 2.117 Generally the seascape has quite a simple pattern. Aside from Barry Links, which extends out into the mouth of the Firth of Tay, the coastline is relatively linear and low-lying, with low cliffs at Whiting Ness and areas of low-lying dunes in between. The presence of the rock platform and sandy beaches adds some subtlety of form to the intertidal zone but these are small scale variations in patterning. From viewpoints along the coastline the sea itself is likely to be the main focus, with its open and expansive nature contrasting with inland areas. There are few other natural focal points in the northern part of the character area. Towards Monifieth, views southwards extend to hills on the opposite side of the Firth. There are also few man-made focal points on the coast although the lighthouse at the tip of Barry Links is seen from many locations. Inland, there are various overhead lines which are prominent within the flat, low-lying landscape.

Lighting

- 2.118 This is a well-lit coastal edge where there are settlements. However, there are also areas with less illumination, particularly Barry Links and the section of coastline between Carnoustie and Arbroath. Illumination from occasional boats and ships will be visible out to sea.

Movement

- 2.119 Shipping movements are less prominent than on the Firth of Forth but this is nevertheless a busy seascape, particularly in areas of the Inner Firth and also in and around the settlements and main roads. There is commercial and recreational activity associated with Arbroath Harbour, both inland and at sea, and recreational activity along the whole of the coastline including water-

based sports and activities such as sailing. The railway line is visible from large sections of this coastline.

Aspect

- 2.120 Aspect along the Outer Firth is generally south to south easterly, with of localised variations. Settlements are generally orientated to face the sea.

How experienced

- 2.121 The seascape in this character unit is experienced by a range of receptors. Arbroath is popular with visitors for its wide variety of tourism and recreational activities including promenade and cliff top walks as well as beach and water-related leisure use. The coastline in general is well-used by walkers with sailing taking place on the water. The presence of several coastal links golf courses increases the number of recreational receptors who will experience this environment. Aside from recreational use by visitors and locals the seascape will be experience by residential receptors, some of whom will have direct view of the sea and coast, or indeed live adjacent to the coastline itself. The coast will also be viewed from the network of local roads both inside and outwith the settlements and from the railway line, which runs parallel to, and a short distance away from, the coast for much of its length through this character area.

Modification/Remoteness/Sense of Naturalness

- 2.122 This is a highly modified coastline in urban areas and with agriculture or golf courses forming much of the immediate hinterland. It is not remote, and there is no perception of remoteness aside perhaps from areas at the outer extent of Barry Links around Buddon Ness, which can only be accessed by the public by walking along the shore. The coastal intertidal zone possesses a greater sense of naturalness.

Exposure

- 2.123 This is an open and exposed seascape although certain areas do have a more sheltered feel, such as Carnoustie Bay.

Process and dynamics

- 2.124 The coastline is subject to a range of natural processes relating to wind and wave action. Barry Links is one of the largest beach/dune systems in Scotland. The sand dunes rest on sediments deposited under changing relative sea level and climatic conditions following deglaciation of the last Scottish ice sheet. Coastal erosion has become a problem at Carnoustie and defences have been installed in an attempt to counter this. Where there are no defences the coast is subject to cycles of sand erosion and accretion. The presence of sailing boats and people engaged in water sports may increase the sense of the sea as a dynamic environment.

Quality/condition

- 2.125 The quality of the seascape and coastal zone is medium to high particularly in relation to features of the shoreline and intertidal zone. Compared to some other character areas on the coast, the overall character of this unit is

perhaps less well defined and more fragmented because of the range of land uses encountered and the variable quality of the more urban areas.

Designation

- 2.126 There are no landscape designations within this character area.

Sensitivity

- 2.127 This is a **medium** sensitivity seascape unit. The area around Barry Links and Buddon Ness possess a sense of remoteness and naturalness; however, this is countered by the extensive coastal settlement and large scale, open character of the Outer Firth and coastline towards Arbroath both of which tend to diminish sensitivity to offshore wind development.

Forces for Change

- 2.128 There is some development pressure on the coastal fringes within and on the edge of settlements. Onshore wind development may occur in the coastal hinterland. Two developments at Dusty Drum and East Skichen in the Sidlaw Hills, which form a backdrop to Arbroath and Carnoustie, are currently at application stage.

SA9: DUNDEE

Definition of regional seascape unit boundaries

- 2.129 This unit comprises the section of coastline between Monifieth and Invergowrie, centred on Dundee. The coastal edge here is almost entirely developed.

Key characteristics

- Settled coastal fringe centred on the urban developments in and around the city of Dundee;
- Industry, bridges and other infrastructure, such as the railway and airport;
- Views focussed on the Tay, but also inland to the Sidlaw Hills; and,
- Well-used for recreation particularly the beaches around Monifieth and Broughty Ferry.

Scale and Openness

- 2.130 This is a medium scale seascape with containment by surrounding hills to the north. Views are primarily orientated southwards across the water to Fife thus reducing the sense of openness in the seascape. There are coastal views along the Firth to the North Sea but these are contained somewhat by the profile of Buddon Ness on the north side of the estuary and St Andrews Bay and Fife Ness to the south.

Form

- 2.131 The Inner Firth is an incised channel which is strongly contained by hills on either side. The city of Dundee and associated settlements forms a strongly

developed coastal edge throughout the length of this character area which is relatively low-lying within urban areas, with the exception of some locally prominent hills. Beyond Broughty Ferry, the Firth opens out somewhat and has larger areas of intertidal sands. Outside of the developed areas, the hinterland is primarily agricultural, rising towards the Sidlaw Hills.

Settlement

- 2.132 This is an almost entirely settled and developed linear coastal zone which centres on the City of Dundee, Scotland's fourth largest city. Larger scale infrastructure is found around the port, particularly associated with the Oil and Gas Offshore Support Facility.

Pattern and foci

- 2.133 The Firth of Tay is the main focus although there are few distinctive natural features contained within the Firth itself with the exception of Buddon Ness which can be seen extending into the Firth in views east out to sea. Within the City of Dundee, both Dundee Law and Balgay Hill are prominent local landmarks and further afield the Firth is contained on both sides by hilly agricultural hinterland, rising in the north to the prominent summits of the Sidlaw Hills which form a distant backdrop to this character area. Urban developments and infrastructure features also form focal points in the seascape, particularly the rail and road bridges across the Firth but also various residential tower blocks throughout the city.

Lighting

- 2.134 This is a well-lit coastal edge. Within the Firth there will also be illumination from streetlights on the road bridge, as well as larger ships and boats moving up and down the water. Both the airport and harbour are particularly well illuminated.

Movement

- 2.135 This is a busy seascape due to the presence of Dundee with its commercial seaport, airport, bridges and network of major and minor coastal routes including the A930 and Dundee to Aberdeen railway line.

Aspect

- 2.136 There is a southerly aspect from the north side of the Firth of Tay with settlements generally oriented to face the sea.

How experienced

- 2.137 Within this coastal area, the seascape is primarily experienced from busy coastal routes and well-used beaches and promenades. There are many residential receptors who will also have views of the coast including some within very close proximity. The coastal edge in Dundee is becoming a focus for redevelopment associated with the leisure, visitor and recreational uses.

Modification/Remoteness/Sense of Naturalness

- 2.138 This is a highly modified coastal zone. It is not remote and a sense of naturalness is felt only in the contrast between both the city and the hills of

its agricultural hinterland, and the intertidal areas of the Firth exposed at low tide including the extensive sand flats around Monifieth.

Exposure

- 2.139 The Inner Firth is more sheltered with the sense of exposure increasing somewhat as the estuary starts to widen to the east of Tayport and Broughty Ferry.

Process and dynamics

- 2.140 The Firth of Tay is subject to a range of wave, wind and tidal processes that influence the shape and character of the coastline. These contribute to the perception of the coastal zone as a dynamic environment, as does the large area of foreshore exposed around Monifieth at low tide, and the presence of shipping within the Firth.

Quality/condition

- 2.141 This is a medium quality seascape. Although the condition of the coastal zone is generally good as reflected in a variety of natural conservation related designations, the range of different land uses and large extent of developed areas contributes to a sense that the seascape character here is not as well-defined when compared to other, perhaps more remote, areas described in this study.

Designation

- 2.142 There are no landscape designations within the Firth of Tay. Within the City of Dundee there are three designated historic landscapes at Balgay Park, Baxter Park and Camperdown House. There is also a country park at Camperdown.

Sensitivity

- 2.143 This is a **low** sensitivity area to off shore wind farm development primarily due to the influence of Dundee and other settlements on the character of the seascape.

Forces for Change

- 2.144 There are development pressures in and around Dundee and other settlements on the coastal fringe. There is also existing and planned onshore wind development in the hilly areas surrounding the coast.

SA10: INNER FIRTH OF TAY

Definition of regional seascape unit boundaries

- 2.145 This unit comprises the Inner Firth of Tay between, on the north coast, Invergowrie and the breakwaters to the east of Port Allen and, on the south coast, between Newburgh and Tayport. The character area includes a narrow strip of land adjacent to the southern coastline and the extensive area of predominantly low-lying farmland of the Carse of Gowrie, adjacent to the northern coastline.

Key characteristics

- Long and narrow form of the Inner Firth;
- Extensive intertidal mudflats and sandbanks;
- Narrow coastal strip with areas of low cliffs on the south side of the Firth;
- Narrow shingle and cobble beaches;
- South side enclosed by relatively low-lying wooded hills, rocky in places, which rise directly from the coastal edge, including the Ochil Hills;
- Extensive reed beds along the north bank of the Firth;
- Broad swathe of low-lying agricultural land – the Carse of Gowrie – to the north of the Tay, bisected by the A90 and backed by the Sidlaw Hills;
- Relatively sparsely settled when compared to strongly developed urban area of Dundee; and,
- Linear coastal settlement at Newport on Tay located between Tay Bridge and Tay Road Bridge.

Scale and Openness

- 2.146 Overall this is a medium scale seascape influenced by the containment of the hills on either side of the Firth.

Form

- 2.147 The incised Inner Firth is the dominant form within this character unit, highlighted by the containment of the Sidlaw and Ochil Hills. The vertical emphasis of these hills contrasts strongly both with the intertidal flats within the Firth and the low lying agricultural land to the north.

Settlement

- 2.148 Within the Carse of Gowrie there are several villages such as Longforan, Inchtute and Errol, with other small settlements and farms, scattered throughout the farmland, along with individual residences. To the south of the Tay, the coastal strip also includes a scattering of small villages, such as Balmerino, and farms. Between the rail and road bridges is the linear development of Newport-on-Tay and associated suburbs.

Pattern and foci

- 2.149 The estuary itself is the main focus followed by the backdrop of the surrounding hills, some of which, such as the Ochils, have quite distinctive profiles and are additionally characterised by the extent of woodland. Exposure of the intertidal flats creates more subtle patterning effects within the Firth, whilst the Carse of Gowrie is dominated by large geometric fields, with hedges and hedgerow trees more common along roads and tracks. Around Errol there are shelterbelts and policy woodlands associated with the

estate and the reed beds which line the bank of the estuary here form an important and characteristic element.

Lighting

- 2.150 There is little illumination in the Inner Tay west of Dundee and Newport on Tay, being confined mostly to the scattered villages and settlements in the Carse of Gowrie. The river is marked by navigation lights upstream to Perth.

Movement

- 2.151 Movement within the Inner Firth is less prominent when compared to the strongly developed coastal edge of the Outer Firth and is primarily associated with the road and rail network, particularly the fast-moving traffic on the A90. Some shipping still makes use of the navigable stretch of the River Tay to Perth. The extent of the intertidal flats exposed at low tide also highlights movement of the river and estuarial waters. In this flat landscape the sky is also an important element and the pattern of cloud cover and nature of light can have dramatic effects on the perception of character and movement.

Aspect

- 2.152 There is a north/south aspect on either side of the Firth.

How experienced

- 2.153 This character area is primarily experienced from the network of minor roads and settlements scattered throughout the landscape. Views of the Firth itself may be obscured by trees and other vegetation or localised variations in topography. The A90 is an important transportation corridor running here between Perth and Dundee. Many visitors to area will experience the landscape of the Firth from this road or from the adjacent railway line. There is some recreational use of the river from Dundee and Newport-on-Tay.

Modification/Remoteness/Sense of Naturalness

- 2.154 The intensively farmed and modified landscape of the Carse of Gowrie perhaps has a greater sense of naturalness and remoteness than is actually the case due to the relative sparsity of settlement. The estuarial seascape of the Inner Firth also has a greater sense of naturalness when compared to its neighbouring character areas, for this same reason. Both these perceptions are heightened by the backdrop of hills, particularly the higher and more distant Sidlaw Hills.

Exposure

- 2.155 The containment of the surrounding hills lends this area a more sheltered feel when compared to the Outer Firth and adjacent coastline to the north and south.

Process and dynamics

- 2.156 The Inner Firth is largely sheltered from the effects of wave action however it is a dynamic coastal environment subject to a range of processes associated with tidal currents and the river. The dynamic nature of this environment is also emphasised by movements of weather fronts across the wide, open sky.

Quality/condition

- 2.157 The high quality and good condition of the Firth itself and tidal zones is recognised by its conservation designations reflecting a variety of important habitats for flora and fauna. The agricultural land within the Carse of Gowrie is of more variable condition and quality as many of the hedgerows have become gappy and lost trees not replaced.

Designation

- 2.158 The south bank of the Inner Firth is designated as the Tay Coast Special Landscape Area in the St Andrews and East Fife Local Plan (2009). There are also a number of designated GDLs as listed in Historic Scotland's Inventory, comprising Errol Park, Fingask Castle, Glendoick, Megginch Castle, Naughton, and Rossie Priory.

Sensitivity

- 2.159 This character unit has a **low** sensitivity to offshore wind development outwith the area due to its physical separation from the open sea.

Forces for Change

- 2.160 The location of this character area between Firth and Dundee means that there is primarily pressure for housing development. There may also be pressure for onshore wind development. The Perth and Kinross Wind Energy SPG (2005) indicates that the hills to the north of the A90 fall within a broad area of search for this type of development.

SA11: ST ANDREWS BAY

Definition of regional seascape unit boundaries

- 2.161 This unit comprises the large stretch of sandy coastline extending southwards from Tayport, via Tentsmuir Point, to St Andrews. It includes the Eden Estuary and West Sands, where an abrupt change in coastal direction, and an increase in coastal elevation, marks a transition from the sandy bay to the rocky foreshore of St Andrews.

Key characteristics

- Long, sandy beaches;
- Expansive intertidal shores around the Eden Estuary;
- Significant dune systems at Tentsmuir;
- Large areas of sandbars at Tentsmuir Point;
- Tentsmuir Forest, an extensive, open and mature forest of pine trees;
- Low-lying agricultural hinterland with scattered farmsteads and geometrically laid out fields;
- Golf links courses at the edge of St Andrews.

Scale and Openness

- 2.162 The flat, low-lying coastal landform combined with the great expanse of open sea and largely linear shoreline creates a large scale, expansive seascape, apart from around the Eden estuary which comprises a smaller scale component. The open sea is flanked by coastlines to north and south, which slightly diminishes the scale.

Form

- 2.163 This area is characterised by its broad, flat land profile and strong horizontal emphasis, heightened by the coastal edge and other linear features such as forest edges and field boundaries. It is composed of a low-lying, broad sandy headland between the mouths of the Tay to the north and the Eden to the south. Between the rivers is a wide flat sandy beach, backed by wind-blown dune systems. Behind the dunes, the flat landform continues. South of the Eden, which forms a broad muddy estuary, is another long beach backed by dunes and a golf course. The land begins to rise to the south of this, where the coastline turns sharply westward.

Settlement

- 2.164 Tayport is the only town of any size within this character area. There are scattered farmsteads and smaller settlements, including the village of Leuchars, elsewhere, mainly lying within agricultural land. RAF Leuchars is an important Air Defence Station although not a prominent feature of the landscape. St Andrews is located immediately to the south of the area, Associated development, most importantly the golf courses, extends onto the links area between the town and the Eden.

Pattern and foci

- 2.165 The seascape here generally has a simple composition of long sandy beaches backed by dune systems and extensive areas of forest. Offshore there are large areas of intertidal flats and sandbars. In this low-lying area there are few natural focal points aside from the distinctive areas of forestry. In this context, the open sea and sky is a focus of attention in itself, as well as the more sheltered estuary of the River Eden. Inland, both fields and forest are notable for their linear edges, geometric shapes, and limited variations in colour and texture. Industrial development, though limited, can be a feature in the landscape, such as the former paper mill at Guardbridge with its distinctive chimney. Other visual foci occur at the edges, in Dundee to the north, and more immediately in St Andrews to the south.

Lighting

- 2.166 With the exception of lighting in and around settlements, primarily Tayport, Leuchars and St Andrews, there is little illumination in this seascape unit, particularly on the coastal edge around Tentsmuir, although RAF Leuchars is a source of lighting. To the north, lighting along the Dundee and Angus coast is visible.

Movement

- 2.167 Aside from movements in and around the settlements, there is vehicular movement associated with the network of major and minor roads. The airfield at RAF Leuchars is a source of movement associated with the fighter squadron based there. Movement is more obvious south of the Eden, with activity associated with the golf courses, visitors and the edge of St Andrews. The central and northern part of this area is quiet, with limited activity. Along the coastal edge shipping movements are seen in the Outer Firth and North Sea, together with smaller boats used for leisure. In this open and expansive seascape, the movement of weather systems across the wide sky is characteristic, and weather conditions will also affect the perception of movement within the sea and, at a smaller scale, in the dune landscape.

Aspect

- 2.168 The aspect of this character area is predominantly easterly, apart from the northern coast around Tentsmuir Point which looks north across the Outer Firth of Tay and St Andrews Links which faces north east. Within the Eden Estuary the seascape is enclosed by the rising coastal hills to the south and west. The view is generally eastward to the open sea, with the Angus and Fife coastlines visible to the periphery. Inland, there are extensive views, mainly to the west, across flatter parts landscape to a backdrop of low-lying hills.

How experienced

- 2.169 The seascape is primarily experienced by recreational users, visitors and locals alike, on foot and from the coastal edge. Visitors access Tentsmuir Forest and the long beach to the east via the FCS car park. There is also a network of footpaths and National Cycle Route 1 and Fife Coastal Path running through Tentsmuir Forest. The Eden Estuary Nature Reserve and Tentsmuir Point National Nature Reserve are both popular for recreational use including bird watching. Road users will experience the character area from the main routes, particularly the A91, and also a number of minor roads although generally these do not approach the coast. The seascape will also be experienced from a number of settlements including Tayport and St Andrews, with the latter also home to the world-famous golf links.

Modification/Remoteness/Sense of Naturalness

- 2.170 The dynamic character of the dunes and intertidal areas, together with the wide, open sea and sky gives a high degree of naturalness to the coastal edge. Coupled with the lack of settlement and roads, this lends the area a greater sense of remoteness than is physically actually the case. The managed forest and agricultural land, in contrast, feels less natural because of its form and character. Development at St Andrews Links, and the ease of access, means this area is not at all remote. The area around the Eden Estuary is influenced by the RAF base and by the former mills at Guardbridge, although it has a sense of naturalness arising from its status as a nature reserve.

Exposure

- 2.171 Whereas the coastal edge can feel very exposed, increasingly so to the north, the inland areas feel somewhat less so, particularly in and around the forested areas of Tentsmuir where the trees offer a large degree of shelter. To the south, exposure to the elements is still pronounced, compared to the more sheltered areas within St Andrews nearby.

Process and dynamics

- 2.172 This is a highly dynamic seascape where the sense of an ever-changing environment can be heightened by changes in weather and lighting conditions. Coastal processes produced constant change in the seascape; Tentsmuir Point particularly is a very dynamic environment as the Abertay Sands are currently moving seawards at a rate of about five metres a year with an associated movement of the dune front. However at the southern end of the NNR the dunes area currently in retreat. The sandbanks at the mouth of the Eden are also particularly dynamic.

Quality/condition

- 2.173 The high quality and condition of this seascape is recognised in a range of nature conservation designations. The forested areas inland are carefully maintained and the arable farmland is intensively managed although field boundaries and tree are neglected in places. The dune systems in the St Andrews Links area are protected by management, while in the north these are in good condition due to reduced usage of the area.

Designation

- 2.174 This coastline is designated as part of the East Fife AGLV. St Andrews Links is listed on the Inventory of Gardens and Designed Landscapes in Scotland, together with the garden at Earlshall, adjacent to Leuchars.

Sensitivity

- 2.175 This is a **high** sensitivity seascape. Although certain characteristics, such as its large scale and openness, tend to decrease sensitivity to offshore wind development, the area around Tentsmuir in particular has a high degree of naturalness. Although the presence of large settlements nearby can tend to decrease sensitivity, the smaller scale components of the Eden Estuary and St Andrews Bay, and contrast between these and the sweep of beach associated with Tentsmuir, contribute to a diverse and varied character with higher sensitivity, as reflected in the various designations which apply to the area. It is also a popular recreational area, with many visitors attracted by the open seaward aspect and readily accessible beaches.

Forces for Change

- 2.176 This depositional coast is subject to shifts in coastal processes, which may affect the shape of the Eden and Tay estuaries. Management of the Tentsmuir Forest, including felling, restructuring or replanting, will affect the hinterland. The future use of RAF Leuchars may affect the area around the Eden estuary. There is pressure for housing development as the area is within easy reach of the major settlements of St Andrews and Dundee. Development along the

edge of St Andrews would also affect the character of St Andrews Links courses.

SA12: ST ANDREWS TO FIFE NESS

Definition of regional seascape unit boundaries

- 2.177 This unit comprises the gently sloping agricultural hinterland, rocky coastline and low cliffs stretching for approximately 15km between St Andrews and Fife Ness.

Key characteristics

- Diverse coastal edge comprising small sandy bays, extensive wave-cut rock platforms, low cliffs and narrow, wooded dens;
- Small rocky headlands of Buddo Ness and Kinkell Ness;
- Open and exposed feel to coastline;
- Gently undulating agricultural landscape slopes down to coastal edge;
- Historic settlement and landmark buildings of St Andrews; and,
- Popularity for recreational use.

Scale and Openness

- 2.178 Overall this is a medium to large scale seascape with a high degree of openness in clifftop areas. However, there is a wealth of fine detail within the coastal edge including a number of smaller scale sheltered coves and inlets.

Form

- 2.179 This seascape character unit has a simple form comprising relatively straight but indented coastal edge marked by low cliffs, rocky platforms and the occasional sandy bay, giving way to an undulating agricultural hinterland which slopes gently down to the coast. There is a strong horizontal emphasis to the landform.

Settlement

- 2.180 St Andrews is the only significant area of settlement, which is visible in views along the coast to the north. There are small villages at Boarhills and Kingbarns and scattered farms and individual houses, together with isolated larger scale development such as the St Andrews Bay Hotel, and a large caravan site just to the east of St Andrews by the East Sands.

Pattern and foci

- 2.181 Overall this character area has a relatively simple character and composition. Within the coastal zone there is a wealth of smaller scale detail and features such as cliffs, rocky platforms and wooded dens, but a lack of prominent natural focal points. In this context the coastal edge and sea itself become foci. Inland, the agricultural landscape has a simple pattern of geometrical fields and predominantly linear shelterbelt planting. Within this low lying landscape, trees and woodland can also become focal points, as can elements

of the townscape such as the St Andrews Cathedral ruins. Long views northwards are afforded to the long low coastline to the north of the Tay estuary.

Lighting

- 2.182 Outside of the settlement of St Andrews this is not a well-lit area, particularly on and adjacent to the coastal edge, although there is some illumination associated with small settlements, farms and other developments such as the St Andrews Bay Hotel. There is a small lighthouse at Fife Ness. Dundee forms a distant light source to the north, the influence of which diminishes towards the south.

Movement

- 2.183 Apart from pedestrian and vehicular movement in and around St Andrews, most movement in the character area is limited to vehicles on the A917 and minor roads connecting to it. The main road is relatively quiet and is set back from the coast following the ridge tops of coastal hills. Within the coastal zone there will be movement associated with the golf courses and coastal footpaths not to mention agricultural work in the surrounding fields. As with other areas characterised by large scale open views of the sea and sky, there will be movement associated with wind and wave action on the sea and clouds. Large ships are often visible offshore.

Aspect

- 2.184 The aspect of this character unit is predominantly north easterly. However, from Fife Ness there are also views to the east, and south across the Firth of Forth.

How experienced

- 2.185 The coastal edge (including cliff tops and sandy beaches) is well used by both locals and visitors for recreational activities including beach access, golf, walking and other outdoor activities. There are also a number of visitor destinations within the character unit such as the gardens at Cambo Estate. The Fife Coastal Path traverses the entire length of the coastline: walkers will experience the local variations unfolding along coastline, while the headland at Fife Ness provides more extensive, elevated views across the seascape. The seascape will also be experienced from within St Andrews by residents and visitors alike and also from the A917, promoted as a scenic coastal route, which runs parallel to, and has views of, the coast and sea.

Modification/Remoteness/Sense of Naturalness

- 2.186 The coastal edge in particular has a strong sense of naturalness with its rocky outcrops, wave-cut platforms and bird life. Although not remote physically, the sense of remoteness may be heightened along the coastal edge as much of it is only accessible on foot. This is tempered by the proximity of urban development in and around St Andrews which extends out along the A917, for example the St Andrews Bay Hotel. The agricultural hinterland is intensively managed, with rectilinear fields and shelterbelts extending up to the narrow rocky foreshore in places, reducing the sense of naturalness.

Exposure

- 2.187 This is an open and exposed seascape with little shelter apart from the narrow wooded dens and areas of shelterbelt planting around the scattered farmsteads. More enclosed sandy coves provide a degree of localised shelter.

Process and dynamics

- 2.188 The character area is subject to a range of coastal processes, most importantly erosion by wind and wave action. The dynamic nature of the seascape may be heightened in certain weather conditions due its open and expansive character. Occasionally, dune systems can be damaged by storm tides.

Quality/condition

- 2.189 The coastal edge has a high quality relating to a diverse range of characteristic feature such as the cliffs, rock platforms and small, sandy coves. Landward areas of agricultural fields are intensively managed but field boundaries and features are poorly maintained and there are a number of derelict buildings, particularly closer to Fife Ness, which detract from the overall quality of the area.

Designation

- 2.190 The coastline is designated as part of the East Fife AGLV. There designed landscape and gardens at the Cambo Estate are also listed in Historic Scotland's GDL inventory.

Sensitivity

- 2.191 This is a **high** sensitivity landscape. Although the coastal edge can feel open and exposed at cliff top locations, there is also a wealth of smaller scale detail along the coast, such as sandy coves and incised inlets, which tend to increase sensitivity to the type of development proposed. Aside from the historic town of St Andrews, this is a largely undeveloped seascape with little lighting. There are popular beaches and coastal attractions along the coast.

Forces for Change

- 2.192 There is development pressure associated with the town of St Andrews. Onshore wind energy development is also a possibility, with a planning application having been submitted recently for a 12MW capacity wind farm at Kenly, just to the south of the A917.

SA13 EAST NEUK OF FIFE

Definition of regional seascape unit boundaries

- 2.193 This unit includes the coast of the East Neuk of Fife, from the headland of Fife Ness in the east to Chapel Ness near Earlsferry.

Key characteristics:

- Rocky coastline and shingle beaches, generally low lying;
- Attractive fishing villages centred on busy harbours;

- An exposed landscape;
- Distinctive red sandstone cliffs and soils.

Scale and Openness

- 2.194 Medium to large scale coastal area, enclosed to the south by the Lothian coast but increasingly open views to the east and at Fife Ness.

Form

- 2.195 The coastline is composed rocky foreshore of exposed igneous rock platforms and caves, with small headlands, low cliffs and sheltered bays, around Earlsferry and Elie.

Settlement

- 2.196 Small areas of settlement are dispersed regularly along the coast, generally small villages with harbours, including Crail, Piteenweem, and Anstruther. These are located on the coastal edge, often fronting the sea and with historic maritime associations, particularly fishing. There are also individual farmsteads and dwellings scattered along the coast, following the A917 coastal road and other minor roads inland. Along the coastal edge a number of caravan and camping sites and golf courses are features. A disused airfield and occasional larger scale commercial development are located southwest of Fife Ness, but otherwise large scale development is limited.

Pattern and foci

- 2.197 A hinterland of open, gently undulating farmland extends down to the rocky shoreline. There are few inlets along this stretch of coastline and where they do occur they coincide with the small settlements and harbours. Lighthouses and sea walls are features of the harbours, as are the distinctive vernacular pattern of small cottages and the sea front.
- 2.198 The Isle of May is a prominent and constant feature in seaward views across the firth, with distant views to North Berwick Law and the Lothian coast and the Lammermuir Hills beyond.

Lighting

- 2.199 The area is influenced by the lighting from the regular pattern of villages within the area and the influence of towns along both the northern and southern shores of the Firth of Forth, including the city of Edinburgh to the southwest.

Movement

- 2.200 The busy A917 road runs between Elie and Crail, generally following the line of the coast and set back usually within 1km of the edge. The road has some influence on the character of the hinterland within the area. A small number of minor roads are concentrated around the coastal villages and quiet minor road runs from Crail to Fife Ness.
- 2.201 At sea large ships are often visible and activity from smaller fishing and shipping vessels are particularly noticeable and characteristic around the small harbours.

Aspect

- 2.202 The coast faces predominantly south-southeast, with little variation along the relatively straight coastline.

How experienced

- 2.203 The seascape is experienced by a number of residents within the villages and the scattered farmsteads located on the coastal edge. Long sections of the Fife Coastal path follow the edge of the rocky foreshore, set below the low but sharply rising coastal hills. Views inland are limited and focused out across the Firth of Forth.
- 2.204 The A917 coastal road is promoted as a scenic coastal route through Fife, and this section of the route is particularly well used. From the road, travellers experience open, wide and extensive views out across the Firth of Forth and to the open sea to the east, often seen across narrow margins of arable farmland. The road and rocky foreshore are generally not intervisible, with the road set back from and slightly elevated above shore.

Modification/Remoteness/Sense of Naturalness

- 2.205 The area is settled with limited sense of naturalness. The area is however not heavily modified by development, with arable farmland and small settlements within the hinterland and at the coastal edge. The harbours lend a sense of a close maritime connection between the settled coast and the sea.

Exposure

- 2.206 There is a greater sense of exposure to the east, particularly on the prominent headland of Fife Ness which protrudes into the North Sea. This becomes reduced further west along the coast, as the Firth of Forth becomes gradually more enclosed.

Process and dynamics

- 2.207 Processes of erosion are generally limited along this stretch of coastline due to the predominance of carboniferous rocky platforms at the coastal edge, which deflect strong tidal currents. There are areas of localised erosion within the sheltered bay at Earlsferry.

Quality/condition

- 2.208 The quality and condition of the seascape unit is medium to high. There is limited development outwith the settlements, with the exception of the airfield at Fife Ness. The overall quality and condition of the agricultural farmland and links abutting the shore is generally good. Caravan parks and small scale development effect the character locally.

Designation

- 2.209 The coastline is designated as part of an AGLV. Balcaskie is included on the Inventory of Gardens and Designed Landscapes in Scotland.

Sensitivity

- 2.210 This is a well visited coastline, with the historic villages and golf courses being the most popular destinations. There is limited modern development within

the landscape, and the traditional villages are small in scale. The outlook of this coast is generally to the southeast, towards the Lothian coast, with the East Neuk villages being focused on their harbours. However, other areas have a wider outlook to the open sea, with the Isle of May a prominent feature in many views. Overall, this area is considered to be of **high** sensitivity to offshore development.

Forces for Change

- 2.211 Pressures for housing and development related to tourism, such as caravan parks, are likely to be forces for future change.

SA14 KIRKCALDY AND LARGO BAY

Definition of regional seascape unit boundaries

- 2.212 From the island of Inchkeith, the Forth widens considerably, with wide bays to north and south. The coastal area of the northern bay extends from Pettycur by Kinghorn, to Chapel Ness at Earlsferry.

Key characteristics:

- Large coastal settlements with an industrial character;
- Generally low-lying coast;
- Sandy beaches and bays, including the wide Largo Bay;
- Areas of reclaimed land protected by coastal defences;

Scale and Openness

- 2.213 A medium to large scale area, semi-enclosed by headland at Kincaig Point to the east and the Lothian coast to the south and Lammermuirs beyond. Views to the open sea are framed by the headlands

Form

- 2.214 The shore is varied, with contained bays, sand and narrow shingle beaches, boulder clay cliffs and areas of re-claimed land, including coal mining spoil heaps, which are protected by hard sea-defences. The hinterland is generally low-lying and gently undulating, dropping gradually down to the shore. Largo Bay is a widely curved bay of predominantly sandy beaches with some rocky outcrops to the south of Lower Largo. At the eastern extent near Earlsferry, small pocket beaches are enclosed by rock extrusions that protrude into the estuary.

Settlement

- 2.215 This is a very settled area, with settlement and large scale development extending along much of the coastline to the west of Leven. The seascape is influenced by the presence of masts, large scale industrial development and by the developed coastal edges, particularly around the settlements of Kirkcaldy, Leven, Buckhaven and Kinghorn.

Pattern and foci

- 2.216 The coast is characterised by long stretches of sandy beaches backed by settlement and broad expanses of gently sloping farmland. The headlands of Kincaig Hill to the east, and across the Forth, North Berwick Law and Bass Rock to the southeast, are prominent features that frame views eastwards to the open sea beyond the firth. The back drop of hills in views inland to the north is distinctive, particularly Largo Law.

Lighting

- 2.217 The stretch of coast is settled, with lighting associated with the docks and harbours, roads and industrial development dispersed along it. Street lighting is present within the settlement and along promenades. The area is also influenced by lighting from Edinburgh and settlement along the southern shore of the Forth.

Movement

- 2.218 The network of roads running between the settlements strongly influences the area. There is also movement from marine activities within the Firth of Forth and around the docks and harbours at the coastal edge.

Aspect

- 2.219 The aspect varies across this coastal stretch. South of Kirkcaldy the coastline faces east, looking out of the Firth of Forth past the Isle of May and Bass Rock. Kirkcaldy itself follows a gentle arc as the aspect turns from east to southeast facing along the settled front. Largo Bay continues the sweep, facing predominantly southwards, with the eastern outlook screened by Kincaig point.

How experienced

- 2.220 The seascape is experienced by a wide range of receptors, including large numbers of residents within settlements. Visitors to the towns and villages, generally experience the seascape from lower lying modified coastal edges, including harbours and promenades.
- 2.221 Recreational receptors include golfers on the Lundin Links, walkers following the Fife Coastal Path, as well as those engaging in other water-based recreational pursuits on the estuary itself.

Modification/Remoteness/Sense of Naturalness

- 2.222 This is a heavily modified coast, with harbours, reclaimed land and reinforced sea walls particularly around coastal towns. There are small pockets of attractive and more natural areas, such as around Largo Bay and West Wemyss.
- 2.223 There is little sense of isolation, with the coast being largely accessible by road as a result of the dispersal of the towns and villages along the coastal edge. Between the settlements, the Fife Coastal Path provides access along the length of the shoreline.

Exposure

- 2.224 The coastline is generally sheltered, facing into a broad, semi-enclosed areas of the firth contained, with limited exposure with the open sea.

Processes and dynamics

- 2.225 This stretch of coast is subject to a complex pattern of coastal processes. There is a strong westerly net drift of material from around Lower Largo to Kirkcaldy. At Lower Largo itself, the shore rock platform causes a drift divide with material to the east of this point moving eastwards due to the influence of wave action from differing directions. Moving down the coast to East and West Wemyss, there is a great deal of erosion and beachfront development is at risk. Colliery waste which in previous years was tipped onto the beaches is being eroded. At Kirkcaldy the harbour blocks the drift from the east and there is also a sea wall defence. South of this, due to the orientation of the coastline, net drift is slowed and there are sandy deposits – these are exposed to severe wave conditions travelling into the Firth of Forth from the North Sea.

Quality/condition

- 2.226 The area is heavily influenced by large scale development, particularly in the west, with insensitive development in places. However there are a large number of receptors and this is an accessible recreational coast.

Designations

- 2.227 The area east of Leven is designated as part of the East Fife AGLV. There is a small AGLV at Wemyss. The coastline south of Kirkcaldy is designated as part of another AGLV. There are coastal Inventory-listed designed landscapes at Ravenscraig Park and Wemyss Castle.

Sensitivity

- 2.228 The open sea to the east is not the main focus of views, except in the southern part where eastward views are channelled along the Firth. In this southern area, development is influential, particularly the large settlement of Kirkcaldy, and the industrial seafront at Methil and Leven. The more intact area of Largo Bay has a limited relationship with the outer Forth. The area is generally busy and complex, and is considered to be of **medium** sensitivity to offshore development.

Forces for Change

- 2.229 Future forces for change are likely to relate to development pressures, particularly around settlements and possibly large scale industrial development.

SA15 INNER FIRTH OF FORTH

Definition of regional seascape unit boundaries

- 2.230 This unit comprises the inner section of the Firth of Forth, covering both north and south shores. The inner Firth is enclosed to the east by the

headlands of Kinghorn Ness to the north, and Leith Docks to the south, some 8km apart. The island of Inchkeith in between provides further enclosure. The seascape area extends westward to the Forth Bridges, where the Forth narrows to less than 2km, beyond which the firth is more estuarine in character.

Key characteristics:

- Relatively narrow inlet, only partially maritime in character
- Scatter of small islands
- Settled coastlines to north and south, with a number of landmark buildings and bridges
- Frequent passing cargo ships and occasional cruise ships, as well as smaller pleasure craft
- Rocky shoreline, particularly to the north, with sandy beaches

Scale and Openness

- 2.231 Medium scale, increasingly contained by hills as the firth narrows to the west. Views to the outer firth, with very limited views to the open sea in the far distance. Small bays and wooded braes and steep hills provide localised areas of containment.

Form

- 2.232 The coastline is varied and more incised than that of the outer Firth. The northern coast is composed of a series of small bays with a foreshore of sand and shingle beaches backed by steeply rising and irregular coastal hills. Areas of reclaimed land and hard edges formed by docks, harbours and industrial development are also regular features.

Settlement

- 2.233 The coastal area is well settled. To the south, the suburbs of the city of Edinburgh occupy the shore, including Leith and Granton with their harbours. Further east the smaller settlement of Cramond clusters around the mouth of the Almond, beyond which is the estate of Dalmeny House. This whole coast therefore has a relatively developed appearance. Around the Forth Bridges, there is settlement on both sides of the Forth, as well as prominent infrastructure such as the Hound Point terminal. Along the north coast, settlement is limited to clusters, though the modern housing of Dalgety Bay is particularly prominent. The smaller settlements of Aberdour, Burntisland and Kinghorn each have their small harbours, with more industrial development at Burntisland.

Pattern and foci

- 2.234 The pattern of this area is defined by built development. To the north the pattern of villages alternating with wooded farmland is associated with the pattern of headlands and bays. To the south the pattern is simpler, being more continuously developed to the east and wooded parkland to the west.

- 2.235 The area has a wealth of visual foci. The small scattered islands within the firth form distinctive features, such as Inchcolm with its abbey, Inchmickery with its distinctive defences, and Cramond Island linked by a causeway. Arthurs Seat and Edinburgh Castle are landmark features on land to the south and the distinctive profile of the Pentland Hills form a recognisable back-drop to views from the north of the firth. Man-made foci include the Forth Bridges and the gasometer at Granton, as well as prominent settlements and the more distant Cockenzie power station.

Lighting

- 2.236 Well lit with almost continuous settlement following the coasts of the firth to the north and south. Shipping and the Hound Point terminal are a source of lighting within the firth itself. The Forth Bridges and floodlit.

Movement

- 2.237 The area is influenced by frequent shipping movement within the Forth, including container ships, oil tankers, cruise ships which moor off the Forth Bridge, and recreational sailing boats. The area is also influenced by air traffic approaching Edinburgh airport. Vehicular traffic on the many stretches of coastal roads, and trains on the Fife railways, also affect.

Aspect

- 2.238 The coastline is varied in its orientation, but predominantly the aspect is north/south facing across the Firth of Forth. The only significant east-facing area is the frontage of Dalmeny Estate, which looks along the Forth, various islands in the foreground.

How experienced

- 2.239 The Forth is highly visible from the towns and urban centres fringing it to the north and south. The water and the coastal edge is also highly used recreationally, particularly the Fife coast, with a high concentration of footpaths, cycle routes and opportunities for water-based activities. The firth itself is a focus of views, and provides a foreground.

Modification/Remoteness/Sense of Naturalness

- 2.240 Highly modified coast and coastal fringe, with large urban centres and industrial development extending up to the coastal edge. The predominance of built development and infrastructure means there is no sense of remoteness in this coast, though there are scattered areas with a degree of naturalness.

Processes and dynamics

- 2.241 Along both the southern and northern coastlines of the Firth of Forth, longshore drift occurs in a westerly direction, influenced by wave action in the North Sea. This is less pronounced on the northern shore where there are a number of self-contained bays. The southern coast of the Firth of Forth is sheltered from wave action. Sections of this coastline are also protected by concrete/blockwork revetments. Features including Granton Harbour and the breakwater at Cramond act as groynes, and there is considerable build-up of sand and pebbles in this area.

Quality/condition

- 2.242 The condition of the area is mixed. Industrial and harbour development often reduces apparent quality, while other settlements, such as the more intact village of Aberdour, are in better condition. Some parts of Edinburgh's waterfront have a settlement fringe character, with ongoing regeneration.

Designations

- 2.243 The coastline between Dalgety Bay and Kinghorn is largely designated as part of an AGLV. Inchkeith (Fife) is also an AGLV. On the Edinburgh side, the Dalmeny House parklands, and the open space between Cramond and Granton, are designated as AGLVs.
- 2.244 The extensive parklands of Dalmeny House, and the gardens of Lauriston Castle, are listed on the Inventory of Gardens and Designed Landscapes in Scotland. North of the Forth, there are Inventory-listed sites at Aberdour Castle, Donibristle House, and the more extensive policies of St Colme House.

Exposure

- 2.245 Very limited exposure due to the enclosed nature of this section of the firth and the sense of shelter provided by the hills inland.

Sensitivity

- 2.246 This area has a very limited visual relationship with the open sea. Although the area has a high number of receptors, it is extensively man-modified, including some inshore development, and frequent shipping movements. It is considered to be of **low** sensitivity to offshore development of the type proposed.

Forces for Change

- 2.247 Development pressure at the coastal edge and within the settlements abutting the coast.

SA16 EDINBURGH TO GULLANE

Definition of regional seascape unit boundaries

- 2.248 This unit extends from Leith Docks, eastwards to the small island of Eyebroughy, west of North Berwick. It includes the built-up shoreline of Portobello, Musselburgh, Cockenzie and Port Seton, as well as the less developed East Lothian coast around Gullane.

Key characteristics:

- A broad bay, generally low-lying;
- Developed western part of coast, including docks, harbours, and commercial development, as well as smaller-scale fishing villages;
- Open sandy bays to the east, with extensive sand and mudflats and dune systems;

- Northerly aspect means that views are often contained within the Firth of Forth;
- Designed landscapes and woodland along the less developed coast;
- Popular and accessible recreational areas, including Portobello beach, Gullane Bay and Aberlady Bay nature reserve.

Scale and Openness

- 2.249 The seascape is generally medium to large in scale, and most areas have a high degree of openness. There are no cliffs or other elevated coast to provide enclosure, and bays are broad. However, views to the open sea are generally limited, as most views are oriented toward the Fife coast. The undeveloped hinterland is also of medium to large scale, with large arable fields, although it is generally well wooded.

Form

- 2.250 The seascape unit comprises generally shallow, open bays, set within a wide, concave curve. The coast is low-lying, with no cliffs. Generally, the coastal plain is flat or very gently sloping. The foreshore is most often sandy, with dune systems behind some of the bays. Rocky outcrops define low-lying headlands, and provide the setting for harbours. Mud and sand flats extend below high tide, particularly in Aberlady Bay.

Settlement

- 2.251 The western part of this seascape area is increasingly densely settled. The principal settlements are the resort suburb of Portobello, the town of Musselburgh at the mouth of the Esk, and the villages of Prestonpans and Cockenzie and Port Seton. Further east the villages of Longniddry, Aberlady, and Gullane are set back from the coast. The settled areas of Leith (Seafield and Craigentenny) are set back from the coast, with commercial and industrial development lining the shore from Leith Docks to the mouth of the Braid Burn.

Pattern and foci

- 2.252 In the east, landscape pattern is defined by the large-scale designed landscapes, including Archerfield and Gosford House estates. These are interspersed with links golf courses. Elsewhere arable farmland is divided by deciduous shelterbelts and wooded burns. Settlements are generally clustered around a harbour, with a small old village surrounded by extensive 20th century development, particularly at Prestonpans and Musselburgh. At Portobello the Victorian street pattern is legible from the beach.
- 2.253 The principal visual focus in this seascape area is Cockenzie Power Station, with its two 153m-high chimneys clearly visible from most locations. The main natural landmarks visible are outside the seascape area, including North Berwick Law and the Bass Rock to the east, and Arthur's Seat to the west.

Lighting

- 2.254 This coastline is settled and developed, and lighting is a feature of night time views. Much of the coast has a road on the shore-front, and many sections

are lit, with additional lights from streetlighting within towns and villages. Industrial lighting at Cockenzie power station, including navigation lights on the chimneys, makes this a night time as well as a daytime landmark. Leith Docks and the surrounding industrial developments are also well lit. The eastern part of the area tends to be darker.

Movement

- 2.255 Most of this area has a road running along the shore, any many sections have busy A roads, including the A199 at Seafield and Musselburgh, and the A198 further east. The B1348 follows the coast between Musselburgh and Longniddry. The hinterland is generally busy, with a dense network of roads including the A1. Offshore movement is apparent as many ships move up and down the Forth, bound for Rosyth, Hound Point or Leith Docks. Recreational boating activity is more limited, with a few boats based in the small harbours. Sailing boats are often visible at weekends.

Aspect

- 2.256 This coast has a generally northerly aspect, with views across to Fife. This does change gradually along the seascape unit, as the coast curves around. From Portobello, the open sea can be seen, between North Berwick and Elie Ness, with North Berwick Law and the Bass Rock being prominent. Further east, views look more to the north, with Largo Law becoming a visual focus. Around Aberlady and Gullane, the aspect is principally northwest and west, with no view of the open sea, but views into the inner Forth and to the Forth bridges. Edinburgh and Arthur's Seat are key features in these views.

How experienced

- 2.257 There are many recreational destinations in this area, including come of the more popular beaches in the Lothians. In particular, Portobello beach is much visited by people from Edinburgh. Gullane Beach is also popular, while Aberlady Bay attracts birdwatchers. The long-distance John Muir Way runs east from Musselburgh, generally following the coast, and offering many coastal views to walkers. Other recreational users include golfers, visitors to Gosford House, people staying at caravan parks, and visitors to the coastal settlements.
- 2.258 The experience of the coast is mediated by development for much of this area, particularly at Musselburgh. Only at Aberlady Bay and other areas in the east is there a more immediate coastal experience. The sea in this sheltered area is generally relatively calm, and the enclosed views lead to a reduced sense of the marine edge.

Modification/Remoteness/Sense of Naturalness

- 2.259 The shoreline of Leith Docks is heavily modified, through historic land reclamation and industrial development. Around Musselburgh, ongoing land reclamation of ash lagoons has created an area of flat, artificial ground extending in front of the settlement. Along most of the western part of this area, the coastline or immediate hinterland has been modified to some degree. Further east there is a greater sense of naturalness, particularly around the Aberlady Bay nature reserve where bird life is a part of the

seascape experience. However, no part of this coastline is far from development, and there is therefore very limited remoteness or wildness.

Exposure

- 2.260 Although generally low-lying, the coast is often sheltered, either by woodland associated with designed landscapes, or by built development. The enclosed nature of views also limits any sense of exposure along this coast.

Processes and dynamics

- 2.261 Tidal currents are relatively weak in this outer part of the Firth of Forth. Longshore drift is driven by wave action in the North Sea, directly in the western part of the seascape unit, and indirectly in the sheltered east. This results in a moderate, generally westward drift of material, interrupted by rocky outcrops. There is a mix of erosion and deposition ongoing, with groynes on Portobello Beach helping to retain material. Large sections of this coastline are protected by some form of sea wall or other marine defence, most prominently at Leith Docks.

Quality/condition

- 2.262 At its western end, this coastline is somewhat degraded. Industrial and other development has adversely affected the coastal character, particularly at Leith Docks and Musselburgh lagoons. Other areas are more intact, even where developed, such as Portobello beach and the older settlement nuclei. The condition of the coastline is generally better to the east, with intact sand dunes and saltmarsh.

Designations

- 2.263 The coastline east of Seton Sands is designated as an AGLV by East Lothian Council. There are Inventory-listed designed landscapes along the coast, at Cockenzie House, Gosford House, Luffness, Greywalls and Archerfield.

Sensitivity

- 2.264 This coastline has a very high level of human influence, particularly in the west, though the eastern areas are more intact. The limited nature of marine influence, and the relatively sheltered nature of this coast, reduces its sensitivity to development taking place offshore. The high level of residential and recreational use tends to increase its sensitivity. Overall, the sensitivity of this seascape area is considered to be **medium**.

Forces for Change

- 2.265 Development pressures in this area include ongoing redevelopment of industrial areas, for example at Leith Docks. The ash lagoons at Musselburgh continue to be used for disposal of ash from Cockenzie Power Station, and will eventually be reclaimed for recreational use. There are also development pressures for new housing across this area. The eastern part of this seascape area is less likely to be subject to change.

SA 17 EYEBROUGHY TO TORNESS POINT

Definition of regional seascape unit boundaries

2.266 The small island of Eyebroughy, west of North Berwick provides the northern extent and Torness Point provides the southern extent of the East Lothian Regional Seascape Unit. The visibility splays at the edge of this unit are defined by these headlands, with the area west of North Berwick providing views out to the North Sea and Torness Point containing views south.

Key Characteristics

- Diversity of coastal scenery and habitats;
- Extensive views due to flat terrain and few woodlands;
- Generally low-lying coast;
- Alternation of rocky headlands and sandy pocket bays;
- Backed by relatively unfragmented agricultural land;
- Popular recreational coast;
- Transport routes form prominent linear features;
- Relatively densely settled by the towns of Dunbar and North Berwick; and
- Major localised visual impacts of cement works and Torness Power Station.

Scale and Openness

2.267 A large scale coastline, generally open and allowing long views both seaward and along the coast. The low lying nature of the coastal landscape does not provide enclosure except in occasional areas of higher cliffs, such as around Tantallon Castle east of North Berwick. The hinterland is relatively open with areas of containment around urban areas.

Form

2.268 The coastline is generally composed of low rocky headlands, dividing sandy beaches. These headlands often comprise large areas of rocks which only occasionally rise up into the cliffs such as those around Tantallon. Beaches range from small pockets of sand to the broad estuarine sands of Belhaven Bay, where a substantial dune system has built up. Elsewhere, beaches are backed by arable farmland, and by sloping cliffs. A number of small islands stand offshore of the rockier sections, the most prominent being the volcanic Bass Rock. Other offshore islands include Cragleith and Eyebroughy. Inland, North Berwick Law is the highest point on this coast, also an isolated volcanic feature. At Dunbar there are a series of rounded headlands which are bounded by extensive rocky cliffs. Along the Barns Ness shoreline there are a number of small embayment beaches intersected by rock outcrops. The largest appears to the south of Barns Ness lighthouse, where the beach is predominantly sandy and low dunes have formed.

Settlement

- 2.269 Settlement on the shoreline in this landscape is concentrated at Dunbar and North Berwick, a small settlement to the northern extents of the regional seascape unit sited on a headland. There are scattered farmsteads and dwellings along a network of major and minor roads inland. Tourism has a strong impact on this landscape type and a number of camping and caravan sites are prominent as well as golf courses close to the coastal edge. Some isolated industrial features including Torness nuclear power station and cements works.

Pattern and foci

- 2.270 There is a unifying influence in the landscape in the form of the relatively linear coastline with open beaches. The low-lying nature of the coast allows a number of natural and man-made features to provide prominent landmarks, including Bass Rock and North Berwick Law to the north, the Cement Works at Dunbar and Torness Power Station on the coastal edge to the south of the regional seascape unit.
- 2.271 Turbines may visually compete but could also relate with the strong industrialised foci of the power station at Torness in some views. North Berwick Law is a prominent feature in the hinterland.

Lighting

- 2.272 This coastline is settled and developed in places and lighting is a feature of time views, including industrial lighting at Torness, street lighting in towns and along the A1. There would be some lighting from ships at sea. There is a sense of space in the low-lying nature of the coast and lighting from man-made features along the coast would provide prominent elements along the shoreline at night.

Movement

- 2.273 The A1087 runs along the coast from Dunbar to North Berwick. The busy A1 road and the East Coast Main Line pass close to the coastline to the south. The A1 constitutes an important transport corridor which strongly influences the adjoining landscape. There will also be movement from ships at sea and marine activities around the recreational beach areas of the coastal edge.

Aspect

- 2.274 The coastline faces north-east, with limited variation and as a result can experience severe wave conditions generated by the North Sea. During the summer months, the sun rises to the north-east, swinging around to the south-east during winter. Seaward views look across to Fife Ness and the East Neuk, with the Isle of May in the foreground.

How experienced

- 2.275 The seascape is experienced in a range of ways, including by numerous residents. Tourists and visitors to the area experience the coast from the seafronts of North Berwick and Dunbar, and from the beaches along the

coast. Walkers on the John Muir Way experience the coastline unfolding and changing gradually, while those who climb North Berwick Law experience a broad panorama taking in this whole seascape. Other visitors experience the historic aspect of the coast, at Tantallon Castle, or the natural heritage aspect, using the remote cameras at the Seabird Centre. Travellers on the A1 and East Coast Main Line experience part of this coast as they pass rapidly between Dunbar and Cockburnspath. The extensive tidal reach of the beaches results in a calm sea, however where rocks are present, the power of the waves against the rocks results in a dynamic and audible sense of the sea along the coast.

Modification/Remoteness/Sense of Naturalness

- 2.276 The arable, settled nature of the hinterland has an effect on the seascape, particularly where development adjoins the coast. The prominent power station at Torness has a strong influence over a long section of coast, reducing the sense of naturalness. The level of modification is reduced in areas where some separation is available between coast and land, such as below the cliffs around Seacliff, or in the south of the area.
- 2.277 Transport corridors and intrusive industrial development detract from the otherwise calm character of this landscape. Busy transport routes on land and sea gives a modified alongside built form at Dunbar and the industrialised coast consisting of the Power Station at Torness. The medium to large scale arable fields and sparse settlement areas provides a more naturalistic character. There is a presence of large tanker ships.
- 2.278 The coast is accessible via the John Muir Way up to Dunbar. Between Dunbar and North Berwick there are intermittent roads which access the coast from the A198, otherwise this stretch of the coast is not easily accessible and there is a sense of isolation along this stretch of coast due to the lack of structures and lack of human influences.

Exposure

- 2.279 This seascape does not have particularly high exposure. It is an open seascape but generally low lying, and often feels sheltered. The arable farmland, often wooded, quickly reduces the sense of coastal exposure which is only felt at the coastal edge.
- 2.280 There is a sense of exposure around the open, expansive areas of sands along the coast, enclosed by the low relief of the surrounding hinterland which emphasises the breadth of the water surface. The openness and expanse of water conveys the sense of the sea, an attribute which can be used to help accommodate larger scaled development, which is diminished in scale relative to the expanse of the water.

Process and dynamics

- 2.281 The extensive tidal reach of the beaches emphasise the dynamic experience of the sea in these areas. A dynamic character is also reflected where the coast is exposed to the power of the waves. There are few coastal defences along this coastline. At Dunbar there is a seawall and at Torness Point a substantial rock revetment and seawall protect the installation.



- 2.282 The mean spring tidal range within the area is 4.5m at Dunbar with a mean neap range of 2.2m. The tidal cycle has a period of just over 12 hours and high tide occurs at approximately the same time along the length of the coast.

Quality/condition

- 2.283 The quality and condition of the East Lothian regional seascape unit is Low – Medium. Existing development, the industrialised coastline, transport infrastructure and busy shipping lanes provide a development character in places to the regional seascape area.

Designation

- 2.284 The coastline is designated as part of an Area of Great Landscape Value (AGLV). The coast west of north Berwick is designated as the Firth of Forth Site of Special Scientific Interest (SSSI) around Belhaven Bay. Aberlady Bay is a Local Nature Reserve. North Berwick Law is designated as a SSSI as is the coast north of Dunbar and Barns Nest Coast.. There are Gardens and Designated Landscapes at Grey Walls, Archerfield, Luffness, Tynninghame. and Broxmouth Park. There are several Conservation Areas along the coast.

Sensitivity

- 2.285 **Medium** Sensitivity. Existing development, the industrialised coastline and transport infrastructure already give a localised development character in places and busy shipping lanes are present in the sea. Internal intervisibility is generally high, due to the simplicity of the landform and the lack of tree cover.
- 2.286 Turbines would relate to the relatively large scale seascape and generally linear coastline. Wind energy would relate to the perception of exposure and would be in keeping with the concentration of industrial development located along the coastline including the Power Station at Torness and Oswell Mains cement works.

Forces for Change

- 2.287 Pressure for onshore wind energy development within the Lammermuir Hills and this may increase sensitivity in some areas due to the potential cumulative impact. There is no significant longshore drift evident on the beach systems and hence areas of long-term erosion are not all that apparent. The northern end of Belhaven Bay known as Sandy Hirst may experience erosion.

SA 18 TORNESS POINT TO ST ABBS HEAD

Definition of regional seascape unit boundaries

- 2.288 Torness Point provides the northern extent and St Abb's Head provides the southern extent of the St Abb's Head to Torness Point Regional Seascape Unit. The visibility splays at the edge of this unit are defined by these headlands, with Torness Point providing views out to the North Sea and St Abb's Head containing views south.

Key Characteristics

- A landscape with a barren, exposed character and dramatic open views;
- Coastline formed by high, near vertical cliffs carved into strongly-folded resistant sedimentary rocks;
- Pocket beach at Pease Sands;
- Land cover dominated by arable and pastoral fields of varying size, field boundaries of mature thorn hedges with occasional hedgerow trees on lower ground;
- Gorse and other scrub common on steep slopes and exposed locations;
- Widely dispersed farmsteads along minor roads; and
- Cocksburnspath located inland near the coastal edge.

Scale and Openness

- 2.289 There is a transition between the hill slopes of the Lammermuir hills and the coast. Towards the coast the terrain opens out into a broad, gently undulating plain elevated along the coastline, giving the area an atmosphere of tranquillity.
- 2.290 The expansive views from the elevated coastline and open, exposed landscape has dramatic distant views along the rugged coastline and over the horizon of the North Sea. Localised enclosure such as moors and small scale settlement are located inland and create a more intimate and contained character. The pocket beach at Pease Sands provides accessible enclosure along the rugged coast.

Form

- 2.291 Generally elevated, the topography ranges from sea level to 250m, is characterised in inland areas by an undulating landform with strong slopes, valleys and areas of moor vegetation. At the coast the land drops away, in some place steeply to cliffs with a rocky shoreline below. There are significant headlands at St Abb's Head, Fast Castle Head and Reed Point. The majority of the shoreline is indented by rock form with steep sides which result in elevated views out to the sea.

Settlement

- 2.292 Settlement in this landscape is concentrated in a sheltered location inland at Cocksburnspath to the north of the area. There are scattered farmsteads and dwellings along a network of major and minor roads inland. Fast Castle is located on the coast along with several other National Trust properties. Tourism has a strong impact on this landscape and a number of camping and caravan sites are prominent, particularly around the pocket beach at Pease Sands.

Pattern and foci

- 2.293 The predominantly rugged coastline comprising cliffs creates a unifying influence along the coast. The localised focus of the headlands at St Abbs and

Fast Castle Head are prominent features creating a strong degree of indentation.

Lighting

- 2.294 Little lighting on land and none at sea, apart from ships.

Movement

- 2.295 The area is traversed by the A1107. The busy A1 road and the main East Coast rail line are located inland of several areas of moor. The A1 constitutes an important transport corridor which strongly influences the adjoining landscape.
- 2.296 Existing marine based activities consist of boats in harbours and ships at sea.

Aspect

- 2.297 The coastline faces north-east, with limited variation and as a result can experience severe wave conditions generated by the North Sea. During the summer months, the sun rises to the north-east, swinging around to the south-east during winter. On clear days the east facing and turbines would be backlit in the morning.

How experienced

- 2.298 This is a largely open, exposed landscape with dramatic distant views along the rugged coastline and over the North Sea. Experienced from transport corridors, major rail and road routes, settlement and from beaches and generally in the context of activity. There are panoramic views from St Abb's Head.

Modification/Remoteness/Sense of Naturalness

- 2.299 Busy transport routes on land and sea, with the presence of large tanker ships, gives a modified feel although the presence of small traditional settlements and a strong rural hinterland counters this impression. The high cliffs, moorland and sparse settlement of St Abb's Head has a more naturalistic character. There is a sense of ruggedness, naturalness and remoteness along the shoreline. There are no footpaths along the majority of the costal edge resulting in little actual accessibility to the coast and the hinterland, except along the A1107 inland. This gives a sense of isolation to the north of St Abb's Head.

Exposure

- 2.300 Fairly exposed due to openness and lack of shelter provided by the landform. St Abb's Head is particularly exposed and windswept.

Process and dynamics

- 2.301 A dynamic character is reflected where the coast are exposed to the power of the waves along the rugged coast. At Torness Point a rock revetment gives coastline protection. At Pease Sands gabions provide coastal defences around the caravan park.

Quality/condition

- 2.302 The quality and condition of the regional seascape unit is Medium.

Designation

- 2.303 The coastline is designated as part of an Area of Great Landscape Value (AGLV). Pease Bay, Siccar Point and Abbs Head to Fast Castle, Coldingham Common Long and Coldingham Lock SSSI are located along this stretch of coast. An Area of Berwickshire and North Northumberland Special Area of Conservation (SAC) is also located along and beyond the coast.

Sensitivity

- 2.304 **Medium** Sensitivity. Turbines would relate to the relatively large scale seascape and generally linear coastline, although turbines may visually compete with the strong foci of the high cliffs at St Abbs. Busy shipping lanes are present in the sea although the land is not over developed. Expansive views are available along the coastline and to and from the adjoining moorland, giving high intervisibility.
- 2.305 Wind energy would relate to the perception of exposure but may conflict with the scale and character of the dramatic coastal edge which exists in some sections of coastline.

Forces for Change

- 2.306 Pressure for onshore wind energy development within the Lammermuir Hills and this may increase sensitivity in some areas due to the potential cumulative impact. Integrity of agricultural character. Impact of A1 dualling scheme and potential tourism development pressure.

SA 19 ST ABB'S HEAD TO EYEMOUTH

Definition of regional seascape unit boundaries

- 2.307 St Abb's Head provides the northern extent and Eyemouth provides the southern extent of the Eyemouth to St Abbs Regional Seascape Unit. The visibility splays at the edge of this unit are defined by these headlands, with St Abb's Head providing views out to the North Sea and Ramfauks south of Eyemouth containing views south.

Key Characteristics

- A diverse coastal landscape of rugged sea cliffs;
- A landscape with a barren, exposed character and dramatic open views enclosed by the significant headland to the North Sea;
- Coastal edge rises to the isolated volcanic cliffs at St Abb's Head, frequented by tourists and solely accessible via footpaths;
- Settlement sited at the coast in sheltered folds and valleys inland at Coldingham and at the harbours edge at Eyemouth and St Abbs;
- Large rolling countryside inland, with wooded areas and widely dispersed farmsteads along minor roads;
- Transport corridors occupy elevated locations along the clifftops; and

- The Berwickshire Coast Path runs alongside the coast between St Abb's Head and Eyemouth.

Scale and Openness

- 2.308 The rugged, exposed and dramatic coastline and has distant views along the shoreline and over the North Sea.

Form

- 2.309 Generally elevated, the topography is characterised in inland areas by a rugged, strongly undulating landform with strong slopes, hillocks and gently contrasting sloping areas. At the coast the land drops away steeply to cliffs with a rocky shoreline below.

Settlement

- 2.310 Settlement in this landscape is concentrated in sheltered locations along the coast at the harbours of St Abbs and Eyemouth. The village of Coldingham which is located inland dates from early medieval times. Eyemouth is on the coast and is part seaside resort and part working fishing harbour. There are scattered farmsteads and dwellings along a network of major and minor roads inland. Modern dwellings and village fringe developments are found in a number of areas. Tourism has a strong impact on this landscape type and a number of camping and caravan sites are prominent.

Pattern and foci

- 2.311 Localised focus of the headlands at St Abbs and Eyemouth along a unified rugged coastline.

Lighting

- 2.312 This coastline is settled and developed in places and lighting is a feature of views, including street lighting in Eyemouth, Coldingham and St Abbs and along the A1107. There would be some lighting from ships at sea and the lighthouse at St Abb's Head. There is a sense of space from elevated sections of the coast.

Movement

- 2.313 The area is traversed by the A1107 near to the coast. The busy A1 road and the main East Coast rail line run close to the coast south of Eyemouth. The A1 constitutes an important transport corridor which strongly influences the adjoining landscape.

Aspect

- 2.314 The coastline which faces east turns inland between the headlands at St Abb's Head and Eyemouth. The east facing turbines would be backlit in the morning. Inland hills tend to limit views of sunsets.

How experienced

- 2.315 This is a largely open, exposed landscape with dramatic distant views along the rugged coastline and over the North Sea. Experienced from transport corridors, major rail and road routes, settlement and from beaches and

generally in the context of activity. There are panoramic views from St Abb's Head.

Modification/Remoteness/Sense of Naturalness

- 2.316 Busy transport routes on land and sea gives a modified feel although the presence of small traditional settlements and a strong rural hinterland counters this impression. The high cliffs, moorland and sparseness of St Abb's Head has a more naturalistic character.

Exposure

- 2.317 Fairly exposed due to openness and lack of shelter provided by landform. St Abbs is particularly exposed and windswept with inland areas of the coastline slightly more sheltered.

Process and dynamics

- 2.318 The extensive tidal reach of the beaches emphasise the dynamic experience of the sea in these areas. A dynamic character is also reflected where the coast is exposed to the power of the waves.

Quality/condition

- 2.319 The quality and condition of the regional seascape unit is High.

Designation

- 2.320 The Berwickshire and North Northumberland Special Area of Conservation (SAC) are located along and beyond the coast. The Berwickshire Coast SSSI is also located along this stretch of coast.

Sensitivity

- 2.321 **High** Sensitivity. Turbines may be evident from the elevated, well-visited yet isolated cliffs at St Abb's Head. The turbines may visually compete with the strong foci of the high cliffs at St Abb's Head. Existing development and transport infrastructure already give a localised development character in places and busy shipping lanes are present in the sea. Internal intervisibility is generally high, due to the simplicity of the landform inland. Expansive views are available along the coastline with high external intervisibility and sensitivity. Care should be taken not to encroach on panoramic views from the more remote St Abb's Head.
- 2.322 Wind energy would relate to the perception of exposure but may conflict with the scale of the dramatic coastal edge which exists in some sections of coastline.

Forces for Change

- 2.323 Pressure for expansion in existing villages and the impact of the A1 dualling scheme.

SA 20 EYEMOUTH TO BERWICK-UPON-TWEED

Definition of regional seascape unit boundaries

- 2.324 Eyemouth provides the northern extent and Berwick-upon-Tweed provides the southern extent of this Regional Seascape Unit. The visibility splays at the edge of this unit are defined by these headlands, with Berwick-upon-Tweed providing views out to the North Sea and Eyemouth containing views north.

Key Characteristics

- The coastline is relatively linear, and is comprised of mainly rocky cliffs;
- The enclosed harbour at Burnmouth is a feature in the area and is also surrounded by rocky cliffs;
- There are several small headlands to the south of Eyemouth, including Agate Point and Horse Head;
- The Berwickshire Coast Path runs close to the shoreline;
- Inland the medium to large scale landscape is open and undulating; and
- The busy A1 road and the main East Coast rail line runs close to the coast.

Scale and Openness

- 2.325 The land rises relatively sharply from the coast to the A1 and the main East Coast rail line. There are views of the sea from the elevated landform along the coastal edge giving a sense of scale and openness, although the steep cliffs and rocks below also create a sense of enclosure. The coastal fringe landscape is rocky and linear and only indent at Harker's Haven, Burnmouth Bay and at Marshall Meadows Point.

Form

- 2.326 At the coast the land drops away, in some place steeply to cliffs with a rocky shoreline below. Inland, areas comprise of an undulating landform with little vegetation. There are several small headlands located along the coast and indents at Burnmouth harbour and Marshall Meadows Bay.

Settlement

- 2.327 The town of Berwick-Upon-Tweed is located to the south of the area and Eyemouth is located to the north. Burnmouth which is accessed via a steep road which then stretches along the harbour developed as a small fishing harbour and still retains some of its original character. Burnmouth lies at the point where a burn slices through the high cliffs Inland the coastal plain is characterised by small nucleated settlements. There is a Golf Club along the coast at Eyemouth and a caravan park at Marshall Meadows Point.

Pattern and foci

- 2.328 There is a unifying influence of the linear coastline. There is the localised focus of Burnmouth harbour and the development at Berwick-upon Tweed and Eyemouth at either end of the unit.

Lighting

- 2.329 Little lighting on land at the major settlements and none at sea, apart from ships.

Movement

- 2.330 The busy A1 road and the main East Coast rail line run close to the coast. The A1 constitutes an important transport corridor which strongly influences the adjoining landscape.

Aspect

- 2.331 East facing and turbines would be backlit in the morning.

How experienced

- 2.332 This is a largely open, exposed landscape with distant views from the rugged coastline over the North Sea. Experienced from transport corridors, major rail and road routes, settlement at Berwick-upon-Tweed, Eyemouth and Burnmouth as well as recreational areas. The area is also experienced from the Berwickshire Coast Path which at times is located on the very edge of the cliffs.

Modification/Remoteness/Sense of Naturalness

- 2.333 Busy transport routes on land plus Berwick-upon –Tweed, Eyemouth and Burnmouth gives a modified feel. The cliffs and small headland give the area a more naturalistic feel.

Exposure

- 2.334 Fairly exposed due to elevated character on the cliff tops and along the rugged coastline.

Process and dynamics

- 2.335 A dynamic character is reflected where the coast is exposed to the power of the waves along the cliffs.

Quality/condition

- 2.336 The quality and condition of the Eyemouth to Berwick-upon-Tweed regional seascape unit is Medium. Existing development in the main centres and transport infrastructure provide a development character in places. The linear coastline is relatively unspoilt.

Designation

- 2.337 The coastline is designated as part of an Area of Great Landscape Value (AGLV). The Berwickshire and North Northumberland Special Area of Conservation (SAC) are located along and beyond the coast. Netherbyres and Ayton Castle Garden and Designated Landscapes and Burnmouth Coast SSSI are also located in the area.

Sensitivity

- 2.338 **Low Sensitivity.** Turbines would relate to the relatively linear elevated coastline. Existing development and transport infrastructure already give a

localised development character in places and shipping lanes are present in the sea.

Forces for Change

- 2.339 Impact of AI dualling scheme and potential tourism development pressure along with the decline of fishing industries.

SA 21 BERWICK-UPON-TWEED TO HOLY ISLAND

Definition of regional seascape unit boundaries

- 2.340 Berwick-upon-Sea provides the northern extent and Holy Island provides the southern extent of the Holy Island to Berwick-upon-Tweed Regional Seascape Unit. The visibility splays at the edge of this unit are defined by these headlands with Berwick-upon-Tweed providing views out to the North Sea and Holy Island containing views south.

Key Characteristics

- Berwick-upon-Tweed and Holy Island are distinctive features;
- Narrow, low-lying, windswept coastal plain with wide views east towards the sea;
- Diverse coastal scenery, with a coast of spectacular high cliffs, off-shore islands, and rocky headlands to the north, contrast with a coast of wide sweeping sandy bays backed by sand dunes and intertidal flats to the south;
- An intensively farmed landscape of predominantly open mixed arable land with limited trees and woodland, and permanent pasture/semi-natural grassland typical of the valleys and coastal fringes;
- The River Tweed crosses the coastal plain at Berwick-upon-Tweed;
- Lindisfarne National Nature Reserve is located along the shoreline south of Berwick-upon-Tweed;
- The Northumberland Coast Path runs parallel to the coast ;
- Holy Island is accessed via the Lindisfarne Causeway;
- A distinctive historic heritage reflects the importance of ecclesiastical influences and the strategic defence of the coast as well as the English/Scottish border. Features include prominent medieval castles, fortifications and structures from both world wars and religious buildings; and
- Dispersed pattern of isolated farmsteads, small nucleated villages, fishing villages and small coastal resort towns.

Scale and Openness

- 2.341 The coastal fringe landscape is varied. Spectacular and inaccessible high rocky cliffs characterise the coast to the north of the Tweed estuary. To the south are softer limestone cliffs, the sandy beaches of Cocklawburn and Cheswick

and the extensive intertidal mud flats, saltmarsh and sand dunes of Lindisfarne. The largely straight coastline and open, exposed landscape with wide, sweeping, sandy bays backed by sand dunes, has dramatic distant views along the rugged coastline and over the North Sea.

Form

- 2.342 There are headlands in the extreme north of the area with less resistant areas being eroded to form bays at Cheswick Sands, Cocklawburn Beach as well as Lindisfarne Natural Nature Reserve form sandy flat areas.

Settlement

- 2.343 The walled and extensively fortified town of Berwick-Upon-Tweed, located at the river's mouth, has a well-preserved form and character which reflects its strategic importance in Elizabethan times and its past prosperity as an agricultural market town and fisheries port. Berwick was extensively fortified as a walled town and formed a cornerstone of Tudor defences. The river Tweed formed a natural frontier between the kingdoms of England and Scotland, and the landscape of the adjacent coastal plain has been strongly influenced by the legacy of medieval cross-border warfare.
- 2.344 Smaller coastal towns and villages have developed as fishing and trading centres, but are now more geared towards tourism. There is a dispersed pattern of isolated farmsteads, small nucleated villages, fishing villages and small coastal resort towns.
- 2.345 The Holy Island of Lindisfarne is linked to the mainland only by a tidal causeway. The island retains a remote, spiritual quality which first prompted the founding of an ancient monastery in 635. Lindisfarne castle is located on the south east of the island.

Pattern and foci

- 2.346 The localised focus of the Berwick-upon-Tweed and Holy Island settlements. Otherwise the coast is relatively flat south of Berwick-upon-Tweed.

Lighting

- 2.347 There is little lighting on land and none at sea, apart from ships. There would be some lighting from Berwick-upon-Tweed and Holy Island on the coast.

Movement

- 2.348 The busy A1 road and the main East Coast rail line runs close to the coast. The A1 constitutes an important transport corridor which strongly influences the adjoining landscape.

Aspect

- 2.349 East facing turbines.

How experienced

- 2.350 This is a largely open, exposed landscape with dramatic distant views from the sand dunes and beaches as well as from the northern rugged coastline over the North Sea. The landscape is experienced from transport corridors, rail and road routes, Berwick-upon-Tweed, Holy Island and from beaches.

Modification/Remoteness/Sense of Naturalness

- 2.351 Busy transport routes on land and sea plus Berwick-upon-Tweed gives a modified feel although the presence of small traditional settlements and a strong rural hinterland counters this impression. Presence of large tanker ships. The island and sand dunes have a more naturalistic character.

Exposure

- 2.352 Fairly exposed due to openness and lack of shelter provided by sand dunes and beaches and rugged coastline to the north.

Process and dynamics

- 2.353 The extensive tidal reach of the beaches emphasise the dynamic experience of the sea in these areas. A dynamic character is also reflected where the coast are exposed to the power of the waves.

Quality/condition

- 2.354 The quality and condition of the Holy Island to Berwick-upon-Tweed regional seascape unit is Medium.

Designation

- 2.355 The coastline is designated as part of an Area of Great Landscape Value (AGLV). Lindisfarne RAMSAR and National Nature Reserve are located to the south of the regional seascape unit and stretches around Holy Island. Bamburgh Coast and Hills SSSI is located along the coastal edge. The Berwickshire and North Northumberland Special Area of Conservation (SAC) are located along and beyond the coast. Lindisfarne Castle Registered Park and Garden is located on Holy Island.

Sensitivity

- 2.356 **Medium** Sensitivity. Turbines would relate to the relatively large scale seascape and generally linear coastline. Existing development and transport infrastructure already give a localised development character in places and busy shipping lanes are present in the sea. Expansive views are available along the coastline giving a high external intervisibility.
- 2.357 Wind energy would relate to the perception of exposure but may conflict with the scale and character of traditional settlements and the soft coastal edge which exists in some sections of coastline. Turbines may visually compete with the island foci of the Holy Island.

Forces for Change

- 2.358 Pressure for expansion in existing villages, the impact of the A1 dualling scheme and potential tourism pressure. The decline of the coal-mining and fishing industries and the increasing importance of recreation and tourism has brought about changes to the character of the coastal plain.