

EAST LOTHIAN COASTAL TOURISM STRATEGY



PART 1—TECHNICAL REPORT



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1. BACKGROUND

1.1 Introduction

East Lothian's coast is one of its most attractive and important assets. It is enjoyed, explored and appreciated by an estimated 1.414 million tourism visitors (STEAM 2008) spending £225m each year. East Lothian residents also make many recreational visits to the coast from their homes. As such it is arguably one of the most significant stretches of coastline for tourism and recreation in Scotland. It is also important for wildlife and geology, having been awarded National, European and International nature conservation designations.

The importance of the coast as a visitor destination is recognised in the East Lothian Tourism Action Plan 2007 – 2010, which also recognises its vulnerability and the need to sustain and protect the environment that visitors come to enjoy. East Lothian is for the most part an accessible rural area of small towns and villages with residents enjoying a high quality of life within an attractive coastal and countryside landscape, but close to a major capital city. These attributes contribute to the challenges and opportunities of a growing population and being linked to the wider Edinburgh city region.

East Lothian is dotted with historic sites including castles, notable battlefields and war time facilities. Most historic towns and village centres are designated as Conservation Areas and almost 1 in 5 properties in East Lothian are either listed or located in a conservation area. Narrow streets, old fishing harbours, red pantiles, crow stepped gables and later Victorian and Edwardian villas define many coastal settlements. East Lothian is extraordinarily rich in archaeology and the Sites and Monuments Record currently consists of approximately 7,000 sites.

The past has left a legacy along the coast of important people and features still valued today. Reputedly the saltire, the Scottish national flag and emblem, was derived from a propitious cloud formation over East Lothian prior to a battle. R L Stevenson based Treasure Island on his experiences of the East Lothian coast and poet Robert Burns visiting Dunbar in May 1787 described Dunglass, East Lothian's most southerly coastal settlement as "the most romantic sweet place I ever saw". Dunbar is the birth place of the internationally noted conservationist John Muir often described as the father of the National Parks movement.

East Lothian has 22 golf courses, 18 of which are in a coastal setting (16 links and 2 parkland) offering choice to golfers of all standards and tastes. From the historic to the modern the links courses of East Lothian attract players from Scotland, the north of England and overseas, especially the US. Musselburgh has Scotland's oldest golf course (1672) and oldest sporting trophy, the Musselburgh Silver Arrow. Muirfield has hosted the Open Championship 16 times and will do so again in 2013 ensuring once more a worldwide television audience.

Away from settlements, where natural rock formations and man made defences provide stability and protection to houses and businesses, the coastline is dynamic. Beaches, sand dunes, mud flats and estuaries are essentially unstable.

They move, changing shape and form. Consequently large lengths of the East Lothian coast have remained relatively undeveloped and despite over-fishing the coastal waters of the Firth of Forth are still rich in wildlife, notably birds. The iconic Bass Rock even provides the Latin name for its most numerous residents Sula bassana, the gannet. In recent decades, these special qualities have caused sections of the coast to be designated as part of a suite of nationally and internationally protected sites.

The Council need to encourage sustainable tourism and to provide a quality visitor experience, while continuing to sustain the rich diversity of the East Lothian coast. The Council, therefore, have commissioned the development of a two part Coastal Tourism Strategy for the East Lothian Coast.

The purpose of the Strategy is to set out how tourism at the coast can be managed and promoted while sustaining the rich diversity of the coast.

Part 1 is a Technical Report providing research into the relationship between the natural heritage of the East Lothian coast and recreational/ tourism uses and trends. It describes then evaluates the natural heritage, tourism and visitor information available on the coast, forming a baseline to inform preparation of Part 2 – the East Lothian Coastal Tourism Strategy.

Part 2, the Strategy, is about bringing together partners in a shared vision. The strategy will form a framework for actions to both protect and conserve an exceptional place and encourage visitors to make the most of coastal tourism opportunities.

PART A – DESCRIPTION

2. EAST LOTHIAN COASTAL TOURISM AREA

The following working definition of what is meant by the ‘Coast’ has been employed and provides the parameters for the assessment of the natural heritage and visitor information undertaken in this Report.

2.1 What is the East Lothian coast?

PAN 53 – Classifying the Coast for Planning purposes suggests councils determine the landward extent of the coast on the extent of the land created by coastal processes in their area based on direct physical, environmental and economic linkages between land and sea. Coastal settlements of more than 2,000 people are deemed to form developed coast, the rest being undeveloped. For the purposes of this strategy the East Lothian coast is taken to be the strip of land extending east from Edinburgh for 69km to the boundary with the Scottish Borders. The coastline is considered to include the off shore islands and coastal waters. (See Overview map Appendix 7)

Inland the boundary uses as a guide the extent of the coastal fringe as defined by the 1998 landscape character assessment.¹ Coastal is an informal term used to include both the actual coastline and the immediate towns and countryside which provide the infrastructure that enable people to visit and enjoy the coast.

2.2 Coastal people

Much of the East Lothian population lives on the coast. The main towns being Musselburgh (population 22,122), Prestonpans (7,153), and Cockenzie/Port Seton (5,499) with North Berwick (6,223) and Dunbar (6,354) to the east (all figures 2001 Census).

There are three areas of Multiple Deprivation in East Lothian with one data zone in the lowest 15% and two in the lowest 20% according to the 2006 Scottish Index of Multiple Deprivation. These areas are within the towns of Tranent and Prestonpans, the latter being on the coast.

Unlike most of Scotland, population growth over each of the past three decades has been between 6 and 7 %, the second highest in Scotland. This reflects East Lothian’s attraction as a place in which to live and its role in, and accessibility to, the wider Edinburgh housing market area. Trend projections suggest a population growth of 21.2% by 2031. The Scottish Government’s Urban Rural Classification 2005-2006 showed East Lothian to be the most diverse Council area in Scotland in terms of urbanity and rurality. 47% of the working population commutes out of East Lothian for employment and the county has low levels of unemployment.

¹ ASH Consulting Group (1998) *The Lothians Landscape character assessment*. No 91. Scottish Natural Heritage, Edinburgh

2.3 Who owns the coast?

East Lothian Council owns or manages a large part of the county's open space. This includes 75% of the coastline together with other sites in the coastal strip including old railway walks, pockets of woodland and North Berwick Law. Other parts of the coastline, including golf courses are privately owned but legislation supports responsible access to most places along the coast

2.4 How is the coast conserved?

The coastline is conserved by a range of International, European, National, and Regional natural and cultural heritage designations which set out the heritage values

- Firth of Forth Ramsar site
- Firth of Forth and Forth Islands Special Protection Areas (Natura 2000) (SPA)
- Firth of Forth, Forth Islands, Bass Rock and Barns Ness Coast Sites of Special Scientific Interest (SSSI)
- Archerfield, Balgone, Belhaven, Beil, Broxmouth, Carberry Tower, Cockenzie House, Dirleton Castle and Dunglass Gardens and Designed Landscape Sites
- Barns Ness and North Berwick Law Regionally Important Geological Sites (RIGS)
- John Muir Country Park
- Aberlady Bay Local Nature Reserve (LNR)
- AGLV's
- Wildlife Sites
- 10 Coastal Town/Village Conservation areas are identified in the Local Plan.

See Appendix 5 for details of East Lothian coast designated sites

2.5 How is the coast managed?

The East Lothian coast extends east from Edinburgh for 69km along the south shore of the Firth of Forth. With PAN 53 as guidance the coastline is defined in the Local Plan as undeveloped with the exception of short sections of developed coast between the east side of Musselburgh and the west side of Prestonpans and at North Berwick and Dunbar.

There are extensive sources detailing natural heritage values and tourism/recreational activity along the coastal strip and the extent of management. East Lothian Council has site specific management plans for 12 coastal sites, 11 bathing beaches and two harbours.

The Council also has a broad range of over arching statutory and advisory plans and strategies. For example the administration's Our Contract with the People, the East Lothian Local Plan, the Tourism Action Plan, the Biodiversity Action Plan and the Heritage Strategy (*Strategic and operational plans are listed and described in Appendix 2.*)

Other Government agencies, in particular Scottish Natural Heritage, are responsible for providing advice and monitoring services to Scottish Ministers on international, European and national designations.

2.6 How is the coast monitored?

The East Lothian Council's Countryside Section carries out 20 coastal species monitoring projects (Countryside Ranger Service Annual Report 2007). The Biodiversity Action Plan identifies monitoring responsibilities for various species and habitat types.

Recreational and visitor activity is monitored quantitatively through car and people 'counters' at nine key sites. Further site or activity based recreational monitoring is carried out. (Countryside Ranger Service 2007 Annual report)

Tourism activity is monitored through VisitScotland surveys. STEAM uses occupancy data from 25 businesses, coupled with total East Lothian bed stock figures and economic multipliers to drive its model and calculates direct and indirect economic impact, employment, tourist days, tourist numbers, vehicle days and vehicle numbers. Wider economic activity and demographics are monitored by both East Lothian Council and the Scottish Government.

Scottish Natural Heritage monitors the condition of natural heritage features and site integrity at designated sites. Other biodiversity monitoring is done in association with volunteer observers (often RSPB, SWT etc) for example by carrying out WEBS counts with results being collated through local recorders and the Lothians Wildlife Information Centre or through industry groups like the Scottish Golf Environment group.

The Scottish Environmental Protection Agency monitors water quality at 12 designated bathing water sites along the East Lothian coast.

3. STATUTORY AND ADVISORY GUIDANCE RELATING TO THE EAST LOTHIAN COAST

3.1 Strategic context

East Lothian Council's 2007 declaration of intent - **Our Contract with the People** set out the administration's direction and values. In the contract Council leaders set out their vision which clearly embraces coastal tourism.

Our amazing coast and countryside is too precious to waste. Our vision for East Lothian is of a rural retreat in contrast to Edinburgh's dynamic city, attracting foreign visitors and local day-trippers alike. But, rather than a stasis, we are looking for a low impact dynamic that allows small business to thrive in each of our towns, while the pleasant rolling country between remains attractive and secure. We see the economic future resting on tourism and low-impact, professional business.

In the Contract the following focus points for coastal tourism are emphasised

- Golf will remain a pivotal attraction but a variety of others, building on the success of the Scottish Seabird Centre and Museum of Flight, will be our goal.
- Complementing this will be exploitation of the potential for water sports (scuba, surfing, kayaking, etc) all along our coast.
- We'll be seeking to exploit and develop the excellent seafood we can offer.
- Tourism to develop greater focus on golf; wildlife; heritage & outdoor pursuits.
- Promote and facilitate professional small business within our town centres.
- Promote the marketing of East Lothian's excellent natural produce locally.
- Develop specialist local retail initiatives.

To deliver the Contract the **East Lothian Corporate Plan** for 2008-2012 explains how the Council, and the services it provides, helps to improve quality of life while maintaining and improving the East Lothian environment. The plan sets out six key policy objectives

- Provide Affordable Housing
- Keep Our Environment Clean and Green
- Help Build Safer Communities
- Raise Educational Attainment
- Encourage Enterprise and Skills
- Promote Healthy Living and Improve Social Care

The Corporate Plan includes a vision for 2020 in which:

'East Lothian will have an established reputation as having the highest quality of life in the United Kingdom and the quality of our environment will be recognised as amongst the best in Europe. Our dynamic and flourishing economy will support strong, sustainable, safe and inclusive communities where: the demand for affordable, high standard housing will be met; our world class education service will encourage all our children and young people to achieve their full potential; and, all our citizens will have access to the highest quality public services and a modern integrated transport infrastructure. In 2020 our citizens will be proud to live, learn, work and play in East Lothian.'

A key **environmental target** is to:

Increase to 95% the proportion of protected nature sites in favourable condition.

A key **economic target** is to maximise economic development and to:

Develop Tourism with a greater focus on golf, wildlife, heritage and outdoor pursuits.

The **East Lothian Community Plan** 2007-2016 brings together public agencies and the community to work towards a shared vision for East Lothian in 2020. A series of actions in the Plan are based on the following priorities:

- Increase the supply of affordable housing
- Keep our environment clean and green
- Help build safer communities
- Raise educational attainment
- Encourage enterprise and skills
- Promote healthy living and social care

The plan has targets for the development of management plans for coastal sites and the implementation of the Biodiversity Management Plan.

Environment targets relate to the development of a sustainable network of paths and dealing with litter and fly tipping.

Ensuring high quality parks and open spaces and providing opportunities for young people to experience outdoor education activities are key healthy living targets.

Development activity on the coast including recreation and tourism infrastructure is managed through the **East Lothian Local Plan (adopted 2008)** which explains and justifies the Council's approach to the development and use of land within East Lothian.

Together with the **Edinburgh and the Lothians Structure Plan 2015** it forms the statutory development plan for East Lothian. Its main functions are:

- to apply national and regional planning policies;
- to stimulate and encourage appropriate development;
- to protect the environment from inappropriate development through policies relating to sites and species of international, national and local importance;
- to provide a detailed basis for the determination of planning applications;
- to show how those who have an interest in the area are affected by, or can contribute to, the implementation of the plan.

East Lothian Council in line with National Planning Policy Guideline (NPPG) 13 – Coastal Planning, published in 1997 classified their coasts using two of the three broad categories – “Developed”, “Undeveloped” and “Isolated”. NPPG 13 provided definitions and policy guidance for each and notes tourism developments should normally be directed to the developed coast sections. To support this work, the then Scottish Executive also published a Planning Advice Note (PAN 53) which gave further guidance on the indicators and criteria to be used for the area classification.

Significantly the **Local Plan** notes:

‘East Lothian’s countryside and undeveloped coast exhibits little need for regeneration, renewal or action to redress population decline. It is not a remote rural area rather, it is an area where few, if any, locations are more than one hour’s travel time of Edinburgh and, on the whole, is characterised by increasing population and economic growth and a continuing pressure for housing development both within and outwith its towns and villages’.

The Corporate Plan, Community Plan and the Local Plan are informed by a range of plans and strategies including:

East Lothian Plans:

East Lothian Council Single Outcome Agreements 2008/2009
East Lothian Council Community Plan 2007–2016
East Lothian Council Tourism Plan 2007–2010
East Lothian Draft Core Path Plan - 2008
East Lothian Biodiversity Action Plan
East Lothian Shoreline Management Plan 2001

East Lothian Strategies:

East Lothian Council Economic Development Strategy 2006
2005 Joint Economic Development Strategy with Scottish Enterprise linking East Lothian to the Edinburgh City region
East Lothian Council Local Transport Strategy 2001
East Lothian Heritage Strategy 2007–2010

East Lothian Strategy for Water Sports (SE Scotland Water Sports Guide)

Golf East Lothian

East Lothian Council Golf Tourism Strategy

East Lothian Sustainability Statement

East Lothian Environment Strategy

Measurement of progress is through the **East Lothian Single Outcome Agreement 2009-10**. The SOA purpose is to identify areas for improvement and to deliver better outcomes for the people of East Lothian and Scotland, through specific commitments made by community planning partners and the Scottish Government. Two outcomes are directly relevant to coastal tourism.

National Outcome 1: We live in a Scotland that is the most attractive place for doing business in Europe.

National Outcome 12: We value and enjoy our built and natural environment and protect it and enhance it for future generations.

Attached to each is a logic model to guide delivery.

The **East Lothian Tourism Action Plan** 2007–2010 stresses the importance of tourism to the local economy with the distribution, hotels and restaurants sector accounting for almost one quarter of local jobs.

"Tourism is a significant sector of the East Lothian economy, generating income in inter-dependent sectors including: accommodation, visitor attractions, food, drink and leisure. Visitors are attracted to East Lothian for the quality of the environment and a range of cultural and sporting activities. Current drivers include the growth in the number of day trippers and the short break market. In 2005 the Distribution, hotels and restaurants sector (as defined by The Office for National Statistics NOMIS), is the second largest sector in East Lothian employing 5,453 people, which accounts for 22% of all employment in the area, "excluding self employed."

The Plan recognises that visitors are attracted to East Lothian for the quality of the environment and a range of cultural and sporting activities and that tourism businesses share a responsibility for protecting this unique resource.

The current Plan is due for revision in 2010 for 2010 -2013, but a review of actions in this plan reveals the following:

- Lack of actions confidently expressing tourism's role in managing coastal ecology effectively in order to exploit sustainable business opportunities.
- Lack of actions advocating the formation of coastal clusters to augment product ranges and cross selling of activities/products and joint marketing.
- Lack of actions involving agency and industry coordination to tackle and manage and thus minimise impacts of tourism on East Lothian coastline.

Of particular relevance to the Coastal Tourism Strategy are actions contained in the **East Lothian Heritage Strategy** 2007-2010. The Heritage Strategy actions include:

- Form a Heritage Tourism Working Group to drive the development of strategic heritage projects in East Lothian and co-ordinate relevant marketing.
- Work in partnership to promote and develop heritage as part of tourism planning for East Lothian to build on the success of the East Lothian Tourism Attractions Group.
- Establish a register of heritage interpretation in East Lothian to inform planning and renewal.
- Research the potential to market East Lothian for heritage tourism and identify marketing initiatives to support and promote heritage based tourism in East Lothian.
- Seek to sustain the renewal and reprinting of interpretative material.
- Consider potential to use the heritage theme as a focus for the marketing and promoting of the East Lothian 'brand' in a national and international context.
- Develop and implement a Heritage Access Strategy.
- Further develop the links between indoor and outdoor heritage experiences and learning e.g. John Muir's Birthplace and John Muir Country Park.
- Explore options for interpreting specific East Lothian heritage themes including golf, fishing and the lives of key historical figures.

The Heritage Tourism Working Group was set up in 2008. Heritage is also discussed by the Attractions Group and the Tourism Forum.

Reviewing action to date we understand that the register of heritage interpretation has not been carried out and research on the potential to market East Lothian for heritage tourism has not been commissioned. A 'Heritage' brand for East Lothian has not been identified.

The Heritage Access Strategy has not been commissioned and reprinting of interpretive material remains a budgetary issue.

However, some links between indoor and outdoor heritage experience have been progressed through the John Muir Odyssey and also with the Ranger Service. Research into a Golf Heritage Trail is currently being researched and initial work on a John Muir Strategy has been undertaken.

A **Strategy for Water Sports in East Lothian** was completed in September 2008. The Strategy highlights the following issues in relation to Water sports development in East Lothian

- East Lothian is never likely to become a mass-market destination for water sports due to physical factors such as the prevailing wind, wave and sea current patterns, and the aspects of many of the beaches
- The area's main strength is its sheltered waters and generally non-extreme conditions, which make it ideal for novices and children to learn to surf, windsurf and kayak and build their confidence
- Conservation bodies have concerns that increased water sports usage will have impact upon internationally important assemblages of birds
- Despite the wide range of water sports practised in East Lothian, the number of specialist businesses serving the market is low
- It appears that the enthusiasts of different sports have little contact with each other
- There is very limited overnight accommodation suitable for water sports enthusiasts.
- The main issue concerning clubs and enthusiasts is the poor standard of infrastructure at the parts of the coast which they use

The Strategy sets a series of Strategic priorities under the themes of:

- **Place**
- **Product**
- **Promotion**
- **Progress**

The Priorities under the theme of **Place** are:

- To ensure that all required environmental assessments are carried out.
- To make water sports participants more aware of the impacts of their activities by means of better information provision (both off-site and on-site) and "soft" educational activities.
- To encourage participants to move to less environmentally-sensitive areas of the coastline (and, perhaps, Whiteadder Reservoir) by the expedient of providing better facilities there.
- To consider the introduction of quota systems in some areas; this might help to reassure all concerned that water sports are being managed thoughtfully rather than being entirely unregulated.

The Priorities under the theme of **Product** are:

- To implement the 2009-12 coastal car park improvement programme, resourced by ring-fenced funding raised in whole or part from parking charges.
- To find a new solution to the “height barrier” issue in coastal car parks.
- To improve and widen the availability of publicly-provided water sports tuition and equipment hire.
- To set up and support a number of local coastline user groups, based on the model of the existing Belhaven Bay group.
- To ensure that the opening periods of public toilet facilities meet the needs of water sports enthusiasts.
- To improve the information about/signposting of local businesses provided at coastal car parks.

The Priorities under the theme of **Promotion** are:

- To focus on the identified primary and secondary markets.
- To work collaboratively with local businesses to plan and deliver promotional activities.
- To support the development of “taster day” events, to be held each summer.

The Priorities under the theme of **Progress** are:

- To create robust and sustainable processes for measuring and evaluating the volume, value and other impacts of water sports (including establishing realistic targets to be used for monitoring progress).
- To put in place a dedicated resource for delivering the Water Sports Action Plan.
- To communicate effectively with all stakeholders.

The Strategy concludes that ‘*whilst there is certainly some potential to grow the water sports sector in East Lothian, significant constraints have also become apparent. These include environmental and conservation sensitivities, the limited capacity of the business community to lead and participate in product development, and not least the fundamental elements of East Lothian’s sea conditions, coastal morphology and climate. It would be pragmatic to acknowledge that these constraints, when taken together, mean that the area cannot ever realistically hope to become one of the UK’s leading water sports destinations’.*

The draft **Scottish Marine Bill** was published in July 2008 and it sets out how Scotland will comply with the EU Marine Strategy Framework Directive. It sets out similar aims to the UK Marine Bill i.e. sustainable use of coastal and marine resources. It addressed four key topics: marine planning; licensing and enforcement; nature conservation and science and data. The new marine management organisation *Marine Scotland* has an overarching co-ordinating role and will produce a National Marine Plan for Scotland.

In parallel with the Marine Bill the **Scottish Sustainable Marine Environment initiative** aims to develop and then test the benefits of new management ideas for the sustainable development of Scotland's marine resources. This is being carried out through pilot projects on the Shetland Islands, the Berwickshire Coast, the Sound of Mull and the Firth of Clyde.

Of relevance to East Lothian is the Berwickshire SSMEI pilot which is funded by the Scottish Government, Scottish Borders Council (SBC), Scottish Natural Heritage (SNH), and the Scottish Borders Leader+ Programme. It is coordinated by Scottish Borders Council. The pilot is made up of a local Steering Group and a full-time project officer.

The aim of this pilot is to promote and encourage more sustainable management of the marine environment through enhanced community engagement and participation. The pilot is working on 4 areas; Fisheries, Integrated Harbour Management, Visitor management and a socio economic and environment review. A study on the business benefits of East Berwickshire as a dive location was carried out with the assistance of the SSMEI as part of an Adventure Sports strategy for the Borders.

Details on individual plans and strategies are included in Appendix 2.

3.2 Natural heritage designations

Most of the 69km of the East Lothian coast is covered by international and national natural heritage designations. Ensuring the integrities of all designations are protected is central to East Lothian Council's policies. Maps 1–13 in appendix 7 show the distribution of designations by section.

The key international legislation influencing management are the 6,313.72 ha **Firth of Forth Special Protection Area (SPA)** and the 106ha Forth Islands SPA designated in 1999. Importantly, the area covered by the SPA is also classified as the **Firth of Forth Ramsar site**. Special Protection Areas are designated through the Wild Bird Directive (79/409/EEC).

Ramsar sites are designated under the Ramsar Convention on Wetlands of International Importance. The Firth of Forth site was designated in March 1999.

The national designation directly related to the site is the **Firth of Forth SSSI**, notified in 2000 and covering 7,420 ha.

Guidance on implementing the Habitats Regulations is provided in the Scottish Executive Circular 6/1995 (revised in June 2000) entitled "Nature Conservation: Implementation in Scotland of EC Directives on the Conservation of Natural Habitats and of Wild Flora and Fauna and the Conservation of Wild Birds". See Appendix 5.

Appendix A of this Circular (Consideration of Development Proposals Affecting SPAs and SACs) is of particular relevance to impacts. The Circular identifies eight stages to be applied in considering the potential impact on the Natura interests:

- 1 What is the proposal?
- 2 Is the proposal directly connected with or necessary to site management for nature conservation?
- 3 Is the proposal likely to have a significant effect on the site?
- 4 Can it be demonstrated that the proposal does not adversely effect the integrity of the site?

Significance is a function of the qualifying interest features, the potential hazards (in this case, tourism) and the probability, magnitude, duration and reversibility of that hazard.

- 5 Are there reasonable alternatives?
- 6 Would a priority habitat or species be affected adversely?
- 7 Are there imperative reasons of overriding public interest?
- 8 Are there serious health or safety considerations, or benefits of primary importance to the environment?

It is worth noting that Paragraph 18 states that the Habitats Directive does **not** impose a general prohibition on development in Natura sites and many wildlife species and habitats readily co-exist with human activity, and they may well rely upon it. **Guidance also suggests measures to reduce impacts from hazards should be reasonable and practicable.**

In assessing effects on integrity, competent authorities must consider the conservation objectives that relate to the Natura features. For a qualifying habitat the overall conservation objective is to avoid deterioration of the habitat. This means in practical terms that, for the habitat/species concerned, Member States should in particular ensure that the following are maintained in the long term:

- Extent of habitat on the site;
- Distribution of habitat within the site;
- Structure and function of the habitat;
- Processes supporting the habitat;
- Distribution of typical species of the habitat;
- Viability of typical species as components of the habitat;
- No significant disturbance of typical species of the habitat.

Article 1 of the Habitats Directive states:

The conservative status of a natural habitat will be taken as 'favourable' when:

- its natural range and area it covers within that range are stable or increasing, and;
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

The conservation status of a species will be taken as 'favourable' when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and;
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and;
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

4. NATURAL HERITAGE SENSITIVITIES AND TRENDS

4.1 Natural heritage trends

Information on natural heritage sensitivities and trends along the East Lothian coast has been drawn from a variety of sources. The SPAs and SSSI along the East Lothian coastal strip include a range of species as noted (SSSI) or qualifying features (SPA) (see Appendix 5). Estuarine waterbird species are the most significant qualifying features noted for the East Lothian coast and have been subject to the greatest levels of research. Studies of other species and habitats that are qualifying features and are of generic relevance are also referenced.

For designated sites SNH monitors sensitivities and trends in a process called site condition monitoring. Site condition monitoring results for qualifying and notifiable features occurring in the East Lothian sites have been summarised in Table 1. This term is explained in section 3.2 above. Appendix 4 carries the habitat and species frames which have been used to gather the trend information on the natural heritage of the East Lothian coast. Site condition monitoring appears to show the majority (78%) of features are in favourable condition. For some of those that are not, site monitoring notes on some features question the veracity of the survey work supporting the monitoring so the favourable rating could be higher. However the 78% is still some way below the 95% target identified in the SOA.

The BTO through their Wetland Bird Survey (WeBS), in operation since the 1960s, have evaluated winter bird counts based on 22 species in the Firth of Forth to 2004–2005. A new evaluation is due in December 2009. They identified high alerts for three species Shelduck, Scaup and Grey Plover.

Long term trend data (up to 25 years) is available for the first two species and short term (up to 5 years) for the third. High alerts are based on evidence of significant declines. They do not provide any rationale for the declines which could be due to adverse local factors or equally due to larger scale population changes.

Fluctuations derived from short, medium and long term trend data have triggered medium alerts in the three species mentioned above and a further eight species. It is suggested numbers of three species Goldeneye, Knot and Turnstone may be influenced by adverse local or sub-regional conditions as numbers elsewhere have not declined by a similar extent. The remaining species are showing signs of fluctuating numbers across a national range of sites.

For a small number of species like, for example, breeding Eider, arguably one of the most iconic species on the coast, a decline in breeding success is reported at least at the local East Lothian level. This decline is noted despite the WeBS count data not giving rise to alert status for Eiders and counts suggesting a steady increase in numbers for the Firth of Forth since 1965. Breeding and non breeding assemblages of Eiders are a notifiable feature within the SSSI.

A decline in the breeding success of Ringed Plover in East Lothian has also been noted. At the Firth of Forth level, the WeBS alert for Ringed Plover suggests there are no immediate concerns for this species as it is prone to fluctuations in numbers.

If it is accepted that there will be at least some behavioural response and/or redistribution of waterbirds resulting from disturbance induced by recreational and tourism related activities, it then becomes necessary to judge the implications for waterbird populations not just at the local scale but also the national and international scale. Much of the East Lothian coast is part of the Firth of Forth SPA, thus issues have to be assessed in terms of the network of EU Natura 2000 sites.

For key habitats, Site Condition Monitoring in 2000 notes that the dunes at Aberlady Bay, Gullane to Broad Sands, North Berwick Coast and Tynningham Shore to be in unfavourable condition. SSSI Maritime cliff attributes are generally noted in unfavourable condition. Recreation has noticeable effect, but generally is either sufficiently small or short duration to cause no harm to the integrity or conservation status of the site, habitat or species.

4.2 Tourism and recreational influences on trends

The scientific literature discusses the relationship between estuarine waterbirds and disturbance. This provides a context for the impacts of disturbance from:

- (a) tourism and recreation activity pressures
- (b) construction of tourist facilities on qualifying features along the East Lothian coast. Direct and indirect consequences of such activities are discussed.

Along the East Lothian coast there are already implications on the area arising from recreational activities accompanying the population growth in coastal communities. Planned developments of housing in East Lothian will inevitably have additional implications. Hence, further tourism infrastructure related to the coast may result in yet further implications for the inter-tidal and coastal habitats supporting, in particular, water bird assemblages. Consideration has to be given to the extent that these implications will impose on the integrity of the SPA.

In treating issues concerning disturbance to birds, although other species and habitats may be affected in similar ways, and the likely implications of such disturbance, it is worthwhile considering some definitions of the terms employed.

Unfortunately, there are no ‘accepted-as-standard’ definitions for many emotive terms associated with sensitivities where conservation and human activities overlap. Terms such as ‘disturbance’, ‘impact’, and ‘effect’ can hold different contexts for different parties, and planning decisions can be based on subjective interpretation of disturbance problems as a result (Hockin *et al.* 1992).

Definitions of disturbance / effects / impacts:

- “[Disturbance is] any relatively discreet event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability or the physical environment” (White & Pickett 1985; Cayford 1993)
- “Disturbance is the immediate effect of interference, for example redistribution” (Ward 1990).
- “[Disturbance is] any deviation from normal behaviour in response to unexpected occurrences in the vicinity of a bird” (Platteeuw & Henkens 1997a).
- “[Disturbance is any] human presence or noise which can at critical times redistribute local populations or affect breeding success with possible reductions in the size of bird populations” (Sidaway 1998).
- “[Disturbance is the] short-term effect on feeding and distribution” (Harbinson & Selwyn 1998).
- “[Disturbance is] any intentional or unintentional anthropogenic action that elicits a metabolic or behavioural response” (Morton 1995, quoted in DeLong 2002).
- “[An effect is] an observed response, i.e. a movement of birds (that may only be a temporary displacement) away from a site in response to some stimuli...birds may be able to use alternative sites during periods of high disturbance at the original site without any negative effects on their energy budget” (Robinson & Cranswick 2003).
- “[Impacts] imply a reduction in survival of individuals, which may cause declines in population size. Impacts depend largely on whether alternative sites are available and the energetic costs of displacement” (Robinson & Cranswick 2003).
- “...impact may be considered as the long-term effect on survival and breeding success” (Ward 1990; Harbinson & Selwyn 1998).
- “Any overall reduction in energy intake...is the *impact* of disturbance on energy budgets and hence survival” (Davidson & Rothwell 1993).

Marine tourism development for example could also involve the permanent loss of habitat through reclamation as well as regular but less significant disturbance from marine traffic like boats in coastal waters, the extent of which may be widespread depending on routes used.

Control and fixation of coastal habitats, especially dune systems, stretches back many centuries. Tree planting and re-vegetation were common place along the East Lothian coast. Recent years have seen a re-emergence of a more dynamic approach to dune management and a move away from the perception of coastal dunes as static environments needing preservation. However, given the interests along the coast, just how popular a reversal of past trends towards stabilisation to favour a re-mobilisation approach which involved tree removal and natural movement of sand is uncertain.

Some experts question the current effectiveness of SPAs and suggest they could play a greater role in public enjoyment and understanding. In the RSPB report *Healthy SPAs* Davies (2005) notes that:

SPA status is an effective means of highlighting the places that are important for birds on a European scale. SPAs are an essential cornerstone of European and UK conservation. At the same time, SPAs are a very static mechanism. The aim of an SPA is to maintain the interest of the site, but there is often no strategy to enhance this interest over time. Objectives, where they exist, are general and conservative. In this respect, SPAs may be failing to progress the conservation of our most important bird species and populations.

The Nature Conservation (Scotland) Act 2004 gives the opportunity to move on from this static approach. The safeguard of Sites of Special Scientific Interest (SSSI) must now be based on positive management rather than the negative avoidance of harm. This shift reflects the intention behind the Habitats Directive Article 3(1). Since SSSIs underpin the majority of SPAs, this is likely to have implications for the way in which our internationally important sites are protected and managed. The new legislation on SSSIs now requires enhancement – not just maintenance of interest. It moves to a more objective-led approach and encourages public enjoyment and understanding of some of our most important wildlife.

Perhaps key to the East Lothian Coastal tourism strategy is an underlying philosophy of engaging people involved in tourism in the protection and enhancement of the special habitats and species along the East Lothian coast.

4.3 Trends in qualifying features

Table 1 - Summary of qualifying features (full details in Appendix 5)

	Favourable maintained	Unfavourable No change	Unfavourable Declining	Unfavourable Recovery
Firth of Forth SPA 28 Qualifying features (part)	27	1		
Firth of Forth SSSI 41 Notified features (part)	30	2	9	
Forth Islands SPA 15 Qualifying features (part)	11		3	1
Forth Islands SSSI 3 Notified features (part)	1		2	
Bass Rock SSSI 3 Notified features	3			
North Berwick Law SSSI 1 Notified feature			1	
Barns Ness SSSI 4 Notified features	2	2		
Total 95	74 (78%)	5 (5%)	15 (16%)	1

This table has been compiled from SNH site condition monitoring. As noted in the SPAs qualifying features non breeding bird populations are doing relatively well with the declines occurring in some breeding species. The declines in the SSSI's relate mainly to habitats and geological features.

5. TOURISM MARKET OVERVIEW

5.1 Tourism in Scotland – the current situation

Tourism represents around 35% of the world's exports of services (World Trade Organisation). **Scottish Tourism: The Next Decade** (Scottish Executive 2006) sets a national target for increasing gross tourism revenues in Scotland by 50% by 2015. The document states that this "must not be at the expense of our environment, or our culture and communities". The focus is on "growing value faster than volume" and it is suggested that the growth will come from more visits to Scotland (+20%) and an increase in spend per trip (+25%). Particular emphasis is placed on business tourism and extending the season with events in off-peak months.

Sustainable economic growth in tourism is a strategic fit with national strategy direction. Tourism is one of Scottish Enterprises' six key industries. In 2008 around 15 million tourists took overnight trips to Scotland (0.476m in East Lothian). The annual spend was over £4.0 billion (£224m in East Lothian). Scottish Tourism contributes 11% of the Scottish service sector economy, compared to 9% for the UK as a whole. 47% of UK visitors undertake some form of walking activity and 3% cycle whilst on holiday in Scotland. Watching wildlife/visiting Zoo Parks is an activity undertaken by 9%, whilst adventure sports and fishing play a role for 4% respectively.

Scotland's natural heritage is renowned throughout the world. Landscapes and scenery play a particularly important role in attracting visitors from the UK, Europe and the rest of the world. 90% of visitors state that the scenery is an important or very important factor when choosing Scotland as a holiday destination. But the natural heritage also provides the basis for outdoor activities that people come to Scotland to enjoy – cycling, walking, canoeing, to name just a few. Wildlife watching increasingly features in visitors' itineraries and local food plays an increasingly important role.

The Scottish Recreation Survey 2006 provides an important barometer of recreational activity trends at a National scale.

- According to the survey 79% of the adult population in Scotland made 1 trip to the outdoors in the last 12 months. This equates to 327.1million visits to the outdoors in 2006.
- Over the years 2004 -2006 there has been an increase in the number of visits made closer to home with the majority (57%) visiting the wider countryside, just over a quarter (28%) visiting a town or city and 15% visiting the coast. This equates to 49.1 million visits to the coast in Scotland in 2006.
- The main activity undertaken was walking (60%), with 17% on a family outing and 5% site seeing. The vast majority of visits were made from home on a day out (91%).

- Trends over the years 2004-06 show that use of the car is decreasing while travel on foot has increased. The average distance travelled on a visit to the outdoors is 34kms (21 miles), however the trend for travelling distances less than 5 miles is increasing.
- Of those visiting the coast, beaches and cliffs are the most popular destinations with most visitors (59%) visiting once a month.

5.2 Tourism in Edinburgh and the Lothians

Edinburgh is one of the major tourism centres in the UK and gateway to the rest of Scotland. Overall tourism provides £1.6bn into the city economy. Business tourism generates around £200m pa. The economic impact of Edinburgh's Festivals in 2004/5 was calculated at £184m to the city region. The sector employs 39,000 people throughout the city region.

Edinburgh's Tourism Action Group's strategy document **A Framework for Growth 2007-2015** sets a target of 5% year-on-year growth in tourism revenues to Edinburgh, which is equal to a 63% growth in income over 10 years. Visitors are attracted to Edinburgh because:

- Edinburgh is a UNESCO World Heritage site.
- The city combines the medieval old town, Georgian new town and modern business districts – all dominated by Edinburgh Castle.
- Edinburgh is renowned as a Festival city. The Festival Fringe is the largest arts festival in the world, and the international Film Festival is the longest continually running film festival in the world.
- There are good road, rail and sea links to the rest of UK and Europe; an airport and very good road and rail links to Glasgow just 45 miles to the west.

Edinburgh City Region with its population of just over 800,000 is the key domestic market within a 60 minute drive time of East Lothian. Edinburgh has a GDP per head which is one of the highest in the UK at 1.43 times the UK average meaning an affluent, mobile and well educated market because:

- Edinburgh is the second largest financial centre in the UK after London.
- Edinburgh has four universities.
- New tram system linking Edinburgh city centre with the Waterfront and airport.
- Major regeneration projects including the Edinburgh Waterfront development with over £4 billion of investment planned and the Edinburgh BioQuarter, a leading European life sciences facility.

From STEAM 2008 East Lothian had a maximum of 2,489 beds in serviced accommodation and a maximum of 8,079 beds in un-serviced accommodation. The latter figure drops to a low of 2,853 in February as many un-serviced accommodation providers close November to March.

VisitScotland has adopted a policy of pursuing ‘warm’ market segments who increasingly engage in these types of activities. Four segments have been identified for East Lothian and are used by VisitScotland to target marketing effort for East Lothian. The wildlife over index is the extent to which these market segments value experiencing wildlife over the average visitor.

Affluent Southern Explorers – Authentic connections

- Most affluent segment, based in London & South East
- High holiday spend
- Unlikely to have children at home
- Not materialistic
- Like to get off the beaten track and meet the locals
- Wide range of interests - walking, nature, golf, culture, events and festivals
- Like city breaks too
- Wildlife over indexes – 126%

Affluent Active devotees – Active indulgence

- Affluent, based Scotland & NE England
- Unlikely to have children at home
- Very active – walking, cycling, golf
- Heritage and culture
- City breaks
- Want to spoil themselves now, high quality hotels, boutique/special interest
- Wildlife over indexes – 124%

Younger domestic explorers – Fascinating adventure

- Less affluent, but pre disposed to UK breaks
- Based in Scotland, north England
- 1/3 with young families; 2/3 couples
- Want to explore and find out more – don’t want to go to same place twice
- Music, events and festivals, scenery, adventure sports
- History, castles
- Good value self catering, B&Bs and hotels
- Wildlife over indexes – 120%

Mature devotees – Familiar discovery

- Older, retired, mid / low income
- UK oriented – Scotland fans
- Longer breaks/ touring, revisit favourite places
- Walking, touring, fishing, gardens, nature
- History, heritage
- Good value – 3* hotels and B&Bs / caravans
- Wildlife over indexes – 153%

5.3 Potential new markets for the East Lothian Coast

In the current economic climate we do not see merit in significantly expanding the range of markets currently identified. This is a time to consolidate and build on the strengths the coastal area already has. This should also be a time of gathering more information on the needs of the current dominant markets – the day visitor from Edinburgh and the visitor from Scotland and Northern England – to enable the product to be refined to better meet these needs.

VisitScotland tourism trend research points towards leisure travel attitudes remaining robust within the context of the current economic climate with travellers looking closer to home than in previous years. Products in caravan, camping, and self catering have shown positive advanced bookings as consumers are not willing to sacrifice their holiday plans, they are simply seeking cheaper alternatives and are adapting to the continuing slump. This is where East Lothian can capitalise.

We suggest that East Lothian marketing activity remains targeted on the VisitScotland market segments of Affluent Active devotees, Younger domestic explorers and Mature devotees but also focuses on emerging trends like health, green activities and technology.

Health and well being is one of the Scottish Government's five priorities. East Lothian can be promoted as a healthy place to learn water sports or take up walking and cycling in the coastal area close to Scotland's capital city. But to exploit this trend infrastructure and services must be geared up to meet the needs of this market.

Going green and climate change are another one of the five national priorities. There is a growing niche market segment of people who are concerned about their carbon footprint, will want to use public transport and stay in 'green' accommodation. Many Edinburgh residents, students and visitors match this green market profile. These people will be attracted to the natural heritage interest of the coast and sustainable activities like water sports.

The client requested consideration was given to any undesirable new markets. The impacts of all markets can be regulated by existing legislation given sufficient resources. Whilst it is difficult to predict new activities entering the market, those conflicting with local amenity, wildlife interests and other legitimate recreational activities probably should be either directed to an appropriate location or discouraged. Perhaps the most disturbing example from Scotland is the growing trend of challenging behaviour (drink, drugs, vandalism and violence) experienced on the East shore of Loch Lomond over recent years. This escalated into a regular activity over summer weekends involving often several hundred people.

Solutions have involved increased policing with Rangers becoming Special Constables and having powers of arrest and seizure. Sites have been closed off to prevent vehicles gaining access from the public road and joint working between police, National Park Authority, Forestry Commission Scotland and local interests. The implications also include high costs and damaging publicity.

5.4 Economic benefits arising from coastal tourism in East Lothian

Tourism is a key stone in the East Lothian economy. Revenues are generated in three main ways. Firstly from day visitors, mainly from Edinburgh, enjoying the natural attributes of the coastline and beaches in particular. Secondly by those on holidays and short breaks in accommodation or staying with friends and relatives. Thirdly, from the golfing day trip and group market playing on East Lothian's 18 coastal golf courses. Each spend in hotels, self catering, caravan parks, golf courses, outdoor pursuit businesses, shops, cafes and restaurants.

When measured by the number of jobs it creates, tourism is the county's largest economic sector (ELSOA 2009 -2010). In 2005 the distribution, hotels and restaurants sector (as defined by The Office for National Statistics NOMIS), was employing 5,453 people, which accounted for 22% of the total workforce in the area, excluding self employed (Scotland 23%). This shows East Lothian has a major tourism industry and reflects the high dependence on tourism-related employment within the East Lothian economy. STEAM identified 5,086 direct and indirect tourism jobs in 2008.

This sector is a significant employer with more employees than banking and construction but less than the public sector. There are few major companies in East Lothian employing large numbers of people as 97% of the business base is made up of mainly small and medium size enterprises (SMEs). SMEs dominate East Lothian's business base with 84% of businesses employing less than 10 people, a significantly greater proportion of all workers compared to Scotland as a whole.

The 2004 visitor survey noted that the overall spend per person by holiday makers was £52.20 where as day trippers averaged £12.99.

East Lothian participates in the STEAM model which calculates direct employment, direct expenditure and indirect expenditure as follows:

Table 2 – Tourism expenditure (STEAM 2008)

Direct Expenditure	2007 £'000	2008 £'000	%change	Direct Employment 2008
Accommodation	26,807	26,173	-2	1,178
Food and Drink	38,062	38,781	2	976
Recreation	18,063	18,588	3	465
Shopping	17,391	17,457	0	423
Transport	38,978	41,909	8	905
TOTAL		142,908		Indirect
Indirect Expenditure	55,096	56,028	2	1,140
VAT	24,378	25,009	3	
TOTAL	218,774	223,945	2	5,086

Expenditure peaks are very pronounced. Spending is greatest in July and August and drops by over 70% in January and February. Based on 2008 STEAM figures (total tourism numbers of 1,414,000 and total expenditure shown above as £223,945,000) their average spend is in the order of £158 per person. In comparison to 2004, holiday-maker spend in 2008 according to STEAM is £476,000. People spend on average £394.50 per person staying over night where as 983,000 day trippers spend just £36.78 per person.

6 VISITOR NUMBERS, USE AND PATTERNS IN EAST LOTHIAN

6.1 Introduction

The East Lothian Tourism Action Plan recognises that despite its proximity to Edinburgh, Scotland's most successful (by volume and value) tourism destination and awareness of what East Lothian offers as a destination, needs to be improved (ELSOA 2009-2010). By volume the majority of East Lothian's visitors are day trippers from Edinburgh and the Lothians. STEAM 2008 figures suggest that in terms of tourism days, an average of seven days is spent in unserviced accommodation, like caravan parks, meaning that this category accounts for a greater number of 'tourist days' than single day visitors.

The single largest identifiable activity sector, certainly by value, is the golfing market. However, this too relies on a 'local clientele' for most golfing activity. There is still a lack of knowledge of East Lothian's courses amongst the golfing clientele from outwith the region. To place themselves, East Lothian golf courses are marketed as being located on Edinburgh's coast or on Edinburgh's doorstep, resulting in inevitable economic leakage, mainly to Edinburgh, when arranging accommodation and services.

Table 3 illustrates East Lothian's popularity with the Scottish domestic day trip market. Although there appears to be twice as many overseas visitors as the Scottish average they comprise a small proportion of the total number of visitors. However, evidence suggests a majority could be higher spending golfing visitors.

Table 3 – East Lothian tourism markets

East Lothian	Scottish %	England %	Rest of UK %	Overseas %	Split %	Total millions
East Lothian (day)	96	2		2	66%	0.938
East Lothian (holiday)	22	45		33	33%	0.476
East Lothian (all)	78	12		10	100%	1.414
Scotland (holiday) 2007	36	40	4	17		15.88

In reviewing visitor numbers, use and patterns in East Lothian, two distinct types of data on visitors are used:

1. **Qualitative data on visitors.** This provides an insight into the type and origin of visitors, destinations visited and activities undertaken.

Three sources were reviewed:

- East Lothian Visitor survey 2004² providing an insight into the characteristics of visitors to East Lothian.
- SNH marine and coastal recreation survey (2006).
- East Lothian STEAM Report 2008.

2. **Quantitative data on visitors.** This will provide an insight into the most popular visitor sites along the coast.

Four sources were reviewed:

- Car park data for nine coastal car parks for 2007
- Report on aerial and ground visitor counts undertaken in 2008
- Report on an aerial survey of East Lothian Beaches in 2003
- East Lothian STEAM Report 2008

6.2 Qualitative data on visitors

The East Lothian Visitor Survey 2004 provides the most detailed picture of visitors to East Lothian.

Holiday makers to East Lothian are more likely to be older than 44 years old (55%), while day trippers are more likely to be under 25 years old. The largest proportion of visitors is empty nesters (43%), with families accounting for 27% of visitors and independent adults 13%.

Most visitors to East Lothian are of the ABC1 social class (72%), with 78% of visitors coming from Scotland and 12% from other parts of the UK. 10% of visitors come from overseas.

75% of visitors to East Lothian are on a day trip with a large proportion coming from Edinburgh (41%). About a quarter (24%) of visitors to East Lothian are on holiday, and of these 71% are camping or caravanning, 29% staying with friends and relatives and 20% staying in hotels or B&Bs.

A large proportion of visitors (80%) have visited before with 17% on their first visit. Information sources used to plan their visit tends to be from having visited before (59%) or from friends and relatives (25%). Other sources include brochures (8%), Guidebooks (6%), internet (5%), TIC (4%), and magazines or newspapers (2%)

² East Lothian Visitor Survey 2004, TNS Travel and Tourism

Visitor activities are fairly evenly split between visiting the beach or coast (48%) or site seeing and touring (46%).

The 2008 STEAM report indicates an average stay in unserviced accommodation to be seven days and only 2.2 days in serviced accommodation.

6.3 Quantitative data on visitors

Electronic counters have been counting cars at coastal car parks in East Lothian for 14 years. Data for 2007 has been analysed to get a feel for the busiest part of the coast and an indication of visitor trends throughout the year at each car park.

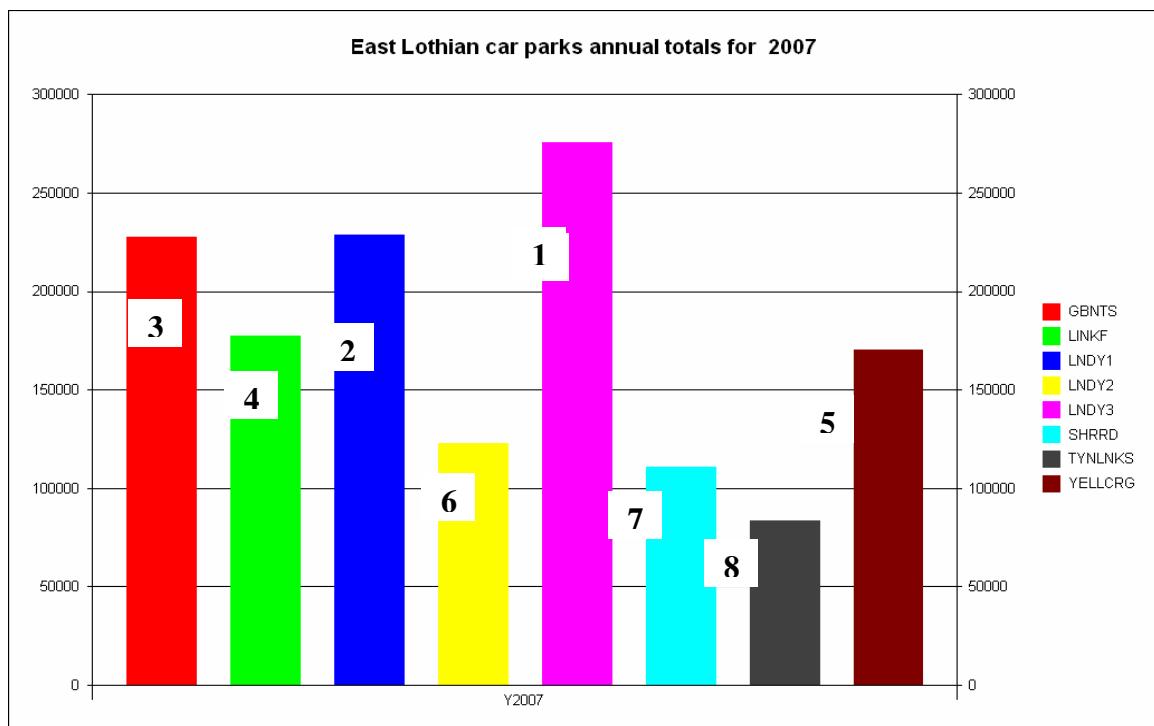
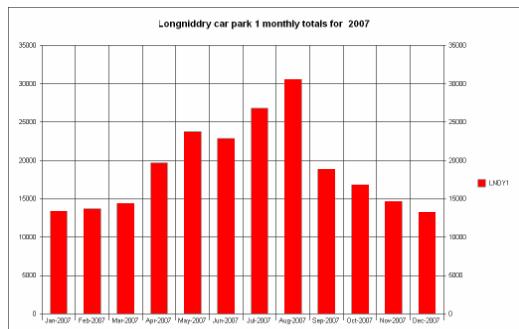


Figure 1 2007 Car park totals

In 2007 the busiest car park on the East Lothian coast was Longniddry 3 (1) with over 250,000 visitors throughout the year. Longniddry 1 (2) and Gullane (3) were the next busiest with between 200,000 and 250,000 visitors recorded. Linkfield (4) and Yellowcraig (5) had just over 150,000 visitors each. Longniddry 2 (6) and shore Road (7) each had just over 100,000 visitors and Tynningham Links (8) had just under 100,000 visitors.

Looking more closely at visitor trends at each of the car parks on a monthly basis shows a range of visitor behaviour over the year.

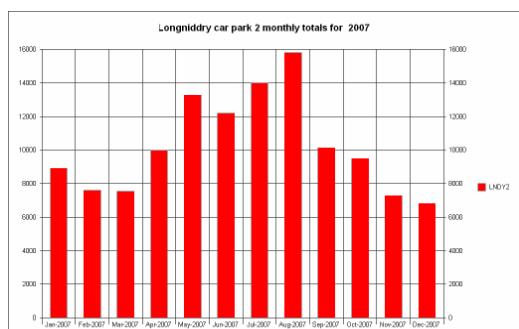


Longniddry car park 1

The data shows the expected seasonal curve with a peak in August falling sharply from September to December.

A slight increase in May could be attributed to the busy holiday week ends.

Figure 2

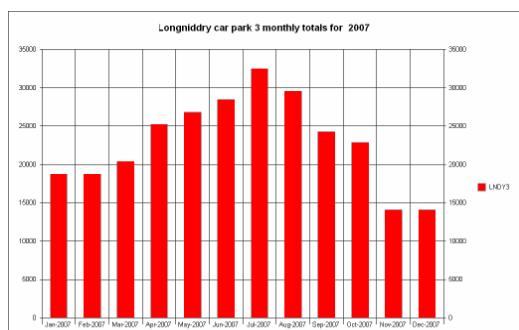


Longniddry car park 2

The data shows the expected curve with a peak in August and the busy May period.

There appears to be an unusually high number of counts in January.

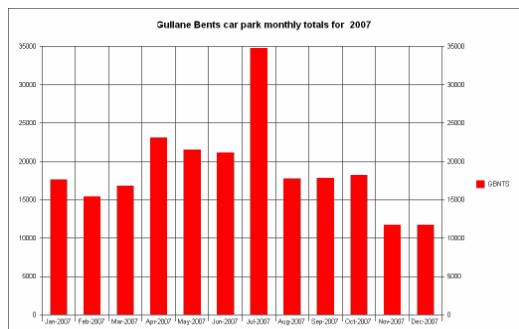
Figure 3



Longniddry car park 3

The data shows the expected seasonal curve with a peak in July.

Figure 4



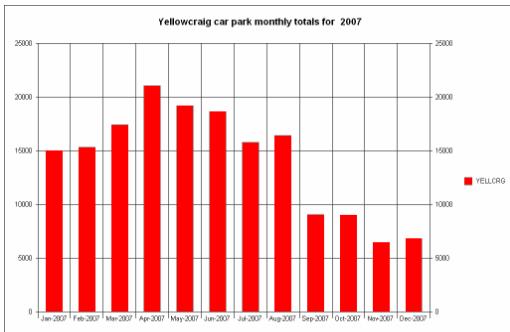
Gullane Bents car park

The data shows the expected curve with a peak in July.

There appears to be high numbers of visitors in April and May which could be due to Easter and Bank Holidays.

Figures for September and October remain steady instead of falling as might be expected.

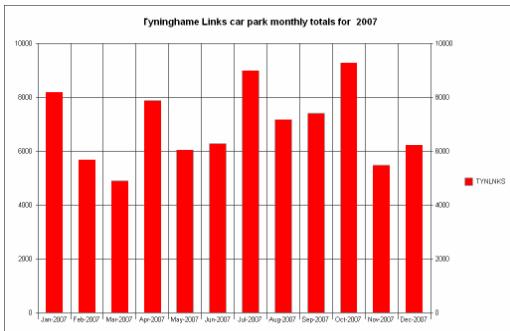
Figure 5



Yellowcraig car park

The data shows an interesting peak in April, then gradually falling to August when numbers drop sharply.

Figure 6

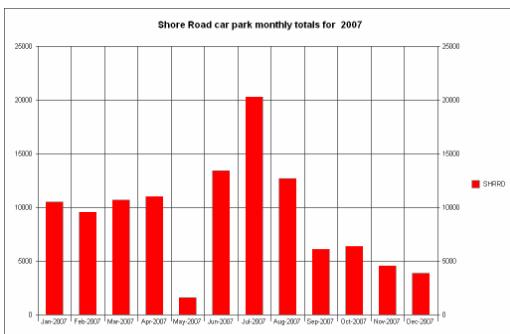


Tyningham links car park

The data shows a peak at unusual times in January, April and October, with numbers remaining relatively high in the intervening months.

This could be due to estimates being made for counts from March to August.

Figure 7



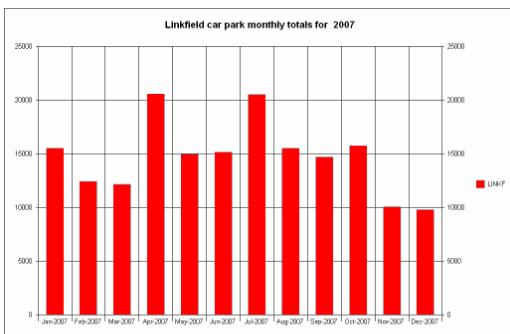
Shore Road car park

The data shows numbers peaking in July with a steep drop after August.

Numbers in January and February are relatively high.

Low numbers in May are due to counter failure.

Figure 8



Linkfield car park

The data shows numbers peaking in April and July with relatively high figures in October and January.

Estimates have been inputted for May, June, October, November December.

Figure 9

There is no count data for the other car parks along the coast. In relation to the sections in the geographical frame car park visitor numbers can be seen below.

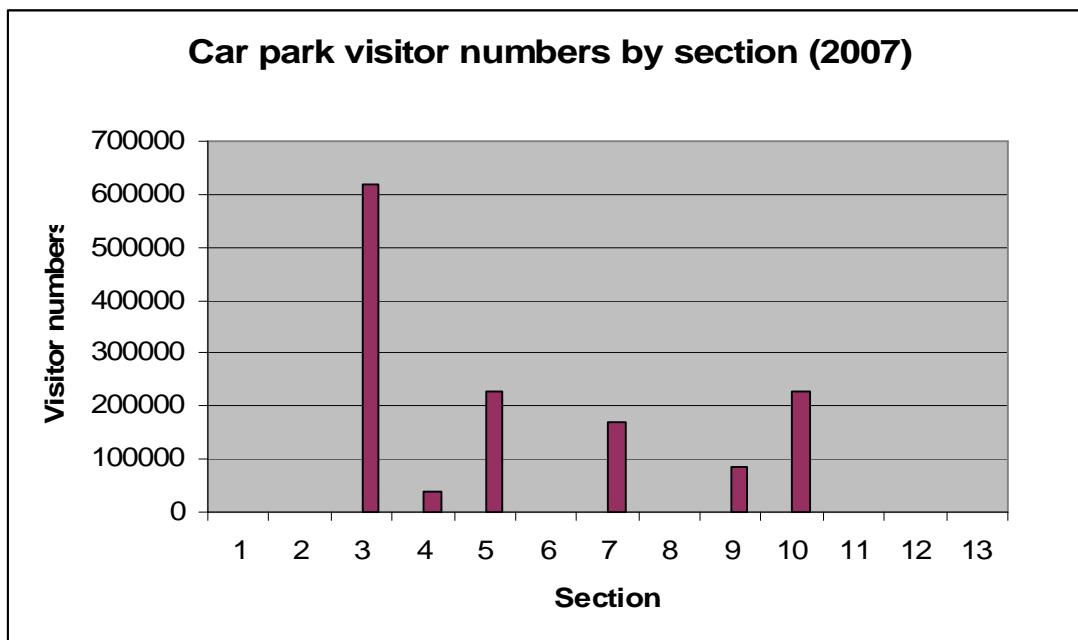
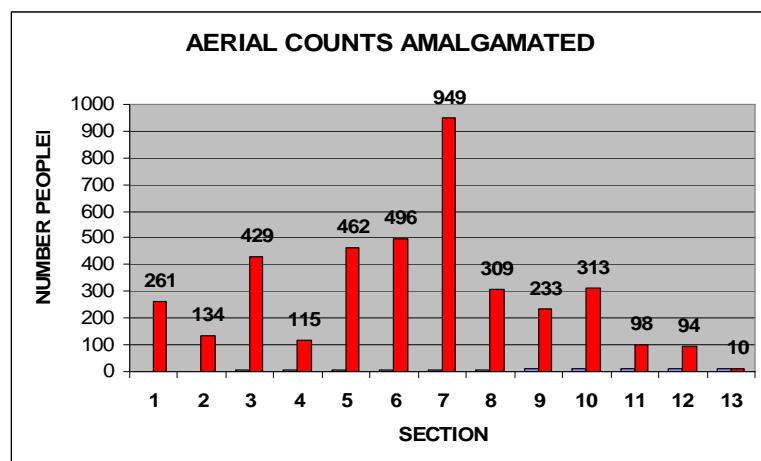


Figure 10

This only gives a partial picture of visitor numbers along the coast, with gaps where no long term visitor data has been collected.

During 2008 aerial and ground based counts of visitors were tested during the summer months. Two types of aerial counting were tested, microlight and helicopter. Unfortunately the sections used in the aerial and ground based counting were not the same so these figures are not comparable.

Amalgamating the aerial counts and logging the data into the 13 geographical frame sections provides a 'snapshot' of visitor use of the coast.



This shows that the four busiest sections are:

- Section 3 (Cockenzie to Craigielaw point)
- Section 5 (Gullane Point to Eyebroughty)
- Section 6 Eyebroughty to Longskelly point
- Section 7 (Longskelly point to North Berwick).

Figure 11

During the summer of 2003 an aerial count was carried out on the beaches in East Lothian. Results of this 'snapshot' can be seen below:

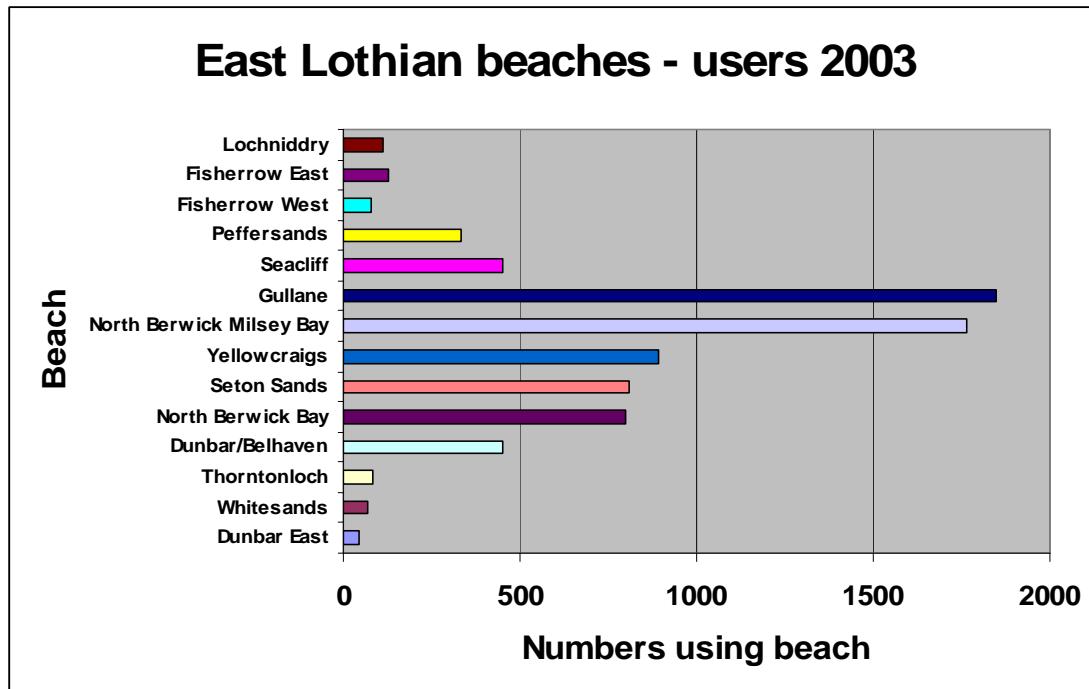


Figure 12

This shows that the busiest beaches are Gullane and North Berwick Milsey Bay, with Yellowcraigs, Seton Sands and North Berwick Bay showing relatively high numbers (>500 users). Puffersands, Seacliff and Dunbar (Belhaven) show numbers of users in the hundreds while the rest were relatively quiet on that day.

Taking these figures and logging them against the geographical frame sections the following trends can be seen:

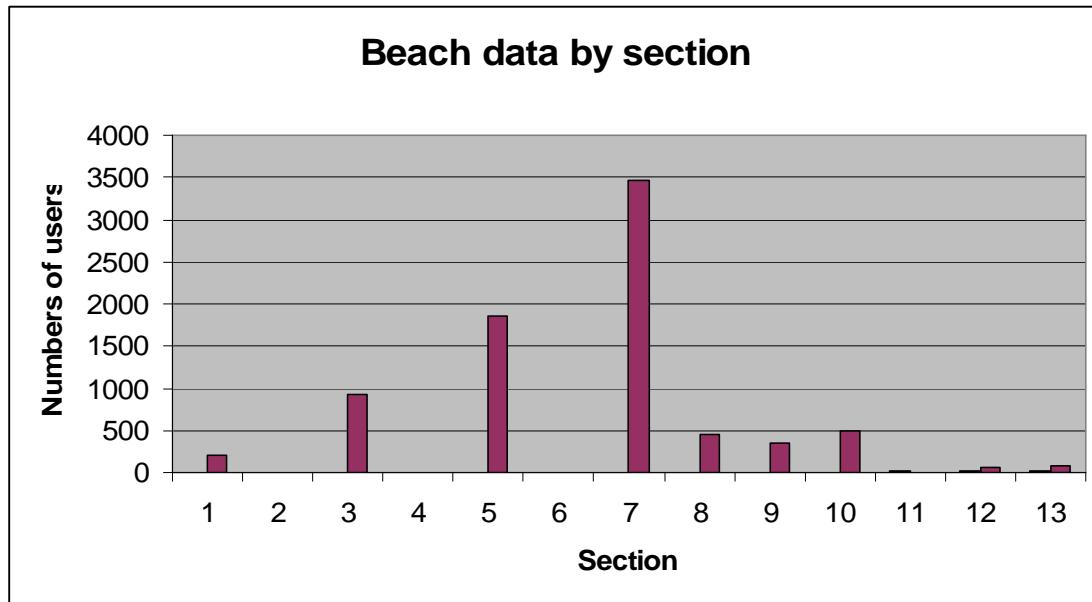


Figure 13

The sections of the East Lothian coast with the busiest beaches are:

- Section 3 (Cockenzie to Craigmillar point) – Seton Sand and Longniddry beaches.
- Section 5 (Gullane Point to Eyebroughty – Gullane beach.
- Section 7 (Longskelly point to North Berwick) – Yellowcraigs beach, North Berwick Bay beach and North Berwick Milsey Bay beach.

6.4 Visitor activities

Golf

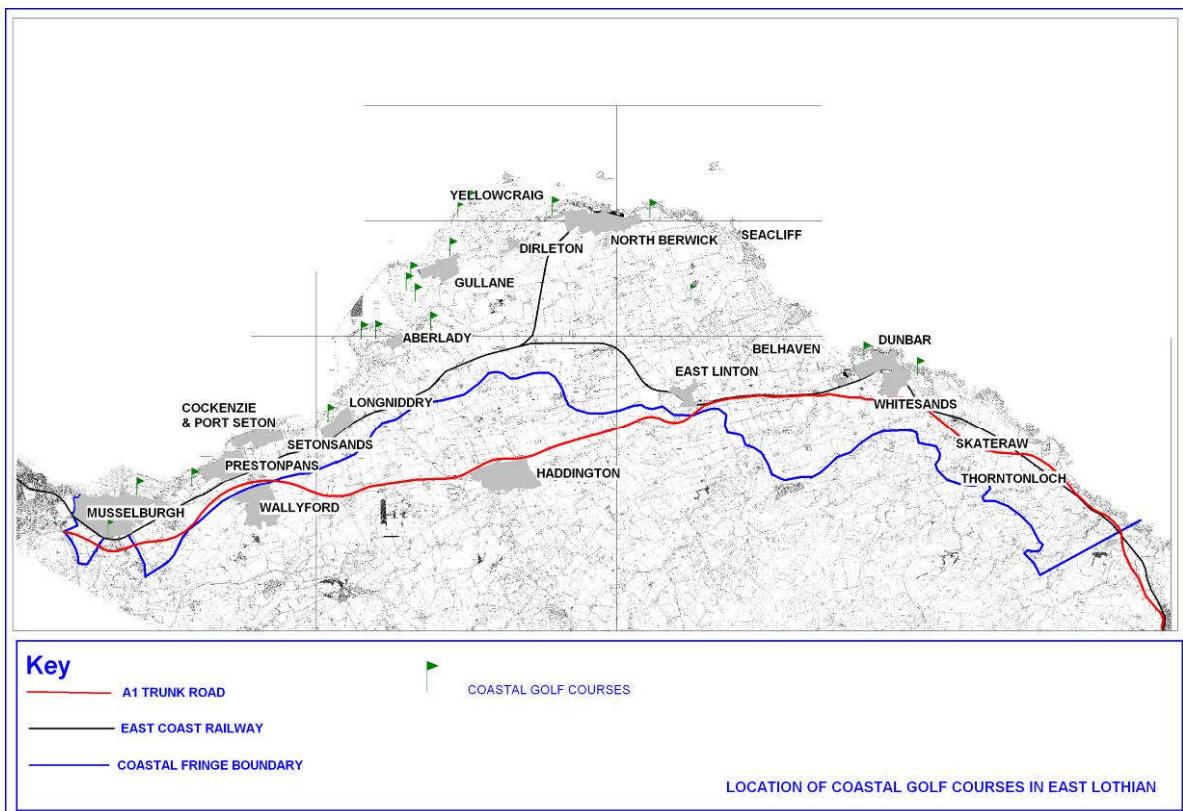


Figure 14 Coastal golf course locations

According to the Golf Monitor the 2008 golf tourism season was a very challenging one. One of the wettest years on record for Scotland with five of the seven main season months having above-average rainfall could be seen to have favoured East Lothian links courses in the driest part of Scotland. 2008 saw a growing international financial and economic recession, impacting on Scotland's core golf tourism markets – the UK, North America, and Europe.

The financial sector was hit hard, as were other niche sectors like car manufacturing and sales which are traditionally sources of individual and corporate business.

The 2008 Golf Monitor further observes that:

- Links/coastal courses and inland courses achieve broadly similar visitor numbers within each size band, except for the ‘top’ links/coastal courses which achieve particularly high visitor numbers.
- On average, just over 80% of visitors are paying visitors, the others being members’ guests. For many courses, most visitors are Scots, and with many of them being on day trip visits to the course rather than playing as part of a holiday trip.
- About 75% of visitors at members’ club courses play on weekdays (which still means that members’ clubs host almost as many visitors *per day* at the weekend as they do on weekdays).
- On average, about 90% of visitors to members’ club courses book direct with the club, while about 30% of visitors to commercial courses and the major courses (those with annual visitor revenue in excess of £300,000) book through intermediaries.
- In the winter months links/coastal courses benefit from drier ground conditions and attract significantly more visitor rounds than inland courses – up to 200% in January and February. However, monthly revenue in the peak months can be up to *twenty times* the level of the quietest months so overall winter numbers are low.
- The data on origin of visitors is limited. However, from the available figures and estimates, it is clear that – with the exception of a small number of ‘top end’ courses targeting North America and other international markets – Scottish visitors (many of whom are on day trip visits rather than on golfing breaks) predominate, followed by visitors from the rest of the UK. Improvements to the data capture of visitor origin could greatly assist courses and partners in their marketing efforts.

No East Lothian courses appear to be registered with the Scottish Golf Environment Group (SGEG) certification scheme or the European equivalent. The SGEG has a 10 year vision that:

- Golf facilities will implement, as standard, environmental best practices across all their operations.
- Golf courses will maximise their ecological value and play an important part in the delivery of Scotland’s Biodiversity Action Plans.
- Golf facilities will minimise their resource consumption and waste production.
- Golf facilities will be key focal points of the community for environmental awareness raising.
- Scottish Golf will be an exemplar of sustainable development, within Scotland and respected worldwide.

Beaches

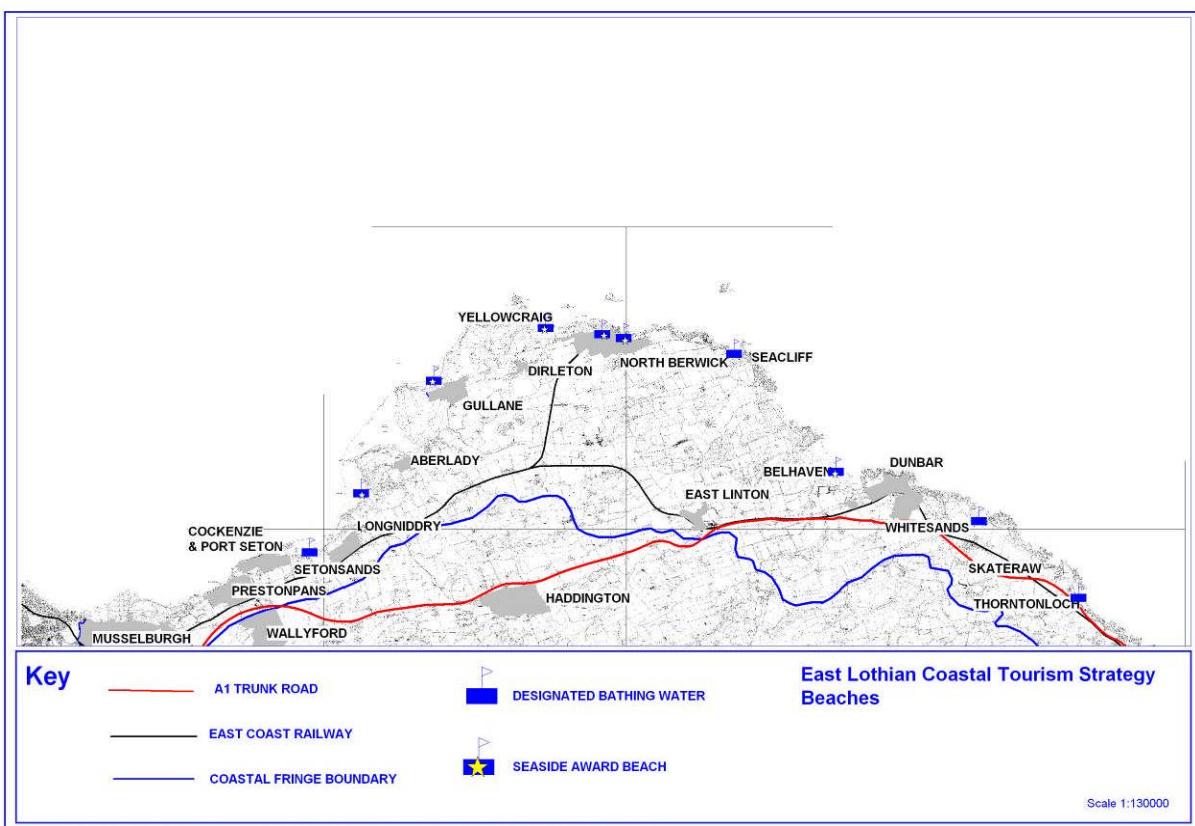


Figure 15 Beach location

East Lothian is particularly renowned for its accessible sandy beaches. The 1998 visitor survey recorded 52% of people visiting a beach. In 2004 this figure was 48% and the most popular activity, especially for families, in August.

East Lothian has 12 designated bathing waters sampled by SEPA under the Bathing Water Directive (2006/7/EC).

Table 4 East Lothian beaches

Beach	Designated bathing water	2008 sampling result	Award status
Seton Sands	YES	Good	
Longniddry 1	YES	Excellent	Seaside award
Longniddry Gosford			Seaside award
Gullane	YES	Excellent	Seaside award
Yellowcraig	YES	Excellent	Seaside award
Broadsands	YES	Excellent	
North Berwick (West) Bay	YES	Excellent	Seaside award
North Berwick (Milsey) Bay	YES	Excellent	Seaside award
Seacliff	YES	Excellent	
Dunbar (Belhaven)	YES	Excellent	Seaside award
Whitesands	YES	Good	
Thorntonloch	YES	Excellent	

All the beaches in East Lothian have excellent or good water quality and seven beaches have the Seaside Award.

Section 6.3 shows the busiest beaches as Gullane, North Berwick Milsey Bay, Yellowcraigs, Seton Sands and North Berwick West Bay (**highlighted** above). We know from car park counts that Longniddry is also a busy part of the coast. All these beaches (except for Seton Sands) have the Seaside Award and are therefore managed for recreation use.

Walking

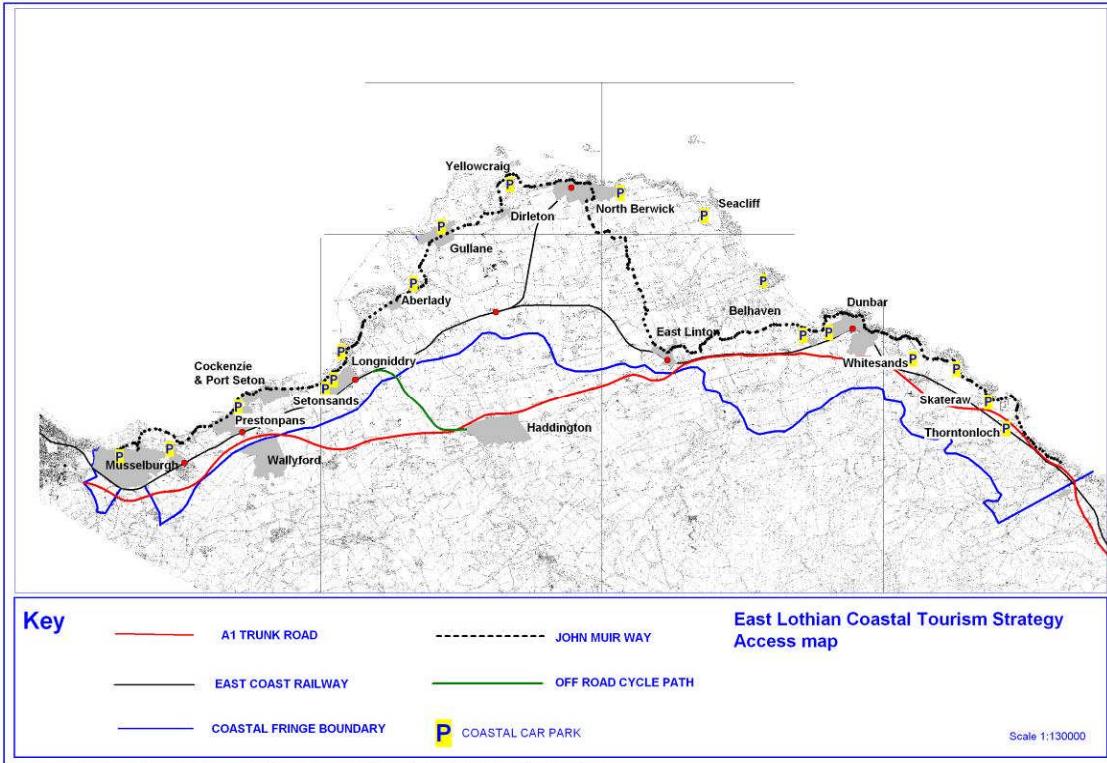


Figure 16 Main coastal access routes

Of all the activities undertaken at the coast, walking to gain access to the beach is by far the most popular. The 1998 visitor survey recorded 64% of visitors as walking. The distinction of walks under five miles as an informal activity and walks of over five miles as a formal activity was used in the SNH Marine and Coastal Recreation Survey as a suitable cut off between people specifically out for a long walk and those informally enjoying the beach and coast.

The 2004 East Lothian Tourism Survey notes that 7% of visitors engaged in walking/rambling/hillwalking and are probably in the long walk category.

The East Lothian draft Core Path Plan identifies a range of coastal paths. The John Muir Way, a key spinal route is 73 km long and links Edinburgh with the Borders. The trail has leaflets describing the five sections of the walk. The first two sections and the fifth section run alongside the coast. The middle two sections take the walker inland away from the coast.

The Council sees the following sections as priorities for promotion:

- North Berwick to East Linton
- East Linton to Dunbar
- Dunbar to Dunglass -- semi wild coast
- Aberlady to North Berwick – wild coast - guided

The John Muir Way is part of the North Sea Trail network of paths in seven countries bordering the North Sea. There are 3 counters on sections of the Way. We understand that use in the summer months is around 500 people a month. No direct qualitative visitor surveys have been carried out on the John Muir Way.

The Fife Coastal Path (FCP) however, was the subject of a specific study in 2007³ and provides some comparative figures:

- An estimated 480,000 to 580,000 visits were made over a twelve month period.
- Annual net expenditure was estimated at between £24 million to £29 million, supporting an estimated 800 to 900 FTE jobs in Fife.
- 52% of users were on a short trip from home, 20% were on a day out from home, and 26% were on holiday.
- Only 3% of users travelled to the path on public transport despite bus and train services adjacent to most of the route. Visits to the path were short (38% less than 1 hour, only 5% were 5+ hours in length) suggesting a predominance of local dog walkers.
- 81% of all respondents had previously visited, with 46% visiting at least weekly in summer and 38% this frequently in winter.
- 54% of users were from Fife, 31% from elsewhere in Scotland, 9% from elsewhere in the UK and 4% from overseas. Of those on holiday, 55% lived in Scotland, 32% elsewhere in the UK and 13% from overseas.
- Almost half of the users were aged 55 or over, many of them classified as “Empty Nesters” (55 or over, no children at home).
- Suggestions for improvements to the path included better signposting, fencing near cliffs, measures to control litter and dog waste, surface improvements, short (circular) walks, and greater access for pushchairs and wheelchairs. New facilities requested included more seats (11%); more dog bins (9%); more toilets (9%); more catering outlets (7%) and more information and interpretation (7%).
- The path is highly valued by local businesses with 89% considering that it has a positive effect. Although the majority do not depend primarily on the path, it is one source of custom. 60% of businesses saw the business potential of the path either for themselves or other operators e.g. the hospitality industry and services for walkers.

³ Fife Coastal Path -Usage and Impact Study – Final Report. December 2007

FCP research reflect the East Lothian visitor profile in that most were from Scotland, most were on a day visit to the path and had visited the area before and most of the visitors were from the over 50 age group. The suggestions for improvements are common with those from other path surveys. It is also interesting to note the positive attitude local businesses have about the potential business opportunities the path offers.

Wildlife Watching

The Forth supports year-round wildlife interest. The main focus of visitor wildlife watching activity is around the Scottish Seabird Centre in North Berwick which attracted over 280,000 visitors in 2008. 80% of visitors in the 2004 survey had heard of the centre and over 30% had visited. From February to October, visitors can observe bird life on the Bass Rock gannet colony using a remote camera system. In spring to early summer, visitors can enjoy close-ups of a wide variety of seabirds, including puffins. During the winter, visitors can use cameras to watch a 200 plus strong breeding seal colony on the Isle of May National Nature Reserve. North Berwick is also the base for boat trips to the Bass Rock. The Seabird Centre has exclusive rights for guided boat trips landing on the Bass Rock to observe the gannet colony, the largest single island colony in the world. The Centre's staff and volunteers deliver a range of educational activities, including live interpretation, for people of all ages, including families and school groups.

The Seabird Centre has attracted 1 million visitors since 2001, an average of 200,000 per year, of which 60,000 per year actually enter the discovery centre. The Centre is estimated to bring over £1 million into the local economy every year and supports the full time equivalent of 35 jobs (DTZ Pieda). Community involvement is also vitally important for the success of the Centre, which enjoys the support of over 4,000 members and 50 active volunteers.

The Scottish Ornithologist Club's George Waterston Centre at Aberlady was opened in 2005 to house the SOC library and archive.

The 1998 visitor survey noted 11% of people were bird watching and 12% following a nature trail. Bird watching takes place along the coast informally in many locations but particularly at established sites including Levenhall Links, Aberlady Bay, Tynninghame and Barns Ness. Levenhall Links is a popular place for bird watchers with bird hides overlooking the scrapes and the SOC produces a brief guide to 'Birding at Musselburgh'. The Forth Estuary Forum leaflet Wildlife Around the Forth also mentions Levenhall Links and John Muir Country Park and boat trips to the Forth Islands.

Cycling

The 2004 visitor survey only records 1% of visitors cycling as an activity. While numbers are relatively low this is still considered an underestimate. There are cycle shops in Musselburgh, North Berwick and Dunbar and SPOKES have produced a cycle map for East Lothian.

In 2008, East Lothian Council commissioned a feasibility study on a route for the North Sea Cycle Route⁴. Recommendations from this study included:

- Substantial scope for the development of the North Sea Cycle Route in the vicinity of East Lothian's coast, from Musselburgh to Dunglass. Much of the route should be available for use by walkers, cyclists and, where practical and sustainable, by horse riders and all-abilities users, for recreation, tourism and trips to work, school, etc.
- Development of the North Sea Cycle Route would complement, extend the range of uses and enhance the quality and sustainability of the John Muir Way, help to progress elements of East Lothian's Core Paths Plan, provide a 'spine' and catalyst for developing local cycling networks and enhance connections between East Lothian's coastal communities – in particular, by up-grading or providing new sections of multi-use paths for the benefit of local and visiting walkers, cyclists and, where sustainable, horse riders and wheelchair users
- Development of the North Sea Cycle Route and growth in cycling activity would help to achieve a range of national, regional and local policies and help promote East Lothian's coast as an attractive destination for cycling day and tourist visits.

Watersports

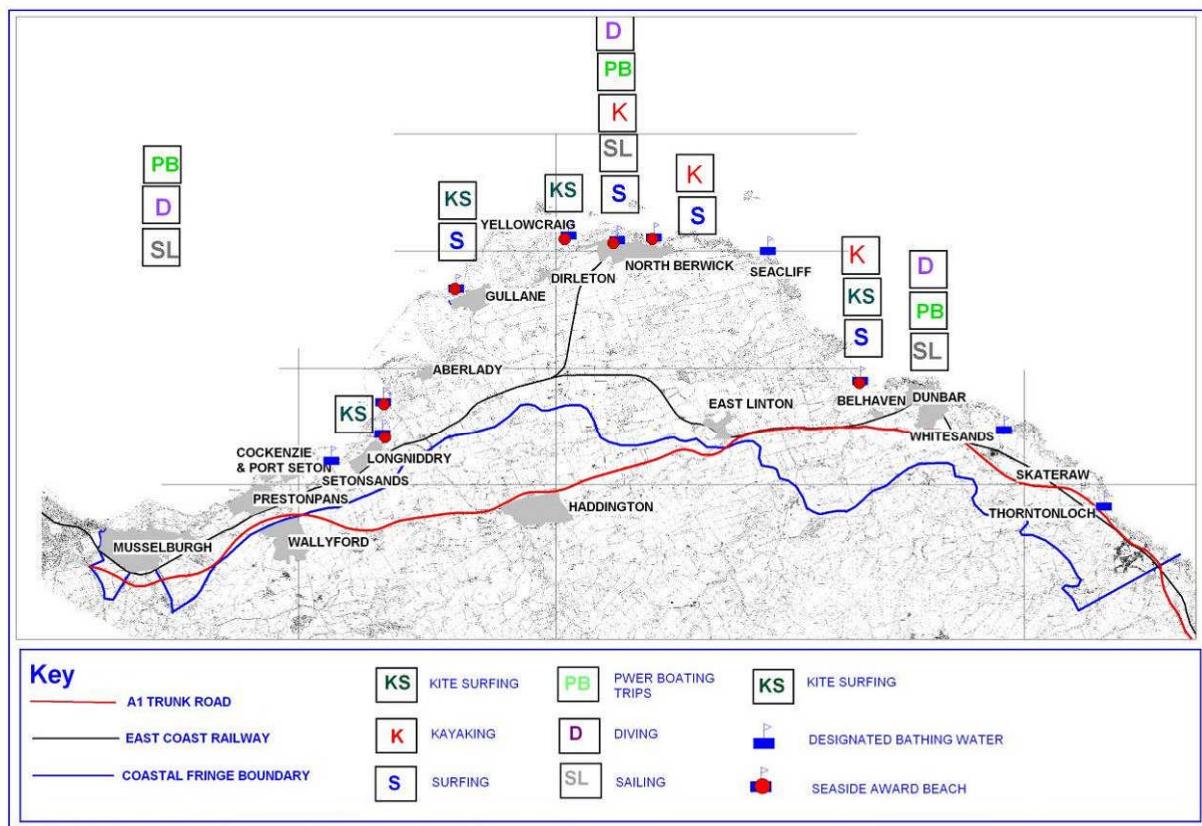


Figure 17 - South East Scotland Watersports Guide – Activity locations

The South East Scotland Watersports Guide is the only document providing practical advice to beginners and people new to the area. The guide provides information and maps for 6 water sports reproduced in figure 17 above.

Surfing

Surf sites in East Lothian are Belhaven Bay, Tantallon, North Berwick and Gullane. Experienced surfers also use Barnsness, Coldingham and Peasebay. The latter two sites are in the Scottish Borders. Anecdotal evidence suggests that there are about 100 dedicated surfers moving between East Lothian locations depending on the surf conditions.

There is a surf school at Belhaven Bay which caters for beginners and families and up to 300 surfers have been reported on the beach at Belhaven.

Kite surfing, Wind surfing and Traction/Static Kiting

The Watersports guide suggests using Longniddry, Gullane, Yellowcraigs and Belhaven for Kite surfing. Anecdotal evidence suggests that Kite and Wind surfing activity also takes place at Longniddry, Gosford Bay, Aberlady, Gullane and Thorntonloch. Gullane and Belhaven are more suited to beginners or less experienced and attracts greater numbers. Traction Kiting operate at Belhaven Bay.

Sea Kayaking

Still relatively small numbers of people engage in Sea Kayaking. They tend to launch from the beach or small harbours close to car parks. The Forth Islands and the rocky coast between Aberlady and Dunbar are popular with Sea Kayakers. The guide suggests launching from North Berwick, Tantallon and Belhaven. Anecdotal evidence suggests that Sea Kayaking also takes place from Seacliff, Whitesands and Skateraw.

Sailing

The Firth of Forth supplies challenging, fast, deep water sailing. The guide recommends the Inner Forth, North Berwick and Dunbar as key sailing sites. It is a high spend sport but most of the supplies and chandlery are sourced in Edinburgh.

Diving

In a study done for East Berwickshire it was noted the area attracts 25,000 divers per annum, some of whom will spill over into East Lothian. The guide suggests the Inner Forth, North Berwick and Dunbar as key diving locations and launch sites. Several local dive companies are operating from North Berwick and Dunbar harbours and provide access to wrecks and natural features for example - Munchen 3200t German cruiser four miles off Fidra and Royal Fusilier 2200t WW2 wreck two miles off the Bass Rock and the NE wall of the Bass Rock.

Local clubs including the Edinburgh Sub Aqua club visit regularly. Barriers to growth in the dive sector are identified as lack of suitable facilities like changing rooms and showers. Accommodation, like bunk houses, suitable for visiting dive groups is limited and most come on day trips.

Riding Stables

The East Lothian coast has five riding stables including those at Longniddry and Seacliff. The Active Choices leaflet promotes use of Belhaven, Longniddry, Yellowcraig and Gullane beaches for riding. Anecdotal evidence suggests that riding also takes place at Seacliff and Whitesands.

Others

Wildfowling

Permits for wildfowling are provided at Aberlady and John Muir Country Park in particular, but overall numbers of wildfowler days are reducing.

Sea Angling

.A recent report⁵ shows for the East Scotland area the coastline from North Berwick to St Abbs as the most popular area for sea angling, followed by South Queensferry to North Berwick. Anecdotal evidence suggests that shore based sea angling takes place at Musselburgh, Cockenzie Power Station outfall, North Berwick, Seacliff, Belhaven, Dunbar, Skateraw and Torness Power Station outfall.

Angling seems to be spread fairly equally along the coast and does not reflect the population distribution in Edinburgh and south Fife and the reality appears to be that an attractive environment is important. Dunbar and North Berwick are by far the most important launch sites for boats and the report speculates on the reasons for there being so little boat-based angling in the Firth of Forth.

Most anglers are relatively local (over 80%) but some are coming from the North East of England. Local people are more likely to go boat fishing while visitors fish from the shore. Total estimated expenditure on sea angling on the East Coast of Scotland – Fife, Edinburgh and the Borders has been put at nearly £26m with the greatest spend allocated to boats and fuel.

The most popular species is cod, followed by mackerel and pollack. Sea bass are a prized species around the power station warm water outfalls.

Climbing

Limited sea cliff climbing – bolted routes near Dunbar.

⁵ Economic impact of Recreational Sea Angling in Scotland 2009

Orienteering

There are organised events at Yellowcraig from time to time plus an annual triathlon event at Gullane beach.

Coastal Field Studies

University field study trips come out from Edinburgh to East Lothian to study coastal processes. Schools trips to carry out field studies also visit a range of sites. For 2007 the East Lothian Ranger service reports 182 school and other educational group visits with approximately 50% using coastal locations.

Food and Drink outlets

The East Lothian Food and Drink directory identifies six seafood suppliers in the county. The guide notes langoustines caught in the Firth of Forth are exported live to Europe daily.

Belhaven smoke house supplying smoked trout and salmon
Fish merchant – Musselburgh
Fish merchant – Cockenzie – smoked haddock and salmon
Fish merchant – Two in Port Seaton
Fish monger - Haddington

Camping and Caravanning

Table 5 – Camping and caravan sites

COASTAL SITES	PITCHES
Drummhor	108 Touring Pitches Caravan Holiday Homes
Seaton Sands	38 Touring Pitches Caravan Holiday Homes
Gilsland North Berwick	33 Touring Pitches Caravan Holiday Homes
Yellowcraig North Berwick (Caravan Club site)	116 Touring Pitches
Aberlady Caravan Park	15 Touring Pitches
Dunbar Camping and Caravan Site (Caravan Club site)	90 Touring Pitches
Thurston Manor – Dunbar	100 touring pitches Caravan Holiday Homes
Tantallon North Berwick	140 Touring Pitches 60 static Pitches Caravan Holiday Homes
Bellhaven Bay Dunbar	52 Touring Pitches 64 static Pitches Caravan Holiday Homes

Trails

East Lothian Coastal Trail is signed for car borne visitors.

Events

The 1998 visitor survey noted 10 % of visitors to East Lothian as attending an event.

From a review of marketing material the following coastal events have been identified:

- Three Harbours Festival - June
- Walking Festival – May (2009 theme - in the footsteps of great Scots)
- Food and Drink festival - September annually attracts 1500 visitors to East Lothian (ELEDD)
- EL Ranger Service programme of events, walks, volunteer activities – 37 summer events for 404 people, 25 groups of volunteers, 14 Community Groups in 2007
- Scottish Seabird Centre – Arts and craft events and exhibitions, John Muir Odyssey Home Coming Festival
- John Muir Birthplace – exhibition space and events
- Belhaven traditional music festival - September
- East Lothian Museums Service – activities and talks
- SOC George Waterston centre Aberlady - exhibitions

Attractions

Twelve coastal visitor attractions have been identified and five years of visitor figures extracted from the annual VisitScotland attractions barometer. In 2008 visits to a number of sites dropped well below their five year average, notably the Museum of Flight and John Muir Birthplace. The Seabird Centre continues to perform well in terms of visitor numbers, although only some 25% (60,000) are entering the paid Discovery Centre element of the attraction – approximately the same number paying to enter the Museum of Flight.

Table 6 – East Lothian Attractions

	2004	2005	2006	2007	2008	AV
Seabird Centre	147906	142825	225500	284702	284166	217020
Museum of Flight	70073	150908	104240	78367	70331	94784
Tantallon Castle	22888	21113	23006	26910	27586	24300
Direlton Castle	16027	14945	19495	15877	19794	17227
John Muir Birth Place	12469	12135	11931	11088	10621	11648
Newhailes Dunbar	8471	8793	10335	8303	6574	8495
Museum Prestongrange		8809	8359	8203	4134	7376
Museum Seaton	5840	7796	7707	7337	6967	7129
Collegiate	1133	1336	1760	2114	2705	1809
Preston Mill	4140	3089	2607	1896	1770	2700
Saltire Flag Site	746	979	898	1017	806	889
Inveresk Gdns	4136	5444	3784	849	1882	3219

7. STAKEHOLDER VIEWS

Over 50 people were consulted through a programme of stakeholder meetings and structured interviews. See Appendix 8 for list of consultees

The issues raised by stakeholders have been collated into a SWOT analysis that also contains issues identified from the preceding sections (see Appendix 9 for SWOT analysis). These help to inform the issues and challenges the Coastal Strategy will need to address.

As one would expect there is a divergent range of views and opinions, ranging from those who believe that disturbance caused significant declines in wildlife over the last 30 years to those who think insufficient is being done to promote more coastal tourism

The quality and diversity of the coastal landscape, natural and cultural heritage with the link to the iconic John Muir are regarded as the major strengths and the main draw for tourists.

Stakeholders also felt that the quality and number of links golf courses, number of camping and caravan sites and access to well managed facilities such as the Seabird centre were key strengths of the coast.

On the other hand, poor signage, facilities, infrastructure and poor public transport links are seen as a weakness.

The provision of access to the sea for a wide range of pursuits within an hours drive from Edinburgh is seen as both a strength *and* a weakness.

Expectations have been raised but not always fulfilled. Stakeholders have drawn attention to the number of strategies, studies and consultations of recent years. In our review it is apparent a number of aspirations, aims and actions set down by these documents have not been achieved.

Some stakeholders have described participation in the various forums involved in coastal tourism issues as 'really tiring', 'sucking energy' and 'all talk and no action' yet they also describe 'enthusiasm waiting to be tapped.'

Yet some groups like the Golf Alliance have used their undoubted 'weight' and focus to forge their own path, leaving others, perhaps with less direction and unity, in their wake. But golf stakeholders are also now recognising the need for a wider spectrum of providers as golf markets change.

A summary of other issues raised by stakeholders is noted below:

Transport

- ELC has not invested in infrastructure – e.g. Car parks, even though cars are larger and more numerous now.
- Poor car parks are the greatest hindrance to development in North Berwick – we do not manage what we have. People should pay for car parks.
- North Berwick is at over capacity every weekend over the summer holidays and when the sun shines.
- Public transport – infrequent trains (last train at 7pm) more difficult to stay late in Dunbar or stay late in Edinburgh (eg Festival) and travel back to Dunbar.
- FirstBus Service along the coast does NOT display stopping points, merely final destination. So attractions in between remain unknown. Need better bus information – Summer Shuttle – No 11.
- Buses are not all accessible to people with disabilities.
- Watersports enthusiasts cannot get out to Dunbar from Edinburgh in evening or Sunday morning using public transport. Stressful working within current public transport timetables as watersports lessons have to be rushed.
- There is an opportunity to provide a shuttlebus to connect villages, beaches, railway stations and attractions

Infrastructure

- Need toilets, simple shower and changing rooms on the beach.
- Need low budget accommodation for walking, cycling and water sports enthusiasts

Harbours

- East Lothian has the worst harbours in terms of providing basic facilities like water, fuel, showers, toilets, access ladders.

Towns and villages

- Attractions are the villages – should not be spoilt with ‘MacDonalds’ type outlets but could be improved e.g. Aberlady – needs more specialist shops, art galleries, cafes etc – car parking is poor and people do not stop.
- Dunbar and Musselburgh should be promoted as ‘gateways’ to the County, and harbours and beaches should be promoted as ‘gateways’ to the sea.

Coastal environment

- Originally (30 years ago) bird refuges at Aberlady, West shore Tynningham, Spike Island and Seacliffe. But now the coastline is busier with people and refuge areas have gone.
- There is an opportunity to create a robust a sustainable process for measuring the volume, value and other impacts of activities.
- Watersports – currently a free for all. Anything that is on the water disturbs birds – eg Kite Surfing. There is a lack of specialist water sports outlets and the facilities are poor.
- Dogs running free disturb nesting birds and there is concern over microlites.
- There is a lack of information about where and when to see birds and some paths are in the wrong place.
- Walkway to Belhaven Beach (Spike Island) – has been discussed for five years – nothing happened. Inability to do more in protecting the environment without walk way.
- Don't forget the large numbers of people that come for a simple short walk to enjoy the coast NOT to golf or take part in water sports.

Accommodation and food

- Do not need more bedrooms in East Lothian as existing occupancy is already low. Additional capacity could not be filled over the winter period. Two new hotel proposals for East Lothian have been put forward; for the Quay at Fisherrow and at the Old Craighall Roundabout. Whitekirk Golf Club, near Dunbar, has approval for a 100 bed hotel.
- There is a lack of quality staff in the food industry.
- There is an opportunity to develop closer links with Queen Margaret College particularly in the hospitality sector.
- There is an opportunity to develop the East Lothian food and drink brand and promote 'shop local' – lower food miles.
- Haggis and MacBackpacker type groups are not coming to Dunbar as there is no suitable accommodation.
- There is a lack of camping sites – existing sites always full.
- Need bunkhouse accommodation to cater for budget travellers, walkers, water sports enthusiasts and groups.

Additional proposed coastal attractions

- There are opportunities to develop heritage attractions and interpretation:
 - Enchanted forest type show
 - Witches of Tranent
 - Battle of Prestonpans
 - Geneology - through the John Gray Centre
 - More on the History of Golf
 - More on wartime coastal sites in East Lothian
 - Cultural heritage tours associated with the John Muir Way
- Innovative active and practical conservation activities e.g. ‘weed whacking’ on off-shore islands to help bird populations.
- Bring walkers and cyclists from Edinburgh along the proposed Edinburgh promenade, linking to the John Muir Way and North Sea Cycle Trail (NCR 76).
- Develop shoulder season opportunities for specialist groups and to encourage ‘off season’ use of links golf courses.
- Water sports opportunities:
 - Develop come and try activities at beginner level
 - Encourage more specialist shops and hire centres
 - Upgrade facilities at key sites and better facilities for personal water craft (Jet skis) and Sailing
 - Boat trips – ‘round the bay’ to attract a more general audience
- Greater opportunities for ‘soft’ walking.

Eco tourism

- There is an opportunity to build on and market the wildlife interest on the coast and the take up of the GTBS.
- There is an opportunity to build on eco tourism and climate change concepts along with thinking on what a low carbon economy will look like.
- There is an opportunity to create walking and cycle links to railway stations and a ‘shuttle bus’

See Appendix 9 for full SWOT analysis

PART B – ANALYSIS AND EVALUATION

8 EVALUATION OF EXISTING AND POTENTIAL TOURISM MARKETS

8.1 Evaluation of existing markets

General visitor characteristics

The 2003 East Lothian tourism survey provides the only relatively current profile of the visitor markets for East Lothian's coast, with the characteristic of the majority of visitors being of the ABC1 social class, empty nesters and families. The survey shows that the majority of visitors are Scottish people on a day trip, with a large proportion of these coming from Edinburgh. This is born out by the fact that there are a large proportion of repeat visitors to East Lothian. Those that are staying over night tend to favour camping, caravanning or staying with friends and relatives. STEAM 2008 notes a greater number of 'tourist days' are attributable to this group than on day trips.

Not surprisingly visiting the coast features high on the schedule of visitors to East Lothian. Drawing on wider national studies to gain a picture of East Lothian coastal visitors, the Scottish Recreation Survey highlights the large volume of visits made to the countryside and coast by the Scottish people. Beaches and cliffs appear to be the most popular destinations for those visiting the coast. The 2006 survey identifies the increasing trend of people travelling less distance to recreate. This trend may become more prevalent in the coming years with the economy experiencing a downturn. 2009 has been dubbed the 'year of the 'staycation' as people stay at home over holiday periods. Scotland has seen very positive trends in domestic tourism in 2009. Edinburgh reported 90% occupancy in August.

General patterns of use

The car park data gives the impression that section 3 (Cockenzie to Craigmelaw point) is the most well used part of the coast due to the busy car parks at Longniddry. This section is the most accessible beach east of Edinburgh and is served by city public transport to Seaton Sands.

However, in terms of people actually on the beaches, aerial counts and beach counts clearly show section 7 (Longskelly point to North Berwick) as the busiest section primarily due to North Berwick and its popular beaches.

The reasons for this discrepancy are not entirely clear. People may be driving to Longniddry but not leaving their cars. Alternatively the most likely scenario is that during warmer summer months when the counts took place people are more likely to seek out the beaches slightly further away and with the car parks set back from the beach they have to leave their vehicles to get the 'beach experience'.

The other section that shows a high number of visits is section 5 (Gullane Point to Eyebroughty) primarily due to the popular beach at Gullane.

Section 10 (St Baldred's Cradle to Dunbar harbour) also features as a busy part of the coast due to the popular John Muir Country Park.

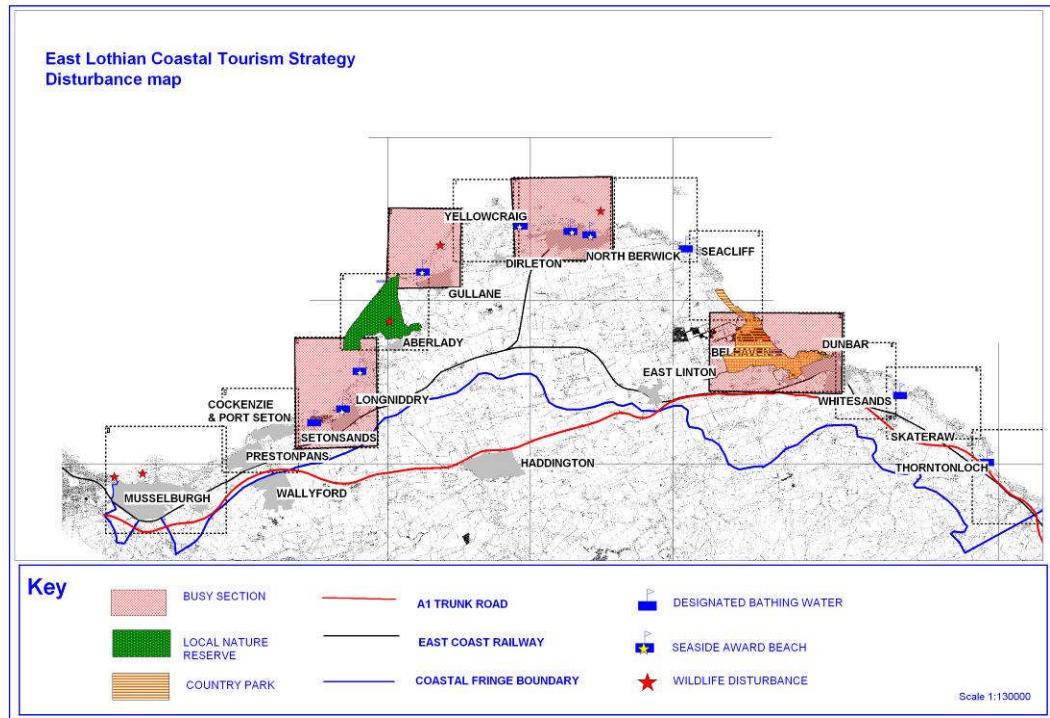


Figure 18 - Heavily used and disturbed areas

Conversely the least busy sections are those past Dunbar and furthest from Edinburgh, which might be expected but also the sea front at Musselburgh and Aberlady Bay. The former might be a function of minimal monitoring but the latter does suggest that people do perhaps limit their use of the site as it is known as a nature reserve.

The busy sections noted above have been highlighted in red on Figure 18 above

Specialist activities overview

With the exception of golfers, relatively little is known about the specialist recreationalists and visitors using the East Lothian coast. Drawing on national surveys and some anecdotal evidence it is possible to establish a general perspective on visitors who undertake activities along the coast.

Scale and numbers undertaking activities

The popularity of walking is confirmed by the 2006 Scottish Recreation Survey which found that, of those visiting the outdoors in the four weeks prior to the survey, more than half had been walking (22% fewer than two miles, 29% between two and eight miles and 2% more than eight miles).

It found that walking was more popular amongst older respondents and amongst those without a child in the party. The SportScotland survey of participation rates also found that walking was the most popular form of sport.

The SNH Marine and Coastal Recreation Survey explored the range of recreational activities undertaken on trips to the coast. The survey distinguished between 'informal' recreational activities (such as short coastal walks or rock pooling, and more 'specialist' activities (such as coastal climbing, sea kayaking or surfing). The survey showed the popularity of walking along the Scottish Coast with around 17% of all specialist recreation activities comprising walks of more than five miles.

Around 40% of respondents to the SNH Marine and Coastal Recreation Survey were members of a club or association. The survey of marine and coastal recreation clubs and associations found an average of 200 members per organisation. This led to the speculative conclusion that at a national level, upwards of 20,000 people could be members of a club or association with an interest in marine recreation.

Age and gender in relation to activities

In the SNH Marine and Coastal Recreation Survey for those specialists in marine and coastal recreation nationally, analysis of respondents' ages also reveals a pattern that differs from the population as a whole, with a higher proportion (56% compared with 27% for the wider population) of respondents in the 35-54 age bracket. The proportion of people in the 16-35 age bracket was similar to the national average (26% compared with 24% for Scotland as a whole) while the over-55 and under-16 age brackets were significantly under-represented.

Type and frequency of trips

The SNH Marine and Coastal Recreation Survey indicated that those taking part in marine and coastal recreation are relatively frequent visitors to the coast. Two thirds of respondents reported visiting the coast at least once a month, and approximately half of these people visited one or more times per week. Repeat visitors are also looking for something different and providers will have to recognise this and innovate with new products and ideas to maintain income streams.

The majority of recreation visits to the coast were day trips (87.5%) with much smaller proportions undertaking short breaks/weekends (9.1%) and longer holidays (3.5%).

These proportions are relatively consistent across the specialist recreation activities covered by the survey, though a higher proportion of some activities are undertaken on weekend or short break trips (e.g. angling or sub-aqua / snorkelling) or on longer holidays (e.g. sailing, cycling and metal detecting). These findings are consistent with the Scottish Recreation Survey which found that 89% of people visiting the outdoors were on day trips compared with 11% who were staying away from home.

Group composition

Almost 75% of informal and specialist recreational visits to the coast were made in the company of one or more adults.

Relative importance of the Firth of Forth (including East Lothian)

The SNH Scottish Seascape Units were ranked according to their importance to over 500 respondents for informal marine recreation (short walks, picnicking, beach games and rock-pooling). The ranking puts the Firth of Forth in fourth place (9.9%) in terms of all informal recreation trips undertaken, after the Argyll Coast and Islands (15.2%) the Firth of Clyde (12.9%) and Lochaber and Skye (11.9%) but ahead of the East Grampian Coast, the Solway Firth and the Inner Moray Firth.

Spending

The SNH Marine and Coastal Recreation Survey revealed a significant level of spending associated with Scottish marine and coastal recreation. The average amount spent per respondent was around £724 per annum, totalling some £413,000 overall. The highest average amounts spent were for sea angling (£1375), sailing (£924) and shoreline angling (£860). Kayaking and canoeing, sub-aqua and snorkelling, windsurfing, land yachting and speed boating each had an average spend of between £550 and £650.

Overall, the greatest amount of money was spent close to home (42% of the total), with lower amounts spent on the web / mail order (37%) and close to the coast (21%). These proportions varied between specialist activities with some (e.g. bird watching and wildlife watching) recording higher proportions on the web /mail order, but there were no activities for which the highest proportion of spending took place close to the coast.

Average amounts spent on equipment for different activities in the three types of location display slightly different patterns. They do not, however, alter the conclusion that, while marine and coastal recreation is associated with a significant amount of spending, around 80% of this takes place away from the coast itself.

Just less than 60% of staying visits to the coast involved camping, caravanning or staying on a boat, with the remaining 40% involving hotels, bed and breakfast or self-catering accommodation. The VisitScotland, Scottish Enterprise, SNH and FCS survey of walking found a much smaller proportion of visitors camping or caravanning (around 31%), with most people using hotels, bed and breakfast or self-catering accommodation (around 61%). This suggests that the local economic benefits associated with accommodation and catering may be lower for those engaged in marine and coastal recreation than for the population as a whole. STEAM 2008 noted £18.6m being spent on the full range of recreation in East Lothian.

Balancing needs of different user groups

Stakeholders responding to the SNH Marine and Coastal Recreation Survey identified relatively few areas of conflict, either between different users groups or between recreational users and other types of coastal or marine activities such as shipping. Examples raised included the effects of commercial fishing on recreational fishing, localised examples of pollution, and the noise impacts associated with powered vessels including personal watercraft. Some respondents referred to impacts associated with dolphin watching in the Moray Firth and on the West Coast.

In East Lothian there is some indication that conflict can occur for example between surfers and kite surfers both of whom need space. 100 plus surfers have been recorded at Belhaven on several occasions. The Belhaven Bay Users Group has been established to tackle this.

8.2 Evaluation of current visitor experience

The East Lothian Tourism Plan states “We want to exceed our visitors’ expectations in order that they want to return and personally recommend the area to others.” Research on expectations and current levels of satisfaction relating to coastal tourism in East Lothian appears to be limited to the 2003/4 Visitor Survey.

In the 2003/4 survey, expectations were generally met – this was seen inline with the high number of repeat day visitors who knew what they were coming to. Satisfaction levels for service in shops, accommodation, pubs, cafes, restaurants and visitor attractions was generally high (between 4 and 5 on an ordinal scale where 1 is very poor and 5 is very good) with visitor attractions scoring the highest level of satisfaction.

In terms of visitor service and information, satisfactions levels were slightly lower – between 3 and 4. Transport and signage scored the lowest satisfaction levels, especially amongst staying visitors who are less likely than day visitors to know their way around.

The VisitScotland 2008 Visitor Experience survey looks at the wider picture across Scotland. In this a very high number of visitors report overall satisfaction with their recent holiday. Only a minority of respondents offered thoughts as to what could have been done to improve satisfaction. Visitors claimed they would be more satisfied given improvements in accommodation, value for money, food quality or the weather! Unsurprisingly given the wet summer of 2008 in contrast to previous years, UK visitors were more likely to mention the weather, than international visitors.

VisitScotland's 2008 National Complaints Report lists accommodation as the greatest source of complaints with reasons mainly relating to staff/owner attitudes, standard of facilities and house keeping being the most common.

8.3 Evaluation of potential markets

The qualities valued today in East Lothian are a snap-shot in time of social, economic and environmental conditions. Hence trends are continually evolving and historical evidence is not necessarily a predictor of the future. Sound data tracking long and short term changes in East Lothian tourism markets is not readily available. However, in terms of future demand for holidays on the coast, the research indicates that the long term trends that have impacted on coastal tourism over the last fifteen years are likely to be sustained. The traditional 'bucket and spade' seaside holiday has long gone. Visitors' needs and demands are now much more diverse including day trips, short breaks and special interest holidays. STEAM 2008 reports an average stay in serviced accommodation of 2.2 days suggesting short breaks are already predominant, whereas unserviced accommodation saw average stays of 7 days.

Holiday entitlement, after growing strongly in the decades after the war, has remained relatively stable over the last decade. The working week has also stayed the same so that leisure time for the average family has not changed significantly in recent years. There appears to be little pressure for change, suggesting that for those in work, further expansion in the number of trips and nights spent away from home will be constrained by lack of leisure time.

Scotland has a pronounced seasonality of demand; East Lothian is no exception. Day trips peak in the summer season as evidenced by car park records and figures show the rapid fall in accommodation occupancy outwith the main summer season. The number of golf rounds also fall away dramatically over this period.

A growth in the interest in personal health and fitness and in nature conservation has been apparent over the last decade. These trends are likely to continue, reinforced by concerns about climate change, sustainability, the 2012 Olympics and 2014 Commonwealth Games.

Until the recession, demographic were considered likely to stimulate growth in higher value activities which are attractive to older age groups including yachting, motor boat cruising and golf. The same drivers were considered likely to raise expectations of standards and quality of accommodation.

Now worries over pensions and losses in capital values of property and investment may make older age groups scale back their expenditure. However, the older age groups will continue to increase both absolutely and as a proportion of the population. Children under 16 will increase in number but the proportion of family households will decrease.

Socio-economic and demographic drivers are still likely to increase interest in arts, culture and heritage opportunities, whilst lifestyle and income growth, post recession, are likely to sustain the growth in food, local products and eating out. Activities appealing to most age groups, such as walking will continue to dominate in terms of the volume of participants. Adventure sports such as kite surfing, sub aqua diving and similar activities will continue to grow and attract the younger active age groups, although there may be some displacement from older established sports. Spending patterns may change and while impulse participants may decline, it is predicted enthusiasts will still find money to invest in 'equipment heavy sports' like sailing, diving and sea kayaking or cheaper sports like sea angling.

Tourism day trips to East Lothian are likely to grow given the current recession, concerns over carbon footprint and interest in healthy activities. Short breaks and additional holidays are expected to increase slowly and the growth may be even slower as a result of recession worries, strong competition from other domestic destinations and fierce discounting by travel operators and budget airlines. Long holidays by UK residents to Scotland are likely to be static in volume and are more likely to decline but a weak pound may attract more visitors from mainland Europe. Conversely the longer stay in cheaper unserviced accommodation may become more popular. The potential imposition of a fuel tax to meet climate change considerations could slow or reverse growth in air travel in particular affecting overseas golfers in particular coming to East Lothian.

9 IMPACT OF EXISTING TOURISM MARKETS

9.1 Natural heritage impacts

Birds

For some species and elements of some habitats it is likely that, if current trends continue, their condition will remain unfavourable at least at a local level. The reasons for their decline are less clear cut. Taking a decline in nesting Eider duck as an example; it may be due to increased local disturbance from recreational activity such as dog walking or water sports. It may also be due to deterioration in suitable nesting habitat following scrub encroachment arising from coastline stabilisation by golf course development. Other factors could also be involved. For example declines in Scaup numbers on the Forth have been attributed to improvements in waste water discharges, especially a reduction in spent grains. Increased predation by foxes or crows or a combination of several factors could also be significant issues. Equally species numbers may fluctuate naturally across its range or international scale factors, like climate change, may be causing declines.

Ecosystems like the East Lothian coast respond to social and natural pressures in complex and non-linear ways, and are effected by a variety of human and non-human-induced forces which have both individual and synergistic impacts (Angermeier & Karr, 1994). Therefore for example doubling the stress may not double the response, which indicates the presence of a broad threshold effect in many species. Research has shown the presence of thresholds and curve linear responses, which typically infers that ecosystems can withstand a certain amount of change before losing integrity (Parrish et al., 2003).

In the absence of specific studies relating to tourism and recreational activity impacts on the coastal natural heritage of East Lothian, estuarine waterbirds in particular, an examination of the literature considers the evidence of impacts in terms of:

- Impacts of physiology
- Proximity of disturbance
- Frequency and extent of displacement
- Implications of refuges and alternative sites
- Particular tourism and recreational activity impacts

Impacts on bird physiology

Hill et al. (1997) judged that displacement of over-wintering birds inevitably led to at least one of three outcomes:

- Firstly, there would be increased bird density on sites already used at the same intensity as the site from which birds were displaced.
- Secondly, a larger proportion of birds would be obligated to forage at sub-optimal feeding areas.

- Thirdly, in the event of a lack of replacement sites, mortality would result. All three factors, in isolation or combination, are negative for wintering waterbirds.

Where birds are forced to cease foraging and either move to another part of a site, or desert a site completely, energy expenditure will increase. Gannets *Sula bassana* undergo a twofold increase in metabolic rate when flying in comparison with surface swimming (Brit-Friesen *et al.* 1989), whilst other measurements place the cost of flight as 12 times the basal metabolic rate (Tucker 1971). The longer the birds fly, the greater the expenditure will be.

Food intake or foraging rate must increase to compensate for energy expenditure made in response to displacement by human activity (Platteeuw & Henkens 1997a). Anderson (1995) raises the issue of compensatory energy intake at migratory periods. Flushing birds prior to spring migration could lead to unsuccessful migration or future reproductive problems if insufficient replacement feeding time is found. A reduction of 390 Kcal/day more than doubles the time estimated is necessary to replace lost fat reserves (Anderson 1995).

Proximity of disturbance to birds

Various factors are likely to determine the response of waterbirds to human activity (Platteuuw & Henkens 1997a):

- Firstly, response intensity will increase with decreasing distance between the bird and the source of activity.
- Secondly, species differ in their tolerance to disturbance and the distance at which they will react. Table 3 shows some published response distances at which various species react to disturbance events.
- Thirdly, the predictability of the disturbance will be important, with birds habituating to regular activity but not to unpredictable events.
- Fourthly, the higher the food supply, the more likely a bird is to remain undisturbed, and
- Fifthly, the size and species composition of flocks can be an influence in determining behavioural responses to recreation. Larger flocks are more prone to disturbance, with the 'shyest' species governing the response of the flock. Ward (1990) adds distance from alternative sites as another factor.

Table 7 Response distances of various species to disturbance factors

Species	Response distance (m)	Source	Notes
Scaup	>500	Platteeuw & Beekman (1994)	"Critical disturbance distance"
Goldeneye	100 / 168 / 280	Kirby <i>et al.</i> (2004)	1 st value minimum response to boats; 2 nd , 3 rd mean response to walkers
Oystercatcher	85 / 136 / 50 - 100	Smit & Visser (1993); Triplet <i>et al.</i> (1998)	Mean values; response to walkers
Bar-tailed Godwit	107 / 219	Smit & Visser (1993)	Mean values; response to walkers
Curlew	211 / 339	Smit & Visser (1993)	Mean values; response to walkers
Redshank	92 / 95 / 110	Kirby <i>et al.</i> (2004); Triplet <i>et al.</i> (1998)	Mean values; response to walkers

Frequency and extent of displacement

Platteuuw & Henkens (1997a) and Robinson & Cranswick (2003) offer explanations of how frequent disturbance to waterbirds can lead to a decrease in the carrying capacity of a site, and consequently the gradual decline of the population.

Compared to an undisturbed site, energy requirements will be greater at a site undergoing frequent disturbance, as birds must compensate for loss of foraging time. This could be either by increasing their foraging rate when re-settling on the original site, or flying to an alternative site where other birds may already be present (leading to increased food depletion and/or competition for food). Therefore the availability of total food resources will decrease and individual food intake will decline, thus reducing the carrying capacity. Where waterbirds are unable to compensate for extra energy loss, a direct degradation in body condition will occur. Tuite *et al.* (1983) provided some direct evidence, concluding that recreation limited the carrying capacity of Llangorse Lake for waterbirds.

Furthermore, the effects of recreational disturbance on waterbirds are generally to disrupt ‘normal’ feeding or roosting behaviour (Davidson & Rothwell 1993; Kirby *et al.* 2004). Repeated disturbance during the over-wintering period can have a “dramatic effect on a bird’s energy balance” (Hockin *et al.* 1992), and this brief review has highlighted the potentially deleterious effects of waterbird displacement, in terms of extra energy expenditure and loss of foraging time incurred.

If Robinson & Cranswick’s (2003) assertion that disturbance can be equated to habitat loss (due to the reduction of site carrying capacity) holds true, then reduced survival rates and consequently population declines could result from enforced long-term displacement.

Implications of refuges and alternative sites

Disturbance that forces birds to avoid sites and forage at alternative sites already supporting waterbirds and thus experiencing strong food competition and high density-dependent mortality, will lead to a decrease in the total population (Gill *et al.* 1998). Ward & Andrews (1993) add that “provision of refuges is a most effective way of reducing the effects of recreation”. However, they also stress that refuges need to have a carrying capacity proportional to that of the original site, and that they must contain good feeding and loafing areas (rather than just remaining clear of disturbance *per se*).

There is also the possibility that movement to alternative feeding sites could lead to increased competition with other birds already foraging at the second site. This could provoke aggressive interactions and further diminish foraging time (Platteuuw & Henkens 1997a). These density-dependent foraging dynamics could lead to a decrease in energy intake of the local population.

When considering likely waterbird disturbance and refuges for East Lothian, Bélanger & Bédard’s (1995) assertion about the effects of disturbance should be considered. If energy intake is reduced so much that compensation is not possible by either feeding at an increased rate during undisturbed periods, feeding during the night, or by using a temporary, ecologically similar, nearby area of habitat, then disturbance can be considered “detrimental”.

The importance of refuges for waterbirds that move in response to human activity is well established. Tuite *et al.* (1983) refer to two studies suggesting that bird numbers were not adversely affected by human activity if effective refuges existed, and highlighted the need to treat cases on individual merits. The effectiveness of substitute feeding sites, however, will depend largely on the species involved and the characteristics of the refuge sites. Specifically, the level of food competition will determine the level of density dependent mortality.

Impacts on other species and habitats

Seals

UK CEED (2000) and Young (1998) review the impacts of recreational activities on seal sites. Both note the growth of commercial wildlife watching activities. The UK CEED (2000) report notes that the sensitivity of the species differs according to whether a haul out site is for breeding, pupping or resting.

Common seals are breeding and moulting between June and August which coincides with periods of greatest outdoor recreational activity. However, the East Lothian coast is predominantly a resting site and breeding is unlikely to be affected. Advice and guidance, particularly in relation to dog owners, aimed at minimising impacts on seal populations could be provided.

Brown and Prior (1998) cited in UK CEED (2000) noted that recreational participants who carried photographic gear approached grey seals much more closely than those without, resulting in greater levels of disturbance. Disturbance of this kind may be considered illegal under new legislation.

Dunes

Rangers report considerable recreational activity in duneland. Camping has been observed in the dunes at Tynningham, Seacliff, Yellowcraig and Gullane with abandonment of cheap outdoor equipment becoming a waste problem. Disposable BBQs are left in large numbers in the dunes as beach users seek shelter.

Coppins (2008) notes that in the last 30 years, shared experiences with conservation managers within Britain and Northern Europe (most notably The Netherlands and Denmark) have led to changes in attitudes to dune management, as greater understanding of the essential dynamic nature of dunes has been recognised and accepted. There is a move away from considering dunes as 'fragile' systems, and to see 'damage' such as erosion as a negative impact, needing to be carefully patched up.

For a long time (several centuries) there has been an imperative to stabilize dune systems, mainly to contain the spread of blown sand from impacting on reclaimed farm land, airfields, access roads, car parks, caravan parks and in some cases, individual dwellings, holiday homes or villages, but most particularly, golf courses.

The usual method was to plant conifer as a "back wall" to the dunes, and local examples can be seen in East Lothian at West Links as well as at the John Muir Country Park at West Barns, Belhaven Bay. This has been very effective in containing and arresting the natural development and dynamics of dune systems. As such, dunes can be considered as threatened ecosystems.

Coppins (2008) also observes that moderate trampling through vegetated dune systems may have some benefits and can help to retain diversity:

- Short turf pathways break-up a uniform vegetation sward and provide micro-habitats and niches exploited by a whole range of organisms.
- Sandy tracks also provide a break in the vegetation sward and provide bare sand, a component of natural dune systems that is utilized by pioneer species and specially adapted invertebrates.
- Deeper gullies between large dunes form sand cliffs, providing specialized habitat niches such as cool, vertical faces topped by thatches of vegetation mats.

Habitat stress due to patterns of access use can be more readily measured and managed than species impacts. Salt marsh and shingle landforms and lichen assemblages are the SSSI habitats most prone to damage. Compared to pedestrians, horse riders exert twenty times more pressure and trail bikes and most vehicles exert ten times more pressure. (Liddle (1997) cited in UK Ceed 2000)

Recreational pressures can cause more subtle or indirect impacts on habitats Cole and Landres (1995) in Knight et al 1995, describe the indirect effects of recreation on wildlife in relation to soils and vegetation:

Soil characteristics

- Loss of surface organic horizons
- Reduced soil porosity
- Altered soil chemistry
- Altered soil moisture and temperature
- Altered soil microbiota

Vegetation characteristics

- Reduced plant density/cover
- Altered species composition
- Altered vertical structure
- Altered spatial pattern
- Altered individual plant characteristics

Alteration of soils and vegetation may then impact on dependent species of insects, birds and animals.

9.2 Tourism and recreational activity impacts on birds

Walkers and Dog Walking

The most likely form of recreational pressure on the East Lothian coast and possibly one of the most significant will be dog-walking and similar activities involving intrusion to inter-tidal and near-tidal areas. Rangers reported regular dog walking throughout the year as evident along the entire coast, particularly where there is good access close to the main settlements. Regular dog walkers are most likely to be East Lothian residents.

Such pursuits will potentially influence feeding behaviour of waders and wildfowl, and possibly also disrupt roost sites previously acting as refuges. The effects of the presence of humans on estuaries are well documented for a number of species. Feeding behaviour can be affected by this type of activity, with bird responses such as increased vigilance, reduced foraging time, movement and departure contributing to lower intake rates than may be normally witnessed. Decisions species make to move in response to disturbance from predators or humans will be determined by the quality of the site currently being occupied versus the cost of moving (Gill et al 1999).

In Holland, dogs were considered to be major disturbance factors, and the behaviour and number of people also influenced wader disturbance distances (Smit & Visser 1993); however, ‘normal’ behaviour was considered to be disrupted long before the most obvious behavioural responses, such as site departure, were elicited.

Dogs and walkers were also responsible for disturbance to wader roosts (including Bar-tailed Godwit) on the Dee Estuary (Kirby et al. 1993). Numbers of roosting waders were significantly lower at weekends, when disturbance rates were highest.

Oystercatcher, Curlew and Redshank had greater vigilance on higher rocky shores, but when disturbed, flight distance was low; undisturbed birds were feeding slowly and prey capture rates of Oystercatcher and Curlew increased with moderately close human disturbance (Fitzpatrick & Bouchez 1998). Local factors influence the scale of effects however; Oystercatchers were adaptable to rising disturbance on the Exe Estuary and found alternative feeding sites (Goss-Custard & Verboven 1993).

Using counts of wintering birds at low tide, Burton et al. (2002b) discovered a positive relationship between the proximity of feeding areas to footpaths and numbers of Curlew and Redshank; in other words, the smaller the distance to a path, the lower were bird counts.

Air Sports

Concern has been expressed over the impact of microlights overflying sites like Aberlady Bay. In the Dutch Wadden Sea, light aircraft and walkers were most likely to affect roosts of Oystercatcher, Bar-tailed Godwits and Curlew (Smit & Visser 1993).

Off shore water sports

Little is known on the number and frequency of offshore water sports in East Lothian coastal waters. The recent extension of the Forth Islands SPA increases the sea area where activities could be regarded as having impacts on qualifying features. Impacts may be felt by those species found further offshore (e.g. Scaup, Goldeneye), should activity from boats and other watercraft coincide with important areas for such species. These birds tend to rate among the most easily disturbed species (Platteeuw & Beekman 1994). Roosting sites may also undergo disturbance, especially if in isolated areas and approached from water (Davidson & Rothwell 1993).

Responses to water-based recreation depend on the species involved and the nature of the activity. Hockin *et al.* (1992) considered power boating to represent 'active high-level disturbance', which displaces all but the most tolerant species, whilst Tuite *et al.* (1983) likewise weighted water-based activities involving "noise and movement" as being likely to induce most disturbance.

Non-powered watercraft can also induce disturbance to birds. Tuite *et al.* (1983) found a correlational link between recreational intensity and bird distribution, showing that seven of eight species of waterbird surveyed were significantly excluded from their preferred areas of Llangorse Lake, in response to increasing human activity on the water.

In other studies, Armitage *et al.* (2001) revealed that areas of high activity on Hickling Broad were avoided by waterbirds. This distribution pattern was considered to be partially an effect of direct disturbance from boats and wind-surfers, and partly due to reduced vegetation in the areas where activity occurred. Edington (1986) reported larger scale re-dispersal of waterbirds in two sites in South Wales.

However, if waterbird refuge sites are exposed to disturbance from water-based activities such as sail boarding, total exclusion from the site can result (White 1986, in Kirby *et al.* 2004).

In a study of the effects of sailing on waterbirds at Brent Reservoir, Batten (1977) discovered that some species of waterbirds continued to use the reservoir despite increasing sailing activity. This was made possible by an undisturbed area of the reservoir which provided a refuge.

Wind based sports like kite and sail boarding may choose to use beaches at low water when more sand is exposed for safe launching and in certain weather conditions. They may also select times and conditions when the beaches are less busy with other beach users.

Bait Digging

Rangers note that bait digging at semi commercial levels to supply sea angling has been observed at Fisherrow, Cockenzie, North Berwick, Belhaven and Whitesands. A recent report put the value of expenditure on bait for sea angling in the East of Scotland at £2.23m.

Studies have shown that high levels of bait-digging (Townshend & O'Connor 1993) are related to reduced numbers of Bar-tailed Godwit, Redshank and Wigeon. The latter species was found to abandon inter-tidal *Zostera* beds as feeding sites for an entire tidal cycle if experiencing human disturbance at key stages of the feeding cycle (Fox *et al.* 1993).

Bait digging could also have the following impacts:

- Potential conflict with other nature conservation interests (non-target species and habitat damage).
- May conflict with local fisheries operations.
- May cause damage to vessels and coastal structures.
- May be incompatible with some amenity uses and harbour operations.

Shellfish collection

Rangers note that commercial 'winkling' occurs along the entire coast and has been observed at Cockenzie, Longniddry, Aberlady, Gullane, Yellowcraig, North Berwick, Tyningham, Belhaven and Whitesands. It is believed most collection is done by groups of travellers and is not directly connected to coastal tourism.

Shellfish collection at commercial scales could have the following impacts on the coast:

- Damage to habitats and species.
- Some populations of long-lived and slow-reproducing molluscs may be of nature conservation importance.
- Collection may conflict with commercial fisheries, where not controlled.
- Digging may cause amenity or safety problems for other shore users.

Beach Litter

Beach litter deposition at a selection of beaches in the Firth of Forth, Scotland, was studied between July 2001 and December 2003⁶. Out of 37 beaches, 10 were in East Lothian from Fisherrow Sands to East Beach Dunbar.

The amount and types of beach litter is relatively consistent among beaches and over time, with an increased abundance of certain litter types at irregular intervals. Plastic is the most common litter type recorded. The amount of litter items per square metre is affected by Local Authority beach cleaning, community beach cleanings, and the presence of sewerage structures and takeaway facilities. Litter from fishing and shipping was relatively low compared with litter from recreation and sewage-related debris. It is likely that climatic conditions and tidal patterns are the greatest influence on the abundance of beach litter. Management actions are required to effect a reduction in beach litter. A combination of education, provision of adequate waste reception facilities, and enforcement of legislation is needed to tackle beach litter.

9.3 Impacts of construction activity for tourism facilities

It is probable that major construction activities on tourism related harbours, marinas, hotels, car parks etc adjacent to designated sites will have some effect on birds, depending on various factors such as the time of year, and proximity of activity in relation to feeding and roosting areas. Various studies have shown that short-term redistribution or desertion of sites is likely to result from human activity, depending on the source of disturbance and the species involved.

Construction work that overlaps with the winter period when large numbers of SPA designated species are present within the area could prove the most problematic.

Few empirical studies of the effects of construction work on birds have been made, despite the obvious aural and visual cues that are associated with such activity. Although there is limited information in the literature, decreased wader density was related to construction activity resulting from works at Cardiff Bay, Wales (Burton *et al.* 2002a).

Over an 11-year period, densities and behaviour of birds feeding on inter-tidal mudflats adjacent to an area undergoing development were monitored. Construction was found to explain reduced densities of five species, including three included in the SPA designation for the Firth of Forth (Oystercatcher, Curlew and Redshank).

⁶ K.L. Storrier, D.J. McGlashan, S. Bonellie, and K. Velander Beach Litter Deposition at a Selection of Beaches in the Firth of Forth, Scotland Journal of Coastal research 2007 Volume 23 Issue 4

The three wader species were also shown to exhibit reduced feeding activity on mudflats bordering construction work. Similar long-term effects of construction were apparent in another study (Burton *et al.* 1996) where local numbers of waders (including Oystercatcher) at a coastal site declined following construction work and related increases in recreational pressure.

9.4 Summary of impact issues for birds and other species and habitats

For the East Lothian coast, impact issues (related to recreation and tourism) for SPA qualifying features (birds) are likely to include:

- Distance between people and feeding birds.
- Distance between people and roosting birds.
- Breeding times (e.g. April to July).
- Seasons when bird numbers are generally greater (e.g. in the late autumn through to early spring).
- Times when water birds are under greater stress when the weather is very wet or cold; Seasonal pressure in late winter.
- Species difference in their tolerance of activities.
- Predictability of disturbance is important.
- The greater the food supply the more likely the bird will resist disturbance.
- Larger flocks are more prone to disturbance.
- Distance from alternative sites.

For the East Lothian coast sensitivities (relating to recreation and tourism activities) of other species and habitats with notified features are likely to include:

- Stabilisation of coastal habitats leading to loss of natural dynamic change.
- Vulnerability to excessive trampling leading to changes in soils and vegetation.
- Disturbance of particular habitats like lichens heaths, maritime cliff and dunes.

In summary, based on the available evidence it can be concluded that over recent decades, recreational activity on some sections of previously undeveloped coastline has increased (e.g. resident dog walkers) giving rise to localised impacts. Evidence that any significant changes are directly attributable to mainstream tourism is minimal. The integrity of designated sites and their qualifying features still appears to be mainly intact.

Because of its natural heritage importance it is essential to avoid lasting negative impacts on the East Lothian coast. The East Lothian Council Single Outcome Agreement is targeting 95% of designated sites to be in favourable condition.

9.5 Evaluation of different sites for different types of activities

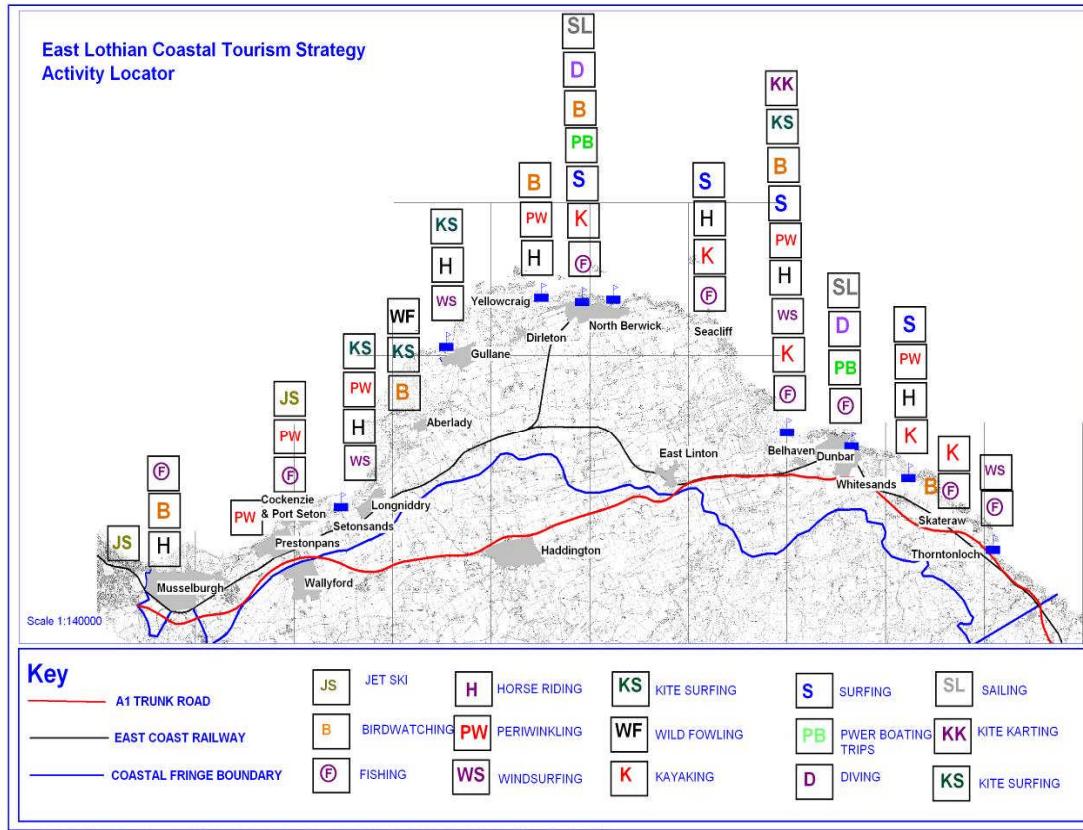


Figure 19. Location of coastal activities (from discussions with Ranger Service)

The location of activities along the coast has been gleaned from discussions with the Ranger Service (see Figure 19 above). Although this provides a snapshot of where activities are taking place, there is no information available on when the activities are taking place and in what numbers.

Activities on the coast generally follow seasonal trends:

- For the majority of outdoor activities the peak season is July to September.
- Shooting activities are linked to legal constraints and generally occur at first light over the winter period October to December.
- Walking remains popular throughout the year but also peaks in July to September. Dog walking takes place throughout the year.

Although we do not have any data on relative volume of use, analysis of visitor use (see section 6) identifies 4 'busy' sections of the coast:

- Section 3 (Cockenzie to Craigmillar point)
- Section 5 (Gullane Point to Eyebroughty)
- Section 7 (Longskelly point to North Berwick).
- Section 10 (St Baldred's Cradle to Dunbar Harbour)

Disturbance 'hotspots' observed by the Ranger Service occur in these sections along with Aberlady Bay and Musselburgh (see Figure 18).

The main locations for water based activities within these sections are:

- Section 3 – Longniddry and Gosford Bay. Both these beaches have Seaside Award status.
- Section 5 – Gullane Bents – This beach has Seaside Award status.
- Section 7 – North Berwick Milsey Bay and North Berwick East beach. Both these beaches have Seaside Award status. North Berwick harbour is popular with the sailing, power boating and diving fraternities.
- Section 10 – John Muir Country Park – Belhaven beach. This beach has Seaside Award status. Dunbar Harbour is popular with the sailing, power boating and diving fraternities.

The coastal sites beyond Dunbar (Sections 11, 12 and 13) appear to be relatively undisturbed and there is limited access to the coast between North Berwick and John Muir Country Park (Sections 8 and 9). Section 6 (Eyebroughty to Longskelly point) is also regarded as relatively quiet. Section 13 (Offshore islands) has some impacts arising from wildlife and dive trips.

Sections 1 and 2 (Musselburgh to Cockenzie) are predominantly urban in character with the main activities being powered craft, fishing and bait digging.

Aberlady Bay suffers from disturbance from a combination of activities; increasing kite surfing, wading and wildfowling.

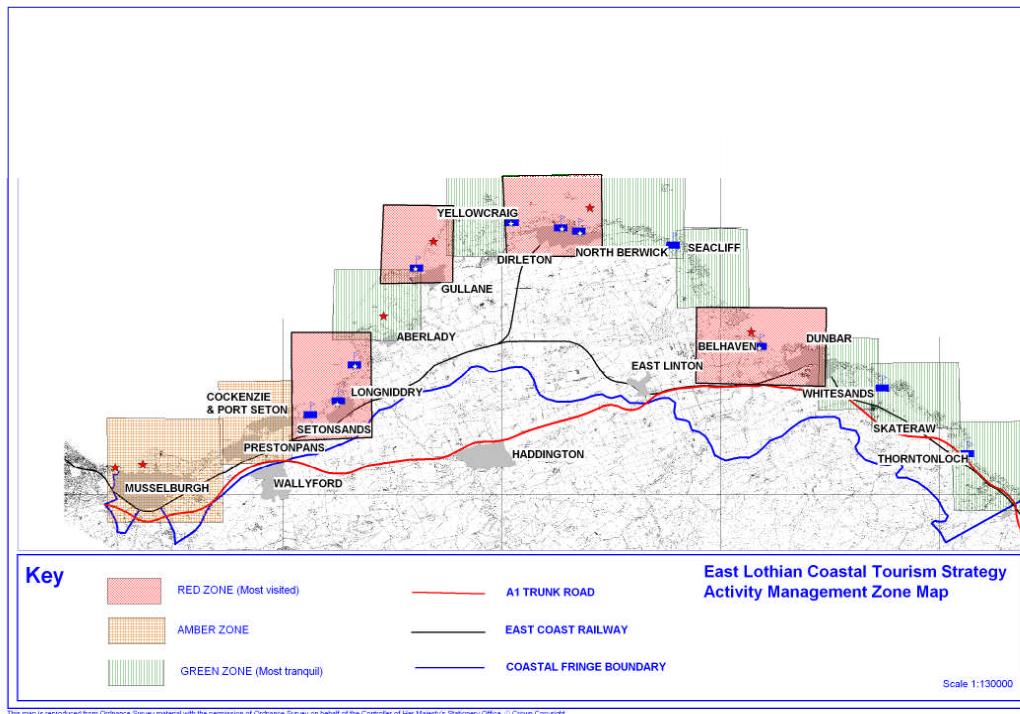


Figure 20- Activity Management zones

A conclusion from this information is that three possible categories of coast could be described in terms of volume and type of use:

1. High volume and most visited area – RED Zone
 - Section 3 (Cockenzie to Craigmillar point)
 - Section 5 (Gullane Point to Eyebroughy)
 - Section 7 (Longskelly point to North Berwick).
 - Section 10 (St Baldred's Cradle to Dunbar Harbour)
2. Moderate volume and use area – AMBER Zone
 - Section 1 – Edinburgh to Musselburgh
 - Section 2 – Musselburgh to Cockenzie
3. Low volume and most tranquil area – GREEN Zone
 - Section 4 - Craigmillar Point to Gullane Point
 - Section 6 - Eyebroughy to Longskelly Point
 - Section 8 - North Berwick to St Baldred's Boat
 - Section 9 - St Baldred's Boat to St Baldred's Cradle
 - Section 11 - Dunbar Harbour to Mill Stone Neuk

- Section 12 - Mill Stone Neuk to Torness Point
- Section 13- Torness Point to Cockburnspath

In visitor management terms the Red and Amber Zones should be managed to cater for a greater intensity of use while the Green Zone areas should be regarded as 'quieter' sections of the coast.

See figure 20 for level of use zones

10 IMPACT OF POTENTIAL NEW TOURISM MARKETS

Impact of holidaying and taking recreation close to home

2009 has already seen a surge in domestic tourism and in the short term, for many, money will remain tight. Short term will also see a consistent rise in fuel costs. Coming decades will see moves towards an economy that will favour low carbon transport options. Given these factors areas like the East Lothian coast, easily accessible from centres of population, like Edinburgh, will see increased demand from new entrants into existing markets and increased repeat visits.

Impact of new technology

Technology through mobile phones and the internet will allow instant communication and easy access to online weather and sea condition forecasts. These are already being used by enthusiasts to plan surfing and board sailing trips along the coast to make best use of scarce leisure time. People will visit several sites during the day as conditions and tides change. More people will utilise this type of technology to improve their experience. The internet is also already in use by bird watchers tracking the movement of rare species.

Improved safety equipment, satellite trackers etc, will encourage greater confidence that rescue will be close at hand should anything go wrong. Conversely insurance and licencing may add to the cost of activities as participants are required to bear increasing costs of rescue cover.

The impact of technology and improvements to equipment and clothing in particular will allow watersports users to make greater use of some sites and many activities will extend throughout the year.

Impact of Activities

Wildlife watching

Across Scotland between 2001 and 2006 there was a doubling of boat operators offering wildlife watching trips. There has been a year on year growth in the number of operators with a particular growth in the Clyde and Forth. Safety requirements are increasingly complex and growth in the number of operators has begun to slow down. Purpose built craft, either fast exciting RIB type boats or boats designed with viewing and the comfort of passengers in mind – rather than a converted fishing boat – have become the norm. Equally, informed passengers accreditations, codes and regulators are driving up quality and operators are now much more conscious of their responsibilities towards wildlife.

Adventure Sports

The 2009 Scottish Adventure Guide identifies East Lothian as a location for three adventure sports and moderate growth linked to all the reasons mentioned including ease of access, skills, technology and equipment, popularity of 'green' activities and health. Impacts at some of these sites maybe more related to interactivity compatibility e.g. Surfing (many people on one wave) and kite surfing (parallel movement along the entire beach).

- Surfing get a top rating for Belhaven beach – the spacious quiet beaches are identified as ideal for beginners with waves that roll rather than crash. The growth of family groups of surfers is also noted along side the availability of schools and kit-hire making the sport accessible to all ages and fitness levels. This is likely to continue.
- Sea kayaking on the East Lothian coastline plus jewels like the Bass Rock are noted in the guide. Getting up close and personal with wildlife and viewing the coast from a new perspective are seen as positive features of sea kayaking. With the right guidance no prior experience is required and modern kayaks are relatively easy for beginners to master.
- Micro-light flying from East Fortune with views of the Bass Rock off the East Lothian coast is noted in the guide.

Diving is seeing some growth from a small base and again East Lothian is very accessible from Edinburgh. As noted in the East Berwickshire study, given the right investment in accommodation, harbour facilities and diving support services this market could grow. East Lothian offers good wreck diving and natural features like the Bass Rock. St Abbs, with many more divers has seen some natural heritage impacts alongside social impacts of the village and harbour being over crowded.

Sea angling is a relatively cheap sport popular with less affluent visitors. Sea angling activity is currently relatively modest with mainly local participation however given more information on the web, easy accessibility to shore based sites and easy entry into the sport, participation rates may grow quite rapidly. In turn this may cause localised impacts on fish species and sources of bait.

Boat Trips

The SWOT noted latent demand for access to the marine environment from harbours along the East Lothian coast. An increase in casual boat use could cause impacts on the natural heritage, especially power boats and personal water craft. Marine activity of this nature does bring an observable number of impacts to habitats and species including:

- Launching (vehicles on beaches etc).
- Anchoring (damage to sea bed at popular locations).
- Engine emissions – mostly minor.
- Noise disturbance – mostly on local amenity.
- Paints, cleaning materials etc.

- Sewage and litter discharge.
- Disturbance to wildlife – rafts of sea duck, cliff nesting species, marine mammals – seals, dolphins and whales could also impact on feeding, mating and roosting.

Given the bird interest an increase in boating activity in the winter and spring could be most damaging.

Walking

VisitScotland's 2009 Walk Scotland Guide does not identify any specific walking routes in East Lothian but does include the John Muir Trail alongside other comparable multisection coastal routes in Arran, Ayrshire, Bute, Fife, the Moray Coast and Kintyre. In addition to the East Lothian Walking Festival, other similar festivals are identified in 23 locations across Scotland from May to October. This suggests a considerable demand for structured walking activities. Walking is seen as a cheap healthy activity requiring no equipment and will be actively encouraged in the future so participation rates throughout the year in most locations are likely to increase.

11. GAPS IN KNOWLEDGE OF THE COASTAL NATURAL HERITAGE

At present knowledge of natural heritage along the coast is derived from a mix of professional monitoring and informed enthusiasts gathering information at site or species level.

Establishing a complete knowledge of the natural heritage of the East Lothian coast would prove to be an expensive and almost impossible task hence there will always be gaps. A more practical approach is proposed whereby natural heritage knowledge gaps are addressed through the following principles.

- **Principle 1**

Coastal tourism activities should result in no net loss of natural heritage interest to East Lothian. Sufficient natural heritage knowledge should be gathered to demonstrate this. Natural heritage interests that may be outside the boundaries of the activity location should be recorded where appropriate.

- **Principle 2**

In any situation where loss of or damage to natural heritage interest is unavoidable then natural heritage knowledge should be gathered to demonstrate the loss or damage will always be minimised as far as is possible.

- **Principle 3**

If loss of or damage to the natural heritage is unavoidable then natural heritage knowledge should be gathered to demonstrate it will be fully mitigated on or off the activity location.

These principles are important if knowledge is used to support sustainable coastal tourism. Because, firstly, any future decline in species numbers cannot be attributed to tourism activity without careful assessment of suitable evidence. Secondly, and assuming any mitigation measures being proposed are judged to manage potential disturbance to acceptable levels to allow the activity to go ahead, then subsequent measures aimed at controlling disturbance may have the potential to reduce disturbance to below current levels.

If disturbance is, at least in part, responsible for the current downward local trend in breeding Eiders for example, then these measures might actually stem the current trend. A valued judgement will have to be made as to whether or not the trend is significant, the proposed mitigation measures are appropriate and it is for the site managers to argue their case.

Research has shown a lack of consistency in monitoring activity and there are question marks against some of the 'official' site condition monitoring carried out for SNH on designated sites. A key conclusion is that there needs to be a natural heritage monitoring plan for the entire coast based on qualifying features.

12 GAPS IN KNOWLEDGE OF EXISTING TOURISM MARKETS

The analyses of visitor use carried out for this report underscore the importance of the East Lothian coast as a regional and national recreational and tourism resource for East Lothian, Edinburgh and the Scottish economies.

During the preparation of this report it has become clear there are weaknesses in the availability of knowledge and information necessary for effective decision making. These weaknesses relate to sufficient appropriate historic data to provide trend information and in current data to ensure immediate changes are apparent – for example how recreation patterns may change with the current economic down turn. In particular information is required on:

- Recreation/ tourism – types, location, intensity
- Interaction between activities and natural heritage features

Visitor counting at key car parks along the East Lothian coast has provided a good understanding of the visitor trends at these sites. There is however poor understanding of visitor trends at other car parks, quieter sections of the coast and at beaches. From the available data the understanding of levels of individual activities at sites, visitor motivations and level of appreciation of natural heritage issues appears to be low or anecdotal.

Recreational disturbance is identified by site condition monitoring for a number of qualifying features as a negative force. But it is never identified as an overwhelming influence. This suggests a number of directions for a plan to monitor visitor and recreational use along the entire coast based on visitor types, activities and distribution.

- Identifying how existing recreational provision could be improved to prevent any possible adverse local impacts.
- Identifying where there is scope for expansion of recreational activities in the location causing least impact.
- That effective monitoring is a key management tool and will help unlock potential by establishing confidence in predictions on potential impacts, disturbance and the success of mitigation measures.

13 BEST PRACTICE FROM OTHER COASTAL MANAGEMENT STRATEGIES

Best practice lessons are highlighted in bold.

13.1 Rye Harbour Nature Reserve.

Rye Harbour is a 325ha site and is a local nature reserve. It is protected by SSSI legislation and is part of the Dungeness SPA. The site has a similar range and number of waders and waterbirds to East Lothian sites. Annual visitor numbers are in the order of 200,000 with 67,000 cars using the car park and many people arriving on foot from the nearby town of Rye and surrounding villages. Approximately 14,000 people enter the visitor centre. **The Friends of Rye Harbour Nature Reserve is a charitable trust formed in 1973 which provides 80 volunteers to help manage the reserve alongside two full time staff.** Four hides and a path network coupled with electronic anti-fox fencing serve to minimize disturbance from people and predators. The site has 17 byelaws established by Sections 20 and 21 of the National Parks and Access to the Countryside Act 1949 but the Reserve Manager says they are little used.

13.2 Valuing Norfolk's Coast

A study of visitors to six sites on the Norfolk coast in 1999 estimated that they spent £21 million per year in the local economy. **Visitors attracted to these sites mainly by their birds and wildlife were estimated to have spent a total of £6 million in the area, supporting an estimated 135 FTE jobs.** The Norfolk Wildlife Trust's Cley reserve and Titchwell RSPB reserve were estimated to bring extra visitor spending of £2.5 million and £1.8 million respectively into the Norfolk coastal economy in 1999. In addition, work by conservation organisations in managing sites in the Norfolk coast area supports 30 FTE jobs. The study identified a series of challenges for the management of Norfolk's coastal environment and the tourism that depends on it. These include maintaining the extent and quality of internationally important wildlife habitats in the face of sea level rise, reducing the environmental impact of traffic, ensuring that tourism benefits local communities, and managing the pressure of increasing visitor numbers.

13.3 Minsmere RSPB Reserve and the Local Economy

Minsmere RSPB reserve lies on the Suffolk coast between Felixstowe and Lowestoft. It has a variety of habitats, is rich in biodiversity, and receives almost 80,000 visitors per year. Based on a survey of visitors in 2000, we estimate that the reserve attracts tourism expenditures of £1.1 million per year into the local economy, supporting an estimated 27.5 FTE tourism jobs. Direct employment on the reserve totals 20 FTE jobs. A survey of local businesses revealed a general recognition of these benefits, but also some concern about the environmental impact of tourism locally. **The study emphasised the need to manage the environmental impact of reserve visiting, and suggested that further efforts should be made to spread visits more evenly across the year.**

13.4 Strangford Lough

Strangford Lough's northern tip is only about 6km from the outskirts of Belfast and accessible to large numbers of people. Strangford Lough Management Advisory Committee (SLMAC) provides advice to Government on the strategic management of the Lough. It is comprised of stakeholder organisations and departmental nominees representing the main interests around the Lough. Research by the SLMAC showed people did not feel connected with the Lough. To address this, a programme called *Turn O' the Tide* was established. **The programme includes a set of heritage projects mainly funded by HFL and a coordinated approach to Voluntary Management Initiatives to help people using the Lough for water sports to manage their activities so that they do not have a negative impact on other users or the environment.** Initiatives include Ecotourism training and accreditation for boat operators, annual two week beach cleaning event, castaway evening for sea kayakers, information on places to go and places to avoid. The intention is to exchange ideas and to embrace wider initiatives like *Leave no Trace* and the *RYA Green Blue Initiative*.

13.5 Jurassic Coast

The Dorset and East Devon Coast World Heritage Site is England's first natural World Heritage Site - it is known as The Jurassic Coast. It covers 95 miles of truly stunning coastline from East Devon to Dorset, with rocks recording 185 million years of the Earth's history. The coast is managed by a team of ten people who deliver a programme of conservation, education, promotion and interpretation within a coast management plan. **Their extensive branded web site carries promotions for gateway towns and villages, virtual tours, downloadable educational materials for schools and news of activities and events. Visitors can also download podcasts, maps and leaflets in various languages to accompany their trip.** Buses and trains carry Jurassic coast livery as a constant reminder to visitors.

13.6 Chichester Harbour

A dynamic estuary lying on the Solent set within an undisturbed natural coastal landscape, yet close to the built-up area of the south coast of England. Uniquely, the site is managed in partnership by the Chichester Harbour Conservancy under special statutory powers. **A management plan seeks to reconcile the commercial activities of a working harbour with nature conservation and sustainable tourism.**

13.7 Welsh Coast

The Welsh coast is an important location for tourism; in Wales, coastal holidays account for 42 per cent of all holiday trips, 49 per cent of all holiday nights and 42 per cent of all spend. Welsh annual spending in 2003 on 4.4 million seaside holidays amounts to £0.7 billion (Wales Tourist Board 2001-2004).

Much of the attraction of the Welsh coastline is due to the high quality of its natural environment and rich maritime heritage; recreational pressures are therefore high (WCMP 2005). Most of the Welsh population live in coastal areas; however, approximately 70 per cent of the Welsh coast is relatively undeveloped, rural and of considerable conservation value. The dramatic coastal landscapes and seascapes, wildlife and features of heritage importance around the coast are protected by a number of international and national designations.

The great significance of coastal tourism to the economy of Wales illustrates the need for educational initiatives that link the recreational benefits, the economy and nature conservation goals in a programme that highlights the need for sustainable and effective coastal management. In order to remain competitive in the market for tourism, coastal communities need to view the cost of maintaining their beaches and coast line as an investment in their local economies

13.8 Pembrokeshire Marine SAC (Special Area of Conservation)

The Pembrokeshire Marine SAC includes a substantial part of the Pembrokeshire coastline and the Milford Haven Waterway. The islands in the Waterway are not included within the site, but the surrounding shore, seabed and sea are. The Pembrokeshire Marine Special Area of Conservation was designated because it contains some of the best examples of marine habitats and species of European importance. This is despite the locally intensive pressures of human activities on the marine environment, particularly during the last century. **Their web site explains where the site is, why it is designated, how it is managed and what benefits occur as a result. People can find out how to become involved and details of interested parties.**

14 MANAGEMENT TECHNIQUES AND MITIGATION MEASURES

14.1 Access management measures to mitigate effects

There is a long history of people using the East Lothian coast for recreation. Trends show seasonal patterns of use with a steady increase at sites more accessible to Edinburgh. Information provision and interpretive effort has been applied but this may need to be better monitored, refined and retargeted at key audiences where required. Direct, cumulative and indirect impacts from recreation and tourism over time will have to be managed and resources applied to minimize their effects.

Evidence from other sites has shown bird populations can be sustainably maintained following increased management action. At sites in East Lothian there is already some evidence that if left unmanaged the probability is that recreational disturbance will result in a deterioration of SPA interests. However, unless access management measures are employed with insufficient planning and the necessary resources for implementation they will have shortcomings.

Encouraging East Lothian coastal visitors to behave appropriately to mitigate their effects on Natura interests requires a hierarchy of management measures. Many of these are already in place at sites along the East Lothian coast but are not necessarily applied systematically. These levels can be applied progressively and are explained in the following sections.

Level 1 Influencing human behaviour

- The Scottish Outdoor Access Code;
- Communication of information;
- Orientation with regard to site layout;
- Interpretation, education;
- Accreditation.

Level 2 Physical separation and influencing spatial distribution

- Site Planning – access infrastructure, habitat management and enhancement;
- Site Management – zoning, corridors, refuges, Ranger service;
- Event management;
- Displacement to other sites.

Level 3 Direct controls through rules, regulations, permits and charges

- Statutory offences;
- Regulation – byelaws;
- Legislation – Wildlife Laws.

Level 1 – Influencing human behaviour

The SOAC

The Scottish Outdoor Access Code is not a statutory instrument to enforce responsible behaviour; it is a guide for access users and land managers produced by SNH, and approved by Scottish Ministers and the Scottish Parliament. It is expected that it will be used as a point of reference should an appeal be taken to a Sheriff. The spirit of the Code drives access provision and emphasis will be firmly on a welcoming approach with users directed towards designed access that is fit for purpose encourages a responsible approach. The Code gives guidance on responsible behaviour by land managers of nature reserves and other conservation areas. The code advises that by providing information on the importance of a site and on the best routes for people to follow, and providing good paths, land managers can help to minimise damage and disturbance, and increase public awareness of wildlife.

The SOAC supports responsible access and Part 5 of the code describes responsible behaviour by access takers on nature reserves and other conservation areas as follows:

Access rights extend to these places, but remember that they are carefully managed for nature conservation and to safeguard rare animals and plants. Take care to avoid damaging the site or disturbing its wildlife or interfering with its management or enjoyment by others. Depending on your activity you might be requested to follow a specific route or to avoid exercising access rights in a specific area; following such local guidance can help to safeguard the natural heritage of these areas.

SOAC guidance on access to beaches and the foreshore by the public is as follows:

Access rights extend to beaches and the foreshore. Follow any local guidance aimed at reducing dune or machair erosion or at avoiding disturbance of nesting birds. Public rights on the foreshore will continue to exist including shooting wildfowl, fishing for sea fish, lighting fires, beachcombing, swimming, playing and picnicking.

A study carried out by the Forestry Commission on dog walking in forests may have some relevance for coastal dog walkers. Firstly it shows the regular nature of dog walkers. Dog walkers tend to be more active at certain times of the day and at weekends particular vigilance will be accorded to these times. Secondly it also suggests that dog walkers may have an affinity with ‘nature’ and that they welcome encounters with Rangers. This suggests while uncontrolled dogs can be a problem; dog walkers are also sensitive to positive behaviour messages.

Beach activities including commercial bait digging, commercial shellfish collecting and beach sports requiring powered vehicles are not considered to be part of responsible access by the SOAC and can be managed through management measures, existing legislation and byelaws as appropriate.

Communication of Information – knowledge acquisition

East Lothian residents have access to information which highlights the natural heritage sensitivities of the coast and encourages responsible access. Visitors have access to this type of information pre arrival through partner web sites and printed material.

For some events organisers are informed of issues around sensitive habitats and species and understand where they are located, their vulnerability and how to avoid them for example the Gullane triathlon.

Orientation on site layout

East Lothian sites usually include a welcome and orientation facility to which all visitors are directed. These mainly provide information and orientation about the site but will also begin the interpretive process for people moving through the site. Visitors can be steered to less sensitive parts of the site on arrival and reminded of safety issues.

Signage including 'Nature Reserve' type signage at sites like Aberlady can give people a clear mental map of the 'special areas' of the site. The term nature reserve is well understood by most people and is an aid to encouraging responsible behaviour.

Interpretation and education provision – overcoming cognitive dissonance

Interpretation and education along the East Lothian coast should be a management intervention designed to change or reinforce particular user behaviours. To change the way visitors think about birds and habitats on the site.

- Interpretive messages can be communicated off site through web sites, print etc;
- At 'remote locations' like the Scottish Seabird Centre in North Berwick using telescopes, CCTV and web cam set up to view birds and seals.

Codes of practice

Activities in East Lothian do have access to a range of codes of best practice to help those engaged in tourism activities connected with the environment to act responsibly.

The types of code available include:

- The Scottish Marine Wildlife Watching Code is designed for all those who watch marine wildlife around Scotland – whether they are on the shore or at sea. It is not a law or regulation – its over-riding purpose is to raise awareness and offer practical guidance.
- Wild Scotland is a trade association for Wildlife Tourism operators and they have developed a code and charter for their members.
- The Scottish Fossil Code was prepared by Scottish Natural Heritage to provide guidance for those interested in the collection and care of Scottish fossils.
- Wildlife Safe Marine Ecotourism (WiSE) Training and Accrediation.
- RYA Green Blue Initiative.
- Leave no Trace Initiative.
- Bellhaven Bay Users Group web site carries the following Codes
 - Surfing Code of Conduct
 - Wind Powered Activity Code
 - Shore Angling Code
 - Dog Walkers Code

Although Codes are technically applied in East Lothian, levels of awareness are unknown. The SNH Marine and Coastal Recreation Survey give some form of proxy for overall awareness amongst specialists in that just under 60% of respondents were aware of a code of conduct relevant to their specialist activity. Awareness was highest amongst sub aqua/snorkellers, speedboat/personal watercraft users, sailors, metal detectorists and climbers. A number of these activities have codes of conduct designed to address issues of safety (e.g. sub-aqua and sailing) whilst others have codes of conduct responding to concerns about environmental impact (e.g. metal detecting, speedboating).

While many respondents referred to legitimate codes of conduct, many were more general or vague in their answer to this part of the survey, often citing general principles or elements of other codes. Of 338 references, just over 10% were specifically to the Scottish Outdoor Access Code.

Accreditation

East Lothian Council have invested significant resources in gaining accreditation for 11 of its most important beaches; mechanical cleaning takes place on some of these beaches. A level of awareness of beach accreditation in East Lothian by visitors is unknown. In comparison public awareness of beach rating and award schemes was examined at eight beaches on the south Wales coast. In total, of 854 responses, around 59 per cent of respondents were aware of such schemes 40 per cent being unaware. This figure is higher than found in other research (49% awareness) for the same geographical area, albeit at different beaches.

Level 2 Physical separation and influencing spatial distribution

Site Planning

Location of sites

At key access nodes on East Lothian coastal sites (e.g. car parks) visitors are presented with information in the form of a 'recreational opportunity spectrum' which will allow them to choose the activity best suited to their needs. Choices could include short walks, walk to hide, woodland walk, woodland wildlife feeding area, public art installations, adventure play ground, refreshments, toilets etc.

Physical site planning measures have been used to manage the effect of people on sensitive species and to channel visitor flows. These measures are based on physically separating people from the birds and include:

- Physical management measures like water features and sea walls have been used creatively to channel visitors as at Levenhall Links.
- People numbers have been managed by ensuring main car parks as at Yellowcraig and John Muir Country Park are located well back from the beach.

Level 3 - Direct controls through byelaws, regulations, permits and charges

East Lothian Council and Scottish Natural Heritage have powers to establish byelaws to protect the natural heritage interests and public order. They are required to show the justification necessary to establish any byelaw and to make provision for administration. Aberlady Bay LNR has byelaws in place and other parts of the coast such as John Muir Country Park have byelaws prohibiting consumption of alcohol posted on signs under the 1973 Local Government Act. Under this act and the 1967 Countryside Act Skateraw, Whitesands, Barns Ness and Thortonloch also have byelaws.

The Land Reform (Scotland) Act 2003 Section 12 states rules or bylaws can also be sought which prohibit, restrict or regulate the right of access. Section 11 gives power to exempt particular land from access rights, but such measures may be time limited, will require Scottish ministers approval and use is recommended only for particular circumstances.

The Land Reform (Scotland) Act 2003, in particular Section 15 (managed access) and Section 29 (allows for signage to be erected), offers a legal mechanism for protection. SNH Area Managers can approve use of Section 29. Action can be preventative given sufficient evidence e.g. start of the breeding period. Those not following that advice are deemed not to be taking responsible access and forfeit their access rights. This mechanism has been used to help protect ground nesting birds at coastal sites in Fife and Aberdeenshire.

Under Section 19 of the **Nature Conservation Scotland Act 2004** it is an offence to intentionally or recklessly damage any natural feature specified in an SSSI notification. Under Section 20 SNH may make byelaws to protect SSSIs. Section 41 also allows for the erection of signs giving information about an SSSI and/or a Natura site to protect the natural heritage by making people aware of its sensitivities. Nature Conservation Orders and in some cases compensation may be made under Section 24 and now Land Management Orders under Section 29 both of the Nature Conservation (Scotland) Act 2004.

There are also powers in existing subordinate legislation available to influence public use of sites in the Natura series, although measures have to be consistent across the different Acts. For example, Section 3 of the **Wildlife & Countryside Act 1981** which allows for Exclusion Orders for bird protection, Sections 1-6 offences against wild birds, Sections 9-10 which covers disturbance of animals using a place of shelter and Section 13 disturbance to wild plants. Section 37 allows for byelaws to protect a European site.

Section 49A (agreements to secure the conservation and enhancement, or to foster the understanding and enjoyment, of natural heritage) of the **Countryside (Scotland) Act 1967** and Section 50 of the **Town and Country Planning (Scotland) Act 1997** states ‘Planning permission under a simplified planning zone scheme may be unconditional or subject to such conditions, limitations or exceptions as may be specified in the scheme.’

The **Town and Country Planning (Scotland) Act 1997** under section 75, allows for East Lothian Council as the planning authority to enter into agreement with developers for the purposes of restricting or regulating use of the land.

Some categories of behaviour are statutory offences and fixed penalty notices could be utilised where appropriate. The **Civic Government Scotland Act 1988** includes legislation covering fires and dog fouling. Dog fouling is also covered by the **Dog Fouling (Scotland) Act 2003**. The **Road Traffic Act 1988** Section 34 governs the use of vehicles off road. The **Environmental Protection Act 1990** Section 87 covers littering.

Harbour Orders to govern speed limits, noise (above and below water) and lighting which may also cause disturbance to Natura interests in the harbour and in the sea area adjacent to the harbour can be employed. Vessels can be managed through permits and charges where appropriate.

Section 121 of the **Civic Government Scotland Act 1982** offers a mechanism under which to impose byelaws. Section 121 states local authorities may make byelaws for the purpose of preserving or improving the amenity of, or conserving the natural beauty of the seashore. That includes conservation of flora and fauna and geological features. Such byelaws may regulate the exercise of sporting and recreational activities. Permits are issued by East Lothian Council to wildfowlers operating over Aberlady Bay (22 permits issued in 2006/7) and John Muir Country Park (234 permits issued in 2006/7). Priority is given to Lothian residents with 100 permits allocated for non residents.

Appendices

Appendix 1

Study methodology

Appendix 1 – Study methodology

The purpose of the strategy is:

"To set out how tourism at the coast can be managed and promoted while sustaining the rich diversity of the coast."

To achieve this purpose the brief suggests the production of the Strategy should be a two part process:

- **Part 1** To produce a report on the natural heritage and visitor/recreational use of the East Lothian coast using the relevant and available information and data.
- **Part 2** To develop a Coastal Tourism Strategy – informed by the Part 1 report and the subject of a separate report.

Part 1 has been developed as a **Technical Report** that describes and evaluates the natural heritage, tourism and visitor information available. This report identifies the issues and challenges that the Coastal Tourism Strategy addresses.

Part 1 was based on the following two outcomes:

Outcome 1

An indicative review of relevant strategies and plans to ensure that the Coastal Tourism Strategy draws on existing work and contributes to the strategic vision for the area. (*The strategies and plans are listed in Appendix 2.*)

Outcome 2

Defining the spatial extent of the East Lothian coast and beginning the assessment and collation of the available information on natural heritage values, the tourism market and the extent of visitor use and subsequent impacts.

To achieve these outcomes a methodology using two '**assessment frames**' was employed – one **geographical** and one by **habitat/species** type. The geographical frame allows for the location of sites, recreational use and pressures. The habitat/species frame allows for identification of status, trends and sensitivities. The two frames can be cross referenced.

Geographical Frame

The **geographical frame** has taken as its base the thirteen sections identified in the 2001 East Lothian Shoreline Management Plan which divides the coast into management sections. (*Maps of each section are included in Appendix 7*)

These sections represent headland to bay to headland units which have coherent landscape characteristics, habitat types, recreational patterns and associated residential settlements. This frame is informed by other reports and plans to ensure key sites and local names are identified.

The 13 sections taken from the Shoreline Management Plan are:

- | | |
|--------------------------------------|---|
| 1. Edinburgh to Musselburgh | 8. North Berwick to St Baldred's Board |
| 2. Musselburgh to Cockenzie | 9. St Baldred's Boat to St Baldred's Cradle |
| 3. Cockenzie to Craielaw Point | 10. St Baldred's Cradle to Dunbar Harbour |
| 4. Craielaw Point to Gullane Point | 11. Dunbar Harbour to Mill Stone Neuk |
| 5. Gullane Point to Eyebroughy | 12. Mill Stone Neuk to Torness Point |
| 6. Eyebroughy to Longskelly Point | 13. Torness Point to Cockburnspath |
| 7. Longskelly Point to North Berwick | |

A description of each section is presented in Appendix 3 with section maps in Appendix 7.

Habitats and Species Frame

The **habitats and species** frames are defined by the habitat and species types identified in the designations found on the coast and by those listed by the East Lothian Biodiversity Action Plan and UKBAP.

This created fifteen habitat and species frames for the East Lothian Coast

Estuary	Sand Dune	Urbanised sea front
Salt Marsh	Intertidal Sands and Gravels	Birds
Maritime Cliff and Slope	Rocky Shore	Seals and Cetaceans
Mud Flat	Sea	Other Species Lichens Plants, butterflies,
Coastal Heath and Maritime Grassland incl Neutral grassland and calcareous grassland	Sub tidal features	Geology and Geomorphology

The following information was collated for each of the habitat and species frames:

- Description of the habitat or species
- Where they are located
- Key influences, significance and designations
- Visitor number and recreational use
- Assessment of the current recreation and visitor pressures

Habitat and species frames are presented in Appendix 4

The frames were used to gather and present the following descriptive information:

1. Baseline data and information, including trends, on the natural heritage of the East Lothian coast.
2. The natural heritage importance of the East Lothian coast in the local, regional, national and international context
3. Baseline data and information of visitor numbers and visitor recreational use and patterns at coastal sites

An initial draft of this work was presented to the client and the Working Group. This meeting also gathered initial views on the strengths, weaknesses, opportunities and threats that should be addressed by the Strategy and charted the consultation process

The descriptive section also reviews the tourism market at a national and local level and charts the views of local stakeholders.

The outputs were further evaluated to identify

- any gaps in existing knowledge in the natural heritage and visitor and recreational use;
- existing management measures;
- what impact current recreational and visitor use is having on the coast;
- which areas could be sensitive to further tourism and recreational development and more robust areas

The evaluation also explores best practice from other coastal tourism strategies

The gaps, issues and sensitivities identified form a set of issues and challenges for coastal tourism to be addressed in Part 2 – the Strategy.

Appendix 2

Strategies and plans

Appendix 2 Strategies and plans

PLAN	DESCRIPTION
East Lothian Council Single Outcome Agreements 2008/2009	This Single Outcome Agreement for 2008-09 between the Scottish Government and East Lothian Council sets out priorities which will focus the delivery of better outcomes for the people in East Lothian.
East Lothian Council Corporate Plan 2008 – 2012	The Corporate Plan for 2008- 2012 explains how this Council, and the services it provides, help to improve the quality of life in the County, while maintaining and improving our environment for future generations.
East Lothian Council Local Plan 2008	The East Lothian Local Plan 2005 explains and justifies the Council's approach to the development and use of land within East Lothian. Together with the Edinburgh & The Lothians Structure Plan 2015 it forms the statutory development plan for East Lothian.
East Lothian Council Community Plan 2007 – 2016	<p>This ELCPP Community Plan covers a 10-year period, working toward a year 2020 Vision for East Lothian. Within this 10-year Community Plan the ELCPP is committed to targeting particular core priorities over 2-year segments. These targeted core priorities are to be determined by communities throughout East Lothian.</p> <p>This Partnership Agreement binds the core partners together in taking forward activity to ensure that the targeted priority areas, as highlighted by East Lothian communities, are given due consideration and emphasis.</p>
East Lothian Tourism Plan 2007 – 2010	This plan provides a framework to guide the development of annual joint activity plans of the East Lothian Tourism Forum, East Lothian Council, VisitScotland and links to tourism activities as directed by Scottish Enterprise Edinburgh and Lothian.
East Lothian Draft Core Path Plan - 2008	A statutory plan identified by the Land Reform (Scotland) Act setting out core paths
East Lothian Biodiversity Action Plan	The plan presents a description of a number of different landscapes and habitats of East Lothian. A series of actions is tabled with each habitat, aimed at protecting and enhancing the condition of Priority Species and Habitats and associated wildlife.
East Lothian Shoreline Management Plan 2001	In 2001, East Lothian Council, in partnership with Scottish Natural Heritage and Historic Scotland, appointed the Babtie Group to develop a Shoreline Management Plan for the East Lothian coastline.

	<p>The study area focused on a 1 km-width inland from the shoreline and to a water depth of 20 m offshore. Most of the coast is designated a SSSI, with the Firth of Forth section a SPA and Ramsar site. Within the study area the project identified 38 ancient monuments, 919 archaeological and architectural sites, 44 shipwrecks and 1095 listed buildings.</p> <p>As well as addressing the key issues of coastal processes, coastal defences, land use, the human, built and natural environment, extensive public consultation was undertaken. Scottish Participatory Initiatives carried this out by seeking views of groups including residents, fishermen, walkers, golfers and birdwatchers.</p> <p>The plan has identified that the coastline can be split into 13 Process Units and 22 Management Units. It also highlights that while cliff erosion will continue to be negligible by 2050 local mean sea level could rise by around 0.3m with a likely increase in storminess, resulting in continued erosion on many of the beaches.</p>
EAST LOTHIAN STRATEGIES	DESCRIPTION
East Lothian Council Local Transport Strategy 2001	<p>The strategy sets out East Lothian's transport and travel vision covering the period to the year 2020. It will identify the Council's objectives and policies for implementation, subject to the availability of adequate resources and any future changes in Government Policy.</p> <p>The prime objective of the strategy is to reduce the overall dependence on the private car and promote the use of more sustainable modes of transport, where practical to do so. Closer links will be established with the land use planning process and its ability to influence the location of new development.</p> <p>Given East Lothian's diverse nature, ranging from the relatively urbanised west sector to sparsely populated rural areas, a response appropriate to these varying circumstances will be developed.</p>
East Lothian Heritage Strategy 2007 – 2010	<p>The starting point for the 2007-2010 Strategy is building on the success of the 2001-2004 East Lothian Heritage Strategy. The strategic issues identified at this time were access, conservation, partnership and management. The East Lothian Heritage Strategy 2007 – 2010 presents an approach to heritage development that takes account of the wide range of interest in all aspects of heritage throughout the County. As well as considering the work of East</p>

	<p>Lothian Council as a provider of heritage services – including archives, archaeology, local history, the natural heritage, museums and care for the built environment – the strategy highlights the work of local community heritage organisations and notes the considerable further potential to support and develop community driven heritage projects. The role of national heritage bodies is also recognised and the potential to develop further heritage projects on the basis of local, national and indeed international partnerships is noted. The strategy also notes the many existing strengths that can be built upon to achieve even greater success through the promotion and development of heritage tourism. Key themes are identity, community involvement and heritage infrastructure</p>
East Lothian Strategy for Water Sports (SE Scotland Water Sports Guide)	The South East Water sports Guide to Scotland was the first of its kind in Scotland. Developed in partnership between East Lothian Council and the private sector, with support from Challenge Funding, the 64-page pocket guide was an immediate success. The guide provides visitors to Edinburgh, East Lothian and Berwickshire with information on a range of water sports activities, where to do the sport and who provided it if you were a beginner. The guide has helped to establish a network of new water sports businesses and provided the basis of a strategy for water sports which is currently under development.
Golf East Lothian	<p>Golf East Lothian is an initiative developed by East Lothian Council's Economic Development Division in association with other partners.</p> <p>Golf East Lothian is also part of a marketing group called East of Scotland Golf Tourism Alliance. The Alliance promotes golf tourism on behalf of the following areas, Perthshire, Angus & Dundee, Fife and East Lothian.</p>
East Lothian Environment Strategy	<p>This Environmental Strategy reinforces the Councils existing commitment to the Environment. It seeks to place environmental issues on an equal footing with economic and social objectives within the context of sustainable development. The Council has made a commitment to environmental action through the Corporate Plan, and the Community Plan. This Strategy shows how the Council will put this commitment into practice.</p> <p>The Council has an important role in improving the environment for residents, workers and visitors. It is the major service provider in the area, working in partnership with its citizens and other organisations. It is also a major employer and purchaser. What we do, and how we do it, can have a great influence over the condition of the local environment and the health and well being of its residents The Council also has a responsibility to help reduce global problems such as climate change.</p>

	The Scottish Executive and COSLA have made it clear that they expect local authorities to take a lead role within their communities in reducing emissions of greenhouse gases.
East Lothian Council Golf Tourism Strategy	Golf has long been recognised as a key driver for tourism in the area. There is an excellent range of golf courses in the area including internationally recognized links courses and the East Lothian Golf Alliance brings together businesses working to develop and promote golf to visitors. Many of the golf courses have a high profile as major championship and championship qualifying courses.
EAST LOTHIAN SURVEYS	DESCRIPTION
Coastal Conservation Study 2008 Draft Creating Ecological Space	This study was commissioned by East Lothian Council to look specifically at measures that could be introduced to conserve wildfowl and waders, and identify areas that could benefit from conservation measures. These targets were set against a background of increasing pressures on the coast arising from recreation, development, coastal squeeze and potential climate change pressures.
Coastal Visitor Counts East Lothian Coast 2008	Microlight and helicopter flights were undertaken along with on the ground surveys to count how many people were on East Lothian beaches at a specific time. The difficulties of each count technique were analysed and assessments are made of the quality of the data. From this a simple methodology and regime has been determined for subsequent years.
East Lothian Visitor Survey 2004	East Lothian Council, Midlothian Council and West Lothian Council in partnership with Edinburgh and Lothians Tourist Board and Scottish Enterprise Edinburgh and Lothian, commissioned TNS Travel & Tourism, to conduct a programme of market research to determine the characteristics of day and overnight visitors to the Lothian region and to establish visitor perceptions of the local tourism product. This report presents the results of the survey of visitors to East Lothian. A total of 365 face-to-face interviews were undertaken with visitors to the area over the peak period June-November 2003
EAST LOTHIAN INITIATIVES	DESCRIPTION
East Lothian Litter Initiative	East Lothian Council launched an initiative known as ELLI, East Lothian Litter Initiative in 2006. The idea behind which, is to encourage good citizenship by signing a pledge to pick up at least one piece of litter a day and also promising to enlist at least one other person to do the same. Monitoring is by regular visual inspections of the targeted high streets before and after their respective ELLI launches, based on the LEAMS system of measurement.

	The campaign has seen a sustained improvement in litter standards. The council's LEAMS score looks as though it will have increased again in 2007 and may even achieve 73, a significant jump of 3 points since ELLI was launched.
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NATIONAL SOURCES, PLANS AND STRATEGIES

BTO WEBs counts

Tourism Framework for Change (Scotland)

A Strategy for Scotland's coast and inshore waters

Bathing Water (Scotland) Regulations 2008

SNH - Scottish Recreation Survey.

Aerial Survey of Scottish Beaches, Research Report 2004/04

Valuing the water environment: a review of international literature Scottish Executive social research

SITE MANAGEMENT PLANS AND ANNUAL REPORTS

Whitesands, Barns ness, Skateraw and Thorntonloch

- SMP(2006-2010)

Levenhall Links

- SMP (2004 – 2008)
- AR 2007
- Facts and Figures 2007

Longniddry Bents

- SMP (2005 – 2009)

John Muir Country Park

- SMP (2005 - 2009)
- AR 2007

Aberlady Bay

- SMP (2007 – 2011)
- AR 2007

Gullane Bents (2006 – 2010)

Archerfield and Yellowcraig

- AR 2007 and 2006

East Lothian Council Ranger Service

- Management Strategy 2004-2007
- Annual Report 2007

Appendix 3

Geographical frame

Appendix 3 Geographical frames

Geographical Frame descriptions

1. Edinburgh to Musselburgh – Map 1 in Appendix 6

This is a short section from the East Lothian boundary to the mouth of the River Esk and including Fisherrow Harbour and Fisherrow sands. Musselburgh known as the 'Honest toun' was originally a fishing town and is now mainly a dormitory / commuter town for Edinburgh. Its name comes from abundant mussels once found on the Fisherrow shore. The mussel beds are now much depleted. Some suggest the creation of the seawall has led to the loss of mussel beds due to silting up along the shore.

Wildlife interest is particularly in the large numbers of mute swans. Over 200 can be present during moulting. Eiders, other sea ducks, geese and waders are present at the mouth of the River Esk. The river also supports populations of otter, goosander, merganser, dipper, kingfisher and grey heron.

The section well used by locals. The main uses are by dog walkers, walkers, cyclists, runners, picnics/BBQs, pitch and putt, football and skateboarding. There is a play park on the Links. Fisherrow Sands are mechanically cleaned throughout the summer by a surf rake this removing seaweed and other debris and possibly affecting invertebrate numbers and strandline feeding opportunities for birds. The sands are part of the Marine Conservation Society 'Adopt a Beach' programme. However beach litter, shopping trolleys in river and broken glass remain a problem and there are incidents of anti social behaviour. Disturbance to wildlife occurs, particularly at low tide and commercial bait digging has an impact

Fisherrow is a tidal harbour that was once the trading and fishing port for Musselburgh, but is now used by pleasure craft and as base for Fisherrow Yacht Club and a Jet ski/motor boat club. The Back Sands beach being used more regularly now than it was in the past. The section has good car parking, well appointed toilets, easy access by public transport and is the start of the John Muir Way. Some litter issues exist in part due to fast food provision and open air drinking leading to broken glass.

2. Musselburgh to Cockenzie - Map 2 in Appendix 6

East of the River Esk is Levenhall Links a 93ha site which is created on reclaimed mud flats with waste powdered ash from Cockenzie Power Station dumped into settling lagoon. Neighbouring landuses are Musselburgh racecourse and the 9 hole historic Musselburgh Golf Club which is thought to be the oldest in Scotland. The John Muir Way goes through the site.

Although dumping continues on the east of the site, the remaining area has been landscaped into small shallow lagoons, grassland, wildflower meadows and woodland and provides recreational space for the people of Musselburgh. It is a designed landscape, is robust and can accommodate high numbers of visitor.

There are car parks and a path network with a new path beside sea wall. Levenhall has good transport links to Edinburgh. Planning permission has already been granted to turn western lagoon no 8 into a bird reserve once Scottish Power cease with ash disposal operations. Lagoon No.8 and six shallow wader scrapes built in 1991 on a decommissioned lagoon have been included within the Firth of Forth Site of Special Scientific Interest (SSSI) in recognition of their value to birds. The lagoons are nationally important roosts and also form a component in the Firth of Forth Special Protection Area and Ramsar site designations. They provide the only major roost between Crammond and Aberlady Bay.

Levenhall has its own dedicated Ranger staff, employed by East Lothian Council and part funded by Scottish Power. Possible changes to the Power Station either close/switch to gas in future may affect future funding and management. The site has a volunteer group called the Friends of Levenhall Links

The Links supports a great variety of recreation activities: dog walkers (professional and non), walkers, runners, cyclists, golf, football, shinty, swimming, wind surfing, sailing, canoeing, kayaking, rafting and model boat club. Some fishing occurs off sea wall and there are the occasional horse riders and motorbikes and quad bikes. Levenhall is used by great number of outdoor groups, including Honest toun race, Riding the marches, Edinburgh marathon, East Lothian Outdoor Education, Edinburgh University, Loretto School, Outward Bound, Levenhall Model Yacht Club, cadets from Dreghorn Army barracks.

The lagoons are attractive to waders and wildfowl and are now a popular and accessible bird watching site. There is a new hide at sea wall. The area is an exceptional place for birds and bird watchers. The number of birds to be seen through out the year is impressive, the variety of species is unrivalled (252 have been recorded in a relatively small area) and it is easy to get close views of almost everything. The site is ideal for beginners learning to identify waders, gulls, terns, ducks and seabirds.

The site is a roosting point for waders including oystercatcher, bar tailed godwit, curlew, redshank, grey plover, golden plover, lapwing, water fowl including wigeon, teal, mallard and shelduck and a feeding point for smaller waders in scrapes. Large numbers of birds overwinter. Ground nesting birds include skylark, meadow pipit, reed bunting with overwintering birds including the short-eared owl. Sand martins breed on the site. The site also attracts migrants and occasional vagrants and butterflies and moths. Brown hare a UK BAP species occurs at the site. Off shore – eider, slavonian grebe, long tailed duck, velvet scoter can be seen in the winter. With investment Levenhall could potentially be one of Scotland's premier birdwatching destinations. Good transport links, close to Edinburgh with the right facilities Levenhall could provide an excellent wildlife experience for both enthusiasts and a wider market of visitors to Edinburgh looking to escape the hustle and bustle of the city.

The Levenhall Links Management Plan notes the site is seen as an attractive development site and there have been further golf course and sport centre proposals put forward. Some see these as a threat to green space. The new community building currently being constructed beside the race course will have space for the on site Rangers with possible display space.

Ease of access from Musselburgh attracts antisocial behaviour with vandalism, drinking, fires, illegal motorbikes and litter a problem (some blown from race course). Dog walkers bring problems of dog fouling and a lack of proper control

Infrastructure has management problems with no booking system for boating pond and more than one group at a time can arrive causing over crowding. The access road is uneven with potholes causing parking on tarmac part of access road, hindering access.

Morrison's Haven was historic harbour for Prestongrange but is now filled in. There is a car park / bins / interpretation area and a large camping/caravan site at Drum Mhor. The coastal path is getting severely undercut between Morrison's Haven and Sam Burns Yard (desire line runs closer to shore than the tarmac path but runs directly above some badly affected areas). Morrison's Haven is an adopted beach under MCS Beachwatch 'Adopt a Beach' and volunteer beach cleans occur at Morrisons Haven. Morrison's Haven has some waders, sea ducks offshore and seals haul out. Morrison's Haven has some interpretation but it is worn and faded albeit set in a walled area feature.

There is some wildlife disturbance due to beach use, beach litter and bait digging, in particular yearly visits from large groups from North-East England, including some commercial groups.

East beyond Levenhall and Morrison's Haven is the town of Prestonpans with buildings right up to the shoreline. Cockenzie Power Station is close by. Prestonpans – got its name from salt manufacturing on the shore. The areas supported many other historic industries including mining, fishing, soap work, brickworks and pottery. Prestongrange is now a mining museum and these activities are also depicted in the Prestonpans mural trail and at the Gothenburg pub. The site of the battle of Prestonpans (1745) is near by and is the subject of a feasibility study for a visitor attraction. Prestonpan, Cockenzie and Port Seaton combine to deliver the 3 Harbours Arts festival. The John Muir Way runs along the shore area but can be rather complex through town / shore and difficult to follow in places. Many people see waste water pipe casing along shore in front of town as a path, but this can be very precarious due to seaweed / tidal coverage etc. There are good public transport links, including a regular bus service and Prestonpans railway station. Prestonpans has a small sailing club and people also engage in walking, dog walking, cycling, golf practice / kite buggies (on the green hills at Power Station). The occasional jet ski launches at the Prestonpans sailing club compound.

Cockenzie Power station built in 1960s. Peregrines nest at the power station. There is a path along front of Power Station. Recreational fishing takes place off power station cooling water outlet with bass in particular attracted by the warmer water from the cooling system. There is considered to be some disturbance to waders through activity at the sailing club and fisherman's litter around Power Station is an issue. Travellers – use car park at Yacht club, green hills by power station, industrial estate or amenity area behind coal plant.

3. Cockenzie to Craigmillar Point - Map 3 in Appendix 6

Cockenzie and Port Seton were originally separate small fishing villages, now they are essentially merged into one. The John Muir Way passes through both from Prestonpans, linking them with Seton Sands Holiday/caravan Park and then on to Longniddry Bents.

Cockenzie harbour has recreational fishing off the sea wall and is a venue for the 3 Harbours Arts festival. 2009 included human sculptures placed in Harbour and left insitu. Port Seton harbour is used predominantly by part time fishing boats – lobster / crab / prawn. Some jet skis etc launch occasionally from outer harbour. Visitors explore around harbour and watch from cars parked in harbour area car park. Nearby takeaways are often consumed there, benches and bins provided (and used)

Other recreational activities include walking, (the short section of the John Muir Way is used particularly by Seton Sands Caravan Park visitors to get to village), dog walking, bird watching, cycling, jogging, skateboarding and rollerblading. There is occasional use by motorbikes (between harbours) and occasional reports of antisocial behaviour involving groups of youths.

At this point the John Muir Way is a tarmac multi-user path with good links to other communities and a regular bus service. There are decent toilets at Pond Hall, some interpretation – put in by community, well used benches, picnic tables and bins along the promenade, although dog fouling, beach litter, some fishing industry related litter (occasional report of oil spill / fly tip over harbour wall, fires etc) remain an issue. There is positive community involvement in projects. e.g. Cockenzie and Port Seton in Bloom. This group is also responsible for creation and maintenance of public gardens in the area including three linked directly to John Muir Way.

The Ranger Service uses the shore off Pond Hall for rock pooling (6x a year approx) and they carry out WEBS / eider survey / people counts. The beach at this point is a good roosting spot for wading birds e.g. purple sand piper, grey plover, and ring plover. Also sea ducks, e.g. eider are present offshore. Easy access to mostly rocky beach by multiple sets of steps along Promenade- facilitates disturbance to wildlife (mainly dogs)

Some sections of reinforced path between harbours is perceived by some as overly artificial (concrete with rocks sticking out of it) – detracting from natural surroundings and sand can encroach on to path following high tides and storms.

Beyond the small harbour of Port Seton is Seaton Sands. Easily accessible from Edinburgh by public transport Seton Sands has a mix of both sand and rocks providing an ideal location for family day trips. There is a dog exercise area and the beach provides a good walking and horse riding while windsurfers and canoeists often use the sea. The nearby caravan park has an amusement arcade. There is no easy access to the beach from the caravan park and visitors have to cross a busy road.

East of Seaton Sands is the Longniddry Bents car park, where vehicles can be driven very close to the tide line, as a result the site is heavily used every day of the week, and especially so at week ends. The proximity of Longniddry Bents to Edinburgh, its ease of access and its rural setting are what probably make this section of the coast the most visited in East Lothian.

It is popular with local dog walkers who make up the bulk of the visitors in the mornings. On a warm, sunny day, car parks 1 and 2 in particular can fill very quickly with families looking for a seaside experience. The beach in front of these car parks is the most popular with families. This long sandy and rocky beach is accessed easily from the road and car park and there are a lot of birds to be seen feeding when the tide is out. It is a popular for walks during the winter as well as family visits in the summer. The beach is popular with dog walkers and from time to time canoeists and windsurfers. For the last four years there has been a 'take your litter home' policy at Longniddry Bents that was introduced to try to combat the considerable litter problem at the site. Commercial fly tipping, dumping of domestic waste and discarding of litter around bins was common. Since the wheelie bins and litterbins have been removed, however, the litter situation has improved markedly.

Longniddry Bents car parks were always managed with a view to retaining the rural, wilder appearance than other coastal car parks. A few years ago, however, it was felt necessary to tarmac some of the access roads to improve traffic flow and to encourage the spread of cars throughout the car parks. Erosion of the promontory area of Gosford car park has certainly increased since then, and there are no formalised car parking areas, meaning cars can be abandoned almost anywhere on-site.

The burns running into the site from Longniddry are prone to drying up or contamination from sewage related debris during periods of storm overflow. This may affect the wildlife of the site and has caused considerable concern with regard to the tiny water vole population, one part of which seems to have disappeared following a storm surge a couple of years ago affecting the Dean Burn which enters the site to the west of car park one. Horse riding is popular along the beach, and although many groups used to bring horseboxes, the height restriction barriers have discouraged this. The local stables ride horses down Lyars Road and cross over the coast road to gain access to the beaches, a practice that is quite dangerous given the nature of the road and the speed of oncoming traffic.

Gosford car park is popular with older people who often sit in or next to their cars to admire the view, read the paper, picnic etc without ever moving onto the beach or even very far from their vehicles. The promontory at Gosford car park is popular with sea watchers, including bird watching, ship watching and more recently dolphin spotting. The beach west of Gosford car park has a courser sand often mixed with broken up coal deposits and a higher concentration of seaweed build-up, making it less favourable for families. This sheltered part of the site, however, is popular with windsurfers, particularly novices. Being next to the main coast road, short term visits are more frequent here than at some of the other coastal sites; the car park has been popular with drivers stopping off to have lunch or to use the toilet facilities.

Gosford Bay is accessible from the Gosford car park and in the past has been less attractive to walkers, since there is only a narrow strip of beach at high tide, backed by the traffic heavy coast road. There is now an increasing trend for walkers seen either passing through the site or parking here to begin a longer coastal walk along the John Muir Way. Observations support the view that more people are walking along Gosford Bay to or from Aberlady. Limited numbers has benefited wildlife, particularly roosting wading birds, but there is now clearly an element of disturbance to what was a quiet area of coastline. On the water Gosford Bay is known for its wintering population of sea birds, particularly red-throated divers

Further east, towards Craielaw Point the foreshore at high tide is a narrow rocky strip backed by a private road running through woodland, and culminating in a golf course which occupies the entire headland around to Aberlady Bay the short turf of the golf course running up to the cliff edge with no appreciable foreshore at high tide. Round Craig, a tidal island off Craielaw Point is only briefly cut off at high tide and is regularly visited by walkers.

4. Craielaw Point to Gullane Point - Map 4 in Appendix 6

Within Aberlady Bay eider are known to breed in the relatively protected dune system on the east side of the bay, as least as far as Gullane Point, and possibly as far as Gullane Bay.

5. Gullane Point to Eyebroughy - Map 5 in Appendix 6

Gullane Bents is a glorious sandy beach from which there are extensive views of the Firth of Forth. It is a popular family beach ideal for sunbathing, walking, kite flying, picnics and windsurfing and canoeing. Here, the level of disturbance is much higher than in Aberlady, as the beach has car parking, with consequent intense and varied recreational use made of the foreshore and dunes. Bordering Archerfield private housing, a 2m high, mesh fence leaves only a narrow foreshore.

Black Rocks to High Dune, Yellowcraig – quieter section of coast since there is no easy access to the shore from park cars. Walking through this section getting busier with more people wanting to walk as much of the coast and as close to the shore as possible. This dune system is one of the most natural and unspoilt sections along the East Lothian coast. Planning proposals are being discussed for an extension into this area to form three new golf holes for neighbouring Renaissance Golf Course.

6. Eyebroughy to Longskelly Point- Map 6 in Appendix 6

Eyebroughy, a small tidal island site only reachable at low spring tides, is the location for a project to see if possible to re-establish breeding eiders and terns using artificial “nest boxes”. At present this island is rarely accessed by members of the public. The island is not especially inviting as it is mainly bare rock. Eyebroughy is a known eider breeding site with a few nests in most years; the recent maximum being eight in 2003 (Lothian Bird Report). Grey seals have been known to use Eyebroughy for breeding. There is dense scrub and low cliffs on the shore leading to the well used Brigs of Fidra and Broad Sands.

Yellowcraig is an area of dunes, coastal grassland, meadows and a collection of twisted pines. Characterful trees shaped by the wind. There is a fairly extensive wooded area of pine and broadleaf trees with a well defined path network. Close to the large car park is a children’s playpark which is heavily used. Yellowcraig is a popular area for dog walking.

Seaduck occur offshore in the winter. This section is an important area for moulting eider during July, August and September. Otters have been seen at the mouth of the Eel Burn

7. Longskelly Point to North Berwick (Rugged Knowes) - Map 7 in Appendix 6

This section has a continuous path connecting two large car parks and North Berwick; nowhere within this section is wildlife completely free of disturbance. East of Broad Sands and running into North Berwick is a golf course, bordered on the seaward side by a footpath. The West Links is also well used for beach activities, and despite no formal parking, vehicles are driven into the dunes. There is a series of small sandy bays along this section of coast used mainly by local residents and visitors from the Marine Hotel. This stretch of coast is popular for dog walking. No ready car parking nearby so mainly local resident use.

North Berwick West Beach and Milsey Bay have a long stretch of sand with views to the Bass Rock. They are popular family beach providing an ideal location for sunbathing, bird watching, paddling, picnics and dog walking. Behind the west beach is a putting green that is open during the summer months. Milsey Bay has a boat pond built into the rocks which holds the water when the tide is out, providing a safe place for children to sail boats and paddle. The beaches are very close to the harbour, lifeboat station and the Scottish Seabird Centre providing wet weather entertainment. There is a range of accommodation close by. North Berwick Law is notable for its grassland species and in particular maiden pinks and locally rare lichen at summit (*Ramalina polymorpha*).

North Berwick beaches mechanically cleaned. Management of sand accretion takes place along east beach. Digging for lugworms for fishing bait takes place on a limited, non-commercial scale. Harbour area major community focus – mainly as a sailing/yachting base also the Seabird Centre location is a major attractant. The town beaches to the east and west of the harbour are a major focal point during good weather. Sufficient parking within the town and especially close to the shore is a major problem regularly contributing to congestion and poor traffic flow.

8. North Berwick to St Baldred's Board - Map 8 in Appendix 6

This section is largely rocky coastline backed by cliffs, steep in places and reaching a maximum height of c25m near Tantallon Castle. At North Berwick and as far as Carty Bay the coast is intensively used; with carparks at the road end allowing easy access to the footpath skirting the cliff-top golf course. Offshore there are two small islets, The Leithies, the outermost of which is used by eiders as a breeding site. This small group of offshore tidal islands have been the focus of research into breeding eider and their interface with the public. This is the third year of monitoring breeding numbers and public access and use of the coastline from the Haugh eastward to the Leithies and beyond.

East of Carty Bay, from Podlie Craig to The Gegan the cliffs are sea washed at high tide, cutting off access to several small bays. East of the Gegan headland the coastline is lower and less abrupt, and except for Seacliff beach the foreshore is rocky, backed by low crumbling cliffs topped by farmland, reaching to the Peffer Sands.

There are a couple of quiet sandy bays between Horseshoe Point and Carty Bay. Generally used only by locals, parking and ease of access being the main restrictions. The shore area from Carty Bay along under Tantallon to Seaciff beach very quiet, difficult to access and access is heavily influenced by tidal cycle. This is the only section of coastline where eider still nest in small numbers on the mainland. Carty Bay has a small group of houses around its edge and householders tend to view this sandy beach as their 'own'.

Historically cliff nesting house martins occurred near the Lethies now they are only present in small numbers at Gin Head, Tantallon

Fulmars and raven nest on the cliffs below Tantallon Castle. Common tern and oystercatcher still attempt to nest in small numbers on the Carr rocks – signage in place to encourage the public not to access this tidal island during the breeding season. This section is an important area for Purple sandpiper in the winter. Kidney vetch (red data species) and also bloody cranesbill are locally rare species along this section.

Seaciff is a beach with private vehicle access and can get very busy. The long gently sloping sandy beach is ideal for families with small children. Seaciff has car parking area and toilets; a car parking fee of £2 charged by owner. Seaciff overlooks the Bass Rock and has a quaint harbour carved out of the rocky shore at one end of beach and the Carr rocks with its stone built beacon at the other end. Landowner has been making noises about closing this site to the public due to litter problems, fires and all-night beach parties and camping. Running costs, lack of public respect for the site and the need for a toilet upgrade are cited as issues. If vehicle access closed there is no ready alternative parking nearby to allow walking access to this section of the shoreline.

9. St Baldred's Boat to St Baldred's Cradle - Map 9 in Appendix 6

From the end of the Scoughall Rocks to Tyne Mouth there is 2km of sand backed by a high dune system. The owner of the Seaciff foreshore also has camping interests at the mouth of the Peffer burn namely a campsite of permanent structures run by the Scripture Union and a field regularly used by caravan clubs for Caravan Club Rallies circa 30-50 vans per event. Both groups have use of the sandy beaches either side of the mouth of the Peffer and bring their own boats and jet-skis, launching them from the beach. There is no general public access or car parking near to this location. The neighbouring farmer on the other side of the burn has taken on a franchise for a small, select, up-market campsite using semi-permanent tent structures. Again he shuns the desire for more general, ready access to this point especially by the car borne public.

From the Carr Rocks to Pefferburn is an important wintering area for wigeon, mallard and waders. Peffer to Frances Craig is within the quieter section of the John Muir Country Park. People have to walk quite a distance from the nearest carpark at Tyningshame to access this area.

10. St Baldred's Cradle to Dunbar Harbour - Map 10 in Appendix 6

Belhaven Bay is an extensive sandy beach within the John Muir Country Park. The beach stretches from Belhaven to the north of the River Tyne. It is fringed by low, sheltering sand dunes, salt marsh and grasslands. The beach is used for walking, having picnics and sunbathing and affords views across the Forth Estuary. Inland from the coast at the mouth of the River

Tyne there is an extensive area of estuary shallows, almost divided by Sandy Hirst point. Tyne Sands, the outer half of the bay, and Heckies Hole, the inner part, dry completely at low tide; on the south and west side a high embankment protects the surrounding farmland. This is topped by a track that is part of the network of paths within the John Muir Country Park, which extends from Belhaven Bay to the north side of the River Tyne.

Belhaven Bay has the 1km long sand bar of Spike Island as its most prominent feature. This was used by breeding Eider up to the late 1970's, but is now backed by a 300 vehicle car park and is a popular dog walking site. Sand and salt marsh continue to the east side of the bay, where it gives way to a low rocky foreshore that rises to the steep cliffs of the Long Craigs. The cliffs have bolted rock climbing routes. The headland is occupied by a golf course and the town of Dunbar, and a well made cliff top path follows the coast from inner Belhaven Bay to Dunbar harbour and ruined castle. There is John Muir interpretation centre and museum in Dunbar.

Seafield Pond next to Belhaven Bay Caravan site is a large fresh water pond with a diverse winter population of waterbirds. Often used for teaching watersports mainly kayaking and sailing with school children. The pond currently suffers from regular eruptions of blue-green algal growth making it unsuitable for watersports use.

11. Dunbar Harbour to Mill Stone Neuk - Map 11 in Appendix 6

This area has historically not seen the large numbers of summer visitors (compared with e.g Yellowcraig or Gullane) to the coast primarily due to its distance from Edinburgh, fewer residents compared with other areas, poor road access to many beaches and lack of facilities. But with increased housing in Dunbar and the new access road to Whitesands from Dunbar there has been a steady increase in the number of visitors to the sites.

The daily pursuits are dog walking, fishing and bird watching; however in good conditions many surfers, windsurfers and kayakers use the area.

Dunbar Castle has very visible breeding colony of kittiwake's and a few breeding fulmar. Dunbar has two harbours of different eras plus ruins of the historic Battery. Currently harbour activity and focus from a public perspective is less than that at North Berwick.

Dunbar East Beach sees regular seaweed encroachment after north to north-east winds necessitating additional mechanical removal. Mechanical raking already takes place along this sandy beach. The low rocky outcrops separating the various small sandy bays of this stretch of coast are becoming more important for purple sandpiper in winter and otter sightings in this area are becoming more frequent. This beach is the local town beach and gets fairly heavy use by families with small children particularly during the summer. It also has its daily regulars out walking their dogs.

Dunbar Golf Course buts onto the eastern end of the town and follows the shoreline as far as Whitesands. In the narrow strip between the beach and the golf course is the John Muir Way. This is a definite pinch point causing a degree of friction. Increased usage of the John Muir Way is likely to highlight these issues further at this location.

12. Mill Stone Neuk to Torness Point - Map 12 in Appendix 6

Whitesands is a pretty sandy beach. It is small and contained with a large area for car parking close to the beach with a toilet block and easy access off the A1. It is very much a 'family' beach with groups often having picnics/barbecues. However it is very close to the advancing Lafarge site and massive earth moving activity.

The predominant wildlife within this area include skylarks, meadow pipits, shelduck, ringed plover, purple sandpiper, sandmartins as well as many migratory birds such as fieldfare. Yellow wagtails are also known to breed around Skateraw. The coastal grassland at Barns Ness is excellent and relatively extensive compared with the other sites such as Skateraw. The Barns Ness lighthouse, the geological trail and the limekilns at Skateraw provide additional features of interest on the coast.

Whitesands has benefited from a new access road accessed from the outskirts of the town. It had made this site more readily accessible and introduced it to a completely new clientele namely those living in the new housing build around the eastern end of Dunbar in the last few years. Site itself is dominated by a sandy bay of pale white sand and backed by the former limestone quarry operated by Lafarge. The former north-west quarry is currently under restoration with the long term aim of handing the land back as some form of wildlife/recreational resource. This may play an influential part in attracting the interest of locals and visitor alike in future years.

Barns Ness is the next site along the coast but currently not as readily accessible from Dunbar. Access from the Whitesands road has now been completed and is due to open soon. This may see a major change in site use. Camping and Caravan Club formerly had a site at Barns Ness which was extremely popular. This site is now closed and waiting for demolition and ground reinstatement. New site has been provided accessed from the Whitesands road. Barns Ness lighthouse dominates site. Buildings and lighthouse now owned by Lafarge. Lighthouse no longer operates has been decommissioned. This area of coastline was a hotspot for migrating birds and bird watchers. How much influence the operation of the lighthouse played in attracting birds to this section of the coast is unclear at present. The site is important for wintering golden plover, ringed plover, shelduck and a small assemblage of wintering waders and waterfowl. The limestone which Lafarge are quarrying for cement outcrops along this section of coast – once you get your eye in fossils can be found in abundance. There are the remains of the original quarry which produced limestone for the kiln which is still on-site but in disrepair and dangerous. There are also a series of on-site interpretive boards based around the geology of this area.

The coast from Barns Ness to the next area of public parking at Skateraw is very quiet although has the John Muir Way running through it. Characterised by short section of sandy beach, rocky foreshore leading into boulder beach backed by dune ridge and dune slacks this is a botanically rich area. The only site for breeding Yellow wagtails in East Lothian is nearby. Future limestone extraction will take place parallel to this section of coast heading eastwards and may have an impact on how coastal access is promoted. Lafarge currently considering promoting an application for three large wind turbines adjacent to the coast along this section.

Skateraw is a small sandy bay encompassed by the headland of Chapel Point and the sea defences of Torness Power station breakwater. Currently there is very limited car parking available at Skateraw. There is another good example of a limekiln at this site. Site often used as a small boat launching site by recreational sea anglers. Safety issues probably need addressing if this practice increases. Again this site sits on the John Muir Way and links around Torness Power station via an integral walkway along the stations coastal defence breakwater. Anglers and, to a lesser extent, bird watchers other important user of this section of the coast. Anglers are after the bass attracted by the warm water from the cooling system at the power station. Yellow-horned poppy can be found at Skateraw.

13. Torness Point to Dunglass Burn (Cockburnspath) - Map 13 in Appendix 6

Torness Power station dominates the north end of this section. Thorntonloch is a caravan park adjacent to the beach. A car park, seasonal toilets and easy access from the A1 to the beach provides some opportunities for visitors. South of Thorntonloch the coast line is rocky towards Bilsdean Creek and the East Lothian county boundary.

Thorntonloch is the last sandy beach before the East Lothian boundary with the Borders. There is easy access off the A1 with limited public car parking next to the residential caravan site and access through the site to the beach. The beach is most heavily used by visitors to the caravan site and therefore has heaviest use in the late spring, summer and early autumn. Activities include sea kayaking, wind surfing and angling. Again the John Muir Way follows this coastal section.

Bilsdean and Dunglass – this section of coast is quiet with the John Muir Way following the top of the cliffs from Thorntonloch then dropping to the coast via Bilsdean valley then returning back up to the A1 via the Dunglass valley, a dramatic though dangerous section of coastline. A rock and boulder shoreline with a couple of natural sandstone arches. Tidal conditions and considerations are necessary before attempting accessing this shoreline. Cliff nesting house martins and fulmars occur along this section of the coast. Otter sightings have been reported along the Dunglass burn.

To these thirteen sections we have also added a further two sections

14. Offshore islands

These include Fidra, Lamb, Craigleith and the Bass Rock. All are relatively inaccessible.

Fidra – peregrine, grey seal pupping on occasion. Owned by RSPB and operated as a Reserve for seabirds. Easy boat access and landing. Perceived increase in this activity especially from sea kayaks. Has potential for disturbance etc especially during the breeding season.

Craigleith – puffin main focus - Seabird Centre flagship project to remove tree mallow to aid recovery in puffin breeding numbers. Seabird Centre has remote viewing cameras on most of the offshore islands. Difficult to land on this island therefore general public access virtually nil. Grey seal pupping site, eider breeding stronghold, important cormorant breeding site, shag, razorbill, guillemot, peregrine, gulls – GBB, LBB and Herring.

Bass Rock – Important for nesting gannets and peregrine plus its assemblage of other nesting seabirds. Issues revolve around disturbance both on the island and in the surrounding sea during the breeding season. No quantifiable data-gathering has taken place to ascertain what is acceptable. Landing on the island is possible but limited to the landing area and helipad. Further access is restricted by a locked gate at the castle ruins.

Offshore along this coastline the Porpoise population appears to be expanding throughout the whole length of the Firth of Forth.

Sightings of Bottlenose dolphin off Dunbar and North Berwick are becoming more regular. Strandings of white-beaked and white-side dolphin, sperm whale and basking shark in recent years also suggest their presence in offshore waters. Minke and other whales are regular visitors to the outer Forth and in particular around the May Isle. There have also been a family party of orcas which hung around the Forth bridges for several weeks. In recent years turtles and sunfish have become more regularly reported offshore by the local fishermen.

15. The area of East Lothian north of the East Coast Rail line but back from the actual coastline.

This area includes the settlements of Musselburgh, Prestonpans, Cockenzie, Port Seaton, Longniddry, Aberlady, Gullane, Dirleton, North Berwick, East Linton, Dunbar and the surrounding farmland

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
1 Edinburgh to Musselburgh <i>Fisherrow Harbour</i> <i>Fisherrow Sands</i> <i>River Esk</i>	Developed coast status in local plan SSSI		Mute swan moulting Eider assemblages Reed bunting Skylarks Wading birds Wildfowl	Intertidal sand and mud flats Urbanised sea Front	Walking Bird Watching Jet skiing Sailing dinghys Horse riding Fishing Bait digging	Disturbance noted – Fisherrow Sands and outside harbour
2 Musselburgh to Cockenzie <i>Prestonpans</i> <i>Levenhall Links</i>	Developed coast status in local plan – except for short section between Musselburgh and Preston pans Bird Refuge		Roosting waders Eiders Sand martins Wildfowl	Urbanised sea Front Ash Lagoons, ponds and grassland Rocky shore	Informal recreation Golf practice Boating pond Bird Watching Winkling Fishing Jet skiing Bait digging	

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
<i>3 Cockenzie to Craigielaw Point Cockenzie Harbour Port Seaton Seaton Sands Longniddry Bents Ferney Ness</i>	Undeveloped coast status in local plan Ramsar SPA SSSI	Car Counters at Longniddry 1997 – 2008 Max 672,699 Min 580,978 11 yr Av 627,000 Trend: 15% increase over 10 years <i>WEBS</i> <i>Water Voles</i>	Water voles Bloody cranesbill Clustered bellflower Cowslip Divers Grebes Sea duck Grey plover Oyster catchers Common seals WEBS counts	Rocky shore	Walking Bathing Beach Wind Surfing Horse Riding Kite Surfing Golf Course Winkling Caravan Park 3 Key Car Parks and toilets	Bathing water quality monitored at 12 beaches in East Lothian – 2008 achieved 10 excellent and 2 good
				Sandy beach		
				Dune Grassland	Site Condition Monitoring 2000 noted unfavourable condition	
				Salt Marsh	Current activities are significant but not adversely affecting the integrity or nature conservation status of the habitat	

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
4 Craielaw Point to Gullane Point <i>Aberlady Bay</i>	Undeveloped coast status in local plan Ramsar SPA SSSI AGLV LNR	Pedestrian Counters at car park	Pink footed geese Wading birds Wildfowl Sea duck Divers Grebes Fieldfare Terns >500 plant species 30 Plant species monitored Webs counts	Estuary	Walking Bird Watching Wildfowling Kite surfing Golf Course Microlights Car Park Winkling Key Car Parks and toilets	Disturbance noted Current activities appear to be significant but not adversely affecting the integrity or nature conservation status of the site, habitat or species
				Salt marsh		Current activities are significant but not adversely affecting the integrity or nature conservation status of the habitat
				Mud Flats		Recreational activities are not expected to affect the integrity or conservation status of the habitat in any way
				Sand Dunes		Site Condition Monitoring in 2000 note Aberlady Bay, Gullane to Broad sands, North Berwick Coast and Tyningham Shore to be in unfavourable condition

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
5 Gullane Point to Eyebroughy <i>Gullane Bay</i> <i>Gullane Bents</i> <i>Black Rocks</i>	Undeveloped coast status in local plan	Car Counters 1997 – 2008 Max 312,955 Min 274,206 11yr Av 295,000 Trend: Broadly level over 10 years with fluctuation +/- 10%	Off shore Seaduck Bullfinch Blackcap Fieldfare Pyramidal orchid Eider roost Possible tern breeding	Sandy Beach Sand Dunes Rocky shore with rocky tidal islands	Walking Bathing Beach Surfing Wind surfing Kite Surfing Orienteering Triathlon Horse Riding Golf Course Camping Key Car Parks and toilets	Bathing water quality monitored 2008 achieved 10 excellent and 2 good Site Condition Monitoring 2000 noted unfavourable condition

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
6 Eyebroughy to Longskelly Point – 3km <i>Fidra</i>	Undeveloped coast status in local plan Ramsar SPA SSSI AGLV		Grey seals Puffin Razorbill Moulting Eider Peregrine	Rocky Shore Maritime cliff and slope	Walking Bird watching Winkling Occasional camping Kayaking trips	SSSI Maritime cliff attributes generally noted in unfavourable condition
7 Longskelly Point to North Berwick (Rugged Knowes) <i>Craigleath</i> <i>Yellowcraig</i> (Broad Sand) <i>Law Rocks</i> <i>Hummel Ridges</i> <i>North Berwick</i> (East Bay) <i>Milsey Bay</i>	Undeveloped coast status in local plan – except North Berwick Ramsar SPA SSSI Designed Landscape (Archerfield) AGLV	Car Counters 1997 – 2008 Min 253,161 Max 310,793 11 yrAv 265,000 Trend: Little change over last 10 years	Eiders Puffins Greylag geese Grey seals Peregrine Herring Gull Greater Black backed Gull Cormorant Ringed plover Purple sandpiper Bar tailed Godwit Badgers Frog Orchid Grass of Parnassus Var. Horsetails WEBS	Sandy Beach Dune slack Grassland Maritime cliff Rocky shore	Walking Bait digging Winkling Bird Watching Bathing Horse Riding Surfing Kite Surfing Sea Kayak Sailing Diving Fishing Rock pooling Power Boating Caravan Park Golf Course Camping Kites Orienteering Key Car Parks and toilets	Bathing water quality monitored 2008 achieved 10 excellent and 2 good Site Condition Monitoring 2000 noted unfavourable condition SSSI Maritime cliff attributes generally noted in unfavourable condition

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
8 North Berwick to St Baldred's Boat The Lethies Canty Bay Gin Head Tantallon The Gegan Seacliff Bay Bass Rock	Undeveloped coast status in local plan		Eider nesting Common tern Ringed plover Purple sandpiper Nesting house martins Raven Fulmar Peregrine	Maritime Cliff and Slope	Walking Surfing Surf Kayak Sea Kayak Fishing Horse riding Scout Camp at Canty Bay	Disturbance noted SSSI Maritime cliff attributes generally noted in unfavourable condition
9 St Baldred's Boat to St Baldred's Cradle The Rodgers Scoughall Beggars Cap Lochhouses Links Peffer Sands Ravensheugh Sands John Muir Country Park (Peffer Burn to Dunbar Harbour)	Undeveloped coast status in local plan		WEBS Terns Sand Martins Common tern Eider nesting Winter area for Widgeon, Mallard and waders Whooper swan roosting in winter Badgers Red Squirrel Bottle nosed Dolphin	Estuary	Walking Wildfowling Horse Riding Caravan Club events Occ. Jet skis Camping Motocross	Current activities on estuaries appear to be significant but not adversely affecting the integrity or nature conservation status of the site, habitat or species
				Rocky Shore		
				Sandy Beach		Bathing water quality monitored 2008 achieved 10 excellent and 2 good
				Sand Dunes		Site Condition Monitoring 2000 noted unfavourable condition

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
10 St Baldred's Cradle to Dunbar Harbour <i>John Muir Country Park Spike island Sandy Hirst Belhaven Bay</i>	Undeveloped coast status in local plan except for Dunbar Ramsar SPA SSSI Country Park	1997 – 2008 Max 410,166 Min 362,217 11 yr Av 384,000 Trend: Increase in recent years but 2007 saw drop back to mean	WEBS Terns Sand Martins Swans Scots Lovage Red squirrel Kingfisher Widgeon Curlew Redshank Greenshank Whooper Swan Brent geese Ringed plover Otter	Estuary Salt Marsh Mudflats Sand Dune Coastal Heath and grassland	Key Car Parks and toilets Surfing Kite Surfing Sand Yachting Horse Riding Wild fowling Fishing Kayaking Windsurfing Winkling Bird watching Kite karting Bait digging Winkling Cycling	Disturbance noted Current activities on estuaries appear to be significant but not adversely affecting the integrity or nature conservation status of the site, habitat or species Current activities are significant but not adversely affecting the integrity or nature conservation status of the habitat Recreational activities are not expected to affect the integrity or conservation status of the habitat in any way Site Condition Monitoring 2000 noted unfavourable condition Activities not adversely affecting the integrity or nature conservation status of habitat

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
11 Dunbar Harbour to Mill Stone Neuk <i>Dunbar Beach Broxmouth Lawries Den</i>	Undeveloped coast status in local plan except for Dunbar		Kittiwakes Otters Purple sandpiper Porpoise Bottle nosed dolphin Badgers Shelduck Ringed plover Badgers	Maritime Cliff and Slope Rocky Shore	Walking Key Car Parks and toilets Diving Sailing Power Boating Wildlife Tourism Fishing	SSSI Maritime cliff attributes generally noted in unfavourable condition
12 Mill Stone Neuk to Torness Point <i>White Sands Catcraig Barnsness Skateraw Harbour</i>	Undeveloped coast status in local plan		Golder plover Purple sandpiper Ringed plover Shelduck Sandmartins Yellow wagtails Yellow horned poppy	Rocky Shore	Walking Key Car Park and toilets Geology Trail Sailing Kayaking Horse riding Winkling Surfing Fishing Birdwatching	Bathing water quality monitored at 12 beaches in East Lothian – 2008 achieved 10 excellent and 2 good
				Sandy Beach		
				Grassland	Activities in this habitat are not adversely affecting the conservation status of habitat	
13 Torness Point to Cockburns path <i>Thorntonloch Bilsdean Creek</i>	Undeveloped coast status in local plan except for Dunbar		Otter Fulmar	Rock Shore Sandy Beach	Walking Fishing Windsurfing	Bathing water quality monitored 2008 achieved 10 excellent and 2 good

Geographical Frame Section	Designation	Visitor Monitoring	Species Present/ monitoring	Habitat Types	Coastal Activities	Impact of activities
14 Offshore islands <i>Fidra Lamb Craigleith Bass Rock</i>	Forth Islands SPA Undeveloped coast status in local plan except for Dunbar	People: Wildlife: SCM	Important seabird colonies. Gannets, peregrine and grey seals on the Bass Rock. Craigleith is important for eiders, puffin, grey seals, cormorant, peregrine, gulls – GBB and Herring.	Maritime Cliff and Slope Rocky Shore	Wildlife Tourism Sailing Sea Kayak Diving Power Boating	
15 The area of East Lothian north of the East Coast Rail line but back from the actual coastline.		People: Wildlife:			Walking Cycling Golf	

Appendix 4

Habitats and species frames

Appendix 4 Habitats and species frame

There are 15 habitat and species frames

1 Estuary	6 Sand Dune	11 Urbanised sea front
2 Salt Marsh	7 Intertidal Sands and Gravels	12 Birds
3 Maritime Cliff and Slope	8 Rocky Shore	13 Seals and Cetaceans
4 Mud Flat	9 Sea	14 Other Species Lichens Plants, butterflies,
5 Coastal Heath and Maritime Grassland incl Neutral grassland and calcareous grassland	10 Sub tidal features	15 Geology and Geomorphology

Habitats

Habitat: 1 Estuaries	Sources of Information
1 Description of Habitat – importance Estuaries can be defined as the downstream part of a water course, subject to the tide and extending to from the limit of brackish waters. There is salinity gradient from fresh water to the open sea. River sediment, shelter from wave action and limited current away from the river channel lead to extensive sediment deposition. Estuaries are complex and dynamic ecosystems and are comprised of an interlinked assemblage of sub habitats.	
2 Location There are three estuaries in East Lothian - Aberlady Bay (Mill Burn and Peffer Burn), Tynningham (Peffer Burn) and Belhaven Bay (River Tyne). Estuarine habitats cover a total of 200 ha in East Lothian.	ELBAP
3 Structure Estuaries support a mosaic of other habitats including mud and sand flats, salt marsh and sand dunes. Critically they also support plant and bird species especially wintering waders and wildfowl assemblages.	
4 Influences Sensitive to increased storminess and erosion and turbidity through wave action. More frequent on shore flood events may increase sediment load and possible pollution as sewage infrastructure over flows with storm run off. The River Tyne which joins the sea at Belhaven Bay is particularly prone to flood events.	

Habitat: 1 Estuaries		Sources of Information
5 Visitor numbers and visitor recreational use and patterns		
<p>Aberlady Bay is a Local Nature Reserve and is a destination for walking and wildlife watching with approximately 40,000 annual visits.</p> <p>Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded.</p> <p>In the John Muir Country Park both sides of the River Tyne have significantly higher recreational pressure than in the earlier 90's with camping on the beach and dunes, signs of vehicle access and traction kite buggies at the Pefferburn end. Sandy Hirst has become heavily vegetated and a popular loop for dog walkers.</p>		RS Reports
6 Impact of current recreational and visitor pressures		
Activity	Estuaries are perhaps less popular for formal activities which require natural forces like wind and waves. On large expanse of open sand flats activities like blo carting and kite buggies maybe carried out. Wildfowling is carried out by a small number of people. They can also prove attractive for activities like horse riding. However, the sheltered nature of estuaries tends to favour more informal activities like walking, dog walking and wildlife watching.	
Baseline magnitude of activity	Baseline activity levels are recorded by car counters in the case of JMCP and pedestrian counters at Aberlady. Wildfowling permits are issued and monitored for Aberlady and John Muir Country Park. At Aberlady the number of wildfowling visits annually has shown a steady decline from over 200 in 1980 to approximately 40 in 2007. No baselines are available for other activities	RS Reports
Baseline geographical location and extent of activity	Activities extend from car parks and use path networks to shoreline or beaches.	
Duration, timing and frequency of activity	Seasonal distribution based on visitor counts at JMCP shows peaks in January, April and October with lowest activity in March. No daily patterns of use are available.	
Potential ecological change and impact arising from the activity	Potential loss of diversity and impact on key species	
Reversibility	Recreational impacts could be reversed	

Habitat: 1 Estuaries		Sources of Information
Assessment of whether impacts are ecologically significant	Current activities appear to be significant but not adversely affecting the integrity or nature conservation status of the site, habitat or species, but would threaten the long-term integrity of the system. Detectable in the short term and medium term. If in the light of full information, it cannot be clearly demonstrated that the activity will not have an adverse effect on integrity then the impact should be assessed as major negative.	

Habitat: 2 Salt Marsh		Sources of Information
1 Description of Habitat - importance		
Saltmarsh develops through regular tidal inundation. The sediment is less saline, allowing colonisation by specialist plants, e.g. eelgrass, glasswort, thrift and sea aster. Saltmarshes also provide a valuable habitat for breeding and feeding birds. The John Muir Country Park is regionally significant for its saltmarsh		
2 Location		
Saltmarsh covers 136 ha in East Lothian, with 112 ha being found at the Tyne estuary in the John Muir Country Park and most the rest at Aberlady Bay with a small amount at Longniddry	LBAP	
3 Structure		
Saltmarshes often occur in estuaries adjacent to mudflats. Silt builds up at the top of the tidal range and is colonised by plants		
4 Influences		
Influences include exposure, salinity, temperature and tidal range.		
5 Visitor numbers and visitor recreational use and patterns		
Aberlady Bay is a Local Nature Reserve and is a destination for walking and wildlife watching with approximately 40,000 annual visits. Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded.	RS Reports	
6 Impact of current recreational and visitor pressures		
Activity	Saltmarsh is not suited to most forms of formal recreation. People may cross salt marsh to access other sites. Small numbers of wildfowlers may use saltmarsh areas. Walkers may use salt marsh areas as they are open and pleasant to walk across given the correct footwear	
Baseline magnitude of activity	Baseline activity levels are recorded by car counters in the case of JMCP and pedestrian counters at Aberlady. Wildfowling permits are issued and at Aberlady the number of visits annually has shown a steady decline from over 200 in 1980 to approximately 40 in 2007. No baselines are available for other activities	

Habitat: 2 Salt Marsh		Sources of Information
Baseline geographical location and extent of activity	Activities extend from car parks and use path networks to shoreline or beaches. Littering may be marked along highwater tidelines. Litter in these areas may take some time to break down and may act as a 'reservoir' being redistributed during further inundation or by the wind.	
Duration, timing and frequency of activity	Seasonal distribution based on visitor counts at JMCP shows peaks in January, April and October with lowest activity in March. No daily patterns of use are available.	
Potential ecological change and impact arising from the activity	Saltmarsh may be vulnerable to compaction and damage from high levels of foot traffic. Motorised vehicles/trail and quad bikes can destabilise upper vegetated surfaces by creating rutting and may damage vegetation by crushing. Horse riding may also damage the upper surface	
Reversibility	Rutting, compaction and poaching may be difficult to repair or restore and may render the salt marsh more prone to natural erosive forces.	
Assessment of whether impacts are ecologically significant	SCM Unfavourable – declining September 2000 Current activities are significant but not adverse affecting the integrity or nature conservation status of the habitat, but would threaten the long-term integrity of the system. Detectable in the short term and medium term. If in the light of full information, it cannot be clearly demonstrated that the proposal will not have an adverse effect on integrity then the impact should be assessed as major negative.	

Habitat: 3 Maritime cliff and slope		Sources of Information
1 Description of Habitat - importance		
Coastal cliffs made from hard rock are resistant to weathering and tend to be steep. Soft muddy cliffs are prone to frequent land slippage and erosion. This affects the type of plants that grow on cliffs. Lichens dominate the base of rocky cliffs, such as the black, powdery <i>Verucaria maura</i> , the orange <i>Caloplaca</i> and the strap-like <i>Ramalina</i> . Higher up the cliff, sea thrift, sea campion, scots lovage and kidney vetch may be found.		LBAP
2 Location		
East Lothian has about 7 km of sea cliff, with good examples at Tantallon, Dunbar, Barns Ness and Thornton Loch. Fidra and the Bass Rock are good examples of hard sea cliffs. The North Berwick coast is an SSSI, in part for its geology.		

Habitat: 3 Maritime cliff and slope		Sources of Information
3 Structure		
The base of a sea cliff is bathed regularly in seawater. Higher up the cliff, the impact of sea spray lessens. This varying influence of sea spray affects the plant species that live on a cliff. Sea cliffs and their ledges are important roosting and nesting sites for birds such as fulmars, kittiwakes and house martins.		
4 Influences		
Natural erosion is the key influence		
5 Visitor numbers and visitor recreational use and patterns		
Levels of use on this specific habitat are unknown		
6 Impact of current recreational and visitor pressures		
Activity	Climbing or coasteering Shoreline angling Cliff rescue training is carried out by the MCA Camping and caravanning Golf courses Walkers may use cliff top paths as they are open and provide extensive views.	
Baseline magnitude of activity	No formal measures are available	
Baseline geographical location and extent of activity	Activities extend from car parks and use path networks to access cliff tops Camping and caravanning sites may be located in locations above the maritime slope as are some golf courses Climbing requires secure rock structures	
Duration, timing and frequency of activity	No formal measures are available. Ranger Service is monitoring increase in 'extreme sport' activity at coastal sites	
Potential ecological change and impact arising from the activity	The siting of holiday accommodation on cliff-tops not only reduces the landscape value of a site, but can also cause heavy localised erosion and disturbance to nesting birds. An increase in the number of walkers and dogs along some coastal footpaths has increased livestock worrying and even losses and forced a number of farmers to remove their stock from these sites. Consequently, some maritime slopes are now suffering from a lack of appropriate grazing, and scrub encroachment is likely to become a problem.	
Reversibility	Scrub encroachment maybe reversed. Clearance on steep slopes can be slow and expensive	
Assessment of whether impacts are ecologically significant	Firth of Forth SSSI - SCM Unfavourable condition 2000 SSSI Maritime cliff attributes generally noted in unfavourable condition following survey but SNH officer noted at the time East Lothian sites were not properly surveyed. Recreation has noticeable effect, but generally is either sufficiently small or short duration to cause no harm to the integrity or conservation status of the site, habitat or species. Detectable in the short term but not in medium term.	

Habitat: 4 Mud Flat	Sources of Information
1 Description of Habitat - importance	
Fine silt particles carried along by rivers are deposited when a river meets the sea. This mud and silt is an important factor in the nature conservation value of estuaries.	
2 Location	
X ha at Aberlady Bay 100ha at John Muir Country Park	LBAP
3 Structure	
Mudflats develop below the high water line and are exposed at low tide. They are extremely productive and sustain very high numbers of invertebrates, which in turn feed large flocks of waders and wildfowl.	
4 Influences	
There are a number of human pressures influencing mud flats including reclamation for development, squeeze through sea level rise, agricultural pollutants and some recreational activities.	
5 Visitor numbers and visitor recreational use and patterns	
Aberlady Bay is a Local Nature Reserve and is a destination for walking and wildlife watching with approximately 40,000 annual visits. Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded.	RS Reports
6 Impact of current recreational and visitor pressures	
Activity	Low levels of wildfowling Bait digging Mudflats are not ideal for casual walkers however, there maybe some level of recreational use
Baseline magnitude of activity	No formal measures are available
Baseline geographical location and extent of activity	No formal measures are available Mud flats identified at Aberlady Bay and John Muir Country Park
Duration, timing and frequency of activity	No formal measures are available
Potential ecological change and impact arising from the activity	No formal measures are available
Reversibility	No formal measures are available

Habitat: 4 Mud Flat		Sources of Information
Assessment of whether impacts are ecologically significant	<p>No formal measures are available</p> <p>Recreational activities are not expected to affect the integrity or conservation status of the habitat in any way, therefore no noticeable effects on the ecological resource, even in the short term.</p>	

Habitat: 5 Coastal Heath and Maritime Grassland incl Neutral grassland and calcareous grassland		Sources of Information
1 Description of Habitat - importance		
Coastal heath is a nationally rare habitat and unusual in East Lothian. Mineral enriched grasslands are an unusual habitat in East Lothian.		
2 Location		
Coastal heath - two ha can be found at St Baldred's Cradle and Hedderwick Hill. Calcareous cliff grassland occurs on Dunbar coast. Dune grassland has developed at Aberlady, Tynningham and the North Berwick coast.	ELBAP SSSI citation	
3 Structure		
Dune grassland has characteristic species Lyme-grass <i>Leymus arenarius</i> , Marram grass <i>Ammophila arenaria</i> , cowslip <i>Primula veris</i> , lesser meadow-rue <i>Thalictrum minus</i> , bloody cranesbill <i>Geranium sanguineum</i> and restarrow <i>Ononis repens</i>	LBAP	
4 Influences		
Recreation has relatively little influence except through trampling. Grazing and scrub invasion will have a much greater influence. Golf course management may have a significant influence.		
5 Visitor numbers and visitor recreational use and patterns		
Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded. In the John Muir Country Park both sides of the River Tyne have significantly higher recreational pressure than in the earlier 90's with camping on the beach and dunes, signs of vehicle access and traction kite buggies at the Pefferburn end.	RS Reports	
6 Impact of current recreational and visitor pressures		
Activity	11 of East Lothian's coastal golf clubs manage land that is either within an SSSI or adjacent to one.	
Baseline magnitude of activity	Golf course are extensive along the East Lothian coast No formal measures are available	
Baseline geographical location and extent of activity	Conservation grassland management initiated at Levenhall Links, Longniddry Bents and Aberlady Bay. Coastal grassland management initiated at Gullane and Luffness	

Habitat: 5 Coastal Heath and Maritime Grassland incl Neutral grassland and calcareous grassland		Sources of Information
<i>Duration, timing and frequency of activity</i>	No formal measures are available	
<i>Potential ecological change and impact arising from the activity</i>	No formal measures are available	
<i>Reversibility</i>	Nutrient balance and species composition can change significantly under certain management regimes	
<i>Assessment of whether impacts are ecologically significant</i>	<p>SCM notes Transition grasslands features as Favourable – maintained September 2004</p> <p>Activities in this habitat are considered significant but not adversely affecting the integrity or nature conservation status of sites or habitat, but could threaten the long-term integrity of the system. Detectable in the short term and medium term. If in the light of full information, it cannot be clearly demonstrated that the proposal will not have an adverse effect on integrity then the impact should be assessed as major negative.</p>	SNH

Habitat: 6 Coastal Sand Dunes UK HAP		Sources of Information
1 Description of Habitat - importance		
Between Gullane and Broadsands is the largest and most complex sand dune system in the Lothians, with its noteworthy lichen rich dune slacks. Aberlady Bay contains the most extensive complex of sand dune, saltmarsh and mudflat in SE Scotland. Both are of regional importance. Lothian holds 2% of Scottish Sand Dunes. Dune features may be described as Fixed Dunes, Dune Slacks, Dry Dune Heath Strand Embryo and Mobile Dunes		ELBAP SSSI Citation Management Plans
2 Location		
East Lothian has about 630 ha of sand dune. Sand dunes can be found be found at Longniddry Bents, Aberlady Bay, Gullane, Broad Sands/Yellowcraig Tynningham and Barns Ness. John Muir Country Park has 70 ha of sand dunes.		ELBAP SSSI Citation
3 Structure		
Dunes are dynamic, constantly evolving in response to wave action (deposition or erosion of sandy matrix) and wind erosion (on-shore building, off-shore depleting). They are characterised by building up huge sandy dunes with steep slopes, and by 'blow-outs' where whole dunes can become scooped out hollows (the mobile dunes). Fixed dunes are generally the older dunes, the vegetated areas further inland, away from the shore, but in dynamic systems these can also be subject to change, depending on the degree that man has attempted to stabilize the habitat. In most large dune systems there is often a blending of gradients between habitat types, with mosaics of plant communities. Associated with the overall dune habitat are a range of organisms, including some specialists (particularly invertebrates) which do not occur elsewhere.		
4 Influences		
East Lothian shows examples of dune succession but artificial stabilisation by planting and encroachment by scrub has reduced the extent of mobile dune systems.		HAP
5 Visitor numbers and visitor recreational use and patterns		
Aberlady Bay is a Local Nature Reserve and is a destination for walking and wildlife watching with approximately 40,000 annual visits. Yellowcraig records in the order of between 250,000 and 300,000 visits per annum. Gullane records in the order of between 270,000 and 300,000 visits per annum. Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded. In the John Muir Country Park both sides of the River Tyne have significantly higher recreational pressure than in the earlier 90's with camping on the beach and dunes, signs of vehicle access and traction kite buggies at the Pefferburn end.		RS Reports
6 Impact of current recreational and visitor pressures		
Activity	East Lothian has 11 coastal golf clubs some of which extend into the dunes. Car parking has been mostly moved back from the main dune areas. Recreation is the major land use on sand dunes. Many dune systems are used extensively by visitors; mostly on foot but also for shelter, picnics and camping. Orienteering events use dune areas as does the Triathlon at Gullane. Horse riders will cross the dunes. From time to time four-wheel-drive vehicles or motorcycles may, illegally, enter the dunes.	

Habitat: 6 Coastal Sand Dunes UK HAP		Sources of Information
Baseline magnitude of activity	Activity levels are indicated by the total number of visitors recorded at car parks. No formal measures are available for individual activities except for organised events requiring permissions out with the Land Reform (Scotland) Act. Ranger Service is monitoring increase in 'extreme sport' activity at coastal sites including horse riding at Longniddry Bents and the Triathlon at Gullane Bents	
Baseline geographica l location and extent of activity	Golf courses are delineated precisely other activities are more widespread over the dune area.	
Duration, timing and frequency of activity	Management plans note a steady 'flow of regulars' from local communities who make up the 'base load' of visitors – often dog walkers visiting several times a day. They make up the majority of winter visitors. In summer visitors travel further with many coming from Edinburgh on day trips.	
Potential ecological change and impact arising from the activity	Moderate pressure by pedestrians may cause little damage, and may even help to counteract the effects of abandonment of grazing. However, excessive pedestrian use, as on routes between car parks and beaches, and vehicular use in particular, have caused unacceptable erosion or compaction on many dune sites. Impacts of fire (also damage/scorching from barbeques), litter and dog faeces are localized impacts. Many dune systems also support one or more golf courses. Here much of the original vegetation may be retained in the rough, but the communities of the fairways, and particularly the greens and tees, are often severely modified by mowing, fertilising and re-seeding. Fragmentation of dune systems by golf courses makes grazing management much more difficult.	
Reversibility	Planting of shelterbelts may prevent natural movement of dynamic dune systems. Their removal could return sand dunes to a more dynamic state but at the expense of golf courses and other recreational sites. Recreational activity is seen as one of the major impacts on coastal dune habitats (Christensen 1997; Christensen & Johnsen, 2001; Doody 1994; Houston 1997), although all agree that remedial action is possible:	Cited by Coppins (2008)
Assessment of whether impacts are ecologically significant	Surveyors carrying out Site Condition Monitoring SCM in September – October 2000 note Aberlady Bay, Gullane to Broad sands, North Berwick Coast and Tynningham Shore to be in unfavourable condition and they cite recreation/disturbance as a negative effect along with agricultural, forestry operations and flood/sea defences. The SNH Area officer disputes the survey findings but notes the greatest threat as scrub invasion. Significantly, there is not enough information available to decide whether dune habitats are benefiting from the national biodiversity process. Research does not yet identify, for example, whether sand dunes across the UK are in a better condition now than they were 10 years ago.	SNH HAP

Habitat: 7 Inter tidal sands and gravels	Sources of Information
1 Description of Habitat - importance	
Sandy beaches are the key attraction for visitors enjoying the East Lothian coast. As such they have significant economic and social value.	
2 Location	
The 12 main sandy beaches in East Lothian are identified as Seaton Sands Longniddry - Gosford Gullane Yellowcraig Broad Sands North Berwick -Milsey Bay North Berwick -West Seacliff Peffer Sands Dunbar – Belhaven & West White Sands Thornton loch Intertidal gravels are found at Yellowcraig and Skateraw as well as Gosford Bay and Fisherrow Sands.	KSB
3 Structure	
Sandy beaches, especially where they are exposed to wave action offer fewer opportunities for marine life than more sheltered rocky shores for example.	
4 Influences	
Significant visitor activity will result in trampling and litter, but sandy beaches in particular are robust	
5 Visitor numbers and visitor recreational use and patterns	
Yellowcraig records in the order of between 250,000 and 300,000 visits per annum. Gullane records in the order of between 270,000 and 300,000 visits per annum. Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded.	RS Reports
6 Impact of current recreational and visitor pressures	
Activity	Sandy beaches are used for a wide range of recreation activities. Ranger Service is monitoring increase in 'extreme sport' activity at coastal sites and horse riding at John Muir Country Park, Gullane, Longniddry and Yellowcraig
Baseline magnitude of activity	These are amongst the most extensively used beaches in Scotland.
Baseline geographical location and extent of activity	The location of the 12 beaches is noted above. Most activities and people will stay on or close to the main sandy beach.

Habitat: 7 Inter tidal sands and gravels		Sources of Information
Duration, timing and frequency of activity	Management plans note a steady 'flow of regulars' from local communities who make up the 'base load' of visitors – often dog walkers visiting several times a day. They make up the majority of winter visitors. In summer visitors travel further with many coming from Edinburgh on day trips.	RS Management Plans
Potential ecological change and impact arising from the activity	No formal measures are available. Litter, dog faeces and damage on paths leading to beaches are localised issues. Mechanical beach cleaning had been noted as a possible factor in the decline of nesting shore line birds like Ringer Plover. Removal of organic matter may affect food supply at the local level	
Reversibility	Current impacts and modifications are considered to be reversible	
Assessment of whether impacts are ecologically significant	Bathing water quality monitored at 12 beaches in East Lothian – 2008 achieved 10 excellent and 2 good 2008 Seaside Awards were earned at Seaton Sands Longniddry, Gullane, Yellowcraigs, Dunbar and North Berwick. Seaside Awards do assess physical condition – litter etc but are not directly concede with natural heritage measures.	SNH

Habitat: 8 Rocky Shore		Sources of Information
1 Description of Habitat - importance		
Rocky habitats support a diversity of lichens, seaweeds, invertebrates, molluscs and crustaceans throughout the intertidal zone. Rock type and the presence of boulders, gullies, rock pools and overhangs all provide mini-habitats for different groups of species.		
2 Location		
East Lothian has about 70 km of coastline. Of this, about 50% is rocky shoreline, Yellowcraig and Skateraw. The coastline at Dunbar is of note for the outstanding complexity of rocky coastal landforms which it exhibits.		
3 Structure		
Rocky shore can be complex habitats ranging from exposed shorelines with high energy wave action to more sheltered bays with rock pools.		
4 Influences		
Rocky shores tend to be robust and influences are natural wave action and erosion.		

Habitat: 8 Rocky Shore		Sources of Information
5 Visitor numbers and visitor recreational use and patterns		
In addition to the main sandy beaches these sites also have rocky stretches. Yellowcraig records in the order of between 250,000 and 300,000 visits per annum. Gullane records in the order of between 270,000 and 300,000 visits per annum. Tynningham and Bellhaven Bay are part of John Muir County Park and in 2007/08 almost 390,000 visitors were recorded. The main rocky shores are south of Dunbar.		RS Reports
6 Impact of current recreational and visitor pressures		
Activity	Walking Rockpooling	
Baseline magnitude of activity	No formal measures are available.	
Baseline geographical location and extent of activity	No formal measures are available but activities like rockpooling will be concentrated close to popular beaches and settlements like North Berwick and Dunbar	
Duration, timing and frequency of activity	No formal measures are available, but likely to be seasonal	
Potential ecological change and impact arising from the activity	No formal measures are available. May be localised issues in rock pools close to beaches. Some disturbance to birds, especially using rocky shores as high tide roost sites. Beach litter likely to be an issue as rocky shores are harder to clean.	
Reversibility	Current impacts and modifications are considered to be reversible	
Assessment of whether impacts are ecologically significant	Noticeable effect, but either sufficiently small or short duration to cause no harm to the integrity or conservation status of the site, habitat or species. Detectable in the short term but not in medium term.	SNH

Habitat: 9 Sea	Sources of Information
1 Description of Habitat - importance	
Plankton lives in the surface layers of the sea and is food for fish and other animals. Herring, mackerel, salmon and sea trout are found in the waters around East Lothian. A whole host of different seabirds, including gannets, eider ducks, cormorants and puffins feed in the water. Local marine mammals include seals, dolphins, porpoise and whale.	LBAP
2 Location	
Local responsibility for coastal waters extends to 6 nautical miles along 69km of the East Lothian coast line	
3 Structure	
The marine environment is the largest habitat in East Lothian and probably the most complicated and least understood.	
4 Influences	
The marine environment will be subject to a wide range of pressures that are both natural and man made. Agreeing the cause of these pressures and isolating their effect in the marine ecosystem is very challenging. Hydrocarbons can be suspended in the water column. Paints, lubricants and antifouling maybe concentrated in harbour areas or where maintenance takes place.	
5 Visitor numbers and visitor recreational use and patterns	
National participations rates and governing body data may provide an indication of activity trends. Local sales figures for high impact activities like the use of personal water craft may provide some indications of activity levels. Associations with local groups, such as sailing, surfing or sub aqua clubs may provide indicative local activity levels. Visitor characteristics will vary according to the activity for example sailing participants are relatively evenly spread between male and female 40% are 15- 24, 30% are 25 -44, 30% are over 45 and many are in clubs. Regular shoreline anglers tend to be male and of an older age range and the activity is a solitary one. Ranger Service is monitoring increase in 'extreme sport' activity at coastal sites including windsurfing at Longniddry.	
6 Impact of current recreational and visitor pressures	
Formal e.g. horse riding, surfing, diving etc	Motor boating Sailing Personal watercraft Surfing Windsurfing Water skiing Kite Surfing Diving Sea Fishing Sea Kayaking Wildlife Boat Tours
Baseline magnitude of activity	From national trends and sources like local club memberships

Habitat: 9 Sea		Sources of Information
Baseline geographical location and extent of activity	<p>Surfing, wind surfing etc are likely to be beach based on one of the 12 key sandy beaches</p> <p>Generally all but the smallest craft will require slipways, harbours or moorings which can be found at Fisherrow, Port Seaton, North Berwick, Dunbar and Skateraw</p>	
Duration, timing and frequency of activity	Activities will be mostly seasonal and weather dependent	
Potential ecological change and impact arising from the activity	<p>Likely to be significant emissions to the water column.</p> <ul style="list-style-type: none"> • Engine emission – especially from 2 stroke outboard engines • Lubricants • Anti fouling paints • Sewage – discharge may cause localised issues • Litter • Noise – personal water craft may be noisy above the water and provide sonar disturbance below water • Disturbance – probably the most significant impact on key species. Frequent wildlife watching trips have the capacity to impact on cetaceans <p>Relatively little research has been carried out on the impacts of emissions from specifically recreational/tourism activities into the marine environment.</p>	
Reversibility	Most of the impacts are localised and short term although there maybe cumulative effects	
Assessment of whether impacts are ecologically significant	<p>There is little indication that current levels of recreational activity are impacting detrimentally on core water chemistry. However, individual species, assemblages or sub habitats may be affected.</p> <p>In 2008 bathing water quality was monitored at 12 beaches in East Lothian. Of the 12, 10 achieved excellent status and 2 had good status.</p> <p>Noticeable effect, but either sufficiently small or short duration to cause no harm to the integrity or conservation status of the site, habitat. Detectable in the short term but not in medium term.</p>	

Habitat: 10 Sub Tidal includes Tidal rocks, marine caves, marine muds and sediments, seaweed beds, seabed rich in invertebrates.	Sources of Information
1 Description of Habitat - importance Below the low-water mark, the seabed extends to a depth of about 50m. The East Lothian seabed is composed mainly of rock, gravel, sand and mud.	LBAP
2 Location Subtidal rocky habitats are found mainly from North Berwick to Dunbar. The collective subtidal habitat covers an estimated 750 km2.	
3 Structure Seaweed grows in shallower waters. Kelp grows in underwater forests and provides an additional habitat for sub-tidal animals. In murky or deeper water, there is insufficient light for algal growth and only animals will be found. Many species of invertebrate live in the muddy sands and gravels of the Firth of Forth. Other species such as heart urchins, coral and sea anemone live on top of the mud. Sub tidal rocky habitats support Sea anemones, brittlestars, worms, sponges and sea urchins. Two larger predators of rocky sub-tidal habitats are the lobster and lesser octopus.	
4 Influences Mainly natural influence or influences beyond recreation and tourism	
5 Visitor numbers and visitor recreational use and patterns Unknown numbers of water craft and divers	
6 Impact of current recreational and visitor pressures	
Activity Diving	
Baseline magnitude of activity Data from local sub aqua clubs	
Baseline geographical location and extent of activity In addition to tidal rocks, reefs and shelves, the coast of East Lothian is littered with the wrecks of ships (A 2001 survey noted 44 shipwrecks), some of which have been there for several centuries. These include a Viking longship, a Spanish galleon, submarines and a wartime destroyer. These human objects provide a variety of surfaces and structures that are colonised by different marine species.	
Duration, timing and frequency of activity Data required from local sub aqua clubs	
Potential ecological change and impact arising from the activity Cumulative impacts through damage or irresponsible removal and commercial scale collection by recreational divers could conceivably cause ecological change but numbers still remain relatively small. Launching and retrieval of support craft may also have an impact.	

Habitat: 10 Sub Tidal		Sources of Information
Reversibility	Impacts are generally short term and localised and easily reversed	
Assessment of whether impacts are ecologically significant	Were effective monitoring carried out it is considered there would be a localised noticeable effect, but either sufficiently small or short duration to cause no harm to the integrity or conservation status of the site, habitat or species. Detectable in the short term but not in medium term.	

Habitat: 11 Urbanised sea front		Sources of Information
1 Description of Habitat - importance		
This is a significant feature as it includes approximately 7km of coastline. Along these stretches the upper shore is bounded by a sea wall designed to protect property or communication links like roads.		
2 Location		
East Lothian has about 69 km of coastline. Of this, about 10% is urbanised. Most is in the Fisherrow to Port Seaton section, particularly around Prestonpans. Other short sections exist in North Berwick and Dunbar.		
3 Structure		
Essentially a man made structure		
4 Influences		
Coastal squeeze is reported as a main cause of the continued loss of muddy gravels which have been replaced by sea walls in some locations.		
5 Visitor numbers and visitor recreational use and patterns		
No formal records are kept but these hardened structures can allow for very intensive use of the shore line.		
6 Impact of current recreational and visitor pressures		
Activity	Walking, informal play	
Baseline magnitude of activity	No formal measures are available	
Baseline geographical location and extent of activity	As described above	
Duration, timing and frequency of activity	No formal measures are available	

Habitat: 11 Urbanised sea front		Sources of Information
Potential ecological change and impact arising from the activity	No formal measures are available	
Reversibility	Unlikely due to the purpose of the protection	
Assessment of whether impacts are ecologically significant	No formal measures are available	

Species

Species – 12 Birds	Sources of Information
<p>1 Description of bird assemblages</p> <p>Full details are included in the designation citations in appendix 4</p>	SPA, Ramsar and SSSI citations
<p>2 Location and importance</p> <p>Internationally and nationally important wintering, breeding and on breeding assemblages. Some highlights include</p> <ul style="list-style-type: none"> • The rocky East Lothian coastline, between Gullane and Broadsands and North Berwick, supports nationally important numbers of turnstone and purple sandpiper. • Nationally important breeding populations of eider occur at Aberlady Bay, on the North Berwick Coast, and between Gullane and Broadsands where there are also important moulting eider roosts. • Important breeding colonies of shelduck occur at Aberlady Bay • Nationally important breeding ringed plover occur at Gullane to Broadsands, and Tynningham. 10 pairs of ringed plover were found, four at Aberlady, two on the North Berwick coast and four at Tynningham. • There are also important breeding colonies of three species of tern, common, Arctic and little, supported at Aberlady and Tynningham. • The cliffs at Tantallon on the North Berwick coast support one of largest colonies of Fulmar in the Forth and the only large colony on the mainland. • There is also a colony of cliff nesting house martins of regional importance. • The harbour at Dunbar holds the only mainland Kittiwake colony in the Forth. 	Citations and site management plans

3 Structure	
4 Influences	
<p>Disturbance has often been cited as a key cause of decline in some bird species. But it is not always the key influence. For Eiders it is noted that disturbance whilst important, fails to fully explain the rapid collapse in numbers noted from 1988, particularly at Aberlady.</p> <p>Changes in coastal geomorphology, coastal squeeze, linked to increasing vegetation of the upper shore by plants such as Sea-buckthorn <i>Hippophae rhamnoides</i>, and possible increased tidal inundation due to climate change may all be additional limiting factors for breeding.</p> <p>Between Gullane and North Berwick a number of more remote bays suffer as much from coastal squeeze effects as from disturbance, not least as the birds appear able to tolerate walkers who are the main recreational users this far from the access points. Therefore the loss of these remoter bays as suitable breeding locations through vegetational succession on upper shores that may be additionally squeezed by climate effects and erosion may be a bigger contributor to the overall decline than long established recreational pressure around the main sandy beaches.</p>	
5 Visitor numbers and visitor recreational use and patterns	
Visitors interact with bird populations all along the coast. The greatest interactions are perhaps unsurprisingly where there are facilities to attract the greatest number of people.	
6 Impact of current recreational and visitor pressures	
Activity	Walkers Dog Walkers Others
Baseline magnitude of activity	Indicative figures for coastal car parks are shown elsewhere in this report
Baseline geographical location and extent of activity	Numbers and frequency decline with distance from access points
Duration, timing and frequency of activity	Bird/people interactions happen throughout the day and throughout the year. However more people tend to be active during the middle of the day and at weekends and holidays with a summer peak.
Potential ecological change and impact arising from the activity	<p>Wintering Bird Assemblages</p> <p>Disturbance from activities mid to low tide states. Winter feeding disturbance Flushing of birds prior to spring migration by beach users Slight increase in vigilance – predators also disturbed May increase feeding rates Mild effect due to short flights on feeding grounds Competition on other sites if birds are displaced</p> <p>Breeding Eiders and Ringed Plovers</p> <p>Many of the sandy beaches near car parks have high</p>

	recreational pressure including associated beach cleaning, and a lack of shingle and shell habitat rendering them unattractive for breeding.	
Reversibility	Reversibility is unlikely to a single linear process as numbers fluctuate naturally.	
Assessment of whether impacts are ecologically significant	<p>Firth of Forth SPA Wintering bird assemblage</p> <p>Great Crested Grebe – wintering Favourable – February 2004</p> <p>Slavonian grebe - wintering</p> <p>Cormorant – wintering Favourable – February 2004</p> <p>Pink-footed goose – wintering Favourable – February 2004</p> <p>Shelduck – wintering Favourable – February 2004</p> <p>Scaup – wintering Favourable – February 2004</p> <p>Eider – wintering Favourable – February 2004</p> <p>Long-tailed duck – wintering Favourable – February 2004</p> <p>Common scoter – wintering Favourable – February 2004</p> <p>Velvet scoter – wintering Favourable – February 2004</p> <p>Goldeneye – wintering Favourable – February 2004</p> <p>Red-breasted merganser – wintering Favourable – February 2004</p> <p>Oystercatcher – wintering Favourable – February 2004</p> <p>Ringed plover – wintering Favourable – February 2004</p> <p>Golden plover - wintering</p> <p>Grey plover – wintering Favourable – February 2004</p> <p>Knot – wintering Favourable – February 2004</p> <p>Dunlin – wintering Favourable – February 2004</p> <p>Bar-tailed godwit – wintering Favourable – February 2004</p> <p>Curlew – wintering Favourable – February 2004</p> <p>Redshank – wintering Favourable – February 2004</p> <p>Turnstone – wintering Favourable – February 2004</p> <p>Red-throated diver - wintering</p>	SNH Site condition monitoring of breeding Eider on the Firth of Forth coastline Stuart Murray Report to SNH August 2006

	<p>Firth of Forth SPA Breeding bird assemblages</p> <p>Eider – breeding Unfavourable – declining May 2006</p> <p>Ringed plover – breeding Unfavourable – declining April -June 2007</p> <p>Shelduck – breeding Favourable – maintained May 2003</p> <p>Eiders The highest count made of Eider along the East Lothian coast in May 2006 totalled c1500 birds. The counts have been similar in most years since 2000 (Lothian Bird Reports, WeBS 2003) and compared with five year averages for the Firth of Forth, 6900 birds, represents 21% of the Forth population. Despite this high number, it remains uncertain where most of these birds breed, but it is assumed that the majority do so on the small offshore islands, with a very few on the mainland. However, no concerted efforts have been made to find mainland nests, and the low duckling counts off the coast assumes that few pairs breed and even fewer are successful. The evidence from 2006 tends to support this view, but based on the Leithies count and scattered foreshore nests, it is possible that many more pairs attempt to breed than previously suspected. A figure of 200 mainland breeding attempts is suggested for 2006, for the coast between Craigielaw Point and Dunbar. There is little that can easily be done to improve the breeding success of these Eider. Recreational use from the expanding urban area around Edinburgh will almost certainly increase pressure on the coast, and with at best only sporadic predator control on local nature reserves, foxes, crows and gulls will continue to exploit human carelessness towards the species.</p>	
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Species; 13 Cetaceans and Seals	Sources of Information
1 Description of Species - importance Grey Seals and Common Seals occur around the coast. A range of cetacean occur along the East Lothian coast. Most common species include the Harbour Porpoise and the Bottlenose Dolphin.	SMRU
2 Location Grey Seals are common and occasionally breed on Eyebroughty. Cetaceans are more mobile and dolphins seen in the Firth are believed to be part of a population originally mainly resident in the Moray Firth.	

Species; 13 Cetaceans and Seals		Sources of Information
3 Structure		
<p>The Isle of May is a large grey seal colony and local populations have continued to rise. Populations in the central North Sea are still growing rapidly although these are not sufficient to maintain the high rates of increase observed through the late 1980s and early 1990s when pup production increased at over 6% per annum. During the most recent 5-year period (2002-2007) the total pup production for all annually monitored colonies has increased slowly, at a rate of 0.7% p.a.</p> <p>Conversely major declines of common seal have now been documented in most populations around Scotland with declines of up to 50% since 2000. Common seals come ashore in sheltered waters, typically on sandbanks and in estuaries, but also in rocky areas. They give birth to their pups in June and July and moult in August. At these, as well as other times of the year, common seals haul out on land regularly in a pattern that is often related to the tidal cycle. Common seal pups are born having shed their white coat and can swim almost immediately. The 2007 count in Lothian (Torness Power Station to Kincardine Bridge) observed 56 Common Seals.</p>		SMRU
4 Influences		
Significant external influences in the marine environment relating principally to food supply and water quality		
5 Visitor numbers and visitor recreational use and patterns		
6 Impact of current recreational and visitor pressures		
Activity	Walking Offshore the most significant activities are powered water craft, diving parties and wildlife watching trips.	
Baseline magnitude of activity	No formal measures are available although frequency of wildlife watching trips may be readily recorded.	
Baseline geographical location and extent of activity	North Berwick and Dunbar are the harbours closest to significant populations of seals and cetaceans.	
Duration, timing and frequency of activity	Most activity is likely to be in the summer months – this coincides with Common seals pupping.	
Potential ecological change and impact arising from the activity	Disturbance and harassment is possible. Disruption of feeding patterns and impacts on young animals.	
Reversibility	Unknown	

Assessment of whether impacts are ecologically significant	Wide ranging research on cetacean populations in the Moray Firth and Cardigan Bay have raised concerns over impacts on small breeding groups of dolphins	SNH
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Species; 14 Other species	Sources of Information
1 Description of Species - importance	
Molluscs such as the lagoon sea slug Spiders such as <i>Silometopus incurvatus</i> . Butterflies such as Northern Brown Argus dark green fritillary, common blue. Lichens such as <i>Polyblastia agrarian</i> and <i>Polymorpha ramalina</i> . Mosses such as <i>Bryum</i> species. Plants such as lesser centaury, saltwort, moonwort, pyramidal orchid.	Citations and LBAP
2 Location	
The lichen communities at West Links are assessed to be of local and regional importance, with no comparable sites known within the Firth of Forth SSSI. Areas of significant lichen-rich heath between Jamie's Neuk and Eyebroughy. Aberlady Bay; between Yellow Mires and Hummell Rocks Between Black Rocks and Weaklaw Rocks, including Sandy Knowe (West Links) Yellow Craigs: Longskelly Rocks to East Links, Tyningshame (north); Peffer Sands to Bathan's Strand, Tyningshame (south); Belhaven Bay Barns Ness. Lichen <i>Anaptychia ciliaris</i> ssp. <i>Mamillata</i> is in the Red Data Category of Lower Risk (near threatened); locally abundant on rock/turf interface at Hummell Rocks. Known elsewhere in the Lothians and Borders only on coastal rocks at The Leathies, North Berwick and Burnmouth Harbour, St Abb's Head.	
3 Structure	
4 Influences	
Localised recreation influences should be considered on a site by site and species by species basis	
5 Visitor numbers and visitor recreational use and patterns	
In March 2007, an orienteering event at West Links attracted 300+ participants, with 150 control sites.	
6 Impact of current recreational and visitor pressures	
Activities	Orienteering Walking
Baseline magnitude of activity	No formal measures are available

Species; 14 Other species		Sources of Information
Baseline geographical location and extent of activity	No formal measures are available	
Duration, timing and frequency of activity	No formal measures are available	
Potential ecological change and impact arising from the activity	<p>Butterfly transects surveyed at John Muir Country Park, Yellowcraig and Gullane.</p> <p>No damage to the lichen areas was observed after the 2008 orienteering event, but this was mostly due to little or no overlap between the orienteering routes and the lichen-rich areas, and fewer participants.</p>	SNH Report 2008Assessment of trampling damage to lichen-heath communities at West Links (Firth of Forth SSSI) and implications for management
Reversibility	No formal measures are available	
Assessment of whether impacts are ecologically significant	<p>SSSI Notification Vascular plant assemblage Unfavourable – declining April - August 2004</p> <p>SSSI Notification Beetles Unfavourable – declining September-October 2000</p> <p>SSSI Notification Northern brown argus Favourable – maintained July & October 2007</p>	SNH

Habitat: 15 Geology and Geomorphology		Sources of Information
1 Description of Geology - importance		
<p>The coastline at Dunbar is of national importance for the outstanding complexity of rocky coastal landforms which it exhibits. Of particular interest is a series of rock platforms representing different relative sea levels in the area but the associated cliffs, stacks, skerries and beaches are also of value. The exceptional diversity and intricacy of the landforms is related to the variety of sedimentary and volcanic rock types found here combined with structural weaknesses in these rocks and local variations in exposure and altitude.</p> <p>'Fossil fish' localities include Cheese Bay near Gullane. Cheese Bay has also yielded some of Europe's earliest amphibian remains.</p> <p>A rich and diverse fossil flora has been found at Oxroad Bay near North Berwick and at Weak Law near Gullane.</p> <p>In intimate association with the Lower Carboniferous sedimentary rocks there are various nationally significant volcanic rocks. At North Berwick there are exceptional exposures of volcanic vents and igneous intrusions that document crustal instability and magmatic processes at the start of the Carboniferous. The vents at North Berwick are of particular note in that they contain blocks of rock that were derived from the lower levels of the crust. These have allowed an understanding of the structure of the lower crust in eastern Scotland. Gullane also provides exposures illustrating a range of other nationally important volcanic features and structures.</p> <p>Dunbar Coast SSSI, is a GCR site for its Quaternary interest. It is notable for a series of extensive shore platforms, including features that pre-date the last glaciation. Three of the platforms occur above present sea level, the highest with a crag and tail formation on its surface. These landforms are representative of the suite of erosional features found along the east coast of Scotland and demonstrate former sea-level changes and different phases of marine erosion. Dunbar is one of the best examples in eastern Scotland illustrating the development of multiple shore platforms, as well as highlighting the contribution of older elements to the form of the present coastal landscape.</p>		
2 Location		
As noted above		
3 Structure		
As noted above		
4 Influences		
Key influences relate to natural erosion processes although as noted below man made activities like dumping, sea defence, road improvements etc may initiate local changes		
5 Visitor numbers and visitor recreational use and patterns		
No formal measures are available		
6 Impact of current recreational and visitor pressures		
Activities	Walking Other activities	
Baseline magnitude of activity	As noted elsewhere	

Habitat: 15 Geology and Geomorphology		Sources of Information
<i>Baseline geographical location and extent of activity</i>	No formal measures are available	
<i>Duration, timing and frequency of activity</i>	No formal measures are available	
<i>Potential ecological change and impact arising from the activity</i>	No formal measures are available	
<i>Reversibility</i>	Recreational impacts not seen as significant	
<i>Assessment of whether impacts are ecologically significant</i>	SCM carried out in 2002 indicate most of the SSSI attributes are in favourable condition. Recreation/disturbance is identified as a neutral activity but a range of other activities are including dumping, flood defences and changes to water quality are seen as negative influences.	

Appendix 5

East Lothian Coast designations

International and European designations

- **Ramsar** – Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. Originally intended to protect sites of importance especially as waterfowl habitat, the Convention has broadened its scope over the years to cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. The Convention adopts a broad definition of wetland, namely "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". Wetlands "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands".
- **Natura 2000** - Natura 2000 is a Europe-wide network consisting of areas designated under the Birds Directive as Special Protection Areas (SPA) or the Habitats Directive as Special Area of Conservation (SAC). SPAs are classified by the UK Government under the EC Birds Directive. SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union. SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles are classified under the Wildlife and Countryside Act 1981.

Firth of Forth Ramsar Site

Description:

The **Firth of Forth Ramsar** site (6,313.72 ha.) is a complex of estuarine and coastal habitats in south east Scotland stretching east from Alloa to the coasts of Fife and East Lothian. The site includes extensive invertebrate-rich intertidal flats and rocky shores, areas of saltmarsh, lagoons and sand dune. The site is underpinned by the Firth of Forth SSSI. The site is important for large numbers of wintering waders and wildfowl.

Location:

Grid Ref: NS865920 to NO615075 and NT678794. The Ramsar site is also covered by the by the Firth of Forth SPA and the Firth of Forth SSSI.

Ramsar Citation:

The Firth of Forth qualifies under **Criterion 3a** by regularly supporting in winter over 20,000 waterfowl. The site supported a 1993/94-97/98 winter peak mean of 95,000 waterfowl, comprising 45,000 wildfowl and 50,000 waders.

The Firth of Forth SPA qualifies under **Criterion 3c** by regularly supporting internationally important wintering populations (1993/94-97/98 winter peak means) of Slavonian grebe *Podiceps auritus* (84; 2% of NW Europe, 21% of GB), pink-footed goose *Anser brachyrhynchus* (10,852; 6% of Icelandic/Greenlandic and GB population), shelduck *Tadorna tadorna* (moulting flock of 4,509; 2% of NW European, 6% of GB), goldeneye *Bucephala clangula* (3,004; 1% of NW European, 18% of GB population), knot *Calidris canutus* (9,258; 3% of western European/Canadian and GB), redshank *Tringa totanus* (4,341; 3% of European/West African, 4% of GB), bar-tailed godwit *Limosa lapponica* (1,974; 2% of Western Europe, 4% of GB) and turnstone *Arenaria interpres* (860 individuals; 1% European and GB). It also qualifies by supporting an internationally important post-breeding concentration of sandwich tern *Sterna sandvicensis* (1,617, 1% of East Atlantic, 6% of GB).

Firth of Forth Special Protection Area

Description:

The **Firth of Forth SPA** (6,313.72 ha) is a complex of estuarine and coastal habitats in south east Scotland stretching east from Alloa to the coasts of Fife and East Lothian. The site includes extensive invertebrate-rich intertidal flats and rocky shores, areas of saltmarsh, lagoons and sand dune. The site is underpinned by the Firth of Forth SSSI. The entire Firth of Forth coastline is designated as a Special Protection Area because of its international importance for wading birds. The East Lothian islands of Fidra, Lamb, Craigleith and the Bass Rock are included in the **Forth Islands SPA**.

Location:

Grid Ref: NS865920 to NO615075 and NT678794. The SPA site is also covered by the by the Firth of Forth Ramsar and the Firth of Forth SSSI.

SPA Citation:

Features of qualifying interest:

The Firth of Forth SPA qualifies under **Article 4.1** by regularly supporting wintering populations (1993/94-97/98 winter peak means) of European importance of the **Annex 1** species: **red-throated diver** *Gavia stellata* (90 individuals; 2% of GB), **Slavonian grebe** *Podiceps auritus* (84; 2% of NW Europe, 21% of GB), **golden plover** *Pluvialis apricaria* (2,949; 1% of GB) and **bar-tailed godwit** *Limosa lapponica* (1,974; 2% of Western Europe, 4% of GB).

The site further qualifies under **Article 4.1** by regularly supporting a post-breeding (passage) population of European importance of the **Annex 1** species **sandwich tern** *Sterna sandvicensis* (1,617, 6% of GB, 1% of East Atlantic).

The Firth of Forth SPA qualifies under **Article 4.2** by regularly supporting wintering populations (1993/94-97/98 winter peak means) of both European and international importance of the migratory species **pink-footed goose** *Anser brachyrhynchus* (10,852; 6% of Icelandic/Greenlandic), **shelduck** *Tadorna tadorna* (moulting flock of 4,509; 2% of NW European), **knot** *Calidris canutus* (9,258; 3% of western European/Canadian), **redshank** *Tringa totanus* (4,341; 3% of European/West African) and **turnstone** *Arenaria interpres* (860 individuals; 1% of European).

The Firth of Forth SPA further qualifies under **Article 4.2** by regularly supporting a wintering waterfowl assemblage of European importance: a 1992/93-96/97 winter peak mean of 95,000 waterfowl, comprising 45,000 wildfowl and 50,000 waders. This assemblage includes nationally important numbers of 15 migratory species: **great crested grebe** *Podiceps cristatus* (720; 7% of GB), **cormorant** *Phalacrocorax carbo* (682; 5% of GB), **scaup** *Aythya marila* (437; 4% of GB), **eider** *Somateria mollissima* (9,400; 13% of GB), **long-tailed duck** *Clangula hyemalis* (1,045; 4% of GB), **common scoter** *Melanitta nigra* (2,880; 8% of GB), **velvet scoter** *M. fusca* (635; 21% of GB), **goldeneye** *Bucephala clangula* (3,004; 18% of GB population), **red-breasted merganser** *Mergus serrator* (670; 7% of GB), **oystercatcher** *Haematopus ostralegus* (7,846; 2% of GB), **ringed plover** *Charadrius hiaticula* (328; 1% of GB), **grey plover** *Pluvialis squatarola* (724; 2% of GB), **dunlin** *Calidris alpina* (9,514; 2% of GB), and **curlew** *Numenius arquata* (1,928; 2% of GB). The assemblage also includes

large numbers of the following species: **wigeon** *Anas penelope* (2,139 [1991/2-95/96]), **mallard** *A. platyrhynchos* (2,564 [1991/2-95/96]) and **lapwing** *Vanellus vanellus* (4,148 [1991/2-95/96]).

Forth Islands Special Protection Area

Description:

The **Forth Islands SPA** (106 ha) is comprised of a series of islands supporting the main seabird colonies in the Firth of Forth. The islands of Inchmickery, Isle of May, Fidra, The Lamb, Craigleith and Bass Rock were classified as the Forth Islands SPA in April 1990. The extension to the Forth Islands SPA, classified in February 2004 consists of the island of Long Craig, which supports the largest colony of roseate tern in Scotland. The boundary of the extended Forth Islands SPA follows the boundaries of the following SSSIs: Long Craig, Inchmickery, Forth Islands, Bass Rock and the Isle of May. It was extended in September 2009 to accommodate an additional marine area 2km beyond the low water mark.

Location:

Grid Ref: NT535868, NT602873

SPA Citation:

Features of Qualifying Interest:

The Forth Islands SPA qualifies under **Article 4.1** by regularly supporting breeding populations of European importance of the **Annex I** species; **Sandwich tern** *Sterna sandvicensis* (an average of 440 pairs, 3% of GB), **roseate tern** *Sterna dougallii* (an average of 8 pairs, 1997-2001; 13% of GB), **common tern** *Sterna hirundo* (an average of 334 pairs, 1997-2001; 3% of GB). The roseate tern colony is the most northerly of only six regular British colonies.

The Forth Islands SPA further qualifies under **Article 4.2** by regularly supporting internationally important populations of the migratory species; 21,600 **gannet** *Morus bassanus*, 2,400 **shag** *Phalacrocorax aristotelis*, 1,500 **lesser black-backed gull** *Larus fuscus*, 14,000 **puffin** *Fregata arctica*, 200 **cormorant** *Phalacrocorax carbo*, 8,400 **kittiwake** *Rissa tridactyla*, 16,000 **guillemot** *Uria aalge* and 1,400 **razorbill** *Alca*

National Designations

- **Sites of Special Scientific Interest** - Nationally, Sites of Special Scientific Interest (SSSI's) form the basis of both biological and geological protection and represent the best of Scotland's natural heritage. They are 'special' for their plants, animals or habitats, their rocks or landforms, or a combination of such natural features. Together they form a network of the best examples of natural features throughout Scotland, and support a wider network across Great Britain and the European Union. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Nature Conservation (Scotland) Act 2004. There are 15 SSSI's in East Lothian, four of which are on the coast. In inter tidal areas they extend to the low water mark. SSSI status does not change the use of the land but local authorities, owners and occupiers must consult with SNH on any developments or activities which may affect the site.
- **Gardens and Designed Landscapes**
- **Priority Species and Habitats sites** Some species and habitats maybe afforded protection through statutory instruments or through listing in Biodiversity Action Plans

Barns Ness Coast SSSI

Description:

This site was notified in 1984 and covers an area of 271ha. There are a variety of coastal habitats including shingle and sandy shores, sand dunes and a large area of mineral enriched dune grassland. It is designated for its botanical and geological interest.

Location:

Grid ref. NT696781 to NT 749757

SSSI Citation:Botanical: Geological: Coastland

The site contains a variety of coastal habitats including shingle and sandy shores, sand dunes and a large area of mineral enriched dune grassland. The beach-head salt marshes, rocky stacks and limestone grassland are of particular interest as examples of very unusual habitats in the Lothians. The site supports a number of locally rare plant species.

The fossiliferous succession of Lower Carboniferous Limestone allows correlation between the Scottish Lower Carboniferous and the Lower Carboniferous of Northumbria, hence is of considerable importance. At Barns Ness an almost complete, though heavily faulted, section through the whole lower Limestone Group is exposed. The dissected raised beach platform on the foreshore at Broxmouth is of geomorphological interest.

Bass Rock SSSI**Description:**

This site was notified in 1983 and covers an area of 7.7ha. This rocky island is on the site of a formally active volcano, and supports one of the largest breeding seabird colonies in the Forth. It is designated for its ornithological and geological interest.

Location:

Grid Ref: NT (36) 602873

SSSI Citation:Ornithological: Geological

This rocky island supports one of the largest breeding seabird colonies in the Forth. The gannet colony is of national importance containing about 9% of the total British breeding population.

The island is of geological interest as a plug of trachytic phonolite and the site of a volcano active in Calciferous Sandstone times (Lower Carboniferous).

Firth of Forth SSSI**Description:**

Contains an extensive mosaic of inter-tidal and coastal habitats. Extensive mudflats with associated coastal habitats including salt marsh, heath land, grassland and sand dunes. The diversity of habitat supports a high number of vascular plants, many nationally and locally rare, invertebrates and birds.

The Dunbar coastline is notable for its complex rocky coastal landforms. The coastal margins demonstrate an exceptional variety of rocks and fossils. The sedimentary rock sequence has worldwide significance for fossil remains.

Includes former Gullane to Broad Sands SSSI

Location:

Grid Ref: NS865920 to NO615075 and NT678794

SSSI Citation

Botanical, Ornithological, Geological

Forth Islands SSSI

Description:

This is a composite site in three parts – Fidra, Craigleith and Lamb. The site was designated in 1983 and covers 22.5 ha. It was designated for ornithological interest and holds nationally important numbers of breeding seabirds.

Location:

Grid Ref. NT535868, NT602873) NT (36) 513868; 535866; 553870

SSSI Citation:

Ornithological

These rocky islands hold nationally important numbers of breeding seabirds and together form the largest breeding seabird colony in the Lothians. Craigleith supports the largest puffin colony in the Lothians and the Lamb has the only breeding cormorant colony in the Region.

Priority Species and Habitats sites

Some species and habitats maybe afforded protection through statutory instruments or through listing in Biodiversity Action Plans. There is now a duty for all statutory bodies to maintain biodiversity, as stated in the Nature Conservation (Scotland) Act 2004. Many habitats and species in East Lothian are listed in strategies that reflect their importance and vulnerability at different levels:

- priority species and habitats listed in the UK Biodiversity Action Plan;
- species and habitats listed in local Biodiversity Action Plans (normally at a regional level);
- species listed on the Scottish Biodiversity List; and
- bird species classed as ‘red’ on the RSPB’s list of Species of Conservation Concern (UK level).

Gardens and Designed Landscapes

NAME	GRID REFERENCE
Archerfield	NT505841
Balgone House	NT565823
Belhaven House	NT664786
Biel	NT635760
Broxmouth Park	NT696776
Carberry Tower	NT364497
Cockenzie House	NT400758
Dalkeith House	NT338674
Dirleton Castle	NT515840
Dunglass	NT765719
Elvingston	NT461742
Gosford House	NT455786
Grey Walls	NT830485
Inveresk Lodge Garden	NT345720
Lennoxlove	NT515720
Leuchie	NT573833
Luffness	NT476805
Newhailes Musselburgh	NT325726
Pilmuir House, Bolton	NT486694
Pinkie House Musselburgh	NT350727
Saltoun Hall	NT461685
Seton House	NT417751
St.Mary's Pleasance	NT519738
Stevenson House	NT545748
Tyninghame	NT620799
Whittingehame	NT605734
Winton House	NT438696
Yester House	NT544673

Regional Designations

- **Regionally important geological and geomorphological sites (RIGS)** are the most important places for geology and geomorphology outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). Sites are selected under locally-developed criteria, according to their value for education, scientific study, historical significance or aesthetic qualities. Whilst not benefiting from statutory protection, RIGS are equivalent to local Wildlife Sites, and "*...consideration of their importance becomes integral to the planning process*".

Barns Ness to Catraig RIGS

Description:

Established in 2002, the site is a coastal exposure of Lower Carboniferous formation strata following a sequence where limestone and calcareous shale are overlain by deltaic and sandstone and are capped by coal. Quaternary post-glacial raised beach features present along the shore.

Location:

Grid Ref: NT723773 to NT713773

North Berwick Law RIGS

Established in 2005

Description

The site is also a 18.1 ha botanical SSSI designated in 1983. The steep sides of this volcanic plug are covered with large areas of unimproved, mineral rich grassland, a rare and declining habitat in East Lothian. This is an extensive and representative area of this habitat.

The site contains a number of rare bryophytes and a vascular plant *Astragalus danicus* not normally found inland.

Location

North Berwick Law – south of North Berwick with easy access from the town.

Local Designations

- **Country Parks** are statutorily declared and managed by local authorities under Section 48 of the Countryside (Scotland) Act 1967. They are primarily intended for recreation and leisure opportunities close to population centres and do not necessarily have any nature conservation importance. Nevertheless, many are in areas of semi-natural habitat and so form a valuable network of locations at which informal recreation and the natural environment coexist.
- **Local Nature Reserves (LNR)** can be set up and managed by Local Authorities using exclusive statutory powers under Section 21 of the National Parks and Access to the Countryside Act 1949. Local Nature Reserves are places with special local natural interest, set up to protect nature, and for people to enjoy and appreciate.
- **Local Sites of Biodiversity interest** may be recognised in local plans by Local Authorities as being of local conservation interest. The level of protection provided, if any, may vary but such sites can be a material consideration when planning applications are being determined. The sites may also be given various other titles such as 'Listed Wildlife Sites' (LWS), 'Local Nature Conservation Sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs).

- **Areas of Great Landscape Value (AGLVs).** The requirement to designate AGLVs is set out in SDD Circular 2/1962. They are defined by local authorities in development plans with a view to safeguarding areas of regional or local landscape importance from inappropriate developments.
- **Ancient Woodland** is not a statutory designation, although the importance of some ancient woodlands is recognised by designated status. Ancient woodland is defined as land that has been continuously wooded since AD1750. An inventory was produced by the Nature Conservancy Council which lists all areas of woodlands over two hectares that are ancient. These areas were identified by looking at historical maps. Areas of ancient woodland that have never been cleared or replanted are known as semi-natural ancient woodland (SNAW). The irreplaceable nature of these woodlands is recognised in most local plans, the UK Biodiversity Action Plan (BAP) and most local BAPs. In the East Lothian area, the distribution of ancient woodland is strongly linked to river valleys

Country Park

John Muir Country Park was designated in 1976. One of 36 parks in Scotland John Muir Country Park covers 733 hectares. The park stretches from the Castle Ruins in Dunbar, to the Peffer Burn some six kilometres to the north-west. It takes in the Cliff Top Trail, with fine views of the sea and the historic Bass Rock; the long sandy sweep of Belhaven Bay; the mouth of the River Tyne; and extensive areas of saltmarsh, permanent grassland and woodland.

Local Nature Reserve

Aberlady Bay Local Nature Reserve, the first in Britain and the only one in East Lothian, was designated in 1952 originally to protect wildfowl. The site has various other nature conservation designations - SSSI, SPA and Ramsar. The habitats in the LNR extend to 582 ha and consist of extensive tidal mudflats and saltmarsh, sand-dunes and grassland as well as open freshwater, scrub and woodland. Around 250 species of birds have been recorded on the reserve which is important for breeding species and waders and waterfowl during passage periods and in winter. Important species in the bay include Pink-footed Geese and waders especially Grey Plover and Sanderling. The freshwater pools attract passage waders and Garganey in spring when Osprey and Marsh Harrier may pass through in small numbers. Lesser Whitethroats and a few Grasshopper Warblers breed among the more numerous Whitethroats, Sedge and Willow Warblers.
<http://www.aberlady.org/Nature%20reserve.html>

Local sites of biodiversity interest

In the East Lothian Local Plan 56 local sites of biodiversity interest have been identified. Eighteen are in the coast zone. These sites are assessed on habitat and species rarity as well as importance to the local community.

Listed Wildlife Sites (Listed by the Scottish Wildlife Trust)

NT565826	Balgone Loch – North Berwick
NT657785	Biel Water - Belhaven
NT772723	Bilsdean Gorge – Cockburnspath
NT734759	Dry Burn - Torness
NT772726	Dunglass Burn - Cockburnspath
NT768718	Dunglass Gorge - Cockburnspath
NT264783	Longniddry to Haddington Railway
NT477794	Maggie Waas Wood - Aberlady
NT345738	Musselburgh Shore and Lagoons
NT552840	North Berwick Law Reservoir
NT345734	River Esk
NT625793	River Tyne
NT561818	Sheriff Hall Grassland – North Berwick
NT473774	Spittal to Gullane Railway
NT696782	Spott Burn - Dunbar
NT753743	Thornton Burn – Torness (SWT Reserve)
NT735738	Thornton Glen - Torness
NT563810	Waughton Crossroads Roadside Verge – North Berwick

Listed Wildlife Sites (Estates) resurveyed in 2005 added the following locations in the coastal zone.

Archerfield Estate
Gosford Estate
Radhouse Dean
Tyningshame Estate

Wildlife Reserves

Various NGOs including the RSPB, SWT and the Woodland Trust own or lease reserves which are used to protect and manage the habitats. These reserves have not statutory protection unless they are also included as part of an exiting designation like an SSSIs.

- Woodland Trust - Seton Dean Longniddry 1.14 ha

Areas of Great Landscape Value (AGLVs)

Walking Routes

The John Muir Way is being developed by East Lothian Council to provide a continuous path linking East Lothian with the City of Edinburgh and the Scottish Borders. Currently in the west, the John Muir Way extends from Fisherrow Harbour in Musselburgh to

Gullane, a distance of 23 kilometres. In the east the John Muir Way runs for 28 kilometres from East Linton to Dunglass near Cockburnspath in the Scottish Borders. Cockburnspath is at the eastern end of the Southern Upland Way Long Distance Route.

The John Muir Way forms part of Nortrail - the North Sea Coastal Path Project. This aims to link footpaths and sites around the coast of the countries bordering the North Sea. The long-term goal is to inspire local people and visitors to explore the coastal landscapes of these countries.

Trends in qualifying features

DESIGNATION	QUALIFYING AND NOTIFIED FEATURES	STATUS
SPA Firth of Forth	Bar-tailed godwit (<i>Limosa lapponica</i>), non-breeding	Favourable maintained Feb 2001
28 Qualifying features	Turnstone (<i>Arenaria interpres</i>), non-breeding	Favourable maintained Feb 2001
Wintering populations of European importance	Velvet scoter (<i>Melanitta fusca</i>), non-breeding	Favourable maintained Feb 2001
27 species of Annex 1 birds in winter.	Common scoter (<i>Melanitta nigra</i>), non-breeding	Favourable maintained Feb 2001
Figures shown are percentage of UK population	Cormorant (<i>Phalacrocorax carbo</i>), non-breeding	Favourable maintained Feb 2001
The area also qualifies under Article 4.2 of the Directive by regularly supporting 95,000 (at least 20,000 to qualify) seabirds in the breeding season	Curlew (<i>Numenius arquata</i>), non-breeding	Favourable maintained Feb 2001
	Dunlin (<i>Calidris alpina</i>), non-breeding	Favourable maintained Feb 2001
	Eider (<i>Somateria mollissima</i>), non-breeding	Favourable maintained Feb 2001
	Goldeneye (<i>Bucephala clangula</i>), non-breeding	Favourable maintained Feb 2001
	Great crested grebe (<i>Podiceps cristatus</i>), non-breeding	Favourable maintained Feb 2001
	Grey plover (<i>Pluvialis squatarola</i>), non-breeding	Favourable maintained Feb 2001
	Knot (<i>Calidris canutus</i>), non-breeding	Favourable maintained Feb 2001
	Long-tailed duck (<i>Clangula hyemalis</i>), non-breeding	Favourable maintained Feb 2001
	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable maintained Feb 2001
	Oystercatcher (<i>Haematopus ostralegus</i>), non-breeding	Favourable maintained Feb 2001
	Redshank (<i>Tringa totanus</i>), non-breeding	Favourable maintained Feb 2001
	Red-breasted merganser (<i>Mergus serrator</i>), non-breeding	Favourable maintained Feb 2001

	Scaup (<i>Aythya marila</i>), non-breeding	Favourable maintained Feb 2001
	Shelduck (<i>Tadorna tadorna</i>), non-breeding	Favourable maintained Feb 2001
	Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding	Favourable maintained Feb 2001
	Mallard (<i>Anas platyrhynchos</i>), non-breeding	Favourable maintained Feb 2001
	Wigeon (<i>Anas penelope</i>), non-breeding	Unfavourable no change Feb 2002
	Sandwich tern (<i>Sterna sandvicensis</i>), non-breeding	Favourable maintained Feb 2001
	Lapwing (<i>Vanellus vanellus</i>), non-breeding	Favourable maintained Feb 2001
	Red-throated diver (<i>Gavia stellata</i>), non-breeding	Favourable maintained Feb 2001
	Golden plover (<i>Pluvialis apricaria</i>), non-breeding	Favourable maintained Feb 2001
	Slavonian grebe (<i>Podiceps auritus</i>), non-breeding	Favourable maintained Feb 2001
	Waterfowl assemblage, non-breeding	Favourable maintained Feb 2001

DESIGNATION	QUALIFYING AND NOTIFIED FEATURES	STATUS
SPA Forth Islands	Breeding populations of % of UK breeding population	
15 Qualifying features	Roseate tern 15%, The roseate tern colony is the most northerly of only six regular British colonies.	Favourable maintained June 2003
	Sandwich tern 0.2%,	Unfavourable Declining June 2001
	Common tern 6.5%.	Favourable maintained June 2003
	Arctic Tern	Favourable maintained June 2003
	Gannet 13.1%,	Favourable maintained June 2004

	Fulmar	Favourable maintained June 2004
	Shag 2.3%,	Unfavourable Recovery June 2001
	Lesser black-backed gull 2.4%,	Favourable maintained June 2001
	Herring gull	Favourable maintained June 2001
	Puffin 2.3%,	Favourable maintained April 2003
	Kittiwake,	Unfavourable Declining June 2001
	Guillemot,	Favourable maintained June 2001
	Razorbill.	Favourable maintained June 2001
	The area also qualifies under Article 4.2 of the Directive by regularly supporting 95,000 (at least 20,000 to qualify) seabirds in the breeding season.	Unfavourable Declining July 2004
RAMSAR	Non breeding assemblages of international importance bar-tailed godwit, goldeneye , knot , pink-footed goose, redshank, sandwich tern, shelduck , slavonian grebe, turnstone	
EU protected species	Bottlenose dolphin Otter	
EU Species and Habitat Directive Annex 2 species	Salmon Grey Seal Common Seal	

DESIGNATION	QUALIFYING AND NOTIFIED FEATURES	STATUS
SSSI Firth of Forth 41 notified features	Birds - aggregations of non-breeding birds	
	Bar-tailed godwit (<i>Limosa lapponica</i>), non-breeding	Favourable maintained Feb 2001
	Turnstone (<i>Arenaria interpres</i>), non-breeding	Favourable maintained Feb 2001
	Velvet scoter (<i>Melanitta fusca</i>), non-breeding	Favourable maintained Feb 2001

	Common scoter (<i>Melanitta nigra</i>), non-breeding	Favourable maintained Feb 2001
	Cormorant (<i>Phalacrocorax carbo</i>), non-breeding	Favourable maintained Feb 2001
	Curlew (<i>Numenius arquata</i>), non-breeding	Favourable maintained Feb 2001
	Dunlin (<i>Calidris alpina</i>), non-breeding	Favourable maintained Feb 2001
	Eider (<i>Somateria mollissima</i>), non-breeding	Favourable maintained Feb 2001
	Goldeneye (<i>Bucephala clangula</i>), non-breeding	Favourable maintained Feb 2001
	Great crested grebe (<i>Podiceps cristatus</i>), non-breeding	Favourable maintained Feb 2001
	Grey plover (<i>Pluvialis squatarola</i>), non-breeding	Favourable maintained Feb 2001
	Knot (<i>Calidris canutus</i>), non-breeding	Favourable maintained Feb 2001
	Long-tailed duck (<i>Clangula hyemalis</i>), non-breeding	Favourable maintained Feb 2001
	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable maintained Feb 2001
	Oystercatcher (<i>Haematopus ostralegus</i>), non-breeding	Favourable maintained Feb 2001
	Redshank (<i>Tringa totanus</i>), non-breeding	Favourable maintained Feb 2001
	Red-breasted merganser (<i>Mergus serrator</i>), non-breeding	Favourable maintained Feb 2001
	Scaup (<i>Aythya marila</i>), non-breeding	Favourable maintained Feb 2001
	Shelduck (<i>Tadorna tadorna</i>), non-breeding	Favourable maintained Feb 2001
	Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding	Favourable maintained Feb 2001
	Birds - aggregations of breeding birds	

	Ringed plover (<i>Charadrius hiaticula</i>), breeding	Unfavourable declining June 2002
	Eider (<i>Somateria mollissima</i>), breeding Birds - aggregations of breeding birds	Favourable maintained Feb 2001
	Shelduck (<i>Tadorna tadorna</i>), breeding	Favourable maintained July 2003
SSSI Firth of Forth continued	Palaeontology Arthropoda (excluding insects and trilobites)	Unfavourable declining Jan 2009
	Beetles Other invertebrates -	Unfavourable declining Oct 2000
	Igneous Petrology Carboniferous Permian Igneous	Unfavourable no change Nov 2008
	Coastal Geomorphology of Scotland Geomorphology	Favourable Maintained Aug 2002
	Stratigraphy Lower Carboniferous [Dinantian -Namurian (part) - Westphalian]	Unfavourable No change Mar 2008
	Neutral grassland - Lowland neutral grassland	Unfavourable declining Sept 2004
	Supralittoral rock (Coast) - Maritime cliff	Unfavourable declining Oct 2002
	Mineralogy - Mineralogy of Scotland	Favourable Maintained Oct 2002
	Butterflies Northern brown argus (<i>Aricia artaxerxes</i>)	Favourable Maintained Oct 2007
	Palaeontology Palaeozoic Palaeobotany	Favourable Maintained Nov 2008
	Palaeontology - Permian - Carboniferous Fish/Amphibia	Favourable Maintained Mar 2008
	Quaternary geology and geomorphology - Quaternary of Scotland	Favourable Maintained Oct 2002
	Littoral sediment (Coast) - Saltmarsh	Unfavourable declining July 2003
	Supralittoral sediment (Coast) - Sand dune	Unfavourable declining Oct 2000

	Fen, marsh and swamp (Wetland) - Transition grassland	Favourable Maintained Sept 2004
	Stratigraphy Upper Carboniferous [Namurian (part)] - Westphalian	Unfavourable declining Oct 2002
	Vascular plants - Vascular plant assemblage	Unfavourable declining Aug 2004
SSSI Forth Islands 3 notified features	Cormorant (<i>Phalacrocorax carbo</i>), breeding birds	Favourable maintained June 2002
	Puffin (<i>Fratercula arctica</i>) breeding	Unfavourable declining May 2003
	Aggregation of breeding birds Seabird colony, breeding	Unfavourable declining June 2003
SSSI Bass Rock 3 notified features	Gannet (<i>Morus bassanus</i>), breeding birds -	Favourable maintained July 2004
	Aggregation of breeding birds Seabird colony, breeding	Favourable maintained June 2002
	Igneous Petrology - Carboniferous - Permian Igneous	
SSSI North Berwick Law 1 notified feature	Lowland calcareous grassland	Unfavourable declining Aug 2002
SSSI Barns Ness Coast 4 notified features	Stratigraphy - Lower Carboniferous [Dinantian - Namurian (part)]	Favourable maintained Sept 2002
	Littoral sediment - Saltmarsh	Favourable maintained Oct 2000
	Supra Littoral sediment - Sand dune	Unfavourable no change Oct 2000
	Supra Littoral sediment - Shingle	Unfavourable no change Oct 2000
Geological Conservation Review Site	Quaternary interest	

East Lothian BAP Priority Species	<p>Waders, e.g. dunlin, lapwing, redshank Seabirds, e.g. eider, gannet, scoter Terns, common tern and sandwich tern Farmland birds, e.g. grey partridge, tree sparrow Migrants, e.g. brambling, ring ouzel Upland birds, e.g. ring ouzel, black grouse Raptors, e.g. barn owl, peregrine falcon</p>	About 70 species of bird are included in the list. They include species that are nationally rare and others that occur in internationally significant numbers.	
	<p>Orchids, e.g. pyramidal orchid Flowering plants, e.g. bluebell, wild pansy Ferns, e.g. moonwort Grasses, sedges and rushes, e.g. soft brome, flat sedge, round fruited rush Shrubs and climbers, e.g. juniper, betony</p>	About 40 species of plant are included in the list, covering habitats from estuaries, farmland, woodland, wetland and upland.	
	<p>Bats, e.g. Daubenton's bat, natterer's bat Seals, e.g. grey seal, common seal Rodents, e.g. red squirrel, water vole Others, e.g. badger, otter, brown hare</p>	About 10 species of mammal are included on the list.	
	<p>Butterflies and moths, e.g. northern brown argus, lunar horned moth Flies, spiders, bugs and beetles, e.g. moss flea beetle, money spider, plant-hopper. Mollusc, e.g. lagoon sea slug</p>	About 90 species of invertebrate are included in the list.	
	<p>Lichens, e.g. <i>Gyalecta ulmi</i>, <i>Ramalina polymorpha</i> Mosses, e.g. <i>Bryum calophyllum</i>, <i>Grimmia ovalis</i>, <i>Racomitrium elongatum</i> Liverwort, <i>Porella obtusata</i></p>	There are about 40 species of lichen, 35 species of moss and 1 species of liverwort included in the list.	
East Lothian BAP Priority Habitats and Habitat Action Plans	<p>Maritime cliffs Sand dunes Estuarine habitats, saltmarsh, mudflats Intertidal habitats Tidal rocks Marine caves, muds and sediments Seaweed beds Seabed rich in invertebrates</p>	<p>East Lothian Countryside Ranger Service and local communities.</p> <p>Coastal strategies Removal of sea buckthorn Grazing at Aberlady Bay Yellowcraig coastal grassland Ground nesting birds (eider) project</p>	<p>Major, the coastal plan was written for the Ranger Service. Includes large numbers of volunteers. Potentially of regional significance</p>

	Burns and rivers	Rivers and wetland strategies Water voles and otters	Locally significant Locally significant Locally significant Locally significant Locally significant Locally significant
Species of European high Conservation Concern - Red list	Skylark, Roseate Tern, Grey Partridge, Song Thrush, Yellow hammer, Reed Bunting, Starling Lichen <i>Anaptychia ciliaris</i> ssp. <i>Mamillata</i> is in the Red Data Category of Lower Risk (near threatened)		

Appendix 6

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Appendix 7

Maps

Sections - Overview Map

Map 1 – Section 1 – Edinburgh to Musselburgh

Map 2 – Section 2 – Musselburgh to Cockenzie

Map 3 – Section 3 – Cockenzie to Craielaw point

Map 4 – Section 4 – Craielaw point to Gullane point

Map 5 – Section 5 – Gullane point to Eyebroughty

Map 6 – Section 6 – Eyebroughty to Longskelly point

Map 7 – Section 7 - Longskelly point to North Berwick

Map 8 – Section 8 – North Berwick to St Baldreds Boat

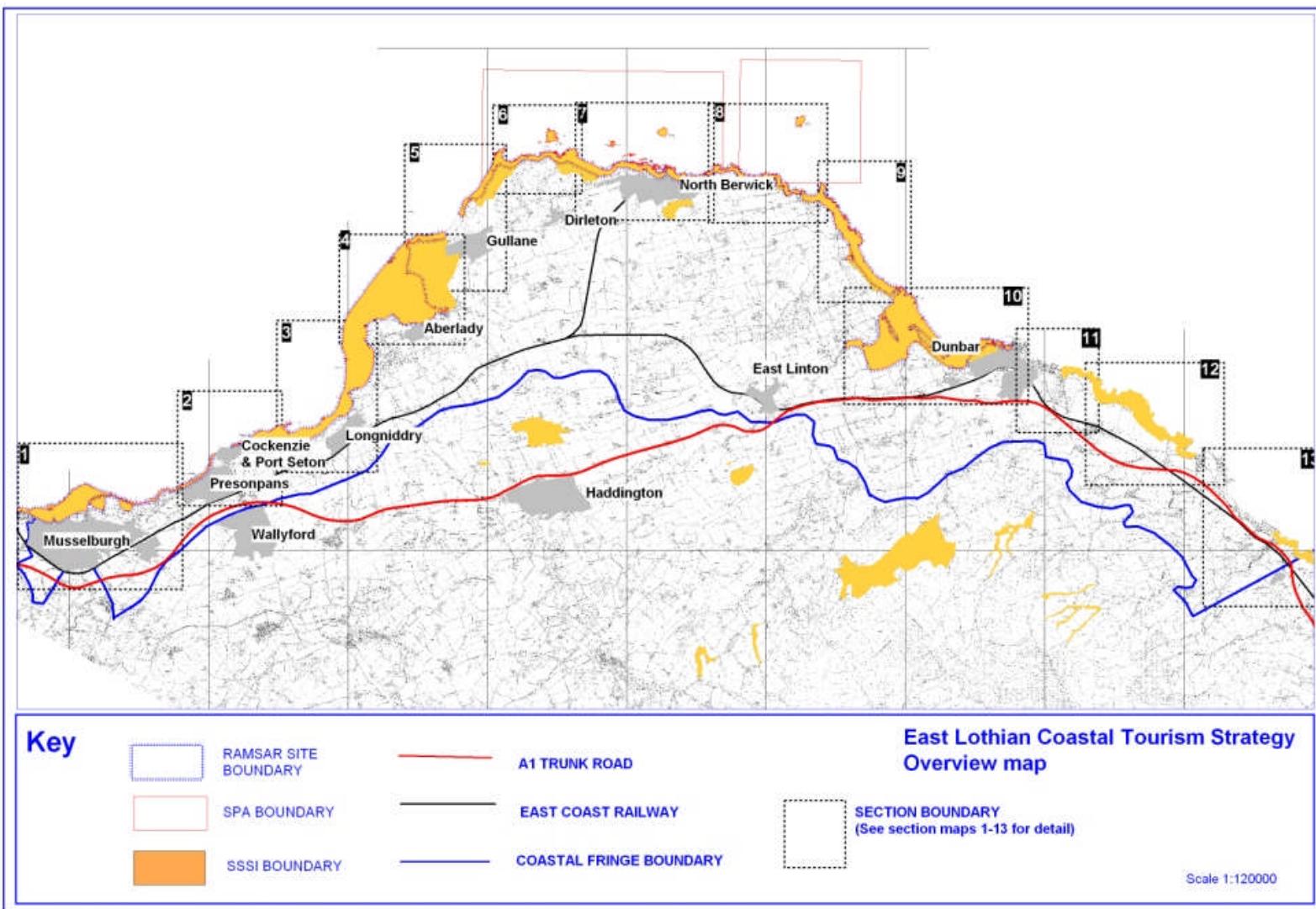
Map 9 – Section 9 - St Baldreds Boat to St Baldreds Cradle

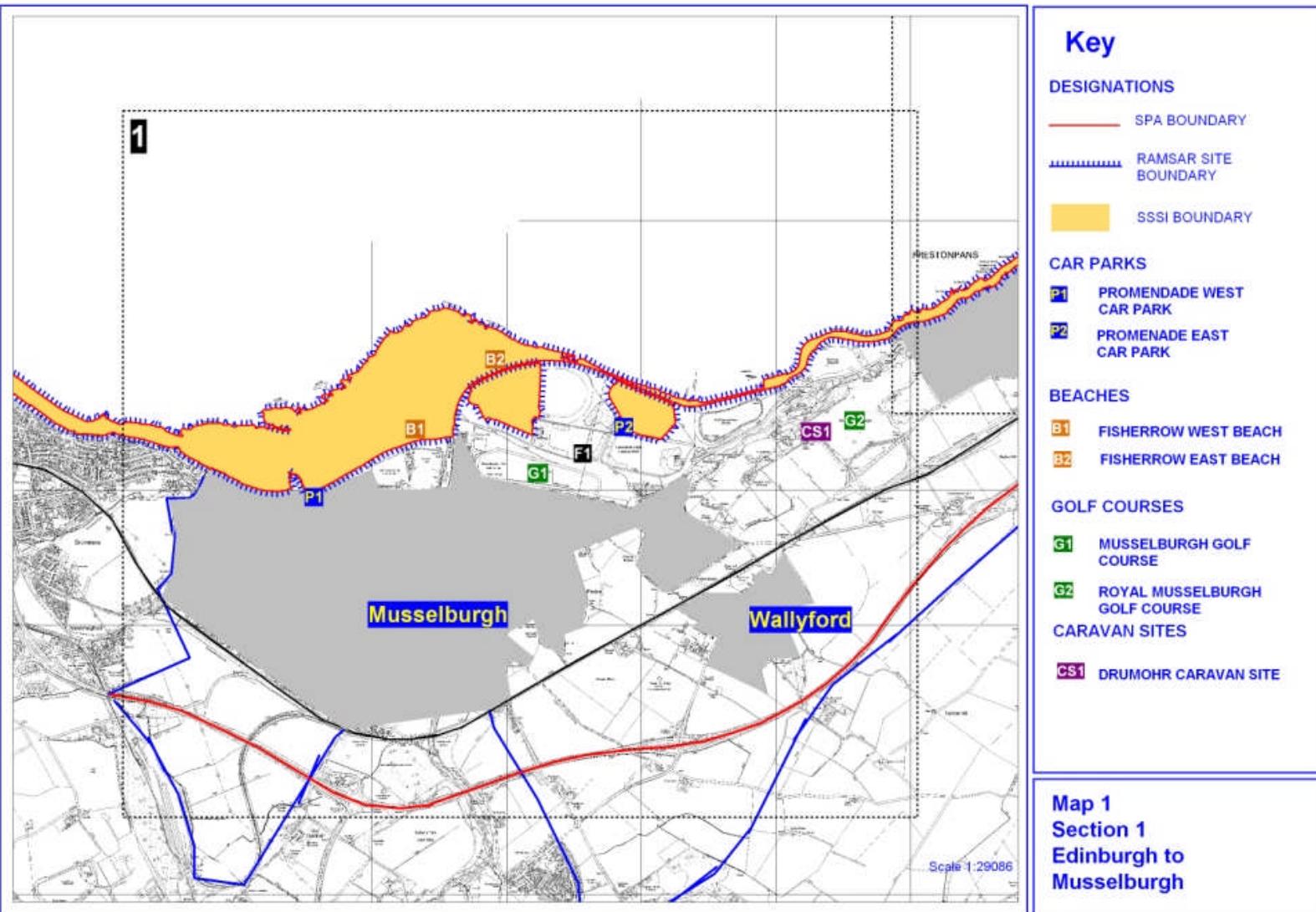
Map 10– Section 10 – St Baldreds Cradle to Dunbar Harbour

Map 11– Section 11 – Dunbar Harbour to Mill Stone Neuk

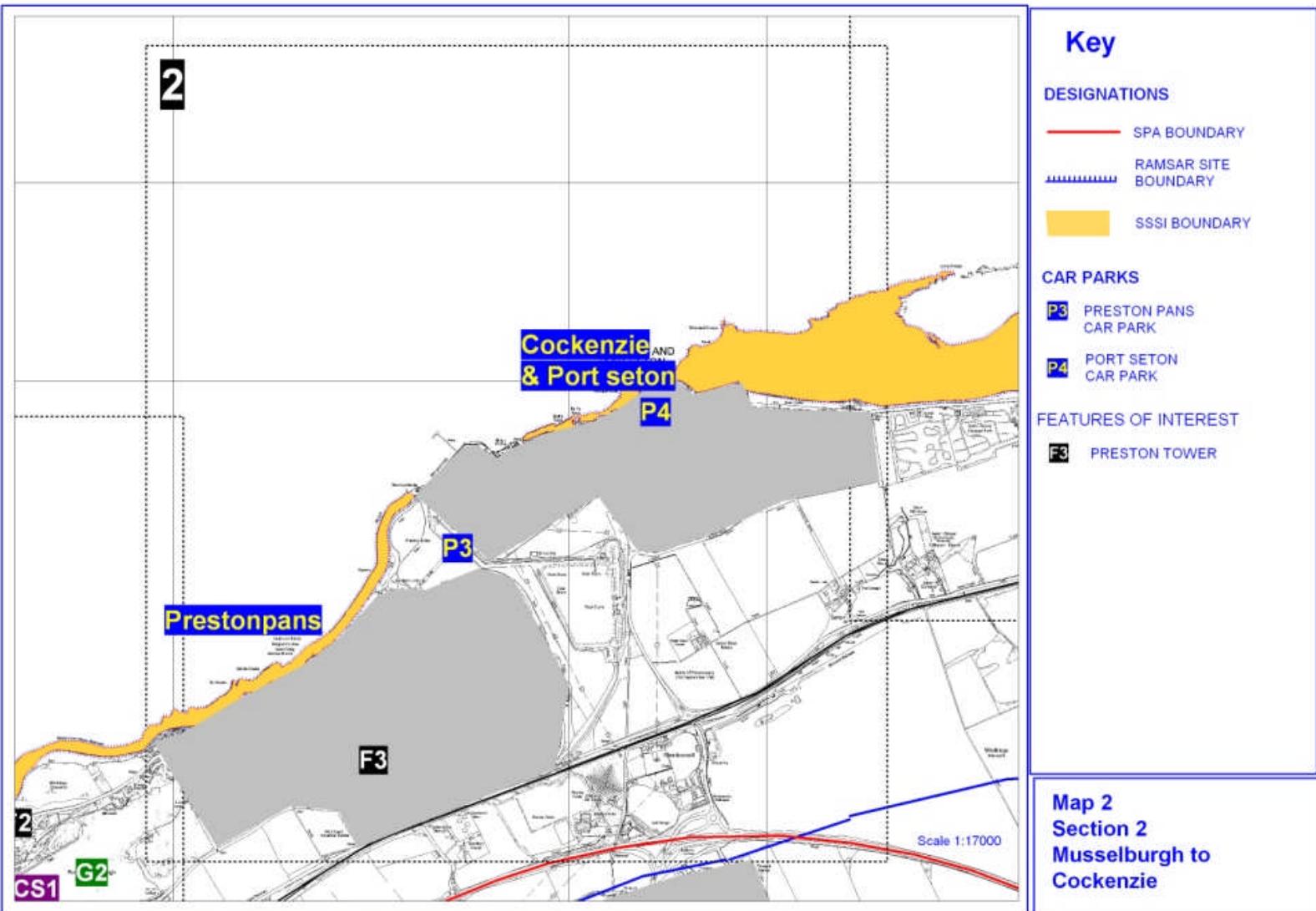
Map 12– Section 12 – Mill Stone Neuk to Torness point

Map 13– Section 13 – Torness point to Cockburnspath

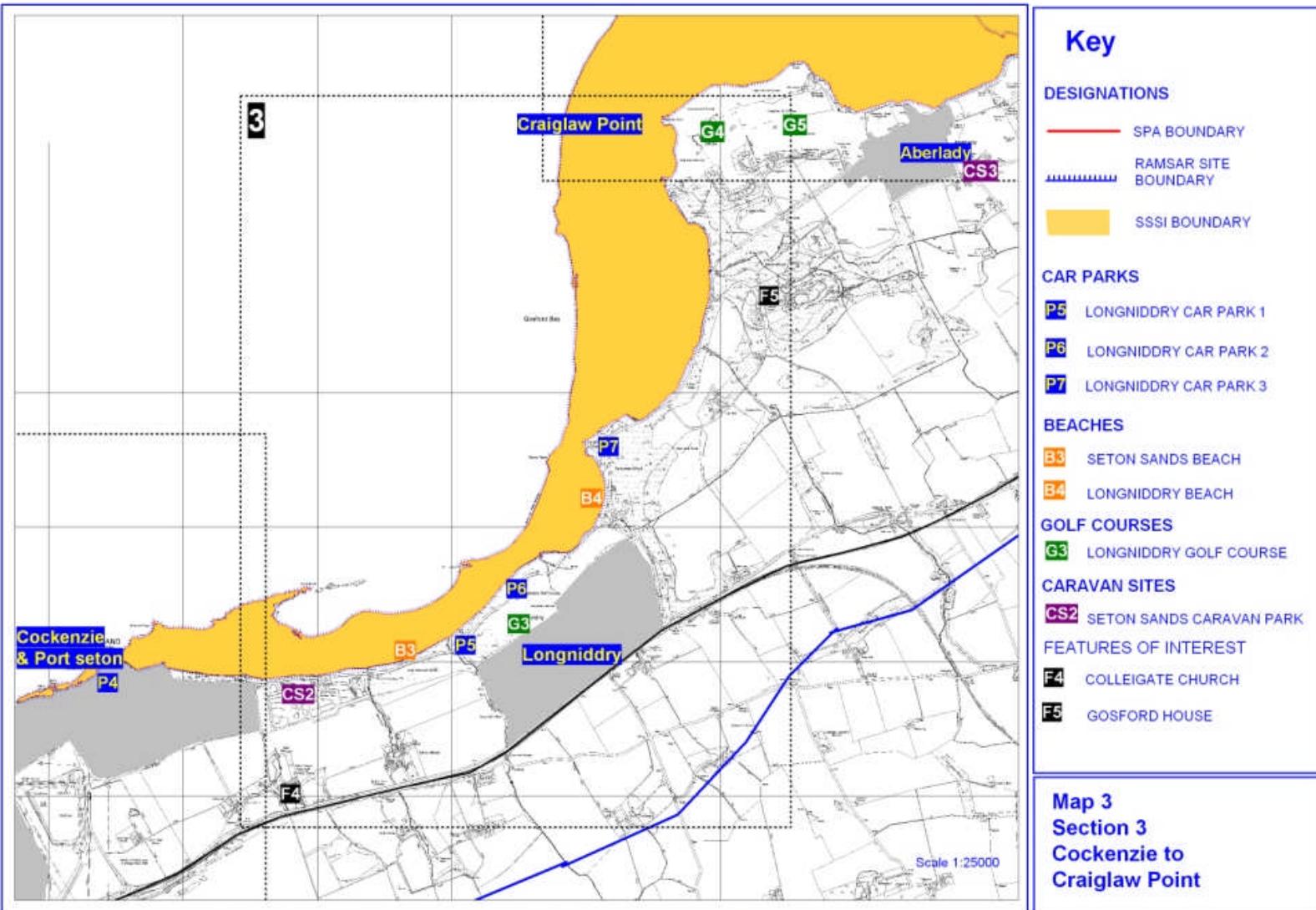




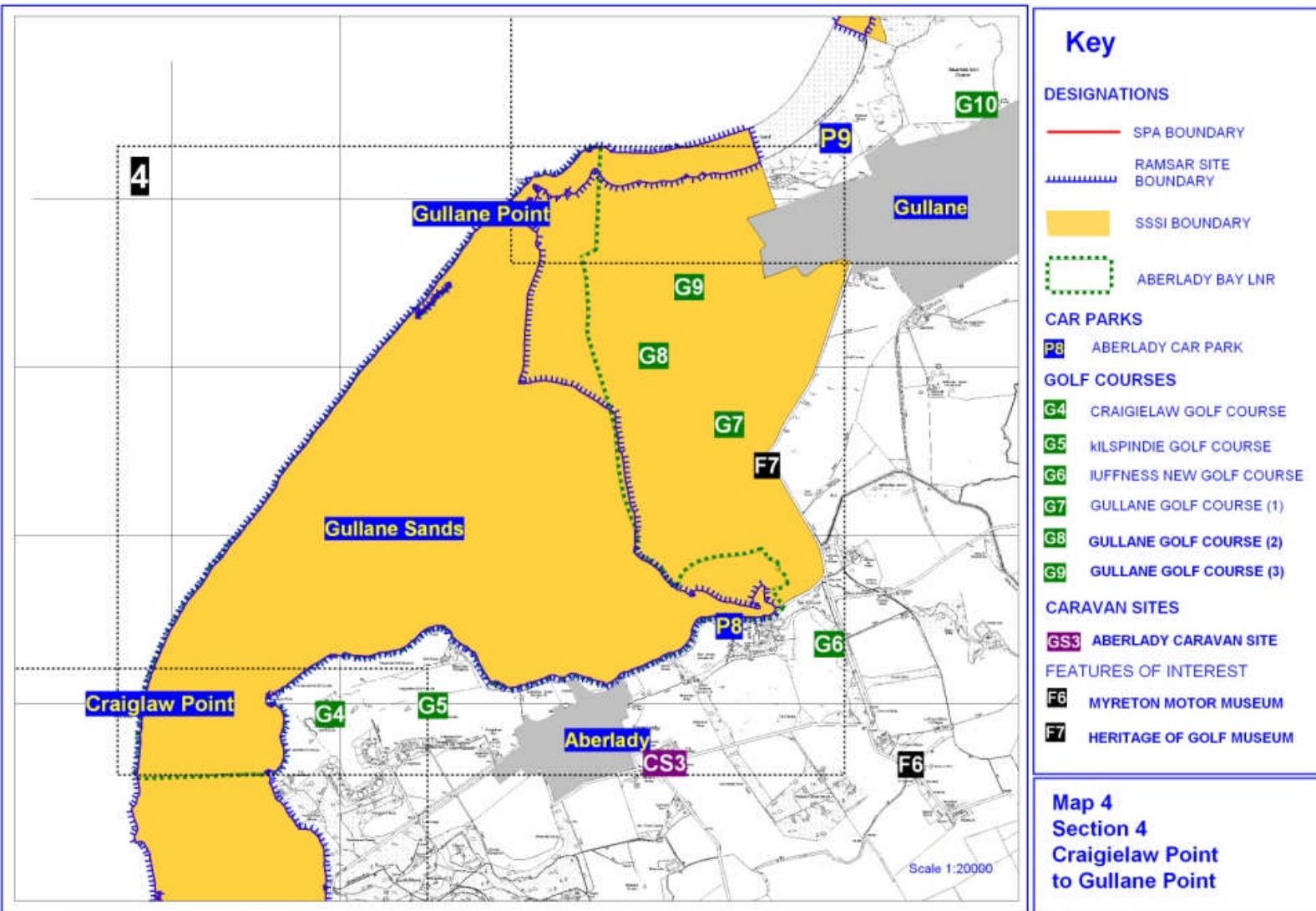
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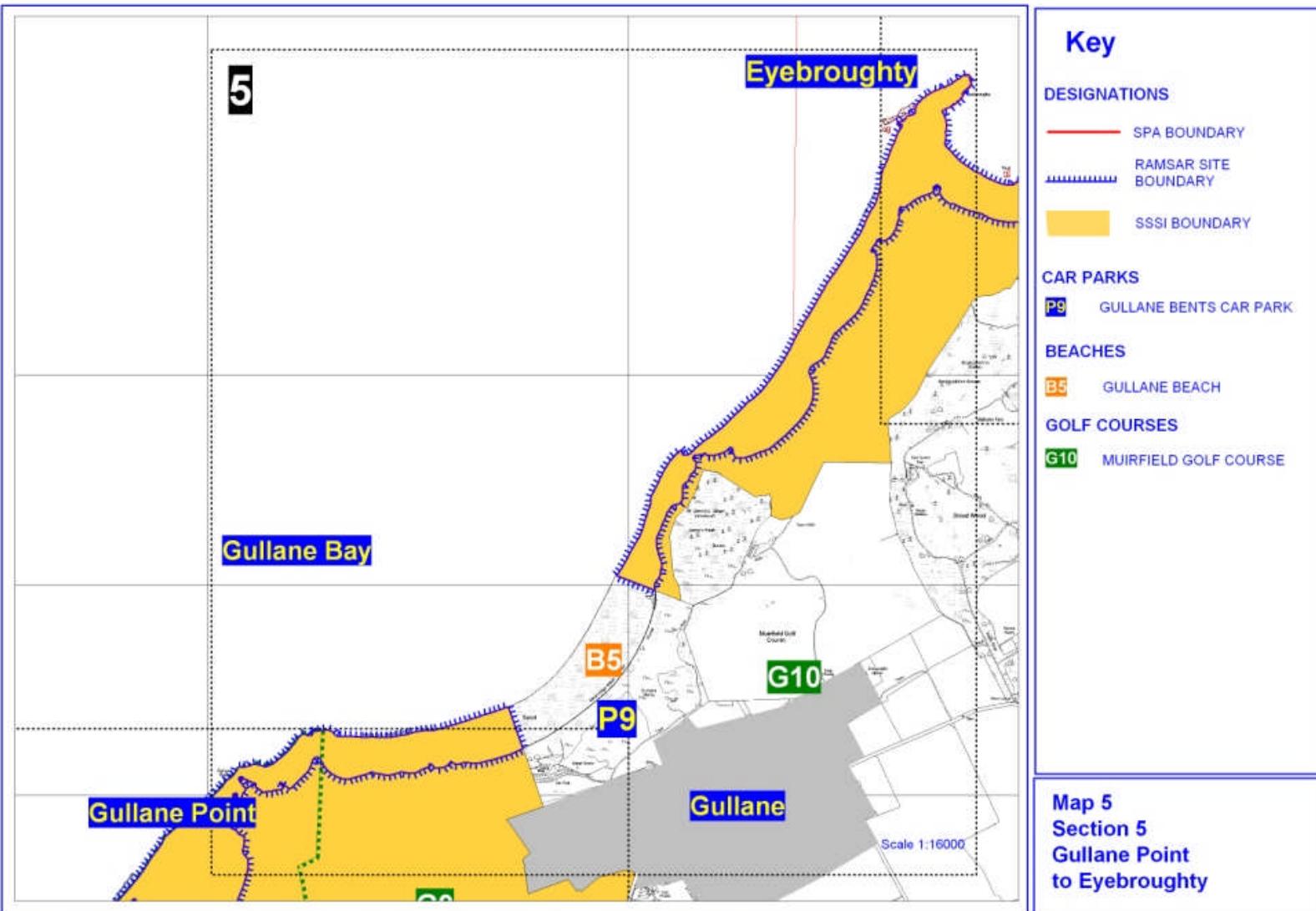
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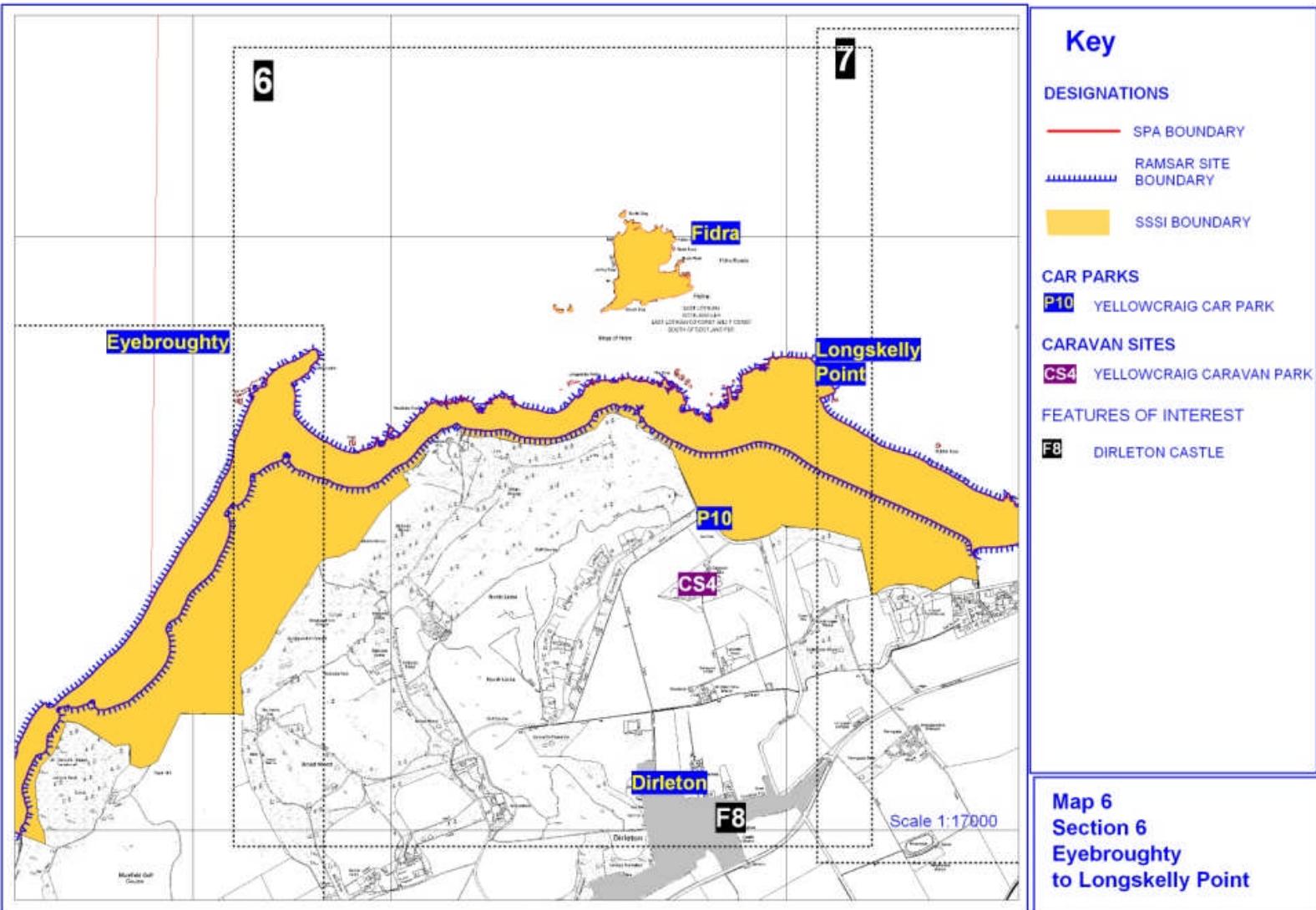
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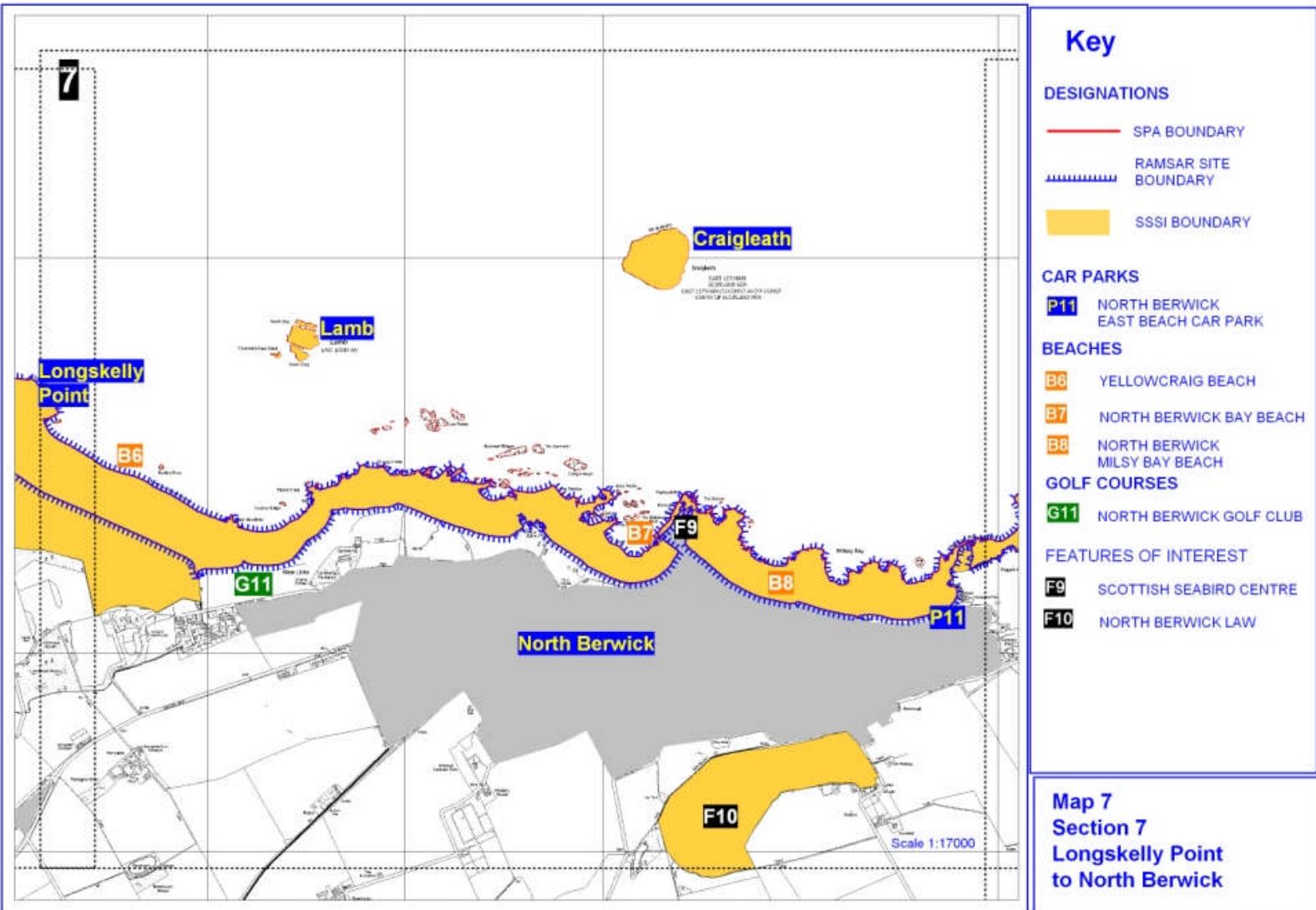
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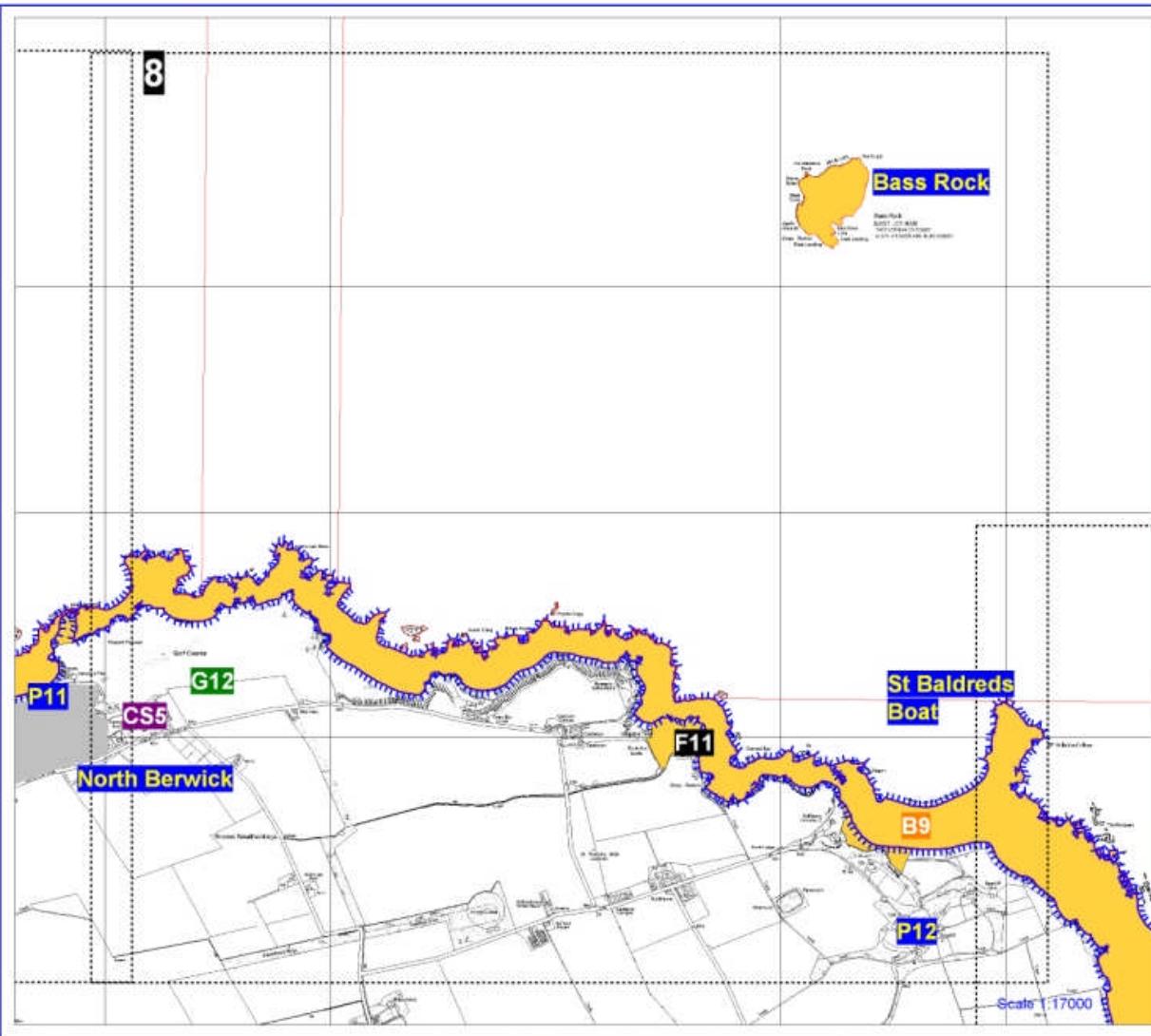
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Key

DESIGNATIONS

- SPA BOUNDARY
- RAMSAR SITE BOUNDARY
- SSSI BOUNDARY

CAR PARKS

- P12 SEACLIFF CAR PARK

BEACHES

- B9 SEACLIFF BEACH

GOLF COURSES

- G12 GLEN GOLF CLUB

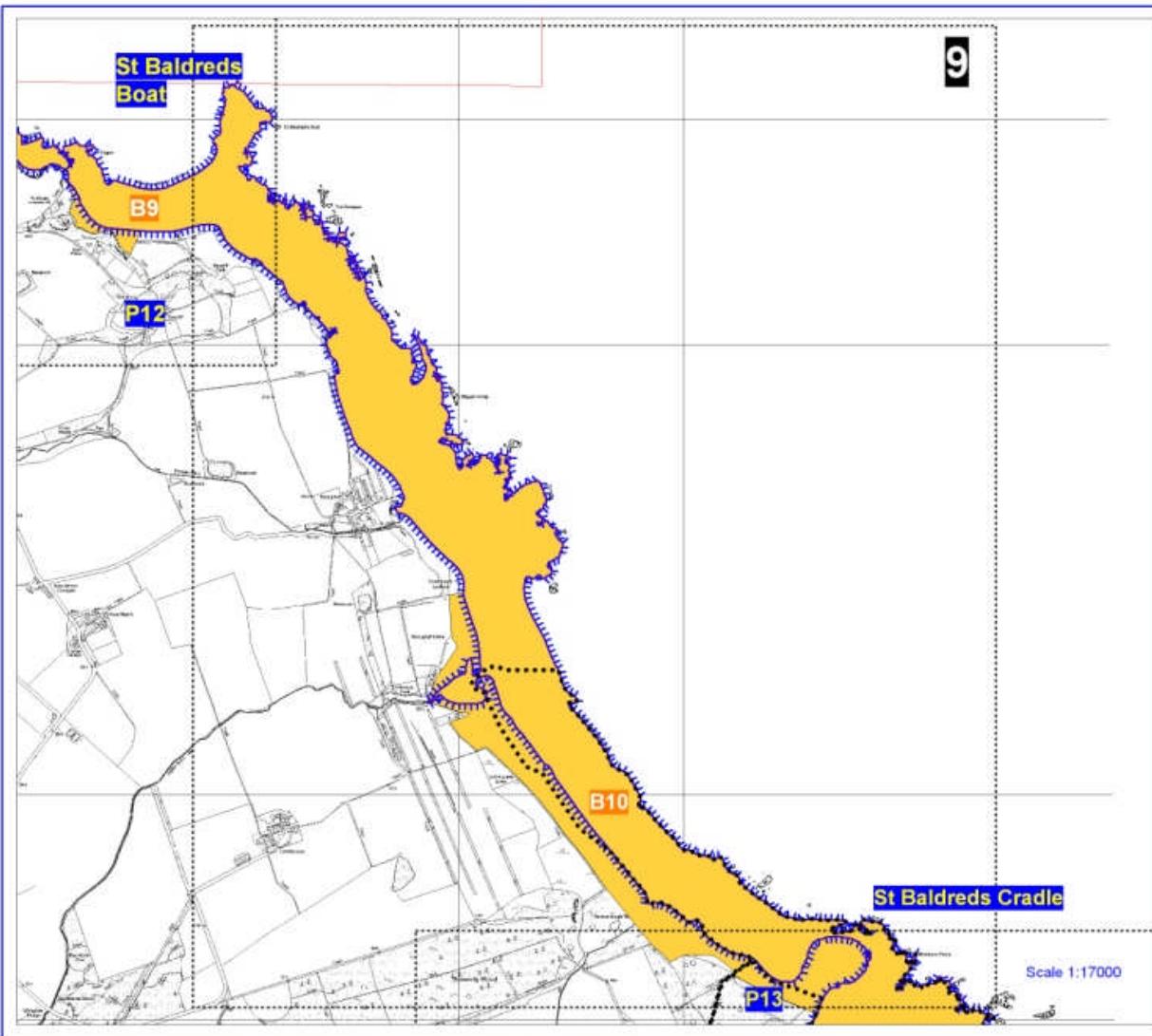
CARAVAN SITES

- CS5 TANTALLON CARAVAN PARK

FEATURES OF INTEREST

- F11 TANTALLON CASTLE

**Map 8
Section 8
North Berwick to
St Baldreds Boat**



9

Key

DESIGNATIONS

- SPA BOUNDARY
- RAMSAR SITE BOUNDARY
- SSSI BOUNDARY
- JOHN MUIR COUNTRY PARK BOUNDARY

CAR PARKS

- P13 TYNINHAM LINKS CAR PARK

BEACHES

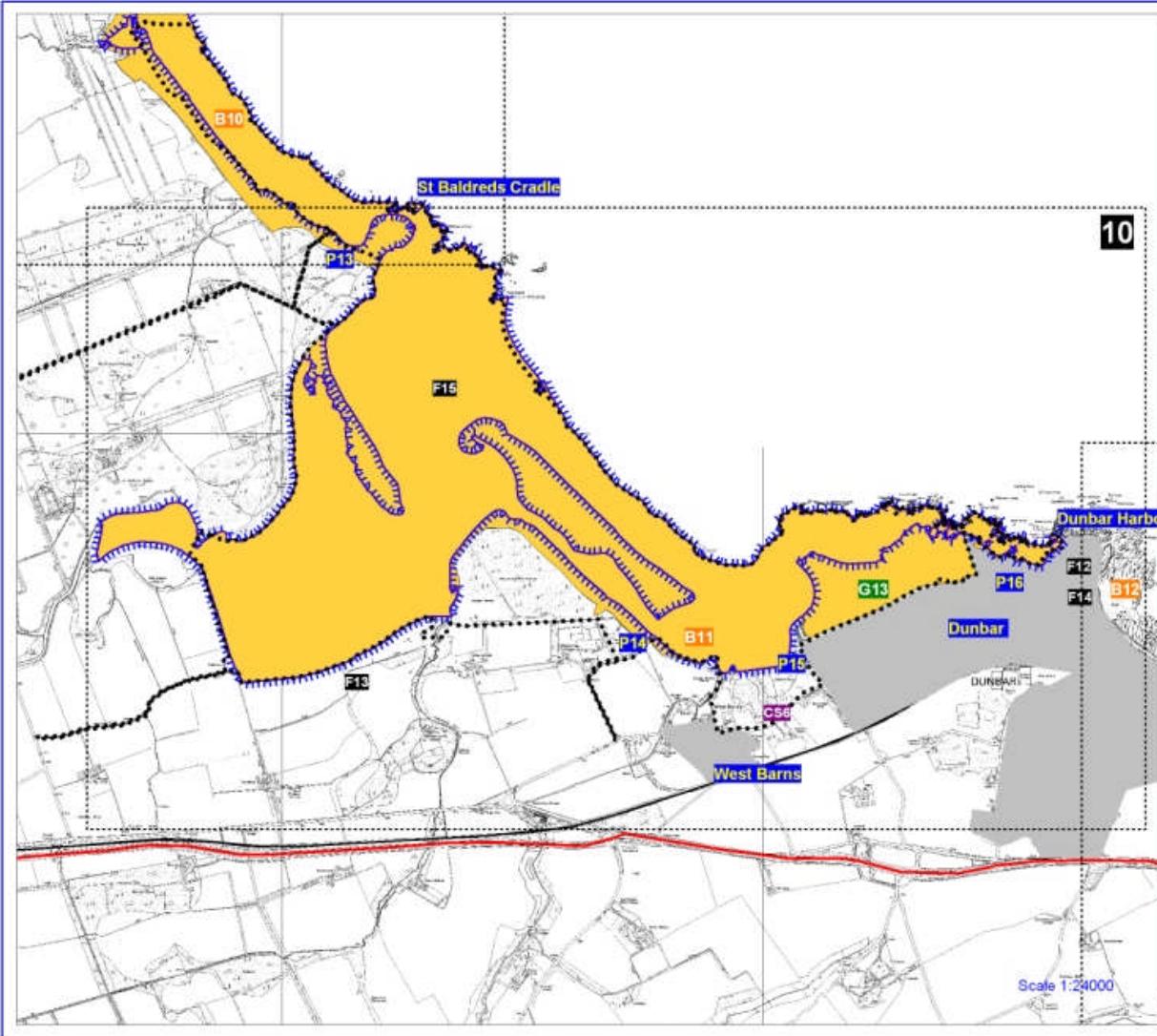
- B10 PEFFERSNADS BEACH

FEATURES OF INTEREST

- JOHN MUIR COUNTRY PARK

Map 9
Section 9
St Baldreds Boat
to St Baldreds Cradle

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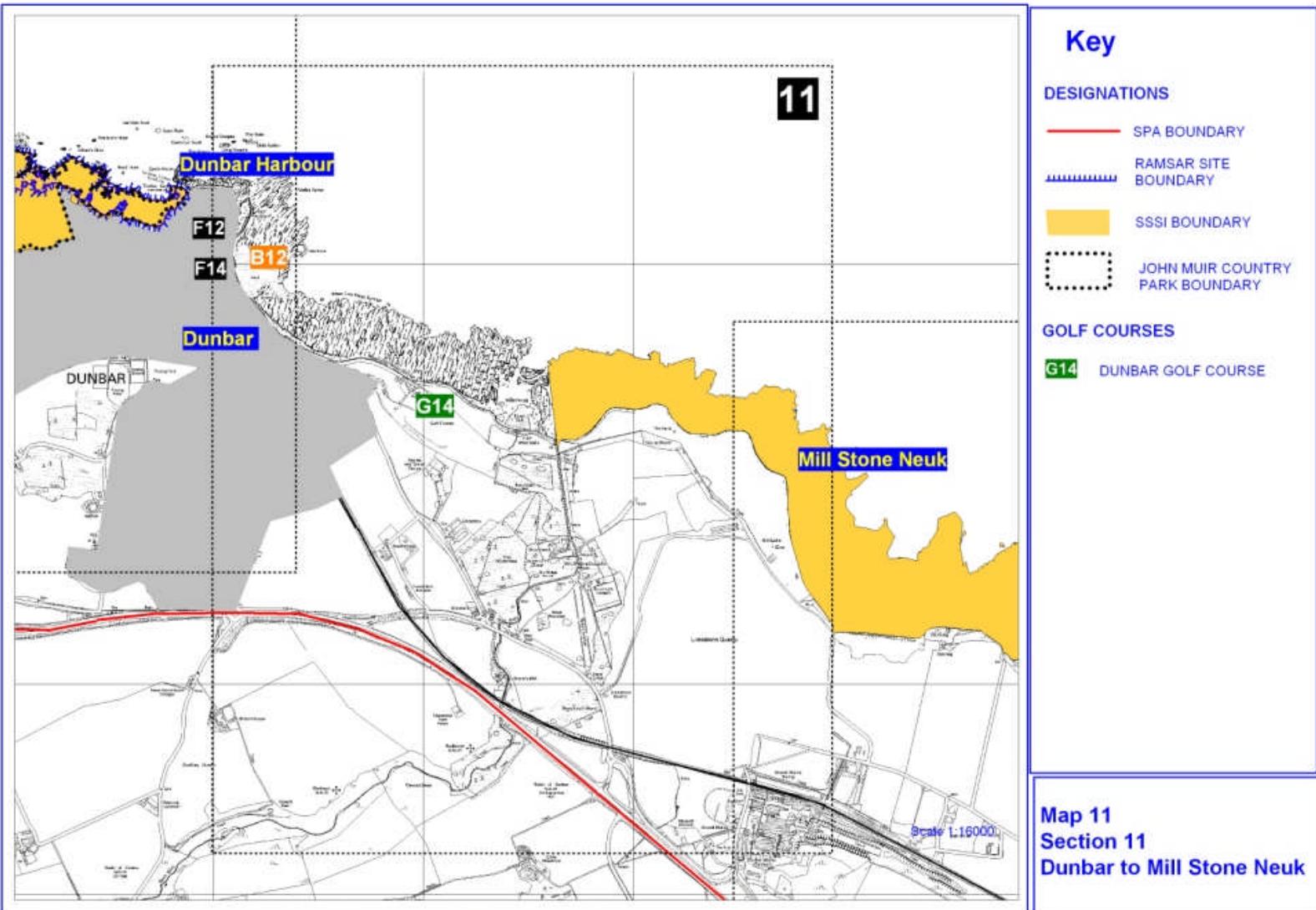
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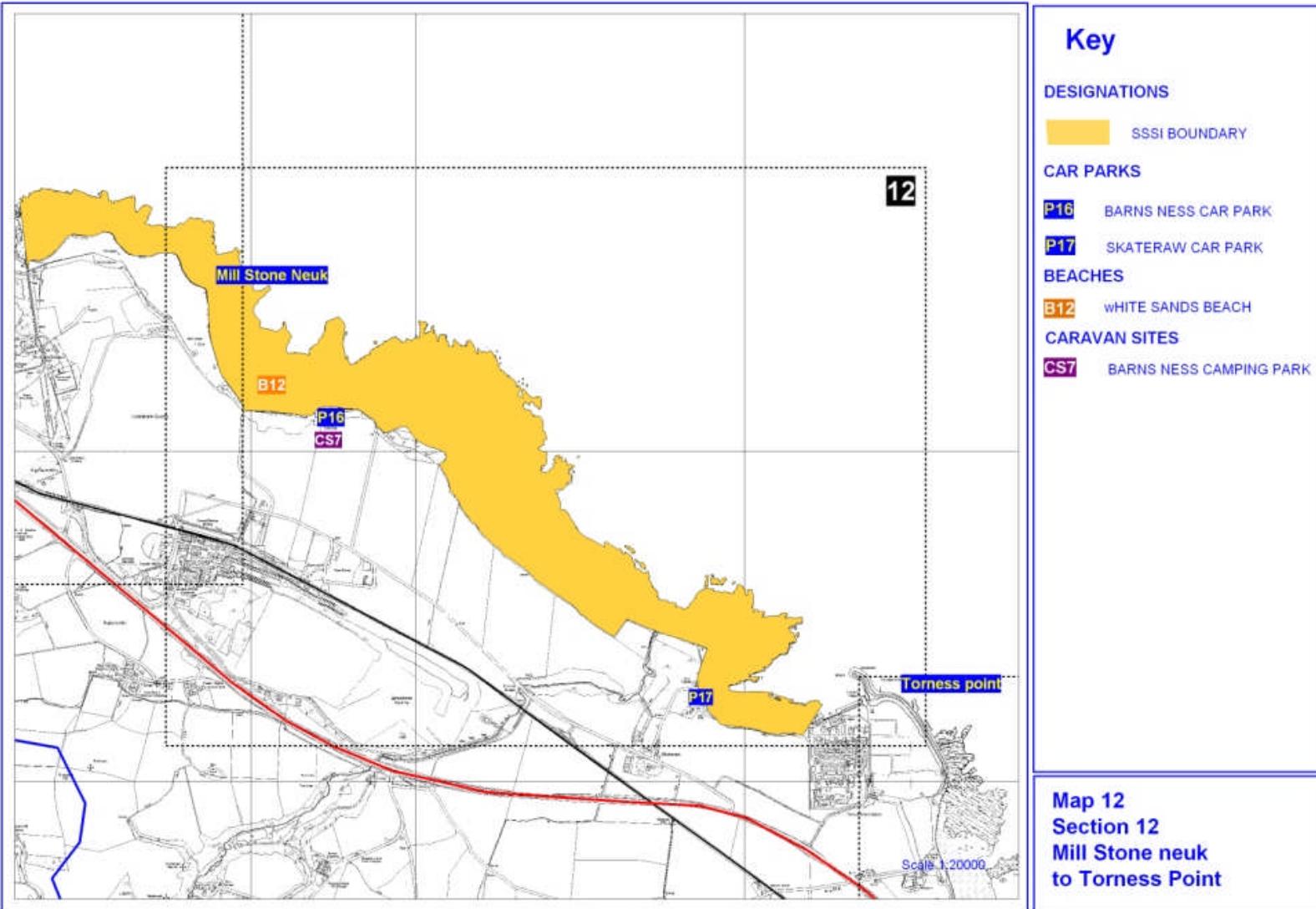
DESIGNATIONS

- SPA BOUNDARY
- RAMSAR SITE BOUNDARY
- SSSI BOUNDARY
- JOHN MUIR COUNTRY PARK
- CAR PARKS
- P14 WEST BARNES CAR PARK
- P15 LINKFIELDS CAR PARK
- P16 SHORE ROAD CAR PARK
- BEACHES
- B11 BELHAVEN BEACH
- B12 DUNBAR EAST BEACH
- GOLF COURSES
- G13 WINTERFIELD GOLF COURSE
- CARAVAN SITES
- CS6 BELHAVEN BAY CARAVAN PARK
- FEATURES OF INTEREST
- F12 DUNBAR TOWN HOUSE MUSEUM
- F13 EAST LINKS FAMILY PARK
- F14 JOHN MUIR HOUSE
- F15 JOHN MUIR COUNTRY PARK

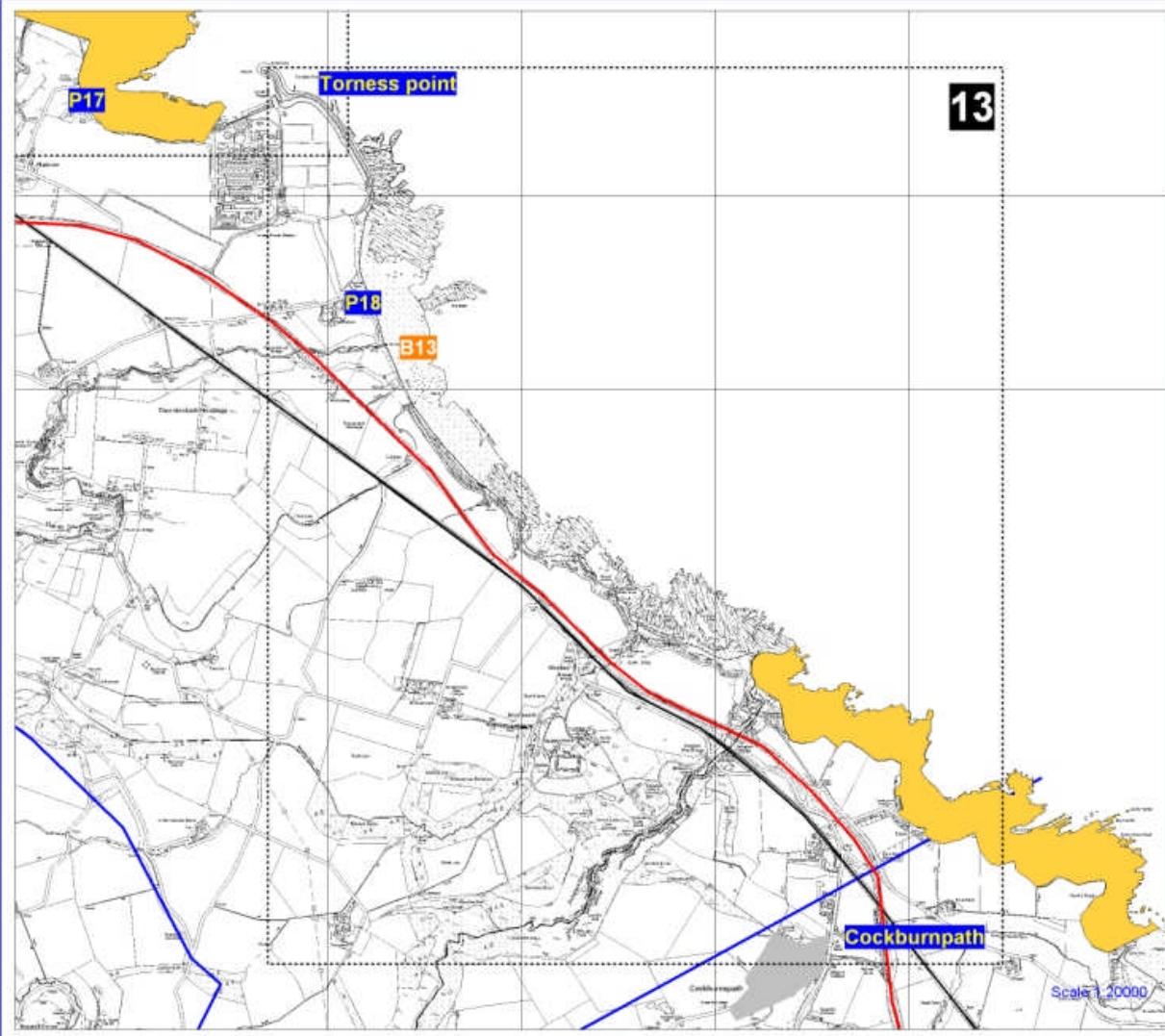
Map 10
Section 10
**St Baldreds Cradle
to Dunbar harbour**



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Key

DESIGNATIONS

- A1 TRUNK ROAD
- EAST COAST RAILWAY
- SSSI BOUNDARY

CAR PARKS

- B18 THORNTONLOCH CAR PARK

BEACHES

- B13 THORNTONLOCH BEACH

Map 13
Section 13
Torness Point
to Cockburnspath

Appendix 8

List of consultees

No	TITLE ORGANISATION	FIRST NAME	SURNAME	TEL NO	EMAIL
1		Clr Jacquie	Bell	07772383564	jbell@eastlothian.gov.uk
2		Clr David	Berry		
3		Clr Neil	Rankin	01620 827116	
4		Clr Peter	MacKenzie		pmackenzie@eastlothian.gov.uk
5		Clr John	Williamson	01620 827012	jwilliamson@eastlothian.gov.uk
6		Clr Barry	Turner	01620 827118	
7		Clr Roger	Knox		
8		Clr Paul	MacLennan		
9		Clr	Currie		
10	East Links Family Park	Grant	Bell	07775713646	grant@eastlinks.co.uk
11	Coast to Coast Surf School	Sam	Christopherson	07971990361	sam@c2csurfschool.com
12	Dunbar Tourist Information Centre	Marian	Robertson	01368 863353	marian.robertson@visitscotland.com
13	Dunbar Tourist Information Centre	Jonathan	Jones	01368 863353	jonathan.jones@visitscotland.com
14	John Muir Birth Place	Jo	Moulin	01368 861951	jmoulin@eastlothian.co.uk
15	Sustaining Dunbar	Chris	Eden	01368 863211	
16	Dunbar CC/ Friends of JMBP	Stephen	Bunyan		
17	Dunbar CC	Kate	Thomas	01368 865090	kate.thomas@talktalk.net
18	Dunbar CC	Will	Collin	01368 863162	
19	Dunbar Harbour Trust	Rodney	Thomas	01368 865090	katenrod@talktalk.net
20	Dunbar Golf Club	John	Archibald	01368 862317	manager@dunbargolfclub.com
21	Springfield Guest House	Joy	Smeed	01368 862502	smeed@tesco.net
22	Belhaven Trout Company	Dave	Pate	01368 864025	
23	North Berwick TIC	Gordon	Leslie	01620 892197	
24	North Berwick In Bloom	Ms Sheila	Sinclair	01620 894666	
25	North Berwick In Bloom	Elma	Danks	01620 893115	
26	Scottish Seabird Centre	Lynda	Dalgleish		
27	East Lothian Yacht Club	Alan	Stewart	01620 890780	
28	North Berwick Harbour Trust Association	Alison	Hall	07941088325	

No	TITLE ORGANISATION	FIRST NAME	SURNAME	TEL NO	EMAIL
29	Whitekirk Golf & Country Club	George	Tuer	01620 870300	
30	North Berwick Golf Club	Chris	Spencer	01620 895040	
31	North Berwick C C	Bill	McNair		
32	Duck at Kilspindie	Malcolm	Duck	077406766113	malcolm@ducks.co.uk
33	The Scottish Birdwatching Resource Centre	Mark	Holling	01620894037	mark.holling@btinternet.com
34	Maitlandfield House Hotel	Nico	deFreitas	01620 826513	info@maitlandfieldhouse.co.uk
35	Historic Scotland Seton Collegiate Church	David	Gray	01875 81334	
36	Longniddry Golf Club	Bob	Gunning	01875 852141	bob@longniddrygolfclub.co.uk
37	Musselburgh Conservation Society	Andrew	Coulson		a.coulson@ed.ac.uk
38	Ramblers Association Musselburgh Gp	Isabel	Wilson		isabelwilson@btinternet.com
39	Brunton Theatre Marketing Mngr	Rachel	Menzies	0131 653 5244	rmenzies@eastlothian.gov.uk
40	East Lothian Tourism Forum Chair man	Robert	Conway		robert.conway@btconnect.com
41	MacDonald Marine Hotel	Seamus	Cohen	0844 8799130	
42	Golf Development Officer	Alan	Minto	01620 827178	aminto@eastlothian.gov.uk
43	Economic Development Manager	Susan	Smith	01620 827174	ssmith@eastlothian.gov.uk
44	Biodiversity Officer	Stuart	McPherson	01620 827242	smacpherson@eastlothian.gov.uk
45	Landscape & Countryside Manager	Maree	Johnston	01620 827427	mareejohnston@eastlothian.gov.uk
46	Community Wellbeing Manager	Tom	Shearer	01620 827560	tshearer@eastlothian.gov.uk
47	Environmental Protection Manager	David	Evans	01620 827286	devans@eastlothian.gov.uk
48	Harbours	Helen	Bruce	01620 827403	hbruce@eastlothian.gov.uk
49	Director of Environment	Pete	Collins	01620 827247	pcollins@eastlothian.gov.uk
50	Local Plan Manager	Ian	Glen	01620 827395	iglen@eastlothian.gov.uk
51	RSPB – Conservation Officer	Mike	Fraser	01750 725323	
52	Access Officer	Nick	Morgan	01620 827671	nmorgan@eastlothian.gov.uk
53	Access Officer	Jennifer	Lothian	01620 827419	jlothian@eastlothian.gov.uk
54	Works manager – Lafarge Dunbar	David	Chrystall	01368 863371	

No	TITLE ORGANISATION	FIRST NAME	SURNAME	TEL NO	EMAIL
55	Cycling Officer	Ian	Reid	01620 827143	ireid@eastlothian.gov.uk
56	Dunbar Traders Association	Pauline	Jaffray	01368 863593	pjdesign@dunbar.org.uk
57	Visit Scotland	Sinead	Feltoe	0131 472 2222	sinead.feltoe@visitscotland.com
58	City of Edinburgh Council	Steve	McGavin	0131 529 6237	
59	City of Edinburgh Council – tourism Officer	Raoul	Berbier		
60	Museums	Kate	Maynard	01620 828 204	kmaynard@eastlothian.gov.uk

Appendix 9

East Lothian Coastal Tourism SWOT

STRENGTHS	PRIORITY
Opportunity to try activities at beginner level	✓
Attractive to families and other groups/wide range of ages	
Number of caravan and camping sites	✓
Coastal access with well managed facilities	✓
Bread basket of Scotland' – large range of food and drink	
Local businesses – availability of local food/produce not readily accessible in Edinburgh	✓
Growing organic market	
Quality, number and diversity of Golf courses – '20 courses in 20 miles'	✓
World's oldest course - Musselburgh	
The Open at Muirfield	
Renaissance new course	
Well planned environmentally managed courses	
Provide barrier to the coast for casual visitors thereby providing some elements of sanctuary	
East Lothian has low rainfall – attract winter golfers	✓
Golf group are already very active	
Golf attracts 'high value' visitors	
Accessible coast	✓
Golf courses have facilities for non golfers	
Quality and diversity of habitats and species plus some Rarities – especially out of season	✓
Two markets – independent and those requiring leading	
Bass Rock and other key sites	✓
Scottish Seabird Centre – remote viewing and large numbers not intruding into sensitive site	✓
SOC HQ at Aberlady	
Great architectural and historical sites of European importance – battle sites/linking sites in coastal locations	✓
John Muir and green tourism	✓
Large Ranger Service – managing the resource	✓
The coast is 80% managed by the Council	✓

WEAKNESSES	PRIORITY
No recent data on the value of tourism to the east Lothian economy	✓
Licensing law for children prevent them socialising with parents	
Drinking outside discouraged (affecting picnics etc) – local bylaws	
Lack of facilities	✓
Health and Safety of users	
Lack of skills training in outdoor activities	
Accessibility and regularity of supply of food	
Some cafes and food outlets close at 5pm during the peak season	
Different target market for organic food	
Lack of good quality staff in the food industry	✓
Training in use of product and product development in the food industry	✓
Number 4 for golf tourism – should be higher	
Lack of good quality accommodation in EL – particularly for large groups – may stay in Edinburgh	
Lack of budget accommodation for water sports enthusiasts, walkers, cyclists and birdwatchers	✓
Over supply of golf courses in time of economic downturn	✓
Golf courses are not facing up to competition from abroad	
Lack of alternative activities for golf parties and families	✓
Golf tourists with single focus on championship courses – difficulty in getting them to stay	
Lack of exposure and knowledge of wildlife and cultural tourism opportunities	✓
Lack of information on where and when to see birds	✓
Marketing of wildlife product is poor (ex Seabird centre)	✓
Rail and bus companies are not allowed to coordinate services due to competition regulations	✓
Poor train service to Dunbar – particularly late night	✓
First bus does not display stopping points	✓
Edinburgh car traffic brings congestion at peak times – Parking in North Berwick is a particular problem	✓
Lack of infrastructure for cycle tourism	
Awareness in Edinburgh resident and tourism market how accessible the coastline is	
Various representative groups do not work together and there is a perception that the Forum is not effective	

WEAKNESSES	PRIORITY
Tourism businesses and Visit Scotland are not working together effectively	
Lack of packaging of activities	✓
Lack of a single booking portal	
Lack of effective signage to key attractions	✓
Poor toilets and other visitor infrastructure at key car parks and harbours	✓
Dunbar needs upgrading and better promotion	
Lack of maintenance of promoted sites	
Red tape and lack of support for event organisers	
Considerable sections of John Muir Way on roads	✓
Poor public transport for those using JMW	✓
Lack of coordination on the house style and quality of printed material	✓
Lack of specialist water sports business	✓

OPPORTUNITIES	PRIORITY
Potential to interpret the wildlife of the coast from golf clubs	
Provide information on use of the Way	✓
Develop the high end walking market on the Way – hotel accommodation and luggage transport	
Training in Health and Safety	
Cycling tourism	✓
Organised boat trips along coast and across to Fife	
High end Marina	
Adrenaline sports venue	
Current public sector initiatives	
East Lothian food and drink brand	✓
Promote shop local – lower ‘food miles’	✓
Organic market	
Affluent local market for food	
Not exploiting the shoulder months when plenty accommodation is available – particularly to specialist groups and promoting use of links courses	✓
Themed packaged green tourism holidays	✓
Build on existing infrastructure such as the John Muir Way	✓
Developing robust sites such as Levenhall Links and the North West Quarry as key wildlife watching sites	
Creating awareness of public transport	✓
Capitalise on the proximity of Edinburgh	
Dry fast running links courses provide a significantly different experience to inland courses	✓
Proposed expansion of three holes at Renaissance overlooking Eyebroughty	
Families playing together	
Accessible courses	
Improve facilities and package for non golfers	✓
Business tourism – UK and over seas	
Good market for golf within 15 -20 min drive time	
VS visitor survey planned for 2010 – opportunity to collect baseline visitor information	✓
Direct flights to Edinburgh brings in Scandinavian and European visitors	

OPPORTUNITIES	PRIORITY
East Lothian Tourism could tie into VS targets and campaigns	✓
Links courses offer the opportunity to extend the playing season due to better weather	✓
Opportunity to bring walkers and cyclists from Edinburgh along the proposed Edinburgh promenade	✓
Opportunity to develop a sculpture trail from Edinburgh to North Berwick	✓
Opportunity to strengthen the marketing and joint working of the tourism sectors in EL	✓
The umbrella group should be a marketing and communications group	✓
The shortage of accommodation in Edinburgh at peak times creates the opportunity to provide quality accommodation at both ends of the market	
Small businesses could help keep the tourism infrastructure going through the off peak part of the year	
Opportunity to build on walking, cycling and better bus rail connections to help alleviate the traffic congestion problem	✓
Opportunity to develop City and Coast short breaks in partnership with Edinburgh	
Opportunity to develop cultural heritage tours associated with the JMW	✓
Opportunity to provide a shuttle bus to connect villages, beaches, railway stations, car parks and attractions	✓
Opportunity to develop a villages brand	✓
Opportunity to develop closer links with Queen Margaret College, particularly in the hospitality sector	✓
Opportunity to develop tax breaks to help businesses through off peak time	
Opportunity to encourage the setting up of small tourism support businesses such as bunkhouse, cycle hire and baggage transit	✓
Opportunity to develop the gateway concept: • Harbours – gateway to the water • Dunbar – gateway for the Borders and NE England • Musselburgh – gateway from Edinburgh and the central belt • Levenhall Links – western wildlife gateway • North West Quarry – eastern wildlife gateway • Key beaches – gateways to the coast and water sports activities	✓
Opportunity to provide more support and coordination to walking and harbours festivals	
Opportunity to build on wildlife interest on the coast and take up of the GTBS	✓
Promote visits in February/March to see wintering birds and October to see migrants	✓
Opportunity to build eco tourism concepts into the Strategy along with thinking on what a low carbon economy will look like	✓
Build on Strategic routes – JMW and NSCR	✓
Opportunity to create walking and cycle links to railway stations	✓

OPPORTUNITIES	PRIORITY
Opportunity to develop a web promotion and booking portal	
Opportunity to include details of transport, food outlets and public transport in walking and cycling leaflets	
Opportunity to develop interpretation on the cultural history of the EL Coast	✓
Opportunity to provide information to walkers, cyclists and water sports enthusiasts on the wildlife interest and potential impacts	✓
Opportunity to improve and widen the availability of publicly provided water sports tuition and hire	✓
Opportunity to set up and support local coastline user groups	✓
Opportunity to create a robust a sustainable process for measuring the volume, value and other impacts of activities	✓

THREATS	PRIORITY
Effect of coastal erosion on golf courses and other coastal attractions	
Effect of climate change and peak oil on the tourism sectors	✓
New house building in the west will bring more visitors to the coast	
Lack of parking will cause visitors to go elsewhere	✓
Development will spoil the character of coastal villages	✓
Concern over disturbance to birds from watersports	✓
Wildlife and cultural heritage marketing by other locations	✓
Don't understand the dynamics of the coast	
Damage to product through erosion and pollution	
Proximity of Edinburgh and other destinations in Scotland	✓
Proposed expansion of three holes at Renaissance	
Stabilisation of dynamic habitats like sand dunes	
Water extraction	
Use of fertilisers	
Recession	✓
Other warmer/cheaper destinations	
Changing markets for golf	
Perceived cost of 'niche' food	
Actual pollution incidents – ship to ship transfer in Firth of Forth	
Competition from other Activity tourism areas - eg Cornwall	✓
Lack of private sector engagement in activity tourism	✓
Lack of awareness of opportunities in activity tourism	
Impacts on wildlife from activity tourism	✓