











The Forth Estuary Forum is a partnership of organisations, agencies, companies and individuals who have an interest in the Forth Estuary and Firth of Forth. The project received part funding through the European Community LIFE Environment programme.

The Forth Integrated Management Strategy has been prepared on behalf of the Forth Estuary Forum, and is recognised as part of the European Union Demonstration Programme on Integrated Management in Coastal Zones.

The Strategy is a product of research and development undertaken by the Forum but the judgements and conclusions made herein do not necessarily reflect the individual views of the Forum's Management Group or the organisations represented in the Forum. The actions recommended in the Strategy have been developed through a wide ranging consultative procedure and represent a consensus opinion on the future priorities for the Forth. As a result, they are not necessarily shared or agreed by all the Forum's individual partners.

































If you would like to express views on the Strategy, or any coastal issues affecting the Forth please either:

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The latest information on the Forum and the Forth Integrated Management Strategy is published regularly on the Forum's web site.

Web: www.forthestuaryforum.co.uk

# Foreword and Acknowledgments

No longer simply our river or sea-side, nor even a Scottish location of world-wide familiarity but an estuary of such importance, that its future care is now imperative. Such belief as this led to the formation of the Forth Estuary Forum in 1993 and completion of this Strategy which is launched on Friday, 3rd September 1999.

Over the last six years, a voluntary partnership has thoroughly investigated the actual and potential conflicts confronting the Forth and affecting its local communities, based on a set of principles to which the partners have subscribed since inception.

Representing the statutory and major non-statutory organisations who discharge their responsibilities both on shore and over these waters, the Forth Estuary Forum now presents this Strategy as a first-ever template for an integrated management approach towards conserving the estuary's future.

The commitment and dedication given to completing this challenge reflects huge credit on all whom have contributed to it and in commending the Strategy to you, may I thank my Forum colleagues and the Project team for their inspired efforts.

A.H.F. Wilks Chairman August 1999

### Forth Estuary Forum Management Group

Tony Wilks (Chair), Steve Sankey (Vice-Chair) - Royal Society for the Protection of Birds
Patrick Ashmore - Observer, Historic Scotland, Alan Burns - Forth Ports PLC, Martyn Cox - Crown
Estate, Enid Holman-Arthur - Arthur Marketing and Publications, David Jamieson - City of Edinburgh
Council, Gordon Laird - Falkirk Council, Tom Leatherland - Scottish Environment Protection Agency,
Susan Manson - East of Scotland Water, Jenny Racionzer - Fife Council, Donald Reid - Royal Yachting
Association, John Theaker - Scottish Natural Heritage, John Sheldon - West Lothian Council,
Mark Willbourn - Babcock Facilities Management

### Forum Secretariat

Mark Jennison (Secretary) - *Project Manager,* David Kay (Treasurer) - *Project Officer,* Mike Heasman - *Project Officer* 





"Make, nae break this golden firth Caress its shores with pride Seek its wildness; guard its trade Together: tide on tide"

# Summary

At the behest of the UK Government, (UK Biodiversity Action Plan, DoE, 1994), the Forth Estuary Forum has developed a non-statutory Forth Integrated Management Strategy.

Whilst the Strategy's aim is to consider a co-ordinated approach to the management of the Forth, the duty and powers of regulating the various activities in the Forth will remain the responsibility of statutory bodies. The Strategy does not intend to impose any new duties on any authority, organisation or individual; instead it relies on these bodies voluntarily adopting and aligning their own policy with the recommendations made in the Strategy, and taking positive steps to implement the supporting actions. The Strategy will work through a combination of awareness, cooperation, partners existing provision, and commitment to implement the guidelines and actions recommended.

The Strategy has been developed over a period of 5 years through a number of consultative stages involving over 250 different interest groups and numerous individuals. To publish comprehensive background information on all the topics covered by the Strategy would result in an unwieldy and large document, therefore, to keep the reader focussed on the priorities for the Forth, the format is purposefully simple, concise and geared towards realising action in a positive manner. The reader is directed to the Forum's previous publications (See Appendix 4) if further background information or justification for particular recommendations is required.

The Strategy seeks to address the many issues facing the Forth by basing future use and management on a series of 'Guidelines' and 'Actions'. These are contained within an integrated framework based upon the Forum's 'Guiding Principles', a 'Vision' and a series of 'Objectives'.

The 'Guidelines' are intended to be a series of widely supported and easily understood management statements on which future use and management can be based for specific issues or activities. The Strategy encourages public bodies, voluntary groups, private interests and individuals to adopt and use these guidelines to guide their decisions regarding the Forth.

The 'Actions' are proposed as a practical means of supporting and enhancing the adoption of the guidelines. During implementation, partner responsibilities include ownership of most of these actions. A single 'lead partner' has been identified for each action who will have the responsibility for carrying out that action in a defined period of time. Actions which do not naturally have an obvious lead partner, are to be led and coordinated by the Forth Estuary Forum itself. Most actions implemented in this manner have been developed as discrete 'Flagship Projects' or will be pursued through the 'Membership Services' on offer from the Forum and its staff. Six such initial Flagship Projects which could be developed immediately are proposed in the Strategy.

A 'Framework' to facilitate implementation of the Strategy, and annual review, evaluation and monitoring arrangements are also presented. In addition, the funding arrangements for the Strategy's implementation is considered and the production of a Strategic and Business Plan is proposed as the next step forward.

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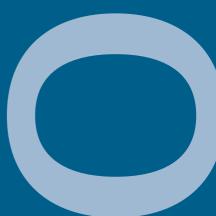
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the vision





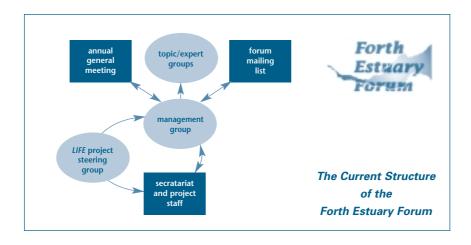
#### 1.1 Introduction and Background

The Estuary and Firth of Forth is a valuable natural resource. From the tidal water limit at Stirling to the Isle of May at its North Sea entrance, the Forth is 96km long and covers an area of 1,670km². Its environs are home to over a quarter of Scotland's population and a diverse range of habitats and wildlife. It is also a major focus for industry, commerce, transport, housing and recreation, which results in an interesting, complex and continually changing regional economy which reflects an important international trading community.

Many of the activities that make the Forth so important can also be damaging to its long-term health. Increasing demands for space and resources make it crucial to find a balance between the interests of people and commerce, and the protection of the natural heritage. The challenge now, is to ensure that we secure this balance, maintaining and enhancing the Forth's natural resource base by integrating the protection of the region's environmental quality with continued economic prosperity.

In response to the UK Government's Biodiversity Action Plan (DOE, 1995)\*, the Forth Estuary Forum has met this challenge by developing and implementing, in partnership with all users, planners and managers of the Forth, an Integrated Management Strategy which seeks practical and innovative solutions to the problems posed.

### 1.2 The Forth Estuary Forum



The Forum is a voluntary partnership, established in 1993, comprising members from a diverse range of organisations, including industry, commerce, local government, recreation and conservation bodies, as well as interested individuals.

<sup>\*</sup> Department of the Environment, 1995, Biodiversity: The UK Steering Group Report, ISBN 011 753228 2

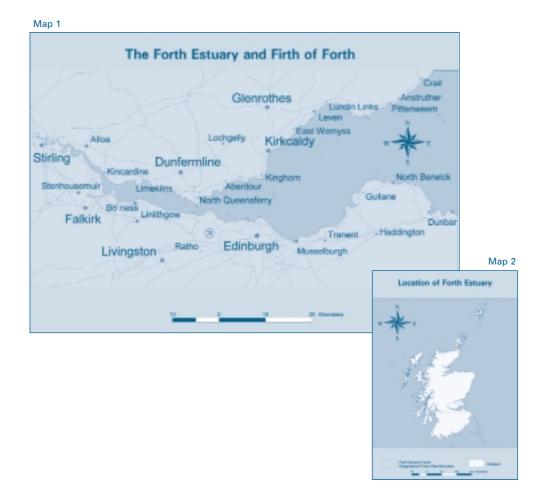
### The Forth Estuary Forum:

- Works to create a coordinated approach to the planning and the management of the Forth.
- Observes common principles of operation to guide decisions on the use of the Forth and the management of activities.
- Promotes the exchange of information and opinions about the Forth, and improves communication and understanding between users.
- Encourages everyone to consider the full implications of future decisions on other users and upon the estuary itself.

The Forum has an interest in the Firth of Forth and the Forth Estuary, extending from the tidal limit at Stirling to a line drawn from Fifeness to Dunbar, including the Isle of May. The Forum also has an interest in areas outwith this boundary if activities taking place within such areas have the potential to impact upon the Forth.

### The Forum recognises the following definitions:

- River Forth
- upstream of Stirling;
- Forth Estuary
- from the tidal limit at Stirling to the Queensferry Bridges;
- Firth of Forth
- seawards from the Queensferry Bridges to the Forum's outer limit.



### 1.3 Integrated Coastal Zone Management

The Forum is pursuing its aim by adopting the concept of Integrated Coastal Zone Management (ICZM). ICZM is based on the view that the various elements of the coast have tended to be dealt with separately in policy development and management, so that the shoreline, intertidal area and inshore area are treated as distinct, with different measures and mechanisms applying to each. This ranges from the statutory powers and plans of the Government agencies and Local Authorities, to guidance produced by Local Agenda 21 groups.

ICZM is also based on the view that management and control is presently sectoral, and issues, even when affecting the same physical element, are often dealt with in isolation, frequently by different bodies. This can lead to delay, duplication of effort and considerable confusion.

Therefore, because of the variety of uses to which the coast is put, it is difficult for a number of different bodies and interests to manage one particular area effectively and in a coordinated manner. Therefore, ICZM suggests that all the various interests should be brought together and a single planning document or **Integrated Management Strategy** prepared which sets out how the various pressures and conflicts can be resolved and managed.

The Strategy produced needs to be the outcome of a broadly based consensus for action on the issues that need to be addressed, and in Scotland, such a consensus is being generated for the major firths, through the work of voluntary partnerships or 'Fora'. The Forth Estuary Forum is one such partnership.

#### 1.4 The Forth Integrated Management Strategy

The **Forth Integrated Management Strategy** forms the basis for a new approach to the management of the Forth and will provide a useful reference for all users, planners, managers and developers in deciding how best to balance competing resource demands with environmental needs. It will also aid the development of an integrated programme of social, environmental and economic improvements for future generations.

The Strategy will improve the way that the Forth is managed by:

- promoting integrated management (encouraging bodies to work together and to consider management of the Forth as a whole);
- promoting a new approach to management (that will bring users and regulators together to discuss and resolve issues at a local level).

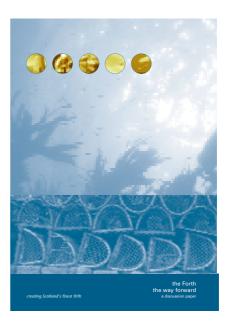
### The Strategy is **not**:

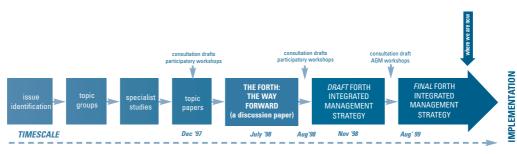
- a statutory document,
- a nature conservation plan
- an economic development plan,
- biased towards any particular interest group.

The greatest strength of the Strategy is the wide range and number of people and organisations who have been involved in its preparation. The Forum began the process of developing the Strategy in 1994. Several organisations have been involved right from the start, but many more have joined the process over time and have contributed to its development. The process has been organic, growing and evolving all the time as the building blocks of contacts, ideas, discussions, information and research have added to the whole.

The process moved forward in incremental steps, each step designed to allow the maximum opportunity for input, comment and debate by Forum partners'. The process and timetable in the development of the Strategy is shown in diagram 1 overleaf. As can be seen, the timetable has been a long one, taking over 5 years from inception to publication. However, given the size and complexity of the Forth and the inclusive nature of the process, it has been realistic, because the Strategy must be supported by all if it is to succeed.

The production of the Forth Integrated Management Strategy combines a wealth of information, data and research, it is a compilation of all previous steps in the process and provides an effective summary of work to date. To publish comprehensive background information on all the topics covered by the Strategy would result in an unwieldy and large document, therefore, to keep the reader focussed on the priorities for the Forth, the format is purposefully simple and concise. The reader is directed to the Forum's previous publications (Topic Reports no's 1 - 10, and 'The Forth: The Way Forward' Discussion Paper) if further background information or justification for particular recommendations is required.





the development process for the Forth Integrated Management Strategy

Diagram 1

### 1.5 The Non-Statutory Approach

All bodies with Statutory Authority for the diverse range of activities undertaken within the Forth are responsible for administering certain laws or bye-laws relating to the control of these activities. In contrast, however, the Forth Integrated Management Strategy is a non-statutory document and, whilst its aim is to consider a new approach to the management of the Forth, the duty and powers of regulating activities remain the responsibility of the statutory bodies. The Strategy does not impose any new duties on any authority, organisation or individual, instead it relies on relevant authorities, organisations and individuals to voluntarily take steps to implement the actions suggested. The Strategy will work through a combination of awareness, partners existing provision, cooperation and commitment to implement the objectives and actions recommended.

Clearly an exhaustive list of all the bodies, laws and guidance which relate to the coast and associated inshore areas is beyond the scope of this concise strategic document. However, it is important to recognise the contribution that these have played as the 'building blocks' behind the Strategy's recommendations. Therefore, throughout the document summaries of the principal relevant bodies, key guidance, and major current initiatives and schemes are included for reference.



the strategy and action plan



# The Forth Estuary Forum's Guiding Principles

Those organisations subscribing to the Forth Estuary Forum and its Strategy are pledged to apply these Guiding Principles in their own sphere of influence.

SUSTAINABLE DEVELOPMENT - A working definition has generally been agreed as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The environment of the Forth Estuary should be of equal or greater value to future generations than to our own.

THE PRECAUTIONARY PRINCIPLE - Prevention or precaution is always better than cure. The impacts of all major new developments and activities should be quantified through an environmental assessment; and where there is a strong case for believing that they will be harmful or detrimental to the environment as protected by statutory development plan policies (if applicable), then there should be a presumption against their approval.

THINK GLOBALLY ACT LOCALLY - The international and national importance of the Forth Estuary should be recognised and understood, be it in terms for example of its international bird populations or important shipping lanes. Local action should be promoted that maintains this importance whilst supporting global environmental issues.

**CONSERVE AND ENHANCE NATURAL RESOURCES** - The natural environment of the Estuary, its coastline, surrounding countryside, wildlife habitats and river systems should be respected, protected and, where possible, improved.

**CONSERVE AND ENHANCE THE BUILT ENVIRONMENT** - The built environment around the Forth Estuary including historic structures, sites, landscapes and wrecks should be respected, protected and, where appropriate, improved.

THE POLLUTER PAYS - Pollution should be prevented whenever possible but, when it does occur, the guiding principle should hold that those responsible for damaging or polluting the environment should bear the cost of preventing further damage and/or putting it right.

**PROMOTE AWARENESS AND UNDERSTANDING** - Environmental education in its true sense - a knowledge and understanding of the resource and its issues in order that we may, as individuals and society, make informed decisions about its future - is critical to the success of the Forum. Only when we are aware of the importance of the Forth Estuary to our community and society may be hope to determine its future wisely.

**INVOLVEMENT OF LOCAL GROUPS AND COMMUNITIES** - About two million people have an interest in the Forth Estuary, by living and working close to it. We would all be the poorer were the quality of the environment of the Estuary be allowed to deteriorate. We need to work together to prevent this happening.

**FREEDOM OF ACCESS TO INFORMATION** - The promotion and provision of information on matters relating to the Forth Estuary is essential if, individually and collectively, we are to gain a good understanding of the resource.

**PROMOTION OF ACCESS TO THE FORTH** - Access to the estuary where appropriate is desirable in order that people may increase their understanding and enjoyment of the resource through experience of its environment.

**PARTNERSHIP** - By working together, an understanding will be gained of the wishes and need of the users and dependants of the Forth Estuary - problems and potential can be identified, and solutions agreed at an early stage.



### 2.1 The Strategy's Framework

The Strategy seeks to address the key issues facing the Forth by basing future use and management on a series of widely supported 'Guidelines' and 'Actions'. The Strategy recommends that these are contained within an integrated framework based upon the Forum's Guiding Principles, a Vision and a series of Objectives; as shown in diagram 2 below.



the framework for the Forth Integrated Management Strategy

Diagram 2

### The Strategy's Vision

To rise to its challenge the Strategy needs to have a 'Vision' which clearly states what the Strategy strives to achieve for the future of the Forth.

During the Strategy's preparation the vision has been:

"through partnership achieve a consensus Strategy for the management of the Forth that identifies measures needed for a 'proper balance' between securing future economic prosperity and maintaining environmental quality".

### The Forum's Guiding Principles

Since its inception in 1993, the Forum has been working to a set of widely supported *Guiding Principles* (presented on the previous page). These are broad statements that are intended to be applied collectively to guide decisions on the use of the estuary and the management of activities. The organisations subscribing to the Forum are pledged to apply these *Guiding Principles* in their own sphere of influence. These Principles will be periodically reviewed and amended as thinking develops and progress is made.

#### **Themes**

To form a truly holistic, integrated and co-ordinated picture of the challenges and opportunities facing the Forth, eleven cross-sectoral and shared interest 'Themes' have been developed and grouped under four main headings. Together these 'Themes' reflect the key areas of work the Strategy will address.

### **Objectives**

For each of the eleven themes an 'Objective' has been proposed. These are specific targets that collectively pursue the Strategy's vision. Each 'Objective' will be achieved through voluntary adherence to agreed guidelines and the undertaking of a series of actions carried out over an agreed period of time.

#### **Guidelines**

Developed in partnership, these are intended to be a series of widely supported and easily understood management statements on which future use and management can be based for specific issues or activities. The Strategy encourages public bodies, voluntary groups, private interests and individuals to adopt and align their own policy with these 'Guidelines' and to use them to guide all their decisions regarding the Forth.

It is intended that the 'Guidelines' will influence the contents of:

- Structure Plans
- Local Plans
- Best Practice Guidance
- Corporate Plans
- Individual Work Plans

### **Actions**

For each Guideline, a number of 'Actions' are also proposed as a practical means of supporting and enhancing the adoption of the Guidelines.

These actions are based upon a mixture of:

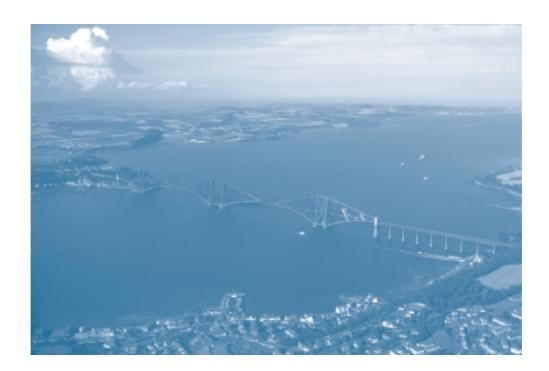
- Prioritising the existing work of individual partners
- Improving the co-ordination of existing work to ensure the whole Forth is covered
- Enhancing existing work to ensure the Forth is included
- Sharing best practice from existing work
- Developing new areas of work for Forum partners
- Developing new areas of work for the Forum's Secretariat

Most of the actions proposed in this Strategy have now been adopted (or owned) by individual partner organisations. Actions implemented in this manner are known as 'Partner led actions'. In this scenario, a single 'lead partner' has been identified for each action and they have agreed to carry out the work required to undertake the action in a defined period of time. The lead partner may draw upon support from others where appropriate, through the formation of 'Partner led Action Groups'. For some actions these groupings of partners will be required regardless, if they are going to be achieved on a Forth-wide scale. (For example the Forth's 7 Local Authorities working together on a Firth-wide issue).

Actions that do not naturally fall to a lead partner, will need to be led and coordinated by the Forum itself. Actions implemented in this manner will be known as 'Forum led actions' and will be developed and pursued as discrete 'Flagship Projects' (See Part Three of the Strategy) or in some cases as part of the Forum's 'Membership Services' (see Part Four of the Strategy).

# Integration

Since the whole purpose of the Strategy is to prioritise action for the Forth in an integrated manner, a system of cross-referencing has been utilised throughout the document to clearly show the links between the different themes and to show how the various guidelines and actions have a direct effect on other interests and activities around the Forth.



### 2.2 Strategic Guidelines and Actions

The Strategy's Guidelines and Actions are presented within 11 'Themes', under four main headings:

### 1 sustainable resource management

### theme 1

management of coastal processes

**Guidelines:** 

- 1 Coastal Planning and Management for
  - Sustainable Development
- 2 Coordinated and Informed Coastal Defence Initiatives
- 3 Global Warming and Sea Level Rise

### theme 2

the promotion of sustainable fisheries management

**Guidelines:** 

- 4 Local Fisheries Management
- 5 The promotion of the Forth's Fishing Industry
- 6 Sustainable Fishing Practices

### theme 3

the promotion of sustainable economic development

**Guidelines:** 

- 7 Developing the Economic Potential of the Forth
- 8 Environmental Sustainability

### theme 4

access to and enjoyment of the Forth

**Guidelines:** 

- **9** Recreation Management
- 10 Access to the Forth
- 11 The Tourism Potential of the Forth

# 2 environmental protection and enhancement

### theme 5

improvement of environmental quality

**Guidelines:** 

- 12 Pollution
- 13 Coastal and Sea-borne Litter

### theme 6

conservation of the Forth's cultural heritage and landscape value

**Guidelines:** 

- 14 Protection of the Forth's Landscape Character
- 15 Local Distinctiveness
- 16 The Preservation and Protection of the coastal heritage
- 17 The Preservation and Protection of the submerged heritage

### theme 7

maintenance of biodiversity

**Guidelines:** 

- 18 Protection of Intertidal Habitat
- 19 Protection of Marine and Coastal Habitats and Species
- 20 Sustainable Management of Protected Sites

# 3 integrated management

### theme 8

strategic planning

**Guidelines:** 21 - Forth Strategic Planning

22 - Water Catchment Management23 - The Statutory Framework

### theme 9

liaison and partnership working

**Guidelines:** 24 - Working relationships and improved communication

25 - The Voluntary Approach

26 - Informed management procedures

27 - Best practice adoption

### theme 10

co-ordinated research and information provision **Guidelines:** 28 - Inventories and databases

29 - Common standards and information sharing agreements

30 - Coordinated research efforts

# 4 education and personal responsibility

### theme 11

changing attitudes and individual behaviour

**Guidelines:** 

- 31 The Forth's image
- 32 Raising awareness and understanding
- 33 The role of Education
- 34 Local responsibility and accountability35 Community consultation and participation



sustainable resource management

### management of coastal processes

There is widespread misunderstanding about coastal defence matters. At present there is little formal liaison between authorities and landowners with coast protection responsibilities within the Forth and hence coastal defence initiatives tend to be developed in isolation, at a local scale, without the benefits of shared expertise, experience, or indeed funding. This can lead to problems at a wider scale or in the longer term when inappropriate coastal defence works exacerbate erosion beyond the site of immediate concern.

Scientists indicate an increase of 1 - 3.5°C in global mean surface temperatures by the year 2100. This could lead to a sea level rise in the Forth of between 5 - 50cm and the risk of increased storm events and resulting coastal erosion. The potential implications of this change are: increased flooding due to sea level rise and greater river discharge; increased erosion and/or drowning of coastal and inter-tidal habitats; and changes to coastal erosion patterns.

Prudent location of new development away from shorelines susceptible to coastal erosion or flooding will help safeguard such developments as well as minimise future requirements for new coastal defences. If future development is to be guided away from the coastal areas prone to erosion or flooding it is self-evident that such areas need to be identified. Such information would be crucial for the design of appropriate coastal defences and defence strategies for coastal areas which are already developed.

#### Principal Relevant Bodies: (see appendix 3 for further detail)

Forth Ports PLC Historic Scotland Local Authorities Ministry of Defence Private Landowners /Managers of coastal properties Railtrack RSPR

Scottish Executive Rural Affairs Department (SERAD) Scottish Natural Heritage SEPA

The Crown Estate

### Key Guidance:

NPPG 7 Planning & Flooding. Scottish Office. NPPG 13 Coastal Planning. Scottish Office. Scotland's Coasts - A Discussion

Paper. The Scottish Office, 1996.
Environmentally Sympathetic
Approaches to Managing Coastal
Erosion in Scotland. Scottish
Natural Heritage, (due Autumn 1999).
Shoreline Management Plans.
MAFF, 1995.
Coastal Defence and the

Coastal Defence and the Environment. MAFF, 1993. Environment Committee, 2nd Report. Coastal Zone Protection and Planning. House of Commons, 1992. Coastal Cells in Scotland: Cell 1 - St. Abbs to Fife Ness. HR Wallingford. Unpub. report to SNH, SOAEFD and Historic Scotland (due for publication summer/autumn 1999).

### Major Initiatives and Schemes:

5 year programme of defence schemes at East and West Wemyss and Dysart planned. Fife Council. Proposed work within 5 years to improve the sea defence wall between Newhaven - Granton as part of the Edinburgh Waterfront scheme. Edinburgh City Council. Comprehensive survey of the East Lothian Coastline. East Lothian Council.

Shoreline Management Plan for Fife. Fife Council 1998.

#### **ACTION 1.1** Form a Coastal Defence Liaison Group to encourage co-operation

between all those responsible for defence funding and construction Timescale: short-term Recommended Lead Partner:

FEF (Membership Services)

#### **ACTION 1.2**

Prepare a Forth-wide Shoreline Management Plan, for the coastline not yet covered, which incorporates statutory guidance and covers coastal defence, landuse planning and development. Recommended Lead Partner: Relevant Forth Local

### **ACTION 1.3**

Disseminate best practice and experience from work already undertaken on Shoreline Management Plans.

Recommended Lead Partner: FEF (Membership Services)

# М

#### **GUIDELINE 1**

### Coastal Planning and Management for Sustainable Development

M

All bodies responsible for development control and land use planning in the Forth should:

**Authorities** 

- · encourage new development, for which a coastal location is not essential, to be directed away from the shoreline
- discourage new development on the coast where existing coastal defences, properly maintained, would not provide an acceptable standard of safety over the lifetime of the development
- discourage development of unprotected shorelines where such development could not be adequately safeguarded over the lifetime of the development without the construction of coastal defences discourage development which will interfere with natural coastal processes of sediment supply or movement.

### **GUIDELINE 2** co-ordinated and Informed **Coastal Defence Initiatives**

Partners should ensure that proposals for all new coastal developments, including those for coastal defences, should be made in the light of a knowledge and understanding of their effects upon natural processes and coastal habitats.

### **OBJECTIVE**

To allow the natural coastal processes of sediment erosion, transport and deposition to function unimpeded by human intervention and, where this is not viable, to ensure that proposals for new developments or activities in the Forth are made in the light of a full understanding of their potential effects upon these processes

### **GUIDELINE 3 Global Warming and Sea Level Rise**

Those responsible for coastal defence matters in the Forth should design and prepare appropriate management strategies and responses for areas identified as at risk from flooding or erosion under predicted changes in climate and sea level

### **ACTION 2.1**

Produce a comprehensive Forth inventory of coastal protection works, their condition. effectiveness and impact Forthwide.

Recommended Lead Partner: FEF (Membership Services)

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### **ACTION 3.1**

Raise awareness regarding the potential effects of global warming and sea level rise on the Forth.

**Recommended Lead Partner:** FEF (Flagship Project 1)

### **ACTION 2.2**

Publish guidance on coastal processes and coastal cell locations.

Recommended Lead Partner: Scottish Natural Heritage

### **ACTION 3.2**

S

S

Identify areas at risk of flooding or erosion in the Forth, under current predictions of sea level and climate change

Recommended Lead Partner: SNH

Assess the potential viability of

Recommended Lead Partner:

# **ACTION 3.3**

managed retreat and other soft engineering techniques as defence options and a means of enhancing biodiversity for the



**ACTION 2.3** 

protection works. Recommended Lead Partner: SERAD

### **ACTION 2.4**

Collate guidance on Cost Benefit Analysis for Coastal Defence applications and disseminate to appropriate authorities. Recommended Lead Partner:

**RSPB** 

**ACTION 2.5** 

Review the appropriateness of the present limits of the Coast Protection Act in the Forth. Recommended Lead Partner: **SERAD** 

S

WHAT SUPPORT COULD THE FORUM PROVIDE?

Development and dissemination of best practice and guidance

Forth GIS development Facilitation of data license and copyright agreements between partners Awareness raising through Forum products and events (Flagship project 1) Use of relevant Forth Data and Information (Flagship Project 2) = ownership agreed

S = short-term (within 2 years)

= long-term (within 10 years)

= medium-term (within 5 years)

Administrative support to joint working groups Provision of an overview of progress and results

Integrated action: see also themes 3, 5, 6, 7, 8, 9, 10, 11

### the promotion of sustainable fisheries management

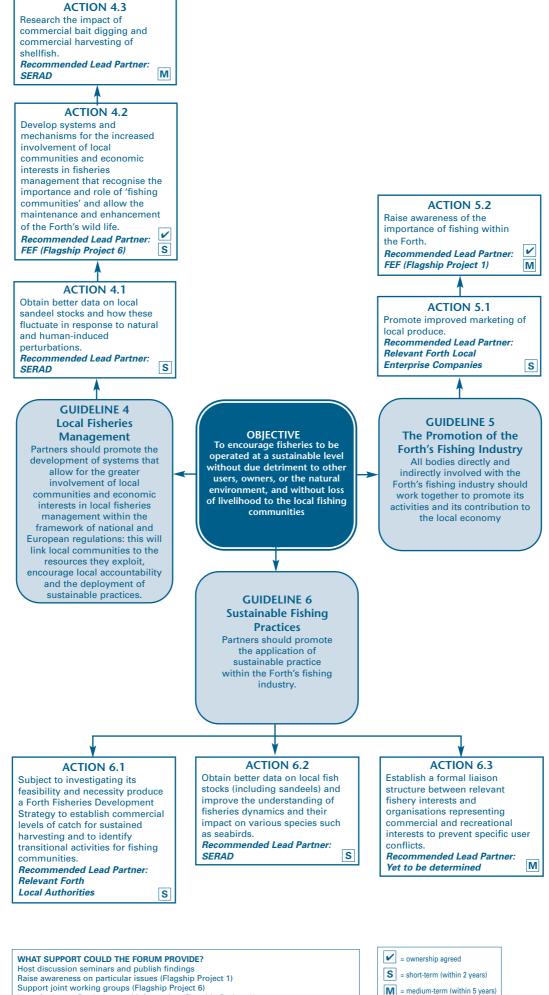
The fishery industry of the Forth is in steady decline. There is little active local support to stabilise the industry at a size and mix of activity commensurate with local biological and human resource capacities. The prevailing fishery management regime, though ostensibly neutral to the activities of small fishery communities, actually discriminates against such interests. If current conditions prevail, there is little to stop the further and rapid decline in the fortunes of this long standing industry.

Reversing current trends requires a two-fold approach involving greater local awareness of the fishery industry and its importance to the area, and greater local control over the way that the fishery is managed. Outside of the fishing industry, few people living or working within the area of the Firth of Forth have any realistic comprehension of the role or nature of the fishery industry of the Forth, and poor public knowledge of the local fishery industry leads to the perpetuation of many misconceptions about the industry, its practises and its products.

Sustainable fisheries management requires the establishment of a scale of fishing activity that provides acceptable economic returns to those who invest and participate in the sector. This must be based on the harvesting of available resources at levels that do not compromise the underlying ecology of the Forth, or unduly restrict the reasonable activities of other resource users.

A fundamental premise of sustainable fishing is that harvesting should be done in such a way as to maximise the quality and value of the organism/product, with the minimum of resource waste. In pursuit of this, systems of incentive should be established to encourage fishermen, community members and consumers to uphold responsible exploitation of living marine resources. This should be recognised as not just a question of money, but rather a moral perspective about the way man treats his environment.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Anglo-Scottish Fish Producers' Organisation Eyemouth Fishermen's Mutual Association Fife Council Fife Fish Producers' Organisation Fishermen's Mutual Association (Pittenweem) North East Fishermen's Group Training Association Port Seton and Cockenzie Fishermen's Association Scottish Executive Fisheries Department	North Sea Fisheries and the Environment. MAFF/DETR/SO (1998). The Future of the Market for Fisheries Products in the European Union. European Commission Communication to the Council and European Parliament 16/12/97. NPPG 13 Coastal Planning - Scottish Office. Responsibility, Partnership and Competitiveness in the East Neuk Fishing Industry. Fife Fisheries Development Group Discussion paper 20/2/98. Tayside/Fife PESCA Programme 1994 - 1999.	Marketing review (supported by Fife Enterprise and PESCA-FIFG). FMA (P) Investigation of potential for local Regulating Order. Fife Fisheries Development Group. Fife Fishermen's Training. FFDG/Fife Council/NEFGTA. UK Fishing Co-ops Marketing Strategy (including FMA (P) and FFPO).



Raise awareness on particular issues (Flagship Project 1) Support joint working groups (Flagship Project 6) Use of relevant Forth data and information (Flagship Project 2) Co-ordinate research efforts

L = long-term (within 10 years)

### the promotion of sustainable economic development

The Forth is a complex and continually changing regional economy which remains an important international trading community. There have been changes in economic, enterprise and community structures over the last century, which have implications for future economic sustainability, and it is clear that the region is now closely integrated into the global economy.

The Forth's economy has been shaped by six broad sectors: shipping, petrochemicals, fishing, energy and utilities, transportation, and tourism and leisure; other industries such as agriculture, construction, retail, finance, electronics and manufacturing have important indirect effects.

There are a range of internal and external challenges to the Forth's future economic sustainability including a limited local natural resource base, a lack of a region-wide planning framework, (outwith the structure and local plans of the seven local authorities), a relatively small base of local leader companies, continuing market globalisation, and stronger competition from other UK and EU regions. The region fortunately has a unique economic development potential through its location and market accessibility; a diverse enterprise base; strong science and technology institutions; a high quality of natural and built landscapes; a strong economic development infrastructure; and international recognition as a major tourism centre and natural environment.

A number of inter-related economic sustainability objectives for the Forth region have been suggested which the Forum could support. These include the progressive efficiency in resource use; the generation of new entrepreneurs and enterprises; the adoption of appropriate new technologies; and the development and incorporation of new sustainability skills. These, with other policy and management innovations, will promote both economic and environmental sustainability in a unique way.

The Forum wishes to help the Forth region evolve a genuinely sustainable economy: where business can achieve and maintain market competitiveness in an environmentally responsible way; which maximises the balanced use of local skills, capital, technology and natural resources; and where the economic, social and community needs of future generations can be satisfied whilst safeguarding the region's environmental quality. To support the Forum's Management Strategy, a portfolio of economic development projects and initiatives have been recommended within a Forth Economic Appraisal Study. These recommendations support existing stakeholder priorities and plans; are Forth-wide; and encourage wide local involvement. The Forum's Strategy intends to take these recommendations forward as a Flagship Project (see page 58).

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Babcock Rosyth International BP Chemicals Ltd Eastern Scotland European Partnership Esso Chemicals Ltd Forth Ports PLC Local Authorities Local Enterprise Companies Scottish Enterprise National Scottish Executive Development Department (SEDD) Scottish Executive Enterprise and Lifelong Learning Department (SEELLD) SEPA	NPPG 2 Business & Industry. Scottish Office 1993. NPPG 4 Land for Mineral Working. Scottish Office 1994. PAN 33 Development of Contaminated Land Scottish Office 1988. Regional Structure Plans for Borders, Lothian, Fife and Central Regions. Local Authorities. Sustainable Development: Opportunities for Change. DETR 1998.	An Economic Appraisal of the Forth Estuary and the Firth of Forth. Forth Estuary Forum 1997.

#### **ACTION 7.2**

Develop, prioritise and implement the key strategic and operational recommendations arising from the Forth Economic Appraisal Study

Recommended Lead Partner:

Forth Ports PLC (Flagship Project 5)

# S

### **ACTION 7.1**

Subject to feasibility and need, maintain a Forth Sustainable **Economic Development Group** including representatives from industry, commerce, local authorities, agencies and enterprise companies, to encourage and support private sector activities and to oversee the implementation of the recommendations arising from the Forth Economic Appraisal

Recommended Lead Partner:

Forth Ports PLC (Flagship Project 5)



S

S

### **GUIDELINE 7**

### **Developing the Economic** Potential of the Forth

The Forth's economic potential should be encouraged through promotion of local indigenous, innovative approaches and by continuously improving environmental standards that support sustainable development.

### **ACTION 7.3**

Raise awareness of the role of public bodies and statutory organisations when developing economic and environmental initiatives.

Recommended Lead Partner: CBI

### **ACTION 7.4**

Issue guidance to all Forth businesses on economic development indicators and instruments that measure and promote sustainable economic progress and exploitation of the Forth's potential.

Recommended Lead Partner: Forth Local Enterprise Companies

#### **OBJECTIVE**

To promote the Forth as an area for sustainable economic development opportunities and a high quality of life

### **GUIDFLINE 8 Environmental Sustainability**

Partners should ensure that all new developments include an assessment of any impacts Forthwide including the cumulative and locational effect of any future developments and their sustainable accessibility.

### **ACTION 8.1**

Ensure guidance on best practice for Environmental Assessment scoping and preparation is disseminated to all bodies around the Forth.

Recommended Lead Partner: SERAD

### **ACTION 8.2**

Prepare a statement of Natural Heritage interest in the Forth to quide the scoping of Environmental Statements and to help potential developers identify issues they need to consider.

Recommended Lead Partner: Scottish Natural Heritage

# S

S

#### WHAT SUPPORT COULD THE FORUM PROVIDE?

Provide vehicle for access to funding opportunities Development and dissemination of best practice and guidance Host discussion seminars and publish findings Support joint working groups

Support development of Forth indicators (Flagship project 3)

= ownership agreed



S = short-term (within 2 years) **M** = medium-term (within 5 years)



### access to and enjoyment of the Forth

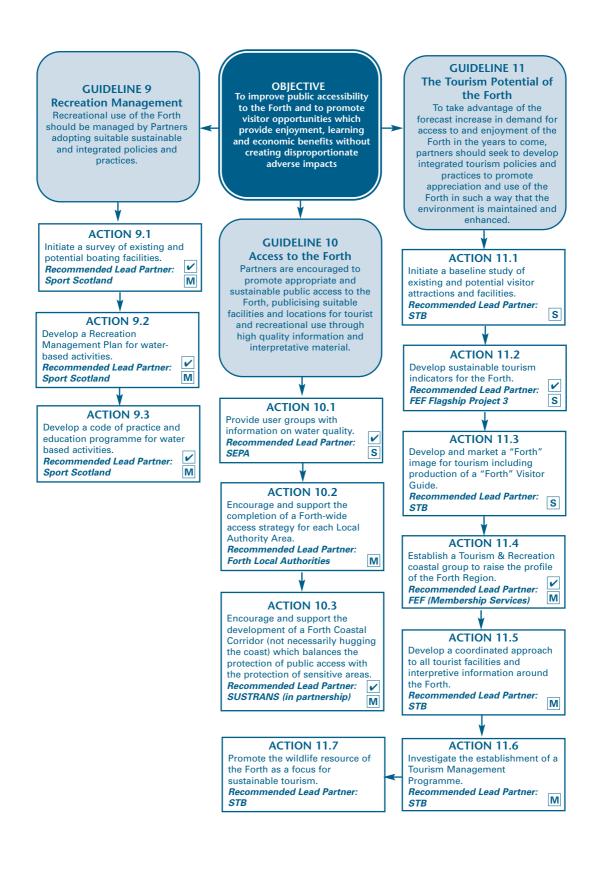
Although tourism and recreation activities on the Forth may have some environmental impact, greater degradation is created by other activities. Moreover, most environmental damage is related not to volumes of visitors but to inappropriate location of facilities and inadequate policies and practices to cope with the growth in visitor numbers expected over the coming years.

There is a need for a more strategic and coordinated approach to tourism and recreation that considers issues in a Forth-wide and integrated manner. Moreover, planning and management processes must be put in place to monitor incremental changes and impacts related to visitor use. Only if this information is collated for the whole area can it assist in developing appropriate responses and sustainable management strategies.

Whilst some stretches of the Forth coastline should be left relatively inaccessible to tourists and recreationalists due to the sensitive nature conservation interests they support, there is scope for developing appropriate access provision in less vulnerable areas to bring economic, health and social benefits in addition to a heightened identity and improved Forth usage.

There is currently no coordinated network that links walkways and cycleways between different Local Authority areas. In addition, there is minimal information available to the public regarding the value of the Forth, its history, wildlife and recreation potential, and, although there are numerous individual visitor and user attractions, the Forth is not viewed as an important tourist attraction in its own right.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Access Forum (Inland Water) British Waterways Historic Scotland Local Authorities Local Enterprise Companies Private Sector RSPB Scottish Natural Heritage Scottish Rights of Way Society Scottish Sports Council Scottish Tourist Board SEPA Spokes Sustrans	NPPG 11 Sport, Physical Recreation & Open Space. Scottish Office. NPPG 13 Coastal Planning. Scottish Office. NPPG 17 Transport & Planning. Scottish Office. Calmer Waters. Scottish Sports Council. Policy Guidelines for the Coast. DoE. Recreation on the Living Coast. RYA. Leisure Matters. The Association of Directors of Recreation, Leisure and Tourism. PAN 43 Golf Courses and Associated Developments. Scottish Office. Enjoying the Outdoors: a Program for Action. Scottish Natural Heritage, 1994.	Edinburgh Waterfront Scheme. City of Edinburgh Council. Scottish Seabird Centre, North Berwick. Private/Public funds. Sustainable Paths Network. East Lothian Council. Fife Coastal Footpath. Fife Council. Kingdom of Fife Cycle Network. Fife Council. Feasibility Study for NorTrail (ongoing). Local Authorities. Paths for All Partnership. National Cycle Network. Sustrans leapartnership



### WHAT SUPPORT COULD THE FORUM PROVIDE?

Development and dissemination of best practice and guidance Administrative support to joint working groups Provide an overview of progress on Forum's website Awareness raising through Forum products and events (Flagship Project 1) Use of relevant Forth data and information (Flagship Project 2) Focus for joint funding applications

S = short-term (within 2 years)

M = medium-term (within 5 years)

L = long-term (within 10 years)

= ownership agreed



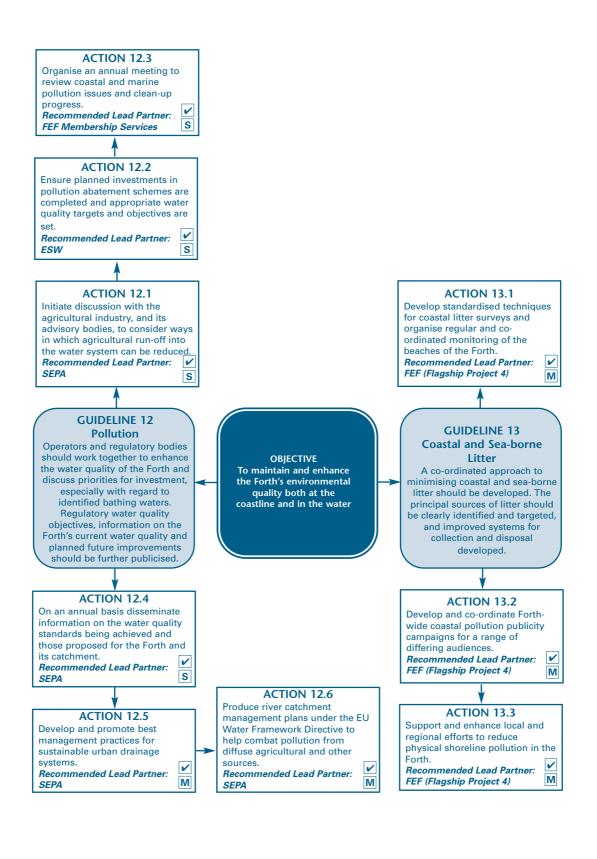
environmental protection and enhancement

### improvement of environmental quality

Several types of discharge impact upon the Forth's environment, including point sources from industrial and municipal discharges, ship waste, and diffuse sources such as discharges from agricultural activity and urban runoff from roads and industrial estates. Whereas point source pollution is easier to control and no longer the main problem, diffuse pollution is more difficult to control and prevent and has seen a relative increase in relation to the former. The problem of litter is also increasing, in particular the abundance of plastics in the water and on the shorelines.

Despite continued improvements in water quality through improvements in waste water treatment works and reductions in waste effluent concentrations, public perception remains, reinforced by media interest, that the Forth is grossly polluted.

Principal Relevant Bodies: (see appendix 3 for further detail) Key Guidance: Major Initiatives and Schemes: East of Scotland Water (ESW) Code of Practice on Litter and Watermark Initiative. ESW. Refuse. Scottish Office, 1991. Waste Reception Facilities in UK Forth Ports PLC Think Before You Flush Campaign. **Local Authorities** Ports. DoT, 1995. NPPG 10 Planning and Waste MAFF CoastWatch. Fife Council. Scottish Natural Heritage Scottish Executive Rural Affairs Management. Scottish Office. Department SEPA



### WHAT SUPPORT COULD THE FORUM PROVIDE?

Development and dissemination of best practice and guidance

Administrative support to joint working groups

Overview of progress on Forum's website

Awareness raising through Forum products and events (Flagship Project 1)

Use of relevant Forth data and information (Flagship Project 2)

Facilitation of data licence and copyright agreements between partners Use of Forth GIS

Forth-wide project development (Flagship Project 4)

Support implementation of Water Framework Directive

= ownership agreed

S = short-term (within 2 years)

| medium-term (within 5 years)

L = long-term (within 10 years)

### conservation of the Forth's cultural heritage and landscape value

The Firth of Forth's distinctive and unique landscape character is subject to a wide range of developmental pressures and man's various activities. Land claim, waste disposal, mineral developments, agricultural practices, transport infrastructure, tourism and recreation all have the potential to impact in some way. Protection of landscapes is subject to the different development plan policies that operate in the area, however, there is little coordination between plans, and landscape is not seen in the context of the whole Forth area. While clearly individual character differs from one part of the Forth to another, there needs to be particular recognition of shared common qualities and the need to monitor or regulate undesirable change.

The Forth's cultural heritage reflects a long and complex pattern of settlement and communication. Its value and importance is considerable, it is irreplaceable, and provides the region with a rich history that helps give Scotland its unique character. Although it is usually hard to assess the contributions of individual heritage sites, buildings and museums, the cultural heritage resource does provide a major economic benefit through its contribution to quality of life and to attracting tourists.

Timely consideration of the cultural heritage resource in all decision making processes is important. If the cultural heritage is dealt with fully in strategic and local development control plans, and if its value and vulnerability is taken into account in proposals for individual developments, costly or inadequate mitigation can be avoided. Informed judgements, based on sound accepted criteria, need to be made on what should be preserved in the face of threats from natural forces and development, and on what should be promoted for people's education and enjoyment.

Little statutory protection has been given to underwater archaeological sites, even though some sites may be of equivalent, and sometimes-greater value than those on land. Whilst voluntary codes of practice are welcome, the lack of statutory protection is of great concern given the unique importance of the Forth's underwater archaeological resources.

A proper information base is crucial to sustaining long-term protection of the Forth's cultural heritage. Archaeological sites are constantly being discovered and, despite rapid recent progress, the inventory of dry land, intertidal and submerged sites is incomplete.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Council for Scottish Archaeology Local Enterprise Companies Forestry Commission Historic Scotland Local Authorities Private Landowners Royal Commission on Ancient and Historic Monuments for Scottland Scottish Executive Rural Affairs Department Scottish Institute of Maritime Studies Scottish Natural Heritage Garden History Society Farming and Wildlife Advisory Group Central Scotland Countryside Trust Edinburgh Green Belt Trust Association for the Preservation of Rural Scotland	NPPG2 Business and Industry. NPPG 3 Land for Housing.NPPG 4 Land for Mineral Working.NPPG 5 Archaeology and Planning. NPPG 10 Planning and Waste Management. NPPG 13 Coastal Planning.NPPG 14 Natural Heritage. NPPG 15 Rural Development. NPPG 16 Open Cast and Related Minerals. NPPG 17 Transport and Planning. PAN 36 Siting and Design of New Housing in the Countryside. PAN 42 Archaeology - the Planning Process and Scheduled Monument Procedures. Memorandum of Guidance on Listed Buildings and Conservation Areas. Historic Scotland, 1998. The Lothians Landscape Character Assessment. SNH, 1998. Fife Landscape Character Assessment. SNH, 1999. Stirling to Grangemouth Landscape Character Assessment. SNH, 1999. Guidelines for Landscape and Visual Impact Assessment. Spons, 1995.	National Monuments Record of Scotland extended out to 12 miles territorial water limit. RCAHMS. Defence of Britain survey. Council for Scotlish Archaeology. Burgh surveys. Historic Scotland. Maritime Fife survey. Scotlish Institute of Maritime Studies/Histori Scotland. Sesurvey of Listed Buildings. Historic Scotland. Shorewatch. Fife Council. Woodland Grant Scheme. Forestry Commission. Woodland Creation. Central Scotland Countryside Trust. Listing of candidate sites for The Inventory of Gardens and Designed Landscapes in Scotland. Coastal Zone Assessment Surveys. Historic Scotland.

### **ACTION 15.1**

Raise the profile and awareness of the landscape sensitivities of the Forth and the limited capacity of some character areas to accommodate further major developments without fundamental alterations Recommended Lead Partner: M SNH



# **GUIDELINE 15 Local Distinctiveness**

The value and vulnerability of both locally distinctive and Forth wide landscapes should be highlighted and taken into account when considering land use, management changes and development proposals.

## **ACTION 16.1**

Encourage the preparation of an integrated reporting and recording management strategy which includes emergency plans for the handling of significant finds.

Recommended Lead Partner: Historic Scotland

S

S

# **ACTION 14.1**

Produce guidance concerning landscape assessment, designations and planning policies to encourage a consistency of approach. Recommended Lead Partner: SNH



# **GUIDELINE 14**

Protection of the Forth's **Landscape Character** 

Partner organisations should develop and apply integrated and consistent landscape policies to conserve and enhance the character of the Firth of Forth area.

# **OBJECTIVE**

To ensure that the unique and varied cultural heritage resource of the Forth, both on land and underwater, is identified, fully appreciated, sustained and where possible enhanced

# **GUIDELINE 16** The Preservation and **Protection of the Coastal** Heritage

Partners should maintain a consistent and co-ordinated approach to the conservation of historic buildings and archaeological sites on the coast, protecting sites from damage by development and inappropriate uses. Where damage to sites is unavoidable and permitted, full provision for archaeological excavation and recording should be made.

### **ACTION 14.2**

Develop an information base for Woodland around the Forth. ~ Recommended Lead Partner: SNH M

**ACTION 14.3** 

Develop an information base

covering Historical Landscape

Recommended Lead Partner:

around the Forth.

Historic Scotland



Any seabed developments should be fully assessed for their impact on the submerged heritage resource before proceeding. Consideration should be given to affording underwater sites with equivalent protection to those on land.

## **ACTION 16.2**

Promote awareness of existing sources of advice and information on the historic environment and sources of financial assistance for its conservation.

**Recommended Lead Partner:** Historic Scotland

# **ACTION 16.3**

Develop a method for comparing cultural heritage site with those

Historic Scotland

**ACTION 17.1** Develop a complete and up-tothe benefits of preserving a date inventory of the cultural heritage resource of the Forth. of protecting more readily Recommended Lead Partner: quantifiable economic assets. M **Recommended Lead Partner:** 



Develop an information base to gain a better understanding of the pattern of landownership around the Forth.

Recommended Lead Partner: FEF (Flagship Project 2)

# **ACTION 17.2**

Historic Scotland

Create educational resources which increase awareness of the Forth's historical and archaeological resources and the effects of day to day activities **Recommended Lead Partner:** FEF (Flagship Project 1) M

# WHAT SUPPORT COULD THE FORUM PROVIDE?

Awareness raising through Forum products and events (Flagship Project 1) Use of relevant Forth data and information (Flagship Project 2) Use of Forth GIS Framework

M

M

Facilitation of data licence and copyright agreements between partners



= ownership agreed

S = short-term (within 2 years) = medium-term (within 5 years)

= long-term (within 10 years)

# theme 7

# maintenance of biodiversity

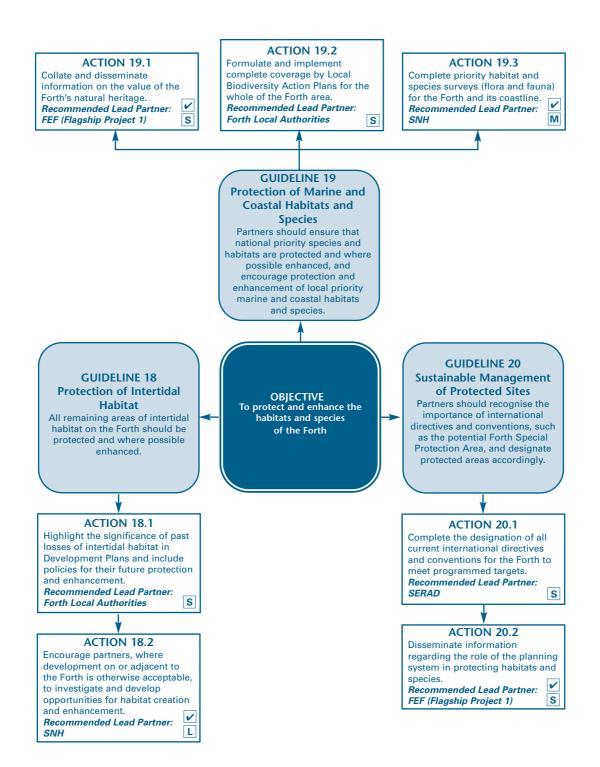
The Forth is one of Britain's most outstanding estuaries for wildlife, containing a great diversity of habitats and species. Rocky islands and cliffs support important breeding bird numbers in summer, whilst the large areas of intertidal mudflats provide rich feeding for thousands of wildfowl and waders in winter. Indeed, the international importance of the Forth for birds has led to its qualification as a potential Special Protection Area, under European legislation. Other important habitats include saltmarshes, reedbeds and brackish lagoons (all of which are uncommon in Scotland), as well as sand dunes and flats. Apart from the great bird numbers, a wide range of fish, invertebrates and mammals inhabit the Forth coast and waters. Much of the Forth's coast is protected under UK law as SSSI.

Given that the Forth is also one of Scotland's most heavily populated and developed estuaries, it is impressive that so much wildlife continues to thrive in the area. However, there have been significant losses. Indeed 50% of the intertidal area upstream of Queensferry has been lost through landclaim for agriculture and development since 1800, leading to habitat loss and a great reduction in the area available for bird feeding. A further threat exists where sea defence walls prevent the natural inland migration of habitats as sea level begins to rise. The remaining areas of intertidal habitat are therefore a precious resource which should be strictly protected from further loss, and opportunities to restore lost habitats should also be investigated.

Good data on habitats and species, such as their distribution and status, help land managers to make decisions which ensure effective wildlife conservation. In the Forth, there are known gaps in information on coastal and marine flora and fauna which can hinder such planning. Prioritised surveys, together with good information dissemination and full and coordinated coverage by local Biodiversity Action Plans will all aid understanding of the nature conservation resource and its requirements.

When fully designated, the European Site in the Forth should lead to more effective protection of the international interests in the estuary. However, this will require all partners to be aware of their responsibilities under the Birds/Habitats Directive, and to ensure that they take appropriate steps to comply.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Biological Records Centres ESW FWAG Local Authorities RSPB Scottish Executive Scottish Landowners' Federation National Farmer's Union Scotland Scottish Natural Heritage Scottish Wildlife Trust SEPA The Crown Estate	NPPG 14 Natural Heritage. Scottish Office. Biodiversity - The UK Action Plan. HMSO, 1994. The Habitats Directive - How it Will Apply in Great Britain. DoE, 1995. Local Biodiversity Action Plans - a Manual and Guidance Notes. Scottish Office 1999. PAN Planning for Scotland's Natural Heritage - a Guide to Good Practice. Scottish Executive (due late 1999).	Local Biodiversity Action Plans. Partnerships led by Local Authoritie pSPA in the Forth. Scottish Natural Heritage/Scottish Office.



# WHAT SUPPORT COULD THE FORUM PROVIDE?

Support of joint working groups

Awareness raising through Forum products and events (Flagship Project 1) Use of relevant Forth data and information (Flagship Project 2)

Development and dissemination of best practice and guidance Support management of Forth SPA

Provide vehicle for access to funding opportunities

= ownership agreed

S = short-term (within 2 years)

M = medium-term (within 5 years)

| = long-term (within 10 years)



integrated management

# theme 8

# strategic planning

It is important that the Development Plans of the Forth's seven Local Authorities reflect the special quality of the area whilst encouraging development in the most appropriate place and at the most appropriate time.

Unfortunately, there is currently no overall planning framework for the Forth, and thus it is difficult to ensure that local resources are used efficiently; duplicative investments and initiatives are avoided; opportunities to secure scale economies through combined efforts are maximised; and the basis is established for integrated transport planning and management.

To take advantage of the potential to develop the economy and improve social and environmental conditions in a sustainable manner, it is therefore necessary to consider the Forth in an estuary-wide context. To achieve this it will be necessary for regulatory authorities to work together to develop a framework for strategic planning which will enable a greater mutual understanding and integration of the economic, physical, environmental and community development objectives and activities throughout the area.

The basis for a Forth-wide planning framework already exists through the three regional Structure Plans covering the Forth, together with the strategic plans of the major region-wide organisations such as East of Scotland Water, the Scottish Environment Protection Agency, the Scottish Office, and the Local Enterprise Companies: this would be augmented by the new structural plans to be produced by the Forth Local Authorities and existing guidance for the coast.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
ESW Scottish Executive Local Authorities Historic Scotland Scottish Enterprise Scottish Executive Development Department (SEDD) SEPA Scottish Homes SNH Scottish Tourist Board	National Planning Policy Guidelines (NPPGs) 1 - 18. Policy guidance for planning in Scotland. Scottish Office. Planning Advice Notes 33 - 57. Advice on good planning practice in Scotland. Scottish Office. Statutory Structure Plans and Local Plans. Local Authorities. Non-Statutory guidance prepared by Local Authorities. Land Use Planning Under a Scottish Parliament - Consultation Paper. The Scottish Office 1999.	

#### **ACTION 21.1** Consider the feasibility and if appropriate establish a Forth Strategic Planning Group to allow greater mutual understanding between local authorities and enterprise companies, and to integrate the economic, physical, environmental and community development objectives and activities of the area. Recommended Lead Partner: M SEDD **GUIDELINE 21** Forth Strategic Planning **ACTION 23.1** Partner organisations should Publish information explaining **ACTION 22.1** develop policies which reflect a the relationship between the more integrated and holistic statutory planning process and Identify key issues that could be approach to coastal planning the coastal zone, to improve addressed by the application of awareness and understanding and management. integrated catchment and assist implementation. management. Recommended Lead Partner: Recommended Lead Partner: S FEF (Flagship Project 1) М SEPA **GUIDELINE 23 GUIDELINE 22** The Statutory Framework The Guiding Principles and **Water Catchment OBJECTIVE** Strategic Guidelines of the To ensure that planning Management Forum should be incorporated policies concerning the Forth Partners should promote the into the plans and policies of are up-to-date, informed, principles of integrated Local Authorities, Government holistic and integrated catchment management in Departments, Statutory order to improve water quality Agencies and other relevant and quantity throughout the Partners to provide a basis for Forth catchment. action and to provide a measure by which their effectiveness may be monitored and assessed. **ACTION 22.2** Prepare a Forth Water Resources Strategy for the Forth's **ACTION 23.2** catchment to enable user groups Periodically develop, refine and to better understand and manage update the Forum's Strategic water use, improve water quality Guidelines as situations change and progress sustainable water and new issues arise. **Recommended Lead Partner:** use. Recommended Lead Partner: FEF (Membership Services) M SEPA **ACTION 23.3 ACTION 22.3** Incorporate appropriate policies Investigate the implications of the into Development Plans that Water Framework Directive on reflect the Guiding Principles and planning and management in the Strategic Guidelines of the Forth

# WHAT SUPPORT COULD THE FORUM PROVIDE?

**Recommended Lead Partner:** 

Co-ordinate input to Water Framework Directive Support and co-ordination for joint working groups Overview of progress on website

Development and dissemination of information and publishing of best practice

= ownership agreed

Estuary Forum.

**Recommended Lead Partner:** 

Forth Local Authorities

M

M = medium-term (within 5 years)

S = short-term (within 2 years)

= long-term (within 10 years)

# theme 9

# liaison and partnership working

Sustainable development and management within a natural and cultural system as complex as the Forth, depends upon good understanding and communication between all those whose decisions and actions affect it. Bodies such as the Forth Estuary Forum provide an ideal framework for liaison and partnership working both at a management and policy level. There is a need to further develop the role of the Forum to increase information dissemination and to maintain a co-ordinated overview of how different interests relate to one another with respect to the Firth.

New approaches to coastal zone management are emerging at local, national, European and global events. Much best practice and strategic guidance has been and will be developed elsewhere which can assist in the implementation of the Forth's Strategy. There will be further changes resulting from the Scottish Coastal Forum, the new Scottish Parliament and changes at the European level which also must be considered.

The Forth Estuary Forum will be more effective if it takes advantage of appropriate relevant best practice and strategic guidance developed elsewhere, however, all imported ideas must be adapted and targeted to particular local circumstances. At the national level, the Forum could develop an exchange of views and experience to influence the Scottish Coastal Forum, the Scottish Parliament and emerging European thinking on ICZM.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Bodies or organisations that are Members of the Forth Estuary Forum, support the Forum's guiding principles, or have been identified as lead bodies to forward actions.	Estuary Management Plans - A Co- ordinator's Guide. English Nature, 1993. Review of Scottish Coastal Issues. Central Research Unit, 1994. Scotland's Coasts - A Discussion Paper. The Scottish Office, 1996. Action on the Coast, Local Agenda 21 Roundtable Guidance. LGMB. Coastal Zone Management: Towards Best Practice. DoE, 1996. Better Management of Coastal Resources, A European Programme for Integrated Coastal Zone Management. European Commission, 1997. Towards a European Integrated Coastal Zone Management (ICZM) Strategy. European Commission, 1999.	Focus on Firths. Scottish Natural Heritage, 1993. Scottish Coastal Forum. Partnership administered by Scottish Executive Rural Affairs Department 1999.

#### Establish a mechanism to allow open debate and resolution of Forth key issues. Recommended Lead Partner: S FEF (Membership Services) **GUIDELINE 24 Working Relationships and Improved Communication** Partner organisations are encouraged to establish and maintain working relationships **ACTION 25.1** and effective communication Develop the Forth Estuary Forum links with all regulatory as a permanent sharedauthorities, landowners and ownership partnership. users with an interest in the Recommended Lead Partner: Forth. S FEF (Membership Services) **GUIDELINE 25 GUIDELINE 27** The Voluntary Approach OBJECTIVE To ensure that all relevant **Best Practice Adoption** All Partners are encouraged to interests are involved in a establish clear links with the Partners are encouraged to jointly develop and adopt best co-ordinated decision-making Forth Estuary Forum and to and joint working process apply its Strategic Guidelines practice and strategic guidance for key issues affecting and Guiding Principles in their the Forth own sphere of influence. **ACTION 25.2 ACTION 27.1** Establish an annual Forth Ensure the Forth Estuary Forum **GUIDELINE 26** Conference to review progress establishes good and appropriate **Informed Management** links with the new Scottish towards sustainability and **Procedures Parliament** promote discussion, **Recommended Lead Partner:** understanding and best practice Partner organisations should adoption. ensure that all decisions are FEF (Membership Services) Recommended Lead Partner: made in the light of knowledge FEF (Membership Services) and understanding of the full implications of their decision **ACTION 25.3** on the Forth. Provide a focus for Forth specific projects to allow access to funding sources and expertise. Recommended Lead Partner: FEF (Membership Services) **ACTION 26.1** Develop a set of Forth-wide sustainability indicators using existing provision to monitor progress of the Forth Integrated Management. Recommended Lead Partner: M FEF (Flagship Project 3)

**ACTION 24.1** 

# WHAT SUPPORT COULD THE FORUM PROVIDE?

Provide Forth-wide network
Facilitation of issue resolution seminars
Publication of best practice
Provide vehicle for access to funding opportunities
Host annual Forth conference

# theme 10

# co-ordinated research and information provision

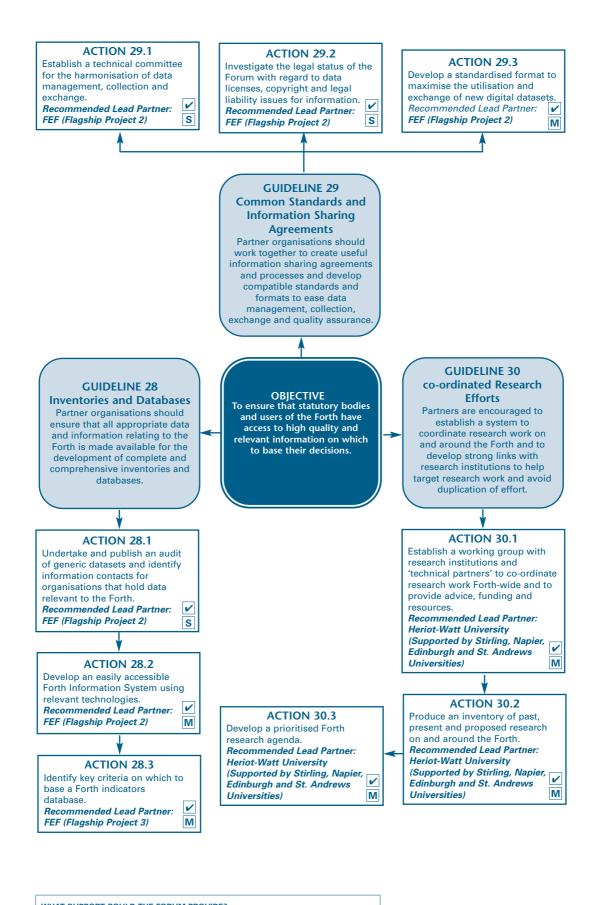
Commitment to the Forum's Strategy will only be maintained if it is seen to be justified by comprehensive, robust data. Currently, the data available to support a long-term strategic, integrated approach to management is patchy and incomplete across all themes. Inventories and databases are costly to set up and maintain but essential to the process. There are barriers of technical compatibility, data ownership and corporate openness among partners which mitigate against the maximum cost effective use of comprehensive inventories and databases.

The fundamental importance of good inventories and databases needs to be promoted to justify the expenditure required to set them up and maintain the data. The cost effectiveness and other benefits of inter-agency data sharing and exchange should be promoted with appropriate safeguards developed and put in place to protect the ownership interests of partners holding important datasets.

The first stage of implementation of all management strategy guidelines should be an appraisal of the data required and available from all partners and sectors with an interest in that guideline. The appraisal should cover the comprehensiveness and the quality of the data, the gaps in coverage, and the costs of completing the inventory or database if required.

Considerable research has been undertaken on the Forth. However, there is no single source of past, current or proposed research thus making the task of obtaining this information difficult. This can lead to uninformed decision making and duplication of effort.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Association for Geographic Information Biological Records Centres BP British Geological Survey ESWA Forth Ports PLC Historic Scotland Local Authorities National Geospatial Data Framework RCAHMS RSPB Scottish Executive Rural Affairs Department Scottish Natural Heritage Scottish Sports Council SEPA	Available from the Association for Geographic Information (AGI). Regular Newsletter. From the Interdepartmental Group on Geographic Information (IGGI). Official Statistics Code of Practice. Department of the environment. Spatial Information Enquiry Service (SINES). Interdepartmental Group on Geographic Information (IGGI).	



# WHAT SUPPORT COULD THE FORUM PROVIDE?

Support joint working group Develop Forth Indicators database (Flagship project 3)

Use of relevant Forth data and information (Flagship Project 2) Facilitation of data licence and copyright agreements between partners

Use of Forth GIS Framework

Co-ordinate Forth research agenda and database

= ownership agreed

S = short-term (within 2 years)

M = medium-term (within 5 years)

= long-term (within 10 years)



education and personal responsibility

# theme 11

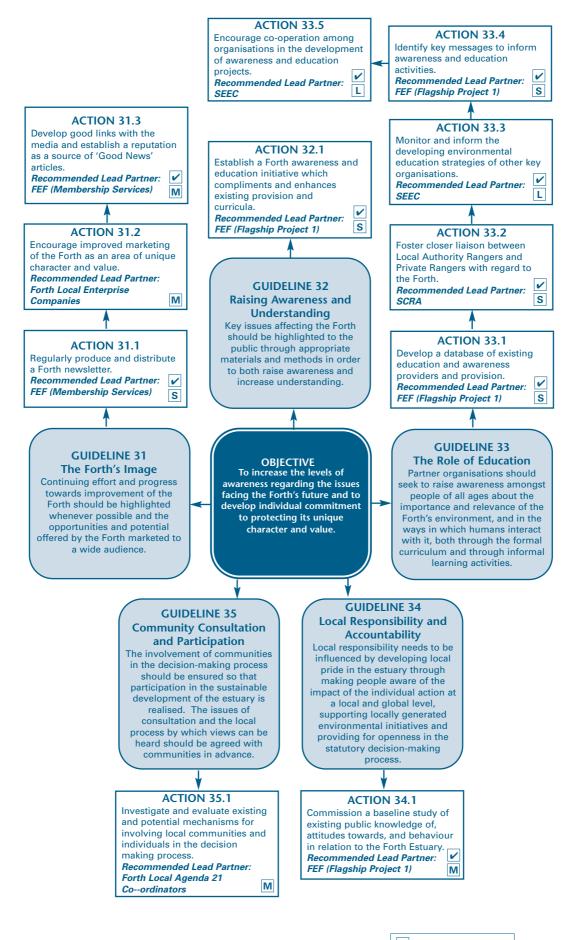
# changing attitudes and individual behaviour

There is a need to establish recognition of the Forth as a whole area with a range of valuable resources – environmental, recreational, economic, educational, tourism, etc. - a Pan-Forth concept. We need to continually remind the local populations that the Forth exists near their homes and workplace, that they can use it, benefit form it, and share it, but that they also have a responsibility to conserve it for the future.

It seems essential that there is wider public awareness of what are spurious and what are genuine environmental concerns, of the issues at stake and of their importance to both the future of the environment and to subsequent generations. For example, through historical reputation, undue emphasis is given to the level of pollution of the Forth Estuary by the public at large. Conversely, the continued flushing of sanitary items is a problem, and greater personal responsibility and a change in behaviour are needed in order to influence disposal habits.

In particular, the long-term success of any sustainability initiative will depend on changing people's attitudes through education and providing for open dialogue. Young people respond most positively to such messages, and after all they are to be the managers of the future. In addition, educating children to adopt more sustainable values helps to change the attitudes of their parents, leading to a more caring attitude and a sense of responsibility for the health and well-being of our environment.

Principal Relevant Bodies: (see appendix 3 for further detail)	Key Guidance:	Major Initiatives and Schemes:
Deep Sea World ESW Local Authorities Regional Environmental Education Forum RSPB SAMS Scottish Consultative Council on the Curriculum Scottish Environmental Education Council Scottish Natural Heritage SEPA	A Scottish Strategy for Environmental Education. Scottish Office. Learning for Life. Scottish Office. Review of Marine and Coastal Interpretation in Scotland. Scottish Natural Heritage. Local Agenda 21 Route Planner. Scottish Local Agenda 21 Coordinators Network Curriculum Guidelines for the Secondary Stages. SCCC 1999. National Guidelines 5-14 Environmental Studies. SCCC (due October 1999). Curriculum Framework for 3 to 5 Year Olds. Scottish Executive 1999.	Educational Wallchart for the Firth of Forth. Forth Estuary Forum, 1999.



## WHAT SUPPORT COULD THE FORUM PROVIDE?

Awareness raising through Forum products and events (Flagship Project 1) Use of relevant Forth data and information (Flagship Project 2) Provide a link between organisations and Forth communities

M

S = short-term (within 2 years)

= medium-term (within 5 years)



the flagship projects



### 3.1 Introduction

The aim of the Flagship Projects is to combine several of the Strategy's recommended actions, for which there is no obvious lead partner, into one discrete and easily managed package. They are designed to support and link with the individual 'partner led actions', and are intended to encourage partner participation in their running.

Each project will require a dedicated Project Officer to actively and effectively take the work forward; this role could either be undertaken by Forum employed staff (if resources allow) or individuals seconded from Forum partners.

The following Flagship Projects are currently proposed:



1 A Forth Awareness and Education Initiative



2. The Forth Information and Data Network



3 The Future Health of the Forth



4 The Forth Marine and Coastal Litter Campaign



5 A Programme of Sustainable Economic Development Activities



6 Strengthening of Local Involvement in Fisheries Management

These are further described on the following pages.

### 1) A Forth Awareness and Education Initiative



AIM: To raise public awareness and understanding of the Forth, its inherent value and local importance as a living, working area and of the interdependence between people and the environment.

DESCRIPTION: There is a long-term need to foster a greater public awareness and understanding of the Forth by providing and actively promoting information about its value, its planning and management, and the main environmental, social and economic issues. In an area as large and diverse as the Forth, a series of initiatives and products are needed that collectively meet the above aim, using the underlying principal to develop the notion of sustainability for the Forth. This approach will complement the Forth Estuary Forum's (FEF's) role as facilitator, providing additional, co-ordinated means of helping its partners achieve their individual objectives for the Forth.

The purpose of this Awareness and Education (A & E) Flagship Project is therefore to identify a three-year programme covering as many priority areas as resources permit, and to set up a sound platform from which A & E initiatives can develop in the future in accordance with changing needs.

In deciding the tasks of the A & E Project, the FEF has explored a wide range of considerations, including; specific strategic actions within the 'Forth Integrated Management Strategy'; partners A & E strategies; target audiences; educational processes; existing educational resources; monitoring and evaluation requirements; and financial implications.

The development of the A & E Project will therefore comprise two overlapping, components:

- i) The development of a Forth Public Information Service To develop a selection of user-friendly systems and products to facilitate the flow of information to the widest possible audience about the Forth, issues concerning the Forth and the Forum's role as a voluntary partnership.
- The development of a suite of Educational Resources and Activities To develop educational resources specific to the Forth, complementing existing material.

# 2) The Forth Information and Data Network



AIM: To develop a shared information network to assist planners, managers and researchers by putting effective information at their fingertips.

DESCRIPTION: For the Forth, there is a considerable amount of information and data available. However, it is currently not being managed to maximise its use. Information is difficult to access, it is fragmented, there are few systems in place to make people aware of what work has been done, and it is often presented in a form inappropriate to informing decision makers. The risks of duplication of effort, incompatible datasets and reduced quality of decision making are all too apparent.

The Forum, therefore, wishes to develop an effective estuary-wide information and data network, together with user-friendly applications and tools, to overcome these problems.

The development of the network will comprise two integrated components:

- The development of a Forth 'One Stop Shop' for finding relevant information and data.
- ii) The development of the Forth Geographical Information System (GIS) as a tool to inform the management of specific issues on the Forth.

## 3) The Future Health of the Forth



AlM: To establish a set of environmental, social and economic indicators, using existing information, which can be widely understood by the public, as a basis for future systematic monitoring of the health of the Forth.

DESCRIPTION: The success of the work of the Forum can only be assessed if we understand the changes that the Forth is going through. In order to achieve this it is proposed to develop a series of key indicators of the social, economic and environmental health of the Forth which will be monitored regularly, and which can be reported to the members of the Forum via the internet.

Information from the monitoring can be used to determine the effectiveness of policies and actions effecting the Forth, and identifying the needs for any changes.

Many organisations are responsible for gathering information that could form the basis for the agreed indicators. Where possible it is desirable for indicators to be based around existing monitoring effort, and costly additional monitoring will need to have strong justification, however in some cases new monitoring activity may be required. For some issues, indicators of public perception may be important, as well as measures of environmental or economic performance

### 4) The Forth Marine and Coastal Litter Campaign



AIM: To examine existing information, research and legislation concerning marine and coastal litter in the Forth, assess current management practices and initiatives, and develop a co-ordinated approach to tackling the issue.

DESCRIPTION: Aesthetic degradation, human health, economic loss and effects on wildlife and ecosystems are some of the concerns in which marine and coastal litter are known to have an impact. It is believed that as a large partnership organisation the Forum would be ideally placed to instigate a Forth-wide programme and put forward practical recommendations to build on existing initiatives, aiming to minimise some of the above concerns.

The development of this project takes into account specific actions as outlined in the 'Forth Integrated Management Strategy', along with recommendations made by partners and experts in this field. The project will; create a database to establish organisations and individuals directly involved in the management of marine litter; continue to develop existing monitoring of marine litter in the Forth; raise awareness; assess, support and promote existing campaigns and initiatives; make specific recommendations for the Forth; undertake and/or co-ordinate specific practical projects/research.





AIM: To implement a programme of strategic and operational recommendations that progress the Forth towards higher levels of economic and environmental sustainability.

DESCRIPTION: A Forth Economic Appraisal undertaken by the Forum in 1997 developed a series of economic development recommendations, projects and initiatives intended to address the key economic development issues facing the Forth.

Both strategic recommendations, which focus on the longer-term strategic development opportunities and priorities, and operational recommendations, which were seen as offering opportunities for more immediate action, were developed. It is now the intention of this Flagship Project, as an integral part of the Strategy, to take these forward as a coherent programme of activities. The programme is to be designed to support existing stakeholder priorities and plans and encourage wide local involvement.

Achieving sustainable economic development of coastal zones is an essential ingredient of integrated coastal zone management. However, how to undertake this and blend the often-opposing issues of economic development and ICZM is currently an unknown quantity. This project aims to attempt this in the longer term by acting upon the recommendations within the Forth Economic Appraisal. Successful examples of such work are rare, to date none have been identified internationally for areas comparable to the Forth.

### 6) Strengthening of Local Involvement in Fisheries Management



AIM: To identify practical mechanisms by which fishing communities can increase their participation in the management of their local resources, and in so doing foster local accountability and the deployment of sustainable practices.

DESCRIPTION: The augurs could not be more favourable for the development of greater participation of local communities in the design and application of local fisheries management systems in Scotland. There is broad consensus as to the nature of the short-comings of the Common Fisheries Policy (CFP), and there are calls from a wide range of interested parties (fishery organisations and fishery administrators) for the regionalisation of fishery management within the European Union. There is growing interest in coastal zone planning and the benefits that greater local input to the way that local fisheries are prosecuted might offer. Also there is increasing interest from consumers and retail organisations in sourcing high quality fish and shellfish product from known locations and productions systems.

Yet despite all this interest, very little work has been undertaken to identify how such greater local involvement might be exercised. Some work has been undertaken with respect to the application of Regulating and Several Orders, and the use of local by-laws – legal instruments that can only be applied within territorial limits. But the underlying ecology of commercially exploited fish stocks, together with the economics of fishery exploitation, make a geographically limited form of management overly restrictive (and potentially impractical). The fall-back situation has been the development of a wide range of input and output controls that are enforceable by law but which largely lack a local dimension, and provide limited incentive to responsible behaviour. They tend to perpetuate a "them and us" form of fisheries control.

The project is intended to more clearly identify systems and mechanisms by which sector management and the application of local obligations and responsibilities towards sustainable practice can be more closely aligned. This will be achieved through the undertaking of a number of individual sub-projects within an integrating framework intended to deliver proposals for the practical reform of local fishery management systems.



putting it into practice

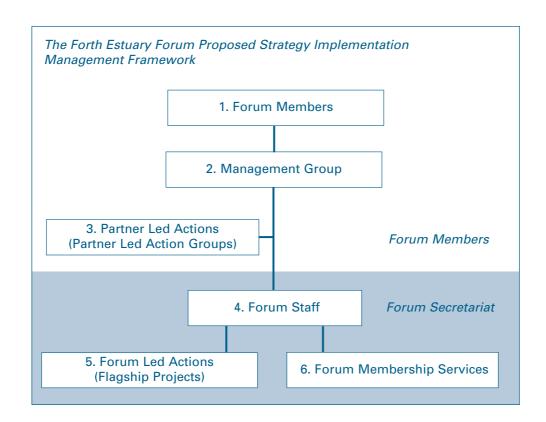




# 4.1 Implementation Management Framework

Much has already been achieved by the Forum's Partners to increase sustainable management of the Forth, implementing the Strategy will build upon these achievements. However, the Strategy is a non-statutory document, and, as such, its implementation will only be achieved through the Forum's partners adopting the proposed guidelines and working to implement the proposed actions. Successful implementation will therefore depend upon effective cooperation, coordination and communication between these interests. To achieve this will require the creation of an appropriate 'Implementation Management Framework' which will take account of the need for bodies to work together and to develop close liaison with individuals and organisations around the Forth.

A proposed 'Implementation Management Framework', based around the Forum's existing structure, which will allow partners to achieve this is summarised below and explained overleaf.



### 1. Forum Members (Open to all interested parties, organisations or individuals)

 Participate in implementation of the Strategy

 Review progress and contribute towards monitoring

Raise new concerns, issues and opportunities

· Raise awareness and understanding

 Promote discussion and consensus building

Increase partnership working

Share resources and expertise

Partner participation mechanism:

Annual Conference and AGM

Newsletters Website

Correspondence

#### 2. Management Group

(Comprising Key Stakeholders - current membership given on page 3)

 Direct the implementation of the Strategy

 Review, monitor and assess the Strategy

Secure funding and resource support

· Develop Business Plan

Partner participation mechanism:

As Forum Members + Quarterly Meetings

# 3. Partner Led Action Groups (Membership determined by lead partner)

 Implementation of partner led actions (or groups of actions)

Increase partnership working

Share resources and expertise

Partner participation mechanism:

As Forum Members + Action Group Meetings

and Correspondence

### 4. Forum Staff

(Comprising Forum Manager, Forum Support Officer and Administrative Support)

• Co-ordinate implementation, monitoring and review of the Strategy

 Secretariat and administrative support for the Forum

 Fundraising, sponsorship and budget management

Metworking and partnership development

Partner participation mechanism:

Employed by Forum host organisation or independently if funding suitable

# 5. Flagship Project Staff

 Implementation of Forum led Actions through Flagship Project work

 Manage flagship project implementation

· Increase partnership working

Partner participation mechanism:

Employed by the Forum

(or seconded by partner organisation(s))

## 6. Forum Membership Services

As a unique partnership, the Forum has much to offer its partners and it is proposed that various 'Membership Services' are offered to its members to support and compliment the proposed Implementation Management Framework.

# Membership Services would include:

Administrative support to joint working groups

 Issue resolution workshops, seminars and publications

· A focus for funding of Forth-wide projects

 Publication of a quarterly newsletter
 Maintenance and up-date of a Forth Who's Who, Data Directory and Web site

· Annual Conference

• The Running of Flagship projects

IK.

Partner participation mechanism:

**Annual Membership Subscription** 

### 4.2 Review, Evaluation and Monitoring

Once the Strategy has been published, its long-term success will very much depend upon its ability to respond to new issues and activities, accommodating changes as they occur. This suggests the need for a process of regular review. The implementation management framework outlined above has been designed to allow this to occur in a co-ordinated, participatory and systematic manner, with an annual review to be provided at the Forum's annual conference.

The Strategy will not be an end point, but the beginning of a long-term process. Implementation will take some time, and there will be a need for monitoring and evaluation as it proceeds. In order for us to assess both the Strategy's effectiveness and ultimately the health of the Forth (environmentally and economically) it will be necessary to establish an evaluation and monitoring system.

Understanding what is happening to the state of the Forth is critical in measuring whether or not progress is being made towards wise and sustainable use. We need to establish a pool of information that will enable us to make more informed decisions about the management of the Forth in the future. Many of the actions within the Strategy are orientated towards gathering such information or undertaking research that will help to develop the pool further. Flagship Project 2 – "The Forth Data and Information Network" is intended to facilitate this further in a co-ordinated manner. In addition, Flagship Project 3 - "The Future Health of the Forth", will establish and test a set of environmental, social and economic indicators using existing information, as a basis for future systematic monitoring of the health of the Forth.

### 4.3 The Next Steps

Sustainability is about finding better ways forward from where we are now. Not being sustainable carries too many risks. If we are to prosper in the decades to come then we need to invest in more sustainable products, processes, and social and environmental strategies. The rationale behind this, is that it is just good business practice.

There is no doubt that the progression of the recommendations within this Strategy will lead to more sustainable practices on and around the Forth. Equally, there is no doubt that their progression will have financial implications for many organisations and individuals.

Currently, there are no specific resources set aside for the implementation of the recommended guidelines and actions, they will need to be advanced as part of the day-to-day activities and programmes of the lead partners. In addition, finance will be required to develop and operate the implementation management framework and to undertake the six proposed Flagship Projects.

It is envisaged that funding for these elements will be sought jointly from Forum partners and through the winning of eligible financial support from European, national and local sources. It will be the responsibility of the Forum's Management Group to identify and pursue these opportunities.

To support the pursuit of suitable resources, in parallel with the release of this document, a three year Strategic and Business Plan for the Forum is currently being prepared which will clarify in detail what the Forum wishes to do over the next few years and how it intends to operate and fund the Strategy's implementation management framework. The plan will include detailed operational implications, management and staffing arrangements, income, expenditure and cash-flow budgets, including detailed project briefs for each of the six Flagship Projects. Most importantly, the Plan will provide a solid basis on which funding arrangements can be put in place over the coming months.

# **Appendix 1 - Glossary**

**Agenda 21** - A programme of action that aims to achieve a more sustainable pattern of development throughout the world for the next century. Agenda 21 is one of the outputs from the UN Conference on Environment and Development (The Earth Summit) held in Rio in 1992.

**Biodiversity** - The variety of life forms, the ecological roles they perform, and the genetic diversity they contain.

**Coastal Cell** - A length of coastline and its associated near shore area within which the movement of coarse sediment (sand and shingle) is largely self-contained. Interruptions to the movement of sand and shingle within a cell should not affect the beaches in adjacent cells.

Coastal Defence - The control or prevention of coastal erosion or tidal flooding.

**Eco-Management & Audit System (EMAS)** - A European initiative offering a voluntary scheme for industry and local government to help improve the management of environmental impacts and activities in a systematic and considered way.

**Economic Sustainability** - A sustainable economy is one that can secure its market competitiveness and meet consumer expectations through the efficient use of natural resources, skills, technology and capital, whilst maintaining the quality of the local and wider environments and simultaneously safeguarding the capability of future generations to meet their own needs.

**Environmental Impact Assessment (EIA)** - An analysis of the environmental effects of a particular activity or development. EIAs are usually undertaken by consultants who will survey the environment of a site, consider the activity proposed, and refer to scientific literature to anticipate the likely effects of the activity.

**Geographical Information System (GIS)** - A computerised graphical database which has the ability to integrate a diverse range of information through a single common attribute, that of geographical space.

Habitat - A homogeneous area of vegetation or vegetation type.

**Integrated Catchment Management** - A process whereby all activities within a river catchment are considered in relation to their impact on each other and on the quality and quantity of surface and ground water. Conflicting interests are managed and resolved, as far as possible, in a balanced manner, through a process of consultation.

**Integrated Coastal Zone Management (ICZM)** - A concept which brings together in a coordinated manner the many organisations who relate to the different aspects of the coast in order to resolve conflict and manage the coastline as a whole.

**Land claim** - Conversion of inter-tidal or sub-tidal areas, typically mudflats and saltmarsh, into agricultural or developed land.

Landscape Character - Tracts of countryside which have a unity of character due to particular combinations of land form, land cover, and distinct patterns of constituent elements.

Local Agenda 21 - It is estimated that over two-thirds of the statements in Agenda 21 (see above) cannot be delivered without the cooperation and commitment of local government. Agenda 21 calls on all local authorities to develop a local strategy for achieving sustainability, a Local Agenda 21, which should involve the whole community.

Managed Retreat - Analogous to set back but generally applied to relocation or removal of flood embankments from claimed land which was formerly saltmarsh; this encourages restoration of the saltmarsh which then acts as a form of natural defence for areas inland.

**Shoreline Management Plan (SMP)** - A document which sets out a strategy for coastal defence for specified lengths of coast taking account of natural coastal processes and human and other environmental influences and needs.

**Sustainable Development - Meeting the needs of the present without compromising those of future generations.** 

**Sustainable Urban Drainage Systems** – Natural forms of treatment such as ponds and specially constructed grassed areas which can be used to treat rain water form roofs and roads before discharge to a water course.

**Target** - A tangible point to aim for, which is reached by an action or series of actions carried out over a specified period of time.

**Tourism Management Programme (TMP)** - A framework to reconcile environmental issues and community aspirations with tourism development and economic benefits in a single action programme.

Water Framework Directive - A forthcoming EC Directive aimed at protecting surface and groundwater through the application of catchment management.

# **Appendix 2 - Abbreviations**

CBI - Confederation of British Industries

CFP - Common Fisheries Policy
DOE - Department of the Environment

EC - European Community
ESW - East of Scotland Water
FEF - Forth Estuary Forum

GIS - Geographical Information System

HS - Historic Scotland

ICZM - Integrated Coastal Zone Management ISO - International Standards Organisation RSPB - Royal Society for the Protection of Birds

SE - Scottish Executive

SERAD - Scottish Executive Rural Affairs Department
SEDD - Scottish Executive Development Department
SEPA - Scottish Environmental Protection Agency

SMP - Shoreline Management Plan SNH - Scottish Natural Heritage

TMP - Tourism Management Programme

# **Appendix 3 - Principal Relevant Bodies**

**Access Forum (Inland Water)** - A forum composed of national bodies, recreational groups, landowners and managers to consider the issue of access to and over inland water bodies.

**Anglo-Scottish Fish Producers' Organisation** - Currently primarily involved in managing quotas on behalf of its Members, operating from Arbroath to Whitby.

**Association for Geographic Information** - The AGI contribute to the creation and adoption of standards for geographic information in the UK, Europe and world-wide.

**Babcock International Group Plc** - A multinational engineering group delivering products, systems and support services to the global bulk materials handling and processing industries and to the maritime, defence and rail sectors.

**Biological Record Centres** - Exist on a Forth-wide basis in Fife (Fife Nature), the Lothians (Lothian Wildlife Information Centre) and Stirling (Central Area Recording System for the Environment). Centres provide for networking and the exchange of biodiversity information.

**British Geological Survey** - National geological survey of the UK. Its primary functions are to maintain and revise geological information for the land and offshore areas of the UK and the nearby continental shelf.

**British Waterways** - Reporting to the DETR, and responsible for managing and maintaining our canals and rivers network for a wide range of leisure and business uses.

**BP Chemicals Ltd** - Independent company involved in oil and associated petrochemical refining activities primarily at the Grangemouth complex.

**Central Computer and Telecommunications Agency** - Publishes a wide range of guidance material on such subjects as data collection standards and information management.

**Deep Sea World** - An independent company owning Scotland's National Aquarium complete with underwater safari and Education Programme.

Edinburgh and Lothian Regional Environmental Education Forum (ELREEF) - Established to raise awareness of sustainability in our lives, and to help people of all ages and backgrounds to develop knowledge, skills, understanding, attitudes and values to enable them to contribute to sustainability.

East of Scotland Water (ESW) - The public water body responsible for providing water and waste water services in Fife, Borders, Edinburgh, the Lothians and Forth Valley.

Eastern Scotland European Partnership - A Regional development partnership of local organisations working together to achieve the best use of European grants.

**Eyemouth Fishermen's Mutual Association** - Established in 1946 to support the local fishing industry, including marketing, selling, chandlery and finance.

Farming and Wildlife Advisory Group (FWAG) - Voluntary organisation and registered charity uniquely placed to unite wildlife and landscape conservation with farming and forestry.

**Fisheries Development Group** - Established to improve the industry as a whole. Led by Fife Council, with representatives of the fishery industry, fishermen and Elected Members present, from St. Andrews to Earlsferry.

**Fishermen's Mutual Association (Pittenweem) Ltd** - Fishermen's cooperative of East Neuk fishermen established in 1948, to sell, market and raise the profile of the Forth fishery.

Forth Ports PLC - Public limited company with statutory harbour responsibilities. Owns and operates the major commercial ports located on the Forth and is engaged in other marine activities such as towage, cargo handling and ships agency.

**Forth Valley Enterprise** - Government funded Local Enterprise Company with a remit to promote economic, environmental and human resource development that is sustainable both in economic and environmental terms.

**Historic Scotland** - Established in 1991 as an executive agency within the Scottish Office. It is directly responsible to Scottish ministers for safeguarding the nation's built heritage and promoting its understanding and enjoyment.

**Local Authorities** - Responsible for providing key public services to the local population and many visitors that the area attracts each year. Forth-wide, these are, East Lothian, City of Edinburgh, West Lothian, Falkirk, Stirling, Clackmannanshire and Fife respectively.

**Lothian & Edinburgh Enterprise Limited (LEEL)** - Government funded Local Enterprise Company with a remit to promote economic, environmental and human resource development that is sustainable both in economic and environmental terms.

Ministry of Agriculture, Fisheries and Food (MAFF) - Government Department with wide-ranging responsibilities on the coast, including agriculture, flood and coastal defence (in England and Wales) and environmental protection.

Ministry of Defence - Statutory body responsible for the defence of the nation.

National Geospatial Data Framework - Has standards for the collection of metadata.

**Railtrack** - Assumed ownership of Britain's national rail network in 1994 as a government-owned company in the public sector. Owns the infrastructure and is responsible for maintenance, repair and renewal of track, stations, signalling and electrical control equipment.

**Royal Commission on the Ancient and Historical Monuments of Scotland** - Independent nondepartmental government body that carries out a programme of field surveys and recording of the built heritage of Scotland.

**Royal Society for the Protection of Birds (RSPB)** - Registered charity and the largest voluntary wildlife conservation body in Europe whose principal objectives are the conservation of wild birds and their habitats and the promotion of public interest therein.

Royal Yachting Association (Scotland) - Voluntary organisation that is the governing body for sailing, yachting and windsurfing in Scotland.

**Scottish Association for Marine Science** - SAMS promotes research and education in marine science, particularly on issues relevant to Scotland. It is funded by subscriptions, donations and a grant-in-aid from NERC.

**Scottish Canoe Association (SCA)** - An Association that through its Touring Committee represents the interests of members who take part in recreational canoeing throughout Scotland.

Scottish Consultative Council on the Curriculum - Independent, advisory body sponsored by the Scottish Office Education & Industry Department. It is the principal advisory body to the Secretary of State on all curriculum matters relating to 3-18 year olds in Scottish schools.

**Scottish Enterprise** - Principal Agent for economic development in Scotland. Acts as an umbrella body with thirteen Local Enterprise Companies (LECs) operating under it.

Scottish Environmental Education Council (SEEC) - A charity and independent voluntary organisation promoting and developing environmental education in all sectors of Scottish society.

**Scottish Environmental Protection Agency (SEPA)** - A Statutory body responsible for the protection and enhancement of the environment. Its aim is to provide an efficient and integrated service in the areas of water, land and atmospheric emission management.

**Scottish Executive** - Statutory body established to work with Scottish Ministers to improve the well being of Scotland and its people.

Scottish Executive Development Department - Administers Government responsibilities, including, social inclusion, housing and area regeneration, local government and finance, European Structural Funds Management, roads and transport and planning and building control.

**Scottish Executive Enterprise and Lifelong Learning Department** - administers Government policy for industry and energy issues, enterprise and tourism, delivery of the new deal lifelong learning and higher and further education and training.

**Scottish Executive Rural Affairs Department (formerly SOAEFD)** - A Government Body responsible for developing Scotland's agriculture, fisheries and environment. It operates closely with many countryside, marine and environmental organisations.

Scottish Institute of Maritime Studies - Department of St. Andrews University founded to survey, record and research the maritime historical and archaeological resource preserved in the coastal and seabed areas of Fife.

**Scottish Landowners' Federation (SLF)** - Voluntary organisation with interests in all landowning activities in Scotland. Recognised nationally as a consultative body.

**Scottish Natural Heritage (SNH)** - A statutory body responsible for the promotion and enhancement of the natural heritage of Scotland including conservation, enjoyment and understanding of it by the people of Scotland.

**Scottish Rights of Way Society** - A non-statutory, independent body established to protect the public Rights of Way network.

**Scottish Tourist Board** - Responsible for the promotion and development of tourism backed up locally by a number of Area Tourist Boards.

Scottish Wildlife Trust - The leading wildlife body protecting all forms of Scotland's wildlife and natural environment.

**Scottish Environmental Education Council (SEEC)** - A Charity and Company limited by guarantee. Established to support and develop education for environmentally sustainable living throughout Scotland.

**Sport Scotland (formerly Scottish Sports Council)** - National Agency established to lead the development of sport and physical recreation in Scotland.

**Sustrans** - Sustrans stands for Sustainable transport. The organisation is a charity and works through practical projects to build routes for cyclists and walkers.

The Crown Estate - A Landowner with Statutory Responsibilities owning almost all the seabed of the Firth of Forth and approximately half of the foreshore. It has a duty to maintain and enhance its value and the return obtained from it, with due regard to the requirements of good management.

**Universities** - Includes the Universities of Edinburgh, Napier, Heriot-Watt, Stirling and St. Andrew's.

# **Appendix 4 - Background Information and Publications**

Title

The Forth Estuary Forum Membership Leaflet:
An invitation to participate (includes membership form)

At Home with the Firth of Forth: Educational Leaflet

The Forth Estuary Forum Articles of Association

Progress Report of the Forth Estuary Forum: Numbers 1 – 10

Forthsight: The Newsletter of the Forth Estuary Forum

Economic Development Topic Paper

Coastal Defence Topic Paper

Fisheries Topic Paper

Nature Conservation Topic Paper

Built and Archaeological Heritage Topic Paper

Tourism and Recreation Topic Paper

Landscape and Amenity Topic Paper

Information and Research Topic Paper

Awareness and Education Topic Paper

Marine and Coastal Pollution Topic Paper

The Forth The Way Forward: A Discussion Paper

File on Forth: The Directory of the Forth Estuary Forum

The Forth Educational Wallchart

All the above publications are available free from:

Forth Estuary Forum 1 Cockburn Street Edinburgh EH1 1BJ Scotland UK

**Phone:** +44 (0) 0131 529 3457/3576 **Fax:** +44 (0) 0131 529 7478

E-mail: forth.est@edin-city-dev.demon.co.uk

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# **Map Data Acknowledgements**

Based on information derived from Bartholomew 1:250,000 GB database. Produced from Forth Estuary Forum GIS
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ISBN 0 9529692 0 11

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