Strategic Environmental Assessment Handbook

Scottish Enterprise Grampian
Aberdeenshire Council
Aberdeen City Council

document one

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Introduction

The Strategic Environmental Assessment (SEA) process is governed by law and best practice guidance produced throughout the UK and by the Scottish Executive SEA Gateway. This handbook makes the essential elements of the law, guidance and templates an easy-to-use information manual. The first part gives a brief overview of the SEA process. It covers the legal basis, definition, rationale, processes, implications, support and resources available. The second part covers the 17 stages of the SEA process highlighting key principles that should be understood for successful implementation of the SEA process. Other materials in the series cover methods which can be used, advice on the evaluation of alternatives and proformas to assist with the collection of information. All these documents should be used together.

Part 1: Overview of SEA: The Theory, Legal Basis & Process

Legal framework

With effect from 21 July 2004, the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 transposed the European Union Directive 2001/42/EC into Scottish law, requiring Strategic Environmental Assessment (SEA) for certain plans and programmes prepared, developed, amended and altered by Responsible Authorities - persons or bodies whose functions are of a public character. The Environmental Assessment (Scotland) Act 2005 which regulates plans or programmes whose preparation starts after 19 February 2006, widens the requirements for SEA to include plans or programmes and programmes which are not formally required. The new Act will include plans or programmes, which do not set the framework for development consents (See the screening manual for examples of these types of plans and programmes).

What is SEA?

SEA is the environmental assessment of strategies, policies, plans and programmes. Other forms of assessment that integrate economic, social and environmental issues, in varying degrees, include environmental appraisal, sustainability appraisal and strategic sustainability assessment. The Directive defines SEA as follows:

- The preparation of an environmental report on the likely significant effects of the draft plan or programme;
- Carrying out consultation on the draft plan or programme and the accompanying environmental report;
- Taking into account the environmental report and the results of the consultation in decision-making and
- Providing information when the draft plan or programmes is adopted showing how the results of the environmental assessment have been taken into account.

Why is SEA necessary?

SEA is necessary because it seeks to:

- Address the limitations of project Environmental Impact Assessment
- Address the effects of policies, plans and programmes on the environment.
- Integrate the environment and sustainable development into planning processes
- Provide high level protection to the environment
- Promote sustainable development
- Promote a more open, transparent and evidenced-based planning culture.

When do you carry out SEA?

- During preparation of the draft plan or programme
- Before its adoption in all cases

Who should carry out SEA?

Responsible authorities (RA) are required to undertake SEA. RAs include:

- Individuals and bodies exercising functions of a public character;
- The Scottish public authorities with mixed functions or no reserved functions
- The authority that prepares a plan or programme or on whose behalf it is prepared including Aberdeenshire Council, Aberdeen City Council and the Scottish Enterprise Grampian

In practice, officers responsible for the preparation of plans or programmes in Aberdeen City Council/Aberdeenshire Council/SEG or their consultants will undertake the task of SEA

What are the Processes of SEA?

SEA processes include the following stages:

- Screening
- Writing a Scoping Report and consulting on the Scoping Report
- Assessing effects (including Prediction, Evaluation, Mitigation and Monitoring)[1]
- Writing an Environmental Report
- Consulting Consultative Authorities and the public on the plan and reports
- Taking into account the outcomes of reports and consultations in adopting plans
- Provide information to relevant stakeholders following plan adoption

Screening. This process helps to determine whether SEA is necessary. Screening requirements fall into three categories, which are in turn broken down into various criteria. The categories of relevant plans or programmes are as follows:

- Plans or programmes presumed to have significant environmental effects. For these types of plans or programmes, the SEA process starts with the scoping report.
- Plans or programmes whose significant environmental effects should be determined through screening and
- Plans or programmes whose environmental effects should be determined through pre-screening

1. Plans or programmes presumed to have significant environmental effects.

- In general plans or programmes for which SEA is required should relate to:
  - o Plans or programmes that are formally[2] required
- Specifically, plans or programmes for which SEA may be required should relate to
  - o Plans or programmes prepared for 11 sectors/issues including agriculture, fisheries, forestry, energy industry, telecommunications, transport, tourism, town and country planning, waste management and water management; AND set the framework for development consents that require Environmental Impact Assessment in accordance with EIA Directive 85/337/EEC
  - o Plans or programmes that are determined to require appropriate assessment under the Habitats Directive 92/43/EEC

2. Plans or programmes whose significant environmental effects have to be determined through screening.

- In general plans or programmes for which SEA is required should relate to:
  - oPlans or programmes that are formally[2] required
- Specifically, plans or programmes for which SEA is required should relate to
  - o Plans or programmes relating to the above 11 sectors that determine the use of small areas at local level
  - o Plans or programmes relating to the above 11 sectors that are a minor modification
  - o Plans or programmes that do not relate to any of the above but set the framework for future development consents

[1] This assessment is done within the Environmental Report

[2] Plans or programmes that are required by law or by administrative procedure.

3. Plans and Programmes whose environmental effects will be determined through Pre-Screening

- There is no general requirement for plans or programmes to be formally required
- There is also no general requirement for plans or programmes to set any framework for development consents
- Specifically, plans or programmes for which SEA is required should relate to
  - The relevant plans or programmes should not relate to any of the plans already listed above.
  - They should also not relate to individual schools or plans or programmes which will be exempted from the SEA process.
  - The test to be applied is whether these category of plans are likely to have
    - Minimal effect or
    - No effects
  - On the environment.
  - If this category of plans or programmes is likely to have significant environmental effects, they should be screened.

For a comprehensive treatment of screening, examples of plans in each category and templates, refer to the screening manual.

Scoping. This is the process by which details proposed for the environmental report are determined. The scoping report will cover the following issues: -

- Baseline data relevant to the report;
- Other relevant plans, programmes and environmental protection objectives such as the Kyoto Protocol, UK Sustainable Development Strategy, Scottish Sustainable Strategy, the Structure Plan, the Local Plan, Sustainability Charter and the Strategic Plan.
- Environmental problems and issues in the relevant area;

Table A: Summary of Screening Categories

Types of plans	Formally required	Set framework for consents for EIA type projects	Set framework for development consents	Action
Affecting Natura 2000 Sites	Yes			Start with scoping
11 Sectoral & land Use Plans	Yes	Yes	Yes	Start with scoping
Minor modifica-tions	Yes	Yes	Yes	Screen
Affects small area plans at local level	Yes	Yes	Yes	Screen
Other plans 1	Yes		Yes	Screen
Other plans 2	No	No	Yes	Screen
Other plans 2	No	No	No	Pre-screen

- SEA objectives, indicators and targets[3] linked to baseline, environmental problems and other relevant plans[4]
- Assessment methods to be used
- The framework for mitigation and monitoring of significant effects
- The relevant environmental issues defined to include air, water, biodiversity, soil, climatic factors, population and human health, cultural heritage including architectural and archaeological heritage, landscape and material assets
- Possible framework for alternatives/ options
- Consultation framework

Assessment. At this stage, significant environmental effects are predicted and evaluated as follows:

- Plans or programmes may be predicted to have negative, positive, uncertain or neutral effects.
- Their evaluation will address issues such as reversibility or irreversibility of effects, risks, duration (permanent, temporary, long-term, short-term and medium-term) and cumulative (direct, indirect, secondary and synergistic).
- Mitigation measures make recommendations to avoid, reduce, address, and compensate significant effects. They suggest replacing, modifying or including additional statements in the documents.
- A monitoring report would normally be integrated into the adopted plan to constantly monitor the significant effects.

Environmental Report: The output from the assessment process is an environmental report. The report also takes into account the responses from the scoping consultation.

Consultation: SEA requires consultation with Consultation Authorities and stakeholders as well as the general public at varying degrees throughout the entire process. The statutory Consultative Authorities include Scottish Environmental Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Historic Scotland (HS).

What are the implications of SEA for Responsible Authorities?

Among other things responsible authorities may have to: -

- Carry out SEA for plans or programmes they initiate
- Act as Consultees for other authorities' SEA
- Provide baseline information for the SEA process
- Monitor significant impacts identified in plans or programmes
- Ensure quality assurance in the SEA process
- Allocate some time, resources and skills for the SEA process

[3] An objective is a broad statement of intent such as 'supply water to every home in New Town.' An indicator states the broad intent as a measure such as 'domestic water consumption per capita to every home in New Town.' A target is more Specific, Measurable, Achievable, Realistic, and Time-bound (SMART) such as 'supply at least 40 litres per capita of safe water to every home in New Town by 2010.

[4] Baseline, environmental problems, other relevant plans and SEA objectives should be discussed currently so that each adds value to the other

Part 2: The Stages in the SEA Process: Principles & Examples

There are five major stages in the SEA process. In the UK-wide SEA Guidance (2005), these stages are numbered A to E.

A - Setting the context

Covers the items 'other relevant plans, programmes and environmental protection objectives,' 'collecting baseline data,' 'environmental problems in the area' and SEA objectives and indicators.' It is recommended that these issues are discussed concurrently to inform each other – they must add value to each other. In fact, the key to a best practice SEA hinges partly on how these issues are addressed.

B - Developing and refining alternatives an assessing effects

Is the assessment part of the SEA process. The nature of the assessment include 'testing the plan or programme objectives against the SEA objective,' 'developing strategic alternatives,' and 'predicting the effects of the draft plan or programme, including alternatives. It also includes 'evaluating the effects of the plan or programme, including alternatives,'' considering ways of mitigating adverse effects,' and 'proposing measures to monitor the environmental effects of plan or programme implementation.' As in Stage A, it is good practice that elements in the assessment stage are discussed concurrently to inform each other.

C - Preparing the Environmental Report

Covers the preparation of the Environmental Report.

D - Consultation and decision-making

Comprise 'consulting on the draft plan or programme and the Environmental Report; 'assessing significant changes' and 'decision-making and providing information.'

E - Monitoring implementation of the plan or programme

Deals with 'developing aims and methods for monitoring,' and 'responding to adverse effects.' The following sections discuss all the stages in more detail.

A – Setting the context and objectives, establishing the baseline and deciding the scope

1 Identify other relevant plans, programmes [Annex 1(a)] and environmental protection objectives [Annex 1(a) & (e)]

Here you are looking at issues such as international, national, regional and local laws, policies, plans, programmes, including Scottish Planning Policies, National Planning Policy Guidance, other vertical and horizontal plans that are relevant to the proposed plan. You should specify how they are relevant to the SEA process.

Table 1 below illustrates how 'other relevant plans, programmes and environmental protection objectives' (ORPP & EPOs) could be organised.

This example illustrates how ORPP & EPOs at international, national, regional and local levels relating to the plan or programme are presented. It also shows that it is not sufficient to list ORPP & EPOs (Column 1). A summary of key objectives from ORPP & EPOs normally listed as bullet points (Column 2) as well as statements indicating how the key objectives and requirements will be taken on board (Column 3) are essential.

2 Collecting baseline information [Annex 1(b) & (c)]

You should look at the present state of the environment without the plan or programme and make a reasonable prediction of its evolution without the plan or programme. You will be required to provide projected trends for the state of the environment using quantified data that is compared with local, regional and natural performance. There could well be information gaps and this should be highlighted in the monitoring plan as future action. When it comes to the assessment of significant effects, the precautionary principle should be adopted in favour of the information gap. Information must be relevant and appropriate to the scale of the spatial plan or programme as well as SEA objectives and indicators. It is important to stress that baseline data collected at this stage is data relevant to the key issues and problems identified – not all information you can lay your hands on.

Table 1: Other relevant plans, programmes and environmental protection objectives (Stage A)

Other plan/programme	Objectives or requirements of other plan and programme	How objectives and requirements might be taken on board
Kyoto Protocol (1992)	• To limit and reduce the emissions of greenhouse gases • Under the Kyoto Protocol, the UK has a legally binding target to reduce emissions of six key greenhouse gases by 12.5% relative 1990 level over the period 2008 to 2012. It has a domestic goal to cut carbon dioxide emissions by 20% below 1990 levels by 2010	The plan or programme will develop polices that help to limit or reduce the emissions of greenhouse gases

The recommended way to organise baseline data with quantified information, trends and comparators is illustrated at Table 2 below.

In this example, baseline data are not merely presented as a description of information. Instead, data are tabulated in such a way that the present state of the environment without the plan or programme can be quantified (Column 3). In addition, a reasonable prediction of the evolution of the environment without the plan or programme is so presented that one can see at a glance, through the comparators, targets and trends (Columns 4 & 5), whether things are getting better or worse. Column 6 allows for additional comments and constraints to be recorded.

Table 3 below shows one of the ways of recording environmental problems in the area which the plan or programme affects.

In this example, not only are relevant environmental problems listed (Column 1), data supporting the problems (Column 2), the likely indicators relating to the problems as well as policy measures (Column 3) are listed.

3 Identifying environmental problems – [e.g. Directive 79/409/EEC & 92/43 EC]

To be effective, SEA should address local, regional, national and international problems. The identification of local problems - areas where tensions exist between current and future baseline conditions- is a good starting point. Environmental problems in a particular area can be identified through consultations, peer group review, research and primary surveys. Because this exercise should inform the other elements of Stage A, you should try to devise key indicators that are likely to address the particular problems in your area. The problems should also give an indication of the kind of additional policies that should be considered in the plan or programme.

Table 2: Baseline Data

SEA Topic	Indicator	Quantified information (For RAs)	Comparators and targets	Trend	Issues/ Constraints
Population & Human Health	% describing health as not good	5.8% 2001	England & Wales 9.2% in 2001	6.4% in 1999 getting better	Favourable situation. Lower than national average and getting better

Table 3: A sample table for recording environmental problem is as follows

Environmental Problems/Key Issues	Supporting Data	Policy Measures Required
Lots of skilled jobs but low skilled workforce	Describe problem with figure **Key Indicator: Aberdeen Index of Competitiveness**	Develop policies to encourage a wider spectrum of employment opportunities
Lack of affordable housing	Average house price (2001) =£120,000 Total requirement for new affordable houses – 4,000 by 2006 1% pop is registered homeless **Key indicator: Number of affordable homes completed**	Establish challenging targets for affordable homes

4 Developing SEA objectives [Annex 1 (a) & (e)]

SEA objectives should be developed in consultation with consultative authorities and stakeholders. They are different from plan or programme objectives but may overlap. They should be expressed in terms of objectives, targets and indicators. State of the environment report may not always be applicable. Objectives, targets and indicators should be dynamic and should be revised alongside the collection of new baseline information, environmental problems identified and in comparison of the generic SEA objectives and targets in the UK-wide SEA Guidance (2005). Environmental criteria could well be used in place of indicators. Environmental criteria express indicator as questions.

Table 4a and 4b below illustrate two different ways of presenting SEA objectives and indicators in an environmental report.

In example 4a, a three-column table provides a framework for listing agreed objectives (Column 2) and corresponding indicators (Column 3) against the relevant environmental issues (Column 1).

In this second example, the SEA objectives are listed in Column 2, the indicators/criteria are listed as questions in Column 3. Column 4 is used to list environmental issues which a particular objective or criterion relates to.

Table 4a: SEA objectives & Indicators

SEA topic	Possible SEA Objectives	Possible SEA indicators: ways of quantifying the baseline, prediction, monitoring
Biodiversity, fauna and flora	Maintain biodiversity, avoiding irreversible losses	Number/area of Local Natural Reserve

Table 4b: SEA objectives & Indicators/Criteria

Ref	Environmental Objective	Environmental Criterion	Most relevant factors in Annex 1(f)
1	Protect, enhance and where necessary restore landscape character, local distinctiveness and scenic value.	Is the aim/policy/proposal likely to significantly help to protect species especially protected by law or species identified by in national or local BAPs or to protect, enhance, or restore designated nature conservation sites and/or habitats which are identified in national or local BAPs, or is it likely to have significant adverse effects on them?	Biodiversity, fauna, flora, water and landscape

5 Consulting on the scope of SEA

You are required by legislation to consult with the consultative authorities on the Scoping Report. In Scotland, at this time the Consultative Authorities are SEPA, HS and SNH. In addition, consultation with the public may enrich the process. You must ensure sufficient time is given for consultations.

Table 5 below set the Scoping-stage consultation within the broader context of consultations throughout the SEA process.

In this example, scoping consultations take place during the second stage of the SEA process. Although the only requirement is to consult statutory consultative authorities (SEPA, SNH and HS), it can be helpful if other members of the public or other officers from other services are consulted.

Table 5: Consultative Requirements

	Steps in the SEA	**Consultation Requirements**	**Additional Requirements in Transboundary situations**
	Screening the plan/programme		
Stage A	**Scoping the SEA**	**Consult SEPA, SNH and HS**	
Stages C1 & D1	Environmental Report and Draft Plan or Programme		
Stage D2	During the preparation of the plan or programme		
Stage D3	Adopt plan or programme; statements and measures concerning monitoring		

B – Developing and refining alternatives and assessing effects [Art 5.1 & Annex 1(h)]

Stage A can take place before the preparation of the plan begins. Stage B, however is an integral part of plan or programme preparation process. Detailed principles are discussed at Section B2 below.

1 Testing the plan or programme objectives against the SEA objectives

There are two issues here. Testing the internal compatibility of the plan or programme and testing the plan policies, objectives and strategies against SEA objectives. Internal compatibility is measured by testing the plan or programme objectives against each in order to reveal synergies or inconsistencies

Figure 1: Testing the internal compatibility of SEA or Plan objectives

SEA Objectives						
Objective 1						
Objective 2		×				
Objective 3	√					
Objective 4	×		√			
Objective 5	√		×	√		
	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	…
Key	√	Compatible	×	incompatible	blank	No links

The following example illustrates how the SEA objectives can be assessed for its compatibility.

Table 5 below illustrates the testing of external compatibility.

In the example below the same objectives are appraised against each other. To do this the same objectives are arranged along both vertical and horizontal axes of the matrix shown in Figure 1 above. Appropriate symbols are used to show the extent to which pairs of objectives are compatible or incompatible.

In table 5, the same objectives are not being appraised against each other as in the case of internal compatibility assessment explained in Figure 1 above. Instead, the plan or programme objectives (horizontal axis) are appraised against another set of SEA objectives and indicators derived during Stage A4 of the scoping stage (vertical axis).

Table 5: Testing External Compatibility

Scale: + positive, - negative, +/- positive & negative effects								
	Option 1: Multifunction waste treatment facilities in population centre over 25000				Option 2: limited function waste treatment facilities dotted around in pop centre per 10000			
SEA Objective	**Short Term**	**Med Term**	**Long Term**	**Comments Explanation**	**Short Term**	**Med Term**	**Long Term**	**Comments Explanations**
Limit air pollution to levels that do not damage natural systems								

2 Developing strategic alternatives [Art 5.1 Annex 1 (h)]

Plan or programme alternatives or options are usually considered as detailed project-level responses to problems. These are often determined politically rather than as a means of achieving a future vision. Alternatives in SEA are more proactive, strategic, long-term, sustainable and less political. They aim to inform choice. In SEA, alternatives are discrete actions – either-or-type of choices; Options are abstract mix-and-match actions while scenarios are the achievement of the some proposals beyond RA's control. They are also identified hierarchically. The sustainable 'hierarchy of alternatives' involves good management of demand[6], the choice of mode/type, determining location and deciding how the plan or programme will be implemented/timed. It is informed by comments from informal consultation and the environmental problems identified.

3 Predicting the effects of the draft plan or programme including alternatives

In predicting the effects of the plan or programme, you are testing the different alternative proposals, policies, strategies and objectives against SEA objectives and indicating the effects that are positive, negative, neutral or uncertain. It would be a good practice to broadly appraise the plan policies, options or strategies together with the alternatives. This will help to (i) scope in/out the environmental issues (SEA topics) that will be considered in detail during the evaluation stages and to (ii) scope in/out the alternative proposals and alternatives to be further evaluated at the next stage. The following example can fulfil the two conditions.

The following table gives examples of alternatives by hierarchy.

Table 6: Hierarchy of alternatives

Topic	Obviation	Mode/Type	Location	Implementation/ Timing
Energy	Reduce demand for energy in housing by promoting low energy lighting and appliances, very efficient boilers, high insulation standards, conservatories and lobbies, large south-facing and small north facing windows etc.	Promote renewable energy, energy from waste, Combined heat and Power	Small-scale, community owned renewable energy installations to minimise transmission loss	Use best available technologies in building construction and operation; site housing to optimise solar gain; use materials with low embodied energy

This example provides a framework for brainstorming on additional strategic alternatives/options. In this example the decision on obviation must first be made; and that will then determine the choice of the mode much the way as the choice of location determines the nature of implementation of a strategy.

[6]In SEA, this is often reffered to as demand reduction or obviation

Table 7 is an example of how a plan or programme effect can be predicted. In this example, the main concern of the assessor is the determination of the type of effects the plan or programme will have on the environment. These types of effects may be positive (+), negative (-), mixed (+/-) or even uncertain (?) as highlighted in the table.

In table 8, the assessor is not only interested in the nature of the environmental effects - whether the effect is positive (+), negative (-) or mixed (+/-). The assessor is also concerned about issues such as the duration, magnitude, scope, probability, risk and cumulative effects. The comment/explanation section provides the space to record such evaluation.

4 Evaluating the Effects of the draft plan or programme, including alternatives

Evaluating includes consideration for scale, duration, magnitude and cumulative effects and a judgement on whether an impact is significant or otherwise. The following framework can be adopted in the assessment. The comments and explanation column should be utilised to evaluate significant effects

Table 8 is an example of how a predicted plan or programme effect can be formatted so that evaluation of effects can be combined with the assessment of effects. It also shows how alternatives can be compared.

Table 7: Predicting the Effects of Plans/Programmes and Alternatives

Scale: + positive, - negative, +/- positive & negative effects								
	Option 1: Multifunction waste treatment facilities in population centre over 25000				Option 2: limited function waste treatment facilities dotted around in pop centre per 10000			
SEA Objective	**Short Term**	**Med Term**	**Long Term**	**Comments Explanation**	**Short Term**	**Med Term**	**Long Term**	**Comments Explanations**
Limit air pollution to levels that do not damage natural systems	+/-	+/-	+/-		+	++	+++	

Table 8: Evaluation of Effects

Scale: + positive, - negative, +/- positive & negative effects								
	Option 1: Multifunction waste treatment facilities in population centre over 25000				Option 2: limited function waste treatment facilities dotted around in pop centre per 10000			
SEA Objective	**Short Term**	**Med Term**	**Long Term**	**Comments Explanation**	**Short Term**	**Med Term**	**Long Term**	**Comments Explanations**
Limit air pollution to levels that do not damage natural systems	+/-	+/-	+/-	**Operating conditions may reduce amount of pollution from waste treatment; but more vehicle trips needed to bring waste to limited number of sites**	+	++	+++	**Easier access to treatment facilities should reduce the number and length of trips to assemble waste at the site. Effect is cumulative**

5 Considering ways of mitigating adverse effects

To address significant environmental effects (positive or negative) mitigation measures should consider

- Changes to specific alternatives concerned or to the plan or programme as a whole
- Changes to specific proposal within the plan or programme
- Technical measures needed during implementation such as buffer zones
- Identifying issues to be addressed during EIA phases
- Proposing changes to other plans or programmes

The following tables illustrate mitigation measures

This example shows how adverse environmental effects can be mitigated. In this case, the plan or programme options that have adverse environmental effects in relation to SEA objectives (Column 1) are listed in Column 2. The potential risks as well as opportunities for mitigation are listed in Columns 3 & 4 respectively. Specific actions required for the plans or programmes are listed in the 5th column of the table.

Table 9: Mitigation Measures

SEA Objectives	Affected by Policies	Risks	Opportunities	Mitigation Required
1. Conserve and enhance existing ecosystems including restoring the full range of characteristic habitats and species to viable levels	Policies 1, 7, 12, 50	Potential cumulative impacts • Species rich hedgerows • Barn owls • Bats • otters	Habitat creation on development sites for bats, barn owls and plantings to encourage wildlife	Amend Policy 1 to include [regional guidance principles] or structure plan objectives Ensure sites with species listed provide adequate and effective mitigation in planing conditions
2. Reduce greenhouse gas emissions	Policies 22, 25, 33, 62	Increased emissions from households, business and transport	Use sustainable technologies in development	None
3. Energy generation from renewable sources	Polices TR1, SZ20, 15	Possible impacts on wildlife particularly migratory species	Will contribute to target [6]	Policy 15 should specifically mention migratory species

6 Proposing measures to monitor the environmental effect of plan or programme implementation (See Tables 10 & 14 for examples)

There is the need early during the plan preparation and the SEA process to consider how the significant environmental effects of the plan or programme could be monitored and to identify any unforeseen adverse effects to enable appropriate remedial actions to be taken. The following is a suggested format.

The following table shows how SEA monitoring report can be presented.

Table 10. Proposed Monitoring Framework

What to monitor (Indicators)	Where does monitoring data come from?	Are any gaps in existing information and how can these be resolved?	How often?	When should action be considered?	Who is responsible for monitoring?	What could be done if a problem is identified?
Ratio of the area of grey hairgrass (Corynephorus canescens) to the area coastland	NESBReC	NESBReC has an up-to-date record on it.	Every 4 months	When the percentage fall below 1:20	The Natural Heritage Team The Author of the Report	The coast management plan should be revised and tourist activities along Aberdeenshire coasts and beaches should be revised

In this case the columns comprehensively provide the framework for what needs to be monitored, where monitoring data comes from, how gaps in the existing information can be resolved as well as the frequency of monitoring. Besides, when action should be considered, the person responsible to take action as well as what would be done when the unexpected happens are well covered.

C – Preparing the Environmental Report

The following is the suggested structure of an environmental report.

The Environmental Report is a key output of the SEA process. It could be a separate document with links to the plan or programme. It could well be integrated as part of the plan but clearly distinguishable. Instead of a report covering an SEA process, it may also be a report covering a sustainability appraisal. However, a sustainability appraisal must meet the full requirements of the SEA Directive. The suggested structure of the report could be as follows:-

Table 11: Environmental Report: Structure

Structure of report	Information to include
Non-technical summary	• Summary of the SEA process • Summary of the likely significant effects of the plan or programme • Statement on the difference the process has made to-date • How to comment on the report
Methodology used	• Approach adopted in the SEA • Who was consulted, and when • Difficulties encountered in compiling information or carrying out the assessment
Background	• Purpose of the SEA • Objectives of the plan or programme
SEA Objective and baseline and context	• Links to other international, national, regional and local plans, programmes, and relevant environmental objectives including how these have been taken into account • Description of baseline characteristics and predicted future baseline • Environmental issues and problems • Limitations of the data, assumptions made etc. • SEA Objectives, targets and indicators
Plan/programme issues and alternatives	• Main strategic alternatives considered and how they were identified • Comparison of the significant environmental effects and alternatives • How environmental issues were considered in choosing the preferred strategic alternatives • Limitations of the data, assumptions made etc • Other alternatives considered and why they were rejected • Any proposed mitigation measures
Plan or programme policies	• Significant environmental effects of the policies and proposals • How environmental problems were considered in developing the policies and proposals • Proposed mitigation measures • Uncertainties and risks
Implementation	• Links to other tiers of plans and programmes and the project level (environmental impact assessment, design guidance etc) • Proposals for monitoring

D – Consultation and decision-making

1 Consulting on the draft plan or programme and the Environmental Report

The Environmental Report must be made available at the same time as the draft plan and programme as an integral part of the consultation process. Some of the ways of making the draft plan and environmental report available to the public include advertising in the press and placing in the Council's website. The Environmental Report should clearly indicate the interrelationship between the plan and the Environmental Report. The Consultative Authorities and the public must be given adequate time to comment on the Environmental Report.

Table 12 below shows the relevant consultation requirements during the preparation of an environmental report.

In this example, Stages 3-5 (in bold type) summarise the consultation requirements and the steps in the process.

Table 12: Consultative Requirements

	Steps in the SEA	Consultation Requirements	Additional Requirements in Transboundary situations
Pre-assessment Stage	Screening the plan/programme		
Stage A	Scoping the SEA		
Stages C1 & D1	**Environmental Report and Draft Plan or Programme**	**Consult SEPA, SNH and HS and the Public Make information available to the public.**	**Consult both (i) environmental authorities and (ii) the public of Members States likely to be affected.**
Stage D2	**During the preparation of the plan or programme**	**Take account of the Environmental Report and opinions expressed Produce a statement to this effect**	**Take account of the results of the transboundary consultations**
Stage D3	**Adopt plan or programme; statements and measures concerning monitoring**	**Make information available to SEPA, SNH and HS Make information available to the public**	**Make information available to consulted Member States**

2 Assessing significant changes

The consultation process can suggest significant changes to the Environmental Report which in turn significantly affects the original plan or programme for which the SEA is being undertaken.

The following table can be used to track changes to the plan or programme as they go through the consultative processes.

In this framework, changes to the plan or programme can be tracked using the format suggested in Table 13 above. This is to ensure that as plans go through several reviews, the implications for the environmental report and plan/programme are kept under a constant review. This will ensure consistency.

3 Decision making and providing information

Both the consultation outcome and the environmental report must influence the plan or programme. It is not sufficient to say that the environmental report and the consultation outcomes will be taken on board. Responsible authorities should show how they have in fact taken them into account before adopting their plans or programmes. The environmental report and the adopted plan must contain statements indicating how the SEA and consultations have shaped the final plan. How that consultation modifies or maintains monitoring should also be provided. Once the plans have been adopted, arrangements must be made to inform the public and consultative bodies and to make copies available to them or to allow them access to the plans or programmes.

Table 13: Tracking Significant Changes to Plan/Programme and Environmental Report

Dates of proposed changes	Original Plan or Programme proposals	Are significant Changes to the original plan or programme necessary?	Are there any implications for the environmental report?	Should there be (significant) changes to the environmental report?	Should there be (additional) changes to the plan or programme?
10/1/2006	Promote private car use particularly in areas where there is no access to public transport	Yes. The Consultative Authorities and the general public are not in favour of this proposal. They suggest the replacement of the proposal with an extension of public transport to all areas within Aberdeenshire in order to promote social inclusion.	Yes. The original policy has already been a subject matter of assessment, evaluation, and mitigation.	The original policy should be replaced by the suggested proposal. This is likely to affect the page numbering, table of contents and the alignment of tables and figure. Ensure these changes are carefully made.	Yes, amend the proposal in favour of the suggestion. As most elected members favour the original proposal, you should discuss the proposed changes with them.

Stage E – Monitoring implementation of the plan or programme

1 Developing aims and methods for monitoring

During the discussion of scoping in Part 1 and SEA objectives in Section A4, it was stressed that to undertake an effective SEA, more measurable indicators and targets are preferred to more general and broad-brush objectives. For this reason, in developing aims for monitoring, it is the measurable indicators or targets that are important to the monitoring process. Equally, it is also necessary that issues identified when collecting baseline data; assessing significant environmental effects and proposing mitigation measures should inform the development of aims for the monitoring report.

Table 14 is an example of how aims can be developed.

This example recalls earlier discussions during Stage A above. It was stressed that issues such as 'other relevant plans, programmes and environmental protection objectives,' 'collecting baseline data,' 'environmental problems in the area' and 'SEA objectives and indicators' should be discussed concurrently to add value to or inform each other. To ensure that these issues continue to add value to each other, monitoring could begin with indicators drawn from SEA objectives and indicators. In Table 14, some indicators for climatic factors are used for an illustration. These indicators are not exhaustive. It is the indicators that address problems and issues in the area that matter ultimately.

Table 14: Developing aims & methods for monitoring

What to monitor (Indicators)	Where does monitoring data come from?	Are any gaps in existing information and how can these be resolved?	How often	When should action be considered?	Who is responsible for monitoring?	What could be done if a problem is identified?
Climatic factors						
• Electricity generated from renewable energy sources and CHP located in the area						
• CO2 emissions						
• Flood risk						

2 Responding to adverse effects

Good environmental report including robust mitigation and monitoring measures as well as good plans and programmes do not necessarily prevent the unexpected adverse effects from occurring. For this reason a mechanism for identifying effects that require remediation should be put in place. In addition to identifying the conditions considered environmentally undesirable or unacceptable, the SEA report should indicate possible remediation actions that should be in place. Measures include plan revision and amendment and further mitigation measures. It should also identify those who will be responsible for taking remedial action and the frequency of such actions should the need arise.

Table 15 below can set the framework for responding to adverse effects.

In this example, the provision in the last column entitled 'what could be done if a problem is identified,' is a useful way of anticipating problems and planning to tackle them when they do occur.

Table 15: Responding to Adverse effects

What to monitor (Indicators)	Where does monitoring data come from?	Are any gaps in existing information and how can these be resolved?	How	When should action be considered?	Who is responsible for monitoring?	**What could be done if a problem is identified?**

Glossary

Connsultation Authority
A specialist body with environmental expertise that can consider plans and programmes submitted by a Responsible Authority. The consultation Authorities are; Scottish Ministers (Historic Scotland), Scottish Environmental Protection Agency and Scottish Natural Heritage.

Development Consent
The decision of the competent authority or authorities, which entitles the developer to proceed with the project, defined in EU Directive 85/337 and also in Regina v. North Yorkshire County council Ex Parte Brown & Another.

Environmental Report
Document required by the SEA Directive [Directive 2001/42/EEC on the assessment of the effects of certain plans and programmes on the environment as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a plan or programme and reasonable alternatives. Section 14 and Schedule 3 of the Act sets out the information required in an Environmental report.

Plan or Programme
The term "plan or programme" covers any plans or programmes to which the Act applies and specifically includes strategies.

Pre-Screening
Where a plan as described in section 5(4) of the Act is considered, in the opinion of the Responsible Authority, to have no or minimal effect on the environment they may exempt the plan from SEA. To reach such a decision the Responsible Authority must consider the significance of the environmental effects against the criteria set out in Schedule 2 of the Act. Under section 7 of the Act, Responsible Authorities have statutory obligation to notify Scottish Minister of their pre-screening decisions and a register of decision is available for public inspection.

Responsible Authority
Any person, body or office holder exercising functions of a public character. If such an authority prepares a strategy, plan or programme which requires an SEA then that authority js responsible for the SEA. Where more than one authority is responsible for a strategy, plan or programme they should reach an agreement as to who is responsible for the SEA. Where an agreement cannot be reached, he Scottish Ministers shall make the determination.

Scoping
The process of deciding the scope and level of detail to be included in the environmental report.

Screening
The process of determining the likely significance of effects on the environment of a strategy, plan or programme. Schedule 2 of the Act sets out criteria for determining the likely significant effects on the environment.

Strategic Environmental Assesment (SEA)
Generic term used to describe environmental assessment as applied to strategies, plans and programmes. The term "SEA" is used to refer to the type of environmental assessment required under the Environmental Assessment (Scotland) Act 2005.

Sustainable Development
Securing the future, acknowledging that achieving economic growth has to be done in such a way that it does not harm the environment or squander the natural resources we depend on, and having to distribute the wealth it creates to improve quality of life and to eradicate poverty.

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Support and Resources

Three routes for the SEA process identified by the SEA Steering Group include (i) the use of external consultants; (ii) doing SEA in house and (iii) combining (i) and (ii). Resources such as in-house training, SEA templates, SEA case studies and additional support are available to support staff and community partners throughout the process of SEA. However, the choice is for every Service or community partner to make.

Further information

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