

APPENDIX 5 - CASEWORK ANALYSIS METHOD

1. Background

A detailed casework analysis method was developed in order to determine the effectiveness of the SEA process in terms of the direct effects of the SEA in changing and influencing the development of PPSs. The development of the method was undertaken in consultation with the statutory Consultation Authorities and the Scottish Government and the method was piloted by reviewing 8 initial case studies. It was also informed by the literature review that was undertaken at the early stages of the review project (see Appendix 3 - Literature Review). This highlighted the requirement for the use of a number of research methodologies to fully deliver the objectives of the SEA review.

The casework analysis methodology is based on a framework for systematically recording how the environmental effects identified in the SEA process are addressed by the RA and how the comments from the CAs in their responses are taken into account for each of the case studies. This framework enables a degree of quantification of the influence of the SEA process in the development of PPSs. This quantitative approach minimises subjectivity in interpretation and allows an easier comparison and aggregation of results.

Information on how the environmental effects identified in the SEA process are addressed by the RA and how the formal comments from the CAs are taken into account was gathered through the review of the documentation produced as part of the SEA: Scoping Reports (SR), Environmental Reports (ER), Post Adoption Statements (PAS) and the formal responses from the CAs.

However, it is important to note that close integration between plan preparation and the SEA process, or close liaison with the CAs, may result in an iterative approach to planning making where a great deal of influencing is achieved through meetings and through informal exchanges. This information may not be comprehensively captured as part of the preparation of the plan itself or in the SEA documentation and this is a limitation of the quantitative analysis.

2. Objective

The study considers that SEA is effective when the environmental effects identified through the assessment process are taken into account by the RA, by either changing the plan or identifying other mitigation measures. The SEA process is supported by the involvement at different stages of the CAs to provide advice on the SEA process from their respective areas of expertise. The extent to which the CAs comments are taken into account was also considered a measure of SEA effectiveness.

The main objective of the casework analysis is to gather quantitative information on the direct effectiveness of the SEA process in changing and influencing the development of PPSs.

3. Sample

The study sample focused on plans that had undergone the SEA process from start to post adoption stage as at this stage the final plan as been prepared and all changes that may have taken place as a result of the SEA process has been completed. It was also considered helpful for the objectives of the study to review SEA statements submitted at the adoption stage as they should set out how the SEA process has influenced the plan.

Therefore the selection of a representative sample could only be taken from the plans that had reached Post Adoption stage already. At the time of selection 109 plans had reached this stage, but only 81 had full SEA documentation available and therefore were suitable for selection. As the project commenced, more recent examples of published post adoption statements were used. It was determined that a sample of 32 plans was sufficiently representative as this is 40 % of the plans suitable for analysis at the time of selection.

The casework sample was designed to broadly mirror the range of types and scales of plans that have been subject to SEA over the past 5 years (from the Scottish Government SEA Database) on the basis of their proportion within the sectors in the SEA annual reports published by the Scottish Government. Accordingly, the casework portfolio comprised approximately 40% of town and country planning or land use PPSs and included a ratio of 45:55 spatial to non spatial PPSs and 20:80 high level (national) to low level (regional or local) PPSs. Figure 1 shows the breakdown the sample by sector and type.

Figure 1

Sector:	No.	Type:	No
Town and country planning or land use	14	Spatial	15
		Non Spatial	17
Tourism	5	National (high) level Local (low) level	7
Waste	1		25
Transport	5		
Energy	3		
Forestry	1		
Miscellaneous	3		

Within this proportion the plans were also selected to maintain a geographical balance.

Within the national plan selection there are also three plans for which the CAs fulfilled the role of RAs. Therefore the sample includes one plan prepared by SEPA, one prepared by SNH and one prepared by Historic Scotland. For those plans the respective CA did not respond to the statutory SEA consultations.

Due to the fact that the review covered PPSs that had reached the post adoption stage, some of the plans selected for the casework review may be more representative of earlier SEA practice.

4. Pilot

Prior to using a method on all 32 cases, a pilot was undertaken, with the aim to bring out key findings in terms of evaluating effectiveness of SEA and to make recommendations regarding how the full review should be conducted during Phase 2. The pilot involved the analysis of SEA documents for 8 plans from different sectors and resulted in the development and finalisation of a template for recording the casework assessment. Further information on the template and the process is reported further on in this appendix.

5. Template

A Microsoft Excel spreadsheet was developed with a series of worksheet Tabs and tables, in order to systematically record the findings from the casework analysis for each plan SEA. The spreadsheet was tested and further developed during the pilot of the casework and further refined during the early stages of the full casework analysis to reflect the need to record different levels of information. The template was structured to record:

- Significant environmental effects identified through the SEA process focussing on adverse effects and where RAs have identified enhancement, recording how those have been addressed by the RAs in terms of changes to the plan or mitigation measures;
- Effects identified by the RAs as uncertain/ unknown/ minor negative were also recorded if they resulted in actions or mitigation measures;
- All the comments made by the CAs and how these have been taken into account;
- General information provided by the RAs on the effectiveness of the SEA process; and
- Comments on the SEA from stakeholders other than the CAs to gather information on their involvement in the SEA process

A separate section focussed on recording general information about the plan and SEA:

- SEA topics scoped out;
- Assessment methods used;
- Hierarchy of the plan;
- ‘Green thread’: whether the plan was limited by a high level plan or influenced a low level plan;
- Whether the PAS reported all the comments from the CAs;
- Whether the pathway to implementing mitigation measures was clear or unclear;
- Whether monitoring was mainly based on primary data, on existing data or a combination of the two;
- Information on who carried out the SEA SR and ER: consultants or RAs;

The main focus of the analysis was to establish whether environmental effects identified by the RAs or comments from the CAs were taken into account based on evidence. During the piloting of the method and the early stages of review of casework it became apparent that there are different ways in which the effects and comments can be addressed. They can be fully or partially taken into account, they may be constrained from being taken into account by different factors, or simply they are not addressed or taken into account by the RA.

A system of scores was therefore developed to capture and record the different ways in which an effect or a comment can be taken into account and this constitutes the ‘unit of measurement’ of the analysis. A full list of the scores is set out in figures 2 and 3 together with a full definition for each score.

Figure 2 lists the different scores used to catalogue how each effect, or each CA comment has been taken into account.

Figure 2

Code	Explanation
Score	
E	Enhancement - The RA has implemented enhancements in the plan for a particular positive/neutral environmental effect or has gone 'a step further' even if there was not need to do so. Example: strategic objective has positive effects on SEA topic climatic factors and RA adds a further objective promoting the use of renewable energy
Y	Yes-Fully into Account- Effects/comment have been taken into account and resulted either in changes to the plan, the option being discarded due to environmental effects or mitigation measures being proposed; or a CA comment has been taken into account in the preparation of the ER Example: the CA highlights significant environmental effects in relation to surface water runoff and the RA includes reference to SUDS in mitigation measures
C-higher plan	Constrained- higher plan - Effects/comment have not been taken into account because the action is constrained by the fact that a higher plan already dictates a course of action Example: Effects on air and climate cannot be taken into account as policies safeguarding transport schemes are dictated by a higher level plan
C-least adverse effects	Constrained- least adverse effects- Effects/comment not taken into account as option minimises effects on other SEA topics Example: effects of allocation on soil will not be taken into account as allocation has least adverse effects on other SEA topics
C-option discarded	Constrained- option discarded - Effects/comment have not been taken into account because the option was not considered reasonable due to reasons other than the environment Example: a potential option is not feasible due to operational difficulties or costs
C-timing	Constrained- timing - Comment not taken into account due to the fact there is no requirement to revise the ER and therefore the comments can not be taken forward Example: a comment on the methodology used to undertake the assessment or on the accuracy on the baseline data made at ER stage
C-other	Constrained- other - Comment not taken into account due to being constrained by other causes This is only used in exceptional cases where the above categories cannot be used Example: the comment highlights significant effects but these are not likely to result from the action in the plan
P	Partial- Partially into Account- The RA has taken into account only part of the comment or has not fully addressed the issue Example: comment requests that SEA objectives consider climate change mitigation and adaptation but only climate change mitigation has been taken into account in the ER
N	No – Not into Account -Effects/comment have not been taken into account Example: comment requests the consideration of cumulative effects in the assessment and these are not included in the ER

A	Advice given by the CA. These are comments that do not require action and that could be included. If it is taken into account it should score Y, if it not taken into account it is left as A. Example: references to data sets or further interpretation of a piece of environmental legislation
?	The score is difficult to assign and therefore the relevant CA should be consulted for clarification - this score is only used for the validating process carried out by SNH and Historic Scotland on comments relevant for their remit; it does not appear in the final summary tables and is not considered in the totals and in the graphs
Comment only	Comments that do not require and can not result in any further action. Usually an acknowledgement or comment on positive achievements. These are not considered in the totals and in the graphs. Example: CA welcomes the proposed assessment methodology
H	Appropriate Assessment - (Habitat Regulations) although this is not part of the SEA Review, the comment is recorded to ensure that all sections of the CA responses (apart from standard paragraphs) are available in the General TAB. The H comments are not counted in the totals and in the graphs.

In addition, figure 3 shows the list of possible actions taken by the RAs to address environmental effects identified in an ER or in CAs comments.

Figure 3

Code	Explanation
Action type	
Plan changed	The environmental effects or the comments made by the CA have resulted in changes to the Plan. These have been clearly identified in the Post Adoption Statement or in other SEA related information Example: policy has been reworded to take into account the CA comments
Option disc. Env.	The environmental effects or the comments made by the CA have resulted in the option under discussion not being taken forward solely because of environmental reasons. Example: option removed from proposed plan due to potential adverse effects on population and human health
M-Policy	Policy framework - Mitigation is implemented through policies in the plan Example: potential adverse effects will be mitigated through existing planning policies
M-Assumed	Assumed mitigation - Mitigation is implemented through legislation, licensing and/or best practice guidance Example: land use planning and environmental regulations will ensure any projects should not result in significant adverse effects
M-Assessment	Assessment - Mitigation is implemented through EIA, Transport assessment or other assessment Example: further assessment is required to develop the appropriate detailed mitigation measures
M-Lower tier	Lower Tier Plans - Mitigation is left to be dealt with at a lower plan level Example: mitigation to be delivered through the consideration of the significant effects when allocating sites in the LDP or LDP policies
M-Project	Project specific - Mitigation is implemented through a specific project or with specific measures Example: mitigation to be delivered at the project design stage
M-Other	Other types of mitigation not covered by the above breakdown

6. Full casework analysis

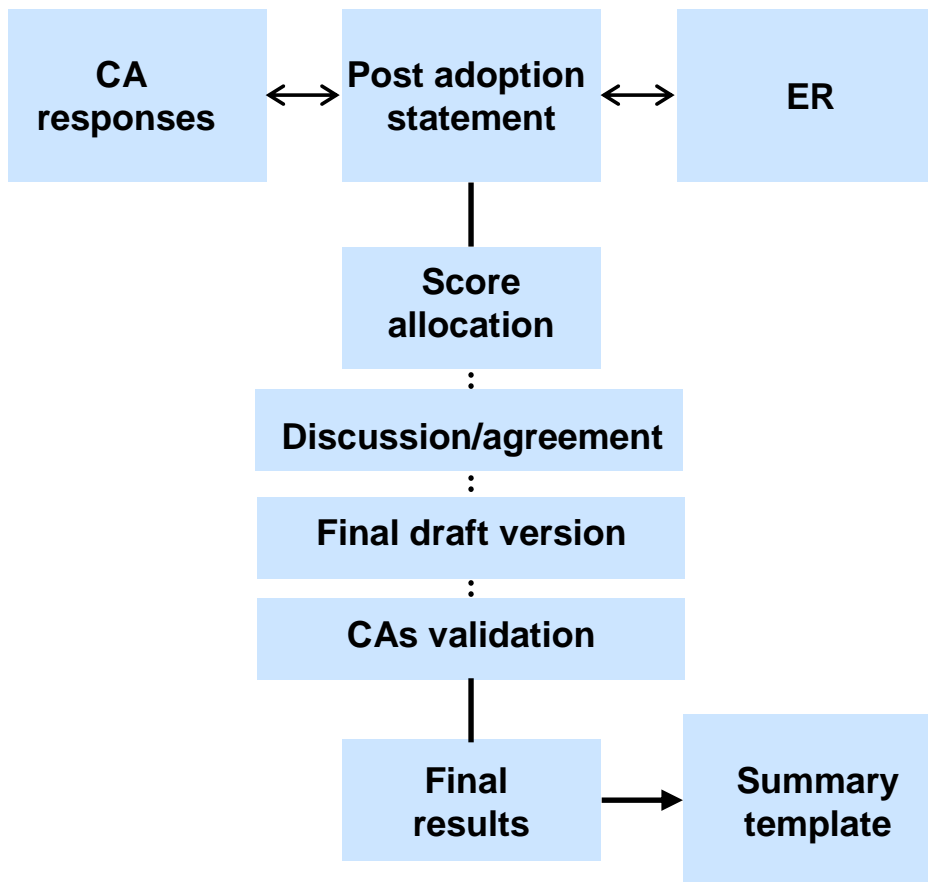
A review of the SEA documentation for each case study was undertaken, focussing on the PAS, ER and all the CAs responses to both scoping and ER consultations. Where necessary, the analysis also involved reviewing the final plans and SRs.

The process involved the members of the SEPA project team independently identifying the environmental effects from the RA assessment and analysing all the comments from the CAs responses for each case study. They then assigned the relevant scores to document how environmental effects or CAs comments were taken into account based on evidence as discussed in more detail below. Other more general information about the PPS and the SEA was catalogued in the casework template as described in Section 5 above.

- **Environmental effects:** The analysis of each case study involved recording the environmental effects identified in the assessment and detailed in the ER and then determining whether those effects have been addressed by the RA, by either changing the plan, identifying mitigation measures or by enhancing positive effects. Evidence for this is available in the detailed assessment provided in the ER, the information contained in the PAS or the plan itself. These scores were recorded in separate tabs for each SEA topic which form part of the casework analysis spreadsheet. The comments made by the CAs on the environmental effects have also been documented in this part of the template. The range of possible scores for the environmental effects recorded in the SEA topic tabs (as per figure 2) are E, Y, C, P, and N.
- **CAs comments:** Each casework analysis also involved recording comments made by the CAs at scoping and ER stage that do not specifically relate to environmental effects but are intended to inform the assessment process. The way these comments have been taken into account was also recorded in the casework spreadsheet as a measure of the effectiveness of the consultation process. Evidence for this is gathered from reviewing the CAs responses and the documents at the next stage of the SEA. The range of possible scores for the CAs comments are: Y, C, P, N, A.

This information was systematically recorded in the template described above. The project team then compared their scores, discussed any different interpretation and agreed a final score for each comment in order to have one final draft of the spreadsheet for each plan. A copy of the relevant comments was then sent to SNH and Historic Scotland to ensure that they agreed with the scores allocated for comments within their areas of expertise. If the other CAs recommended changes to the scores, these were then incorporated in the final version of the spreadsheet. The data were then copied into summary tables for the consolidation of the results. The process used in the casework analysis is summarised in Figure 4 below.

Figure 4



The results of the review of the 32 case studies were aggregated into a summary template. The casework analysis results included the following:

- identification of the number and range of environmental effects being identified in Environmental Reports or through CA comments. The analysis of the environmental effects was also broken down by SEA topic, in order to identify which SEA topics were most commonly affected by the PPSs;
- consideration of the nature of the constraints that prevent or restrict effects or comments from being taken fully into account. The full list of constraints is available in Figure 2;
- consideration of the actions taken by the RA to address environmental effects, in order to identify the most common form of mitigation. The full list of actions is available in Figure 3;
- consideration of the types of comments made by CAs in their SR and ER consultation responses and consideration of differences between the number of comments addressed or taken into account in the SR and in the ER;
- consideration of the influence of the CAs responses. In most cases the results were reported for all the CAs together, however in some circumstances the results were reported for SEPA, SNH and Historic Scotland separately.

The casework analysis gathered considerable amounts of information; however for brevity it was necessary to limit the reference to results in the report to the key issues.

As stated above, the RAs have also included in their assessment uncertain/unknown/minor negative effects and proposed actions/ mitigation measures to address these. In aggregating the results, these effects have been included alongside the significant environmental effects as part of determining the effectiveness of SEA. Positive effects have also been included where the RA identified enhancements. However, in order to focus on the most damaging effects to the environment and to focus on the significant issues we have also reported separately the results of the evaluation of only the significant adverse environmental effects identified through the SEA process.

7. Quality checks

A number of measures were taken as part of the evaluation process and throughout the assessment in order to ensure accuracy and robustness of the results. In addition further quality and consistency checks were undertaken on completion of the analysis. These are described below:

- The use of a template for the analysis from the beginning until the end of the work ensured consistency of analysis for all the 32 cases;
- Two individuals evaluated each of the 32 cases on a parallel basis, each coming to a view about how to score a case. These separate results were then brought together and, where necessary, differences discussed and agreed. This approach was adopted to address the potential for subjectivity in the interpretation of the comments. A procedure was also prepared in order to record the method and the key stages of the assessment; Draft scores were revised and validated by SNH and Historic Scotland for the SEA topics within their remit in order to ensure that SEPA staff had correctly interpreted the other CAs comments. SNH and Historic Scotland guaranteed consistency on their revisions by allocating this task to the same person for all the 32 cases analysed;
- Each stage of the process has been recorded in order to keep an audit trail. Changes to previous versions have been recorded in a consistent and auditable way, through a system of different colour for different stages of changes;
- In order to be able to trace back comments and actions, references to specific documents and sections were made. This allowed double checking by a different person or at a different stage and therefore ensured that the process was as transparent and auditable as possible;
- CAs comments were reported into the template directly from their responses rather than from the PAS. The PAS may not report each comment separately or may combine comments in a summary and therefore using the comments as reported in the PAS could introduce inconsistencies in the results. The PAS was used to check whether the CAs comments were taken into account or not;
- Most of the consistency issues arising were addressed as early as possible during discussions between the investigators, and an issue log was kept in order to be able to refer back to a decision made on a particular issue;
- A series of consistency checks were carried out on completion of all the casework assessment in order to ensure that the same approach was carried out throughout the assessment.

8. Limitations

The casework analysis has a number of limitations and these are described below:

- The casework review relied on professional judgement by the investigators and the study is limited by the number and type of case studies analysed;
- The casework analysis identifies the range and number of environmental effects but makes no consideration of the severity or significance of these – for the purposes of this review they are treated equally;
- The wide variability in level of detail in the assessment depending on the nature of the plan, wide variability in the nature of the analysis undertaken and which elements of the plan were assessed to different levels of detail (broad-brush high level- to very detailed assessments); the level of detail of the effects, as well as the definition of significance, also varied considerably and this made the recording of effects and interpretation challenging;
- There was a wide variability in reporting how environmental effects were taken into account and what changes/mitigation resulted from the environmental assessment. This made interpretation of how effects had been taken into account more complex;
- Difficulties in determining what constitutes a “comment”. The style of the person writing the response and the type of issues raised may have influenced the identification of the number of comments for different plans and for the different CAs. The quality of SEA may also have influenced the number of comments made by the CAs with less comprehensive SEAs generating a significant number of comments;
- The level of influence of the SEA process may not be fully captured in the SEA documentation. When the SEA has been carried out as an integral part of the development of the PPSs it may be difficult to distinguish changes made as a result of the assessment from those made as a result of normal plan-making. A significant amount of information and advice is likely to have been provided by the CAs to the RAs during meetings and informal discussions but there was limited information and written records of this activity. Thus, the casework analysis tells only part of the story and practitioners and plan-makers views about influence also need to be considered to fill such gaps;
- Variability in the quality and details contained in PAS made the process of recording quantitatively the actions taken quite challenging. In some cases, the recording of actions required a judgement by the investigators on what the appropriate scoring should be which is likely to have introduced some subjectivity. However the majority of the scoring was based on the evidence provided in the both ERs and PAS.
- A key assumption of the analysis was that if the PAS stated that changes were made to the plan as a result of the SEA, this was accepted and not cross checked with the plan. This means that if the PAS reported that one comment had been taken into account in a certain way in the plan, the scoring of the comment was recorded on this basis. The final plan was reviewed when there was uncertainty or lack of clarity in the PAS;
- The need for the PPSs to have reached the post adoption stage meant that some of the plans in the sample casework review are more representative of earlier SEA practice and may not be fully representative of current practice;

- No statistical analysis was undertaken on the casework analysis findings as the cases do not represent a statistical sample. It is considered that the cases represent a snapshot of assessment practices for a particular number of case studies and suggest general trends.