



SHANNON CATCHMENT FLOOD RISK ASSESSMENT AND MANAGEMENT STUDY – UoM27/28 – SHANNON ESTUARY NORTH & MAL BAY RIVER BASIN STRATEGIC ENVIRONMENTAL ASSESSMENT & NATURA IMPACT ASSESSMENT REVIEW

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Keywords: *Review of Flood Risk Management Plan; Environmental Reports; Strategic Environmental Assessment Statement and; Natura Impact Statement*

Abstract: Fehily Timoney & Company carries out a review of the Environmental Reports, Strategic Environmental Assessment Statement and Natura Impact Statement to assist the Minister to conclude whether the FRMP will adversely affect the integrity of a Natura Site/Sites and if significant effects on the environment are likely to occur.

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1 INTRODUCTION

This document has been prepared by Fehily Timoney & Company on behalf of the Department of Public Expenditure and Reform to review the SEA and AA reports for the Shannon Estuary North & Mal Bay River Basin Flood Risk Management Plan (UoM27/28) as part of the Shannon CFRAM study, such that the Department of Public Expenditure and Reform may be in a position to recommend to the Minister on the adequacy/compliance, or otherwise, of the SEA and AA submitted by the OPW for approval. The approval process will provide for a separate and independent review of the plans undertaken to inform the Minister as to the adequacy/compliance, or otherwise, of the plans.

In considering the Shannon Estuary North & Mal Bay River Basin Strategic Environmental Assessment and Appropriate Assessment the following documents were reviewed;

Draft Flood Risk Management Plan
Strategic Environmental Assessment - Environmental Report
Strategic Environmental Assessment - Statement
Appropriate Assessment Screening & Natura Impact Statement

In assessing these documents, a report was produced to determine if the procedures and statutory obligations set out in the relevant environmental regulations have been fully complied with; if all relevant environmental considerations have been duly and effectively assessed; if the FRMP will adversely affect the integrity of a Natura Site/Sites and if significant effects on the environment are likely to occur.

This document is presented in a number of checklists having regard to the EPA guidelines as derived from the SEA Directive (2001/42/EC), the EU Habitats Directive (92/43/EEC) and the Birds Directive as amended (2009/147/EC).

Table 1: AA SCREENING

AA Screening				
Minimum Requirements				
	Question	Yes	No	Comment
1.1	Is the statutory basis for AA set out?	Yes		Section 1.1.
1.2	Is methodology in line with DEHLG (2009); EC (2001 and 2002)?	Yes		Section 2.2.1.
1.3.1	Is there a desk based assessment?	Yes		Section 2.4.
1.3.2	Is there a field-based assessment?		No	Suggestions for project stage surveys.
1.4	Does the project description adequately describe the project?	Yes		Section 4 and 9.4.
1.5	Is there a clear figure of the site location and proposed plan?	Yes		Figure 3.
1.6	Has consultation with NPWS / DAU taken place?	Yes		Consultation with NPWS and IFI - Table 12. Also, Birdwatch Ireland and Bat Conservation Ireland.
1.7	Have all European Sites been considered within 15km of the project?	Yes		As per DEHLG guidelines. The sizes of some zones of influence for specific qualifying interests varied.
1.8	Are there any European Sites at a greater distance than 15km ecologically connected to the project?	Yes		At screening stage, a precautionary buffer of 20km for wintering birds was applied. This was revised for the NIS stage, based on scientific evidence and consultation.
1.9	Are figures included illustrating the project in relation to European Sites?	Yes		Figure 1.
1.10	Is there a clear identification of which European Sites are being considered in the assessment?	Yes		Section 7.3 and sub-sections.

AA Screening				
Minimum Requirements				
	Question	Yes	No	Comment
1.11	Is the screening of each European Site out/in adequately described?	Yes		Table 5 presents results.
1.12	Are the conservation objectives for the relevant European Sites set out?	Yes		Section 8.1 includes conservation objectives for screened in sites.
1.13	Has the following screening matrix been fulfilled in text or table format?			
1.13.1	<i>Is there a brief description of project or plan?</i>	Yes		Section 4 and 9.4.
1.13.2	<i>Is there a brief description of the Natura 2000 (European) Site(s)?</i>	Yes		Section 7.3 and sub-sections.
1.13.3	<i>Is there a description of any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of?</i>	Yes		Table 24, 25, 26.
	<ul style="list-style-type: none"> • Size and scale; 			
	<ul style="list-style-type: none"> • Land-take; 			
	<ul style="list-style-type: none"> • Distance from Natura 2000 site or key features of the site; 			
	<ul style="list-style-type: none"> • Resource requirements; 			
	<ul style="list-style-type: none"> • Emissions; 			
	<ul style="list-style-type: none"> • Excavation requirements; 			
	<ul style="list-style-type: none"> • Transportation requirements; 			
	<ul style="list-style-type: none"> • Duration of construction, operation etc.; 			
	<ul style="list-style-type: none"> • Other. 			

AA Screening				
Minimum Requirements				
	Question	Yes	No	Comment
1.13.4	<i>Is there a description of the likely changes to the site arising as a result of?</i>	Yes		Table 24, 25, 26.
	<ul style="list-style-type: none"> • Reduction of habitat area; 			
	<ul style="list-style-type: none"> • Disturbance of key species; 			
	<ul style="list-style-type: none"> • Habitat or species fragmentation; 			
	<ul style="list-style-type: none"> • Reduction in species density; 			
	<ul style="list-style-type: none"> • Changes in key indicators of conservation value; 			
	Climate change.			
1.13.5	<i>Is there a description of any likely impacts on the Natura 2000 site as a whole in terms of?</i>	Yes		Table 24, 25, 26.
	<ul style="list-style-type: none"> • Interference with the key relationships that define the structure of the site; 			
	<ul style="list-style-type: none"> • Interference with key relationships that define the function of the site. 			
1.13.6	<i>Are indicators of significance provided as a result of the identification of effects set out above in terms of:</i>		No	Indicators of significance not included at this stage. Indicator species of negative impact are referred to where present. E.g. <i>Spartina angelica</i> in Salt meadows.
	<ul style="list-style-type: none"> • loss, 			
	<ul style="list-style-type: none"> • fragmentation, 			
	<ul style="list-style-type: none"> • disruption, 			
	<ul style="list-style-type: none"> • disturbance, 			
	<ul style="list-style-type: none"> • change to key elements of the site (e.g. water quality etc.). 			

AA Screening				
Minimum Requirements				
	Question	Yes	No	Comment
1.13.7	<i>Is there a description from the above, those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known?</i>	Yes		Table 24, 25, 26.
1.14	Have other plans or project in the vicinity been identified?	Yes		Section 10.
1.15	Have cumulative effects been assessed?	Yes		Section 10.
1.16	Has a FONSE Matrix been completed for screened out European Sites, including the following:		No	Full screening report which was conducted in 2016 has been published separately, at the time of assessment.
1.16.1	<i>Name and location of the Natura 2000 sites</i>			
1.16.2	<i>Description of the project or plan</i>			
1.16.3	<i>Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?</i>			
1.16.4	<i>Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?</i>			
1.16.5	<i>Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site</i>			
1.16.6	<i>Explain why these effects are not considered significant</i>			
1.16.7	<i>Who carried out the assessment</i>			
1.16.8	<i>Sources of Data</i>			
1.17	Are the reasons for proceeding to Stage 2 clearly explained	Yes		Explanation that findings of likely significant effect requires progression to Stage 2.

Table 2: NATURA IMPACT STATEMENT

Natura Impact Statement				
Minimum Requirements				
	Question	Yes	No	Comment
2.1	Does the plan description adequately describe the plan	Yes		Section 4 and 9.4.
2.2	Are the conservation objectives detailed	Yes		Section 8.1 includes conservation objectives for screened in sites.
2.3	Is there an adequate description of how the project will affect key species and key habitats	Yes		Table 24, 25, 26.
2.4	Are there any uncertainties or gaps in information		No	Assessment is comprehensive.
2.5	Is the effect of the project on the integrity of the European Sites adequately assessed (determined by structure and function and conservation objectives) *check desktop data to ensure all elements have been addressed	Yes		Table 24, 25, 26.
2.6	Are mitigation measures described to avoid, reduce or remedy effects?	Yes		Detailed in section 11.
2.7	For each mitigation measure are the following details given:	Yes		Broadly discussed.
2.7.1	<i>How the measures will avoid adverse effects on site integrity;</i>			
2.7.2	<i>How the measures will reduce the adverse effects on site integrity;</i>			

Natura Impact Statement				
Minimum Requirements				
	Question	Yes	No	Comment
2.7.3	<i>Evidence of how the measures will be implemented and by whom;</i>			
2.7.4	<i>Evidence of the degree of confidence in their likely success;</i>			
2.7.5	<i>A timescale, relative to the project, of when they will be implemented;</i>			
2.7.6	<i>Details of monitoring scheme and how mitigation failure will be addressed</i>			
2.8	Has consultation with NPWS / DAU taken place?	Yes		Consultation with NPWS detailed in table 12.
2.9	Are there any significant impacts predicted?		No	Once mitigation is implemented, no significant residual impacts are predicted.

Table 3: SEA SCREENING

SECTION 1 SEA SCREENING					
	Question	Yes	No	Comment	Statutory Basis
1.1	In reaching a determination of the requirement for SEA, have the criteria set out in Annex 1 of the SEA Directive and Schedule 2A of S.I. 436 or Schedule 1 of S.I. 435 been taken into account?	Yes		Section 4 of Screening Report details the process of determination for SEA. Determination was made at pre-screening stage and assessed further against criteria. Report available from Shannon CFRAM website (appendix A of Scoping Report)	SEA Directive Annex I (2001), Schedule 2A S.I. 436 (2004), Schedule 1 of S.I. 435 (2004)
1.2	Has a determination been made, in consultation with the DoEHLG, regarding the requirement for an appropriate assessment in accordance with the Habitats Directive?	Yes		Section 2.2 of NIS states compliance.	Habitats Directive Article 6(3)
1.3	Has the relevant competent authority consulted the prescribed environmental authorities as required and notified them of its determination?	Yes		Section 5.2 of Screening Report details compliance. Screening Report available from Shannon CFRAM website (appendix A of Scoping Report)	SEA Directive Article 3(6)/6(3), S.I. 435 (2004)
1.4	Has the relevant statutory authority made available for public inspection a copy of its determination on the requirement for SEA?	Yes		Made available on Shannon CFRAM Website.	S.I. 435 (2004)
1.5	Does the screening determination clearly state whether SEA is required or not, who has made the decision and when?	Yes		Section 6.3 (ER) OPW, 2011. Section 6 of Screening Report.	

	Question	Yes	No	Comment	Statutory Basis
1.6	If the P/P has been screened out of SEA, does it clearly demonstrate that it does not meet all/most of the criteria of Annex 1 and Schedule 2A of S.I. 436 and Schedule 1 of S.I. 435?	n/a	n/a	p/p has not been screened out of SEA.	
1.7	Has a description been provided in the ER of the screening process and subsequent determination?	Yes		Screening is referred to in section 6.3 of ER with determination clearly stated. Full details of the process are documented in the screening report available from the Shannon CFRAM website.	

Table 4: SCOPING

SECTION 2 SCOPING					
	Question	Yes	No	Comment	Statutory Basis
2.1	Were the designated environmental authorities consulted when deciding on the scope of the information to be included in the Environmental Report?	Yes		Detailed in Appendix C of the ER.	SEA Directive Article 5(4)
2.2	Does the proposed scope of the report cover all the relevant information in accordance with Annex 1 of the SEA Directive and all of the points in Schedule 2 and Schedule 2B of S.I. 435 and S.I. 436? If not, have reasons for eliminating issues from further consideration been documented?	Yes		All relevant information held within the text of ER. The scoping process is detailed within the Scoping Report (separate document available from the Shannon CFRAM website).	

	Question	Yes	No	Comment	Statutory Basis
2.3	Has informal preliminary scoping taken place with the designated authorities prior to the commencement of the P/P making process?	Yes		Section 4.4.1 of ER details the pre-scoping and scoping workshops which aimed to gather early input from statutory environmental authorities.	Guidelines for Regional Authorities & Planning Authorities: Implementation of SEA Directives Section 3.14
2.4	Have scoping meetings/workshops been held with (a) any of the designated environmental authorities, (b) relevant internal departments within the organisation and (c) other relevant statutory and non-statutory organisations?	Yes		Detailed in section 4.4.1 of ER.	
2.5	Where appropriate, if the zone of influence extends beyond the plan boundary, has transboundary notification and consultation been undertaken with other Member States & adjoining authorities on the scope of the SEA?	Yes		Section 1.1 of Scoping Report details consultation with the Northern Ireland Rivers Agency.	
2.6	As part of the scoping exercise, have the designated authorities been given an outline of: a) the geographical area involved (including a referenced and scaled map of the area) b) the nature of the plan and its intended lifespan c) the likely scale, nature and location of development within the area during the life of the plan (in broad terms) d) the predicted significant effects of this development	Yes		Detailed within section 4 of the scoping report. Available from the Shannon CFRAM website.	Guidelines for Regional Authorities & Planning Authorities: Implementation of SEA Directives Section 3.17

	Question	Yes	No	Comment	Statutory Basis
2.7	Has a Scoping Report been prepared which clearly highlights key environmental resources, zone of influence of the P/P, alternatives, key existing environmental issues/problems and likely significant environmental effects of the P/P?	Yes		Available from the Shannon CFRAM website.	Guidelines for Regional Authorities & Planning Authorities: Implementation of SEA Directives Section 3.16
2.8	Does the scoping report reflect the size/level of detail in the P/P?	Yes		The scoping report appropriately reflects the size/level of detail in the P/P.	
2.9	Does the scoping report provide the designated authorities with sufficient information to form a view on the likely significant effects of implementation of the P/P?	Yes		Scoping report is thorough.	
2.10	Has a Scoping Issues Paper (for land use plans) been prepared to facilitate consultation? Have the environmental issues raised in the Issues paper been appropriately addressed in the scoping report?		No	n/a	
2.11	Have the public and other interested bodies been identified and consulted at the scoping stage?	Yes		Section 4.4.1 of ER details SEA scoping consultation. Also detailed in section 2.5 of scoping report.	
2.12	Have the teams responsible for the preparation of the P/P and the ER been involved in the scoping exercise?	Yes		These teams were also responsible for preparing the scoping exercise.	
2.13	Have the responses to the scoping exercises been included in the Scoping Report?	Yes		Section 2.5 of the Scoping Report details how pre-scoping consultation fed in to the development of Scoping Report.	

	Question	Yes	No	Comment	Statutory Basis
2.14	Has the Scoping Report been made public?	Yes		Scoping Report available from the Shannon CFRAM website.	
2.15	Where an appropriate assessment is required and will be undertaken in conjunction with the SEA, have any environmental problems, indicators or other issues relevant to the assessment been identified, that need to be considered during the SEA process?	Yes		Environmental issues regarding flooding in the UoM27-28 are detailed in section 3.5 of scoping report.	Habitats Directive Article 6

Table 5: CONSULTATION

SECTION 3 CONSULTATION					
	Question	Yes	No	Comment	Statutory Basis
3.1	Have the Draft P/P and accompanying ER been made available to the designated authorities and the public?	Yes		Section 4.2.3 of SEA Statement details draft plan consultation.	SEA Directive Article 6(1) & 6(3)
3.2	Have the designated environmental authorities and the public been given an early and effective opportunity to express their opinion on the draft P/P and the accompanying ER?	Yes		Section 4.2.3 of SEA Statement indicates that statutory timeframes were adhered to.	SEA Directive Article 6(2) & 6(4)
3.3	Have the ER and the opinions expressed by the designated authorities and the public during consultation been taken into account during the preparation of the P/P?	Yes		Section 6.1 of FRMP states compliance.	Sea Directive Article 8
3.4	Where relevant, has a copy of the Draft P/P and the ER been forwarded to other Member States before its adoption?	Yes		The Rivers Agency of Northern Ireland were involved with consultation throughout the process. Detailed in section 4 of SEA Statement.	SEA Directive Article 7

	Question	Yes	No	Comment	Statutory Basis
3.5	Where relevant, have the Member States been given a reasonable time frame to respond to the draft P/P and ER?	Yes		Statutory time frames adhered to. Section 4.2.3 of SEA Statement.	
3.6	Have the opinions expressed by other Member States during transboundary consultation been taken into account?	Yes		The Rivers Agency of Northern Ireland were represented in the Shannon CFRAM Study Advisory Group which were involved throughout the process.	SEA Directive Article 7
3.7	Has a description of the outcome of all consultations (including transboundary) been documented in the ER?	Yes		Section 4 of ER and Section 4 of SEA Statement detail outcomes of consultations.	
3.8	Where a consultation recommendation has not been taken on board, has an explanation been provided of why?		No	n/a	
3.9	Have P/Ps and ERs for counties contiguous to the border with Northern Ireland been subject to transboundary consultation with the relevant Northern Ireland Environmental Authorities?	Yes		The Rivers Agency of Northern Ireland have been included in transboundary consultation.	
3.10	If the zone of influence of the P/P extends beyond the P/P boundary, have relevant statutory Bodies/Authorities and adjoining Local Authorities been informed and consulted?	Yes		List of Stakeholders including statutory bodies and adjacent local authorities is included in Appendix C of ER.	

Table 6: DESCRIPTION

SECTION 4 Plan Description					
	Question	Yes	No	Comment	Statutory Basis
4.1	Has an outline of the contents and the main objectives of the P/P been provided in the ER?	Yes		Objectives are set out in table 8.1 of ER.	SEA Directive Article 5 Annex 1(a)
4.2	Has information been provided on the relationship of the P/P with other relevant P/Ps?	Yes		Section 5 of the ER details the relationship of the FRMP with other plans and policies.	SEA Directive Article 5 Annex 1(a)
4.3	Has a referenced and scaled map illustrating the geographical extend of the P/P area been included in the ER?	Yes		Figure 2.1 of ER.	
4.4	Have any relevant conflicts and/or synergies between the P/P objectives and the objectives of other P/Ps in the hierarchy (including transboundary) been identified and described?	Yes		Table 5.1, 5.2 and 5.3 identify relevant plans.	
4.5	Has the zone of influence of the P/P been described appropriately?	Yes		Section 3.2 of the ER sets out the spatial scale of the study which is described in detail in Section 7.	
4.6	Has the potential for transboundary effects of the plan been identified?	Yes		Section 4.5 of FRMP states that there will be limited cross-border effects. However, consultation took place.	

Table 7: EXISTING ENVIRONMENT

SECTION 5 EXISTING ENVIRONMENT							
5.1	(a) Are the relevant aspects of the current state of the environment described? (b) Are any existing environmental problems described (in particular those relating to areas designated pursuant to the Birds and Habitats Directives)? (c) Are the environmental characteristics of areas that are likely to be significantly affected by the P/P identified? (d) Is the likely evolution of the existing environment without the implementation of the P/P described? (e) Have any significant gaps in the baseline data been identified? (f) Have alternative/proxy data sources been identified where existing baseline data is unavailable?						
Environmental Receptors	A	B	C	D	E	F	Comment
Biodiversity, flora and fauna	x	x	x	x	o	o	Section 7.8 of ER
Water (surface, ground, estuarine and coastal)	x	x	x	x	o	o	Section 7.6 of ER
Soil	x	x	x	x	o	o	Section 7.3 of ER
Landscape	x	x	x	x	o	o	Section 7.9 of ER
Cultural Heritage	x	x	x	x	o	o	Section 7.10 of ER
Population	x	x	x	x	o	o	Section 7.2 of ER
Human Health	x	x	x	x	o	o	Section 7.2 of ER
Air	o	o	o	o	o	o	Screened out of SEA
Climatic Factors	o	x	o	x	x	o	Section 7.11 of ER
Material Assets	x	x	x	x	o	o	Section 7.5 of ER
Interrelationships							Detailed in table 9.7 & 9.8 of ER
Fisheries	x	x	x	x	o	o	Section 7.7 of ER
Tourism and Recreation	x	x	x	x	o	o	Section 7.4 of ER

	Question	Yes	No	Comment	Statutory Basis	
5.2	Has a description been included of any difficulties (such as technical deficiencies or lack of know how) encountered in compiling the required information?	Yes		Detailed in section 6.9 of ER.	SEA Directive Article 5 Annex 1	
5.3	Does the relevant current state of the environment (baseline), as described, reflect: a) the availability of data? b) The size and level of detail of the P/P?	Yes		A wide range of data was included in the baseline description which covered the large area adequately.		
5.4	Have trends for key environmental receptors been presented and described using appropriate environmental data?	Yes		Key receptors are referred to where relevant.		
5.5	What sources of environmental data and/or environmental information systems (e.g. GIS) have been used?			Appendix A of ER details data sources.		
5.6	Have existing environmental problems relevant to the P/P been identified and put into the context of relevant environmental objectives, standards, thresholds etc.?	Yes		Table 8.1 detail environmental objectives which were developed from existing problems.		

Table 8: OBJECTIVES, TARGETS AND INDICATORS

SECTION 6 OBJECTIVES, TARGETS AND INDICATORS					
	Question	Yes	No	Comment	Statutory Basis
6.1	Have any environmental protection objectives, established at International, European Community or Member State level which are relevant to the P/P been identified?	Yes		Section 5 of ER lists relevant plans and programs which set out relevant protection objectives.	SEA Directive Article 5 Annex 1
6.2	Have these objectives and any environmental considerations been taken into account (placed in context/linked into the P/P) during the preparation of the P/P?	Yes		Section 1.3.5 of FRMP details relevant policies and plans which shaped the FRMP. Section 1.4.2 of FRMP sets out objectives that were developed from the ER.	SEA Directive Article 5 Annex 1
6.3	Are the proposed environmental objectives linked to appropriate targets and indicators?	Yes		Table 8.1 of ER links environmental objectives to indicators and targets.	
6.4	In relation to environmental targets; (a) have limits or thresholds been established where appropriate? (b) have timescales been set where appropriate?		n/a	Not set out at strategic level.	
6.5	Are the environmental indicators capable of the following: <ul style="list-style-type: none"> • describing trends in the baseline environment? • demonstrating the likely significant environmental impact(s) of the implementation of the P/P? • being used in a monitoring programme? • providing an early warning of significant unforeseen adverse effects? • prioritising key environmental impact(s)? • is the number of environmental indicators manageable, in terms of time and resources? 	Yes			

	Question	Yes	No	Comment	Statutory Basis	
6.6	Have the environmental objectives been linked to targets and indicators for those environmental receptors identified as being significantly affected?					
	Environmental Receptor	O	T	I	Comment	
	Biodiversity, flora and fauna	Y	n		Y	Table 8.1 of ER
	Water (surface, ground, estuarine and coastal)	n	n		Y	
	Soil	n	n		Y	
	Landscape	n	n		Y	
	Cultural Heritage	n	n		Y	
	Population	n	n		Y	
	Human Health	n	n		Y	
	Air	n	n	n		Screened out of SEA
	Climatic Factors	n	n	n		
	Material Assets	n	n		Y	
	Fisheries	n	n		Y	
	Environmental objective (O): In SEA, objectives are broad, overarching principles which should specify a desired direction of change, for example, 'reduce air pollution' or 'improve human health'.					
	Environmental target (T): A target usually underpins an objective often having a time deadline that should be met and should be accompanied by limits or thresholds					
	Environmental indicator (I): Indicators are used to track the achievements of objectives and targets, describe the baseline situation, monitor the impact of the proposed plan or programme on the environment and monitor impacts					

	Question	Yes	No	Comment	Statutory Basis
	Proxy indicators: A measure of activity resulting from a P/P which provides information on environmental impact without the need for a direct measure of an environmental receptor				

Table 9: CONSIDERATION OF ALTERNATIVES

SECTION 7 CONSIDERATION OF ALTERNATIVES					
	Question	Yes	No	Comment	Statutory Basis
7.1	Have 'reasonable alternatives' been identified and described?	Yes		Section 3 and 10 of ER details alternatives.	SEA Directive Article 5 Annex 1
7.2	Have the reasons for selecting (a) the alternatives and (b) the preferred alternative been provided?	Yes		Section 9 of ER refers to alternatives and preferred alternatives in relation to AFAs. Table 3.4 of ER also details preferred options.	SEA Directive Article 5 / Article 9 Annex 1
7.3	Has a description of how the assessment of alternatives was undertaken been provided?	Yes		Section 3 of ER sets out the assessment of options.	SEA Directive Article 5 Annex 1
7.4	Are the potential alternatives proposed assessed against the relevant environmental objectives and against each other?	Yes		Section 9 of ER assesses preferred options for AFAs against environmental objectives.	
7.5	Has a clear explanation been given of the likely significant environmental effects of each alternative?	Yes		Section 3 and section 9 of ER discuss significant environmental effects.	
7.6	Has clear written justification been given for the choice of the preferred alternative?	Yes		Preferred options are set out in table 3.4 of the ER.	
7.7	Do the alternatives considered reflect the objectives and hierarchy of the P/P?	Yes		Alternatives are in line with objectives of the P/P.	

Table 10: SIGNIFICANT EFFECTS ON THE ENVIRONMENT

SECTION 8 LIKELY SIGNIFICANT EFFECTS ON THE ENVIRONMENT					
	Question	Yes	No	Comment	Statutory Basis
8.1	Are the likely significant effects on the environment described?	Yes		Significant effects are detailed in section 9 of the ER in relation to AFAs. Each preferred alternative is evaluated against environmental objectives. Summarised in table 11.1 of ER.	SEA Directive Article 5 Annex I (f)
8.2	Are significant effects described in relation to: - current environmental conditions - relevant environmental standards and thresholds	Yes		Detailed throughout section 9 of ER in relation to AFAs.	
8.3	Are appropriate impact prediction methods used, and, are impacts quantified where relevant?	Yes		Used throughout section 9. A score system is set out in section 6.4.2 of ER.	
8.4	Have the methods used for impact prediction been described?	Yes		Set out in section 6.4.2 of ER.	

Table 11: MITIGATION MEASURES

SECTION 9 MITIGATION MEASURES					
	Question	Yes	No	Comment	Statutory Basis
9.1	Have mitigation measures been proposed for all significant adverse effects on the environment of implementing the P/P?	Yes		Mitigation is set out in section 9.4 of ER.	SEA Directive Article 5 Annex 1
9.2	Have the proposed mitigation measures been incorporated into the P/P?	Yes		Mitigation is detailed in section 6.6.3 of FRMP.	
9.3	Have the proposed mitigation measures been linked, where appropriate, to specific relevant significant environmental effects?	Yes		Detailed throughout section 9.4 of ER.	
9.4	Has an explanation been provided where mitigation of significant adverse effects is not proposed?		No	n/a	
9.5	Are the mitigation measures proposed within the remit of the statutory authority? If not, is there reasonable certainty that they will be implemented?	Yes		Section 6.6.3 of FRMP states that consenting authorities will set out measures.	
9.6	Do the proposed mitigation measures have potential to fully avoid or mitigate the relevant impact(s)? If not, have additional measures been considered?	Yes		Mitigation measures are adequate for strategic level. Further detail to be provided at project level.	

	Question	Yes	No	Comment	Statutory Basis
9.7	Is a description provided of any likely post mitigation residual impacts included?		No	Not detailed at strategic level.	
9.8	If the appropriate assessment shows that the P/P would have a significant impact on the integrity of a Natura 2000 site, has the statutory authority considered further alternatives to try to avoid these impacts?		n/a	n/a	

Table 12: MONITORING PROGRAMME

SECTION 10 MONITORING PROGRAMME					
	Question	Yes	No	Comment	Statutory Basis
10.1	Has a monitoring programme of significant environmental effects of implementing the P/P been described?	Yes		A proposed monitoring framework is set out in section 9.7 of ER	SEA directive Article 10 Annex 1, S.I. Nos 435 & 436 (2004)
10.2	Does the monitoring programme allow unforeseen adverse effects to be identified, for instance, where assumptions underpinning the ER's impact predictions may not come true in practice?	Yes		Detailed in section 9.7 of ER.	SEA directive Article 10 Annex 1, S.I. Nos 435 & 436 (2004)
10.3	Have thresholds / trigger levels been assigned which will determine the need for appropriate remedial action?	Yes		Indicators and requirements set out in table 9.11 of ER.	SEA Directive Article 10 Annex 1, S.I. Nos 435 & 436 (2004)
10.4	Are responsibilities for carrying out the monitoring programme clearly defined?	Yes		Table 9.11 of ER.	Planning Guidelines for SEA section 7.7

	Question	Yes	No	Comment	Statutory Basis
10.5	Are responsibilities for responding to any significant negative environmental effects of implementation of the P/P clearly defined?	Yes		It is noted that a Government Structure is in place whereby further EIA & AA study will be carried out at project level	
10.6	Are responsibilities for identifying and responding to unforeseen adverse effects of implementation of the P/P clearly defined?	Yes		This will be addressed through project level EIA & AA	
10.7	Has the frequency of monitoring been specified in the monitoring programme?	Yes		Table 9.11 of ER.	
10.8	Has the frequency of reporting on the results of the monitoring programme been specified?	Yes		Section 9.7 of ER.	
10.9	Does the monitoring programme address significant gaps identified in the baseline data?	Yes		Gaps are not directly identified; however, the monitoring framework is designed to identify unforeseen issues which may have not been considered in the first instance.	Planning Guidelines for SEA section 7.4
10.10	Does the monitoring programme utilise existing monitoring arrangements where appropriate?	Yes		Section 9.7 of ER.	
10.11	Does the monitoring programme include provision for the ongoing review of environmental targets and indicators?	Yes		Monitoring framework is set out to be on a continuous basis.	
10.12	Has provision been made to produce regular monitoring reports during the time period of the P/P?	Yes		Section 8.2 of FRMP describes the ongoing nature of the monitoring framework.	
10.13	Does the monitoring programme address transboundary effects, if any?		No	n/a	

	Question	Yes	No	Comment	Statutory Basis
10.14	What provisions are there to make the results and interpretation of the monitoring programme available to the designated environmental authorities and the public?		None	Details not provided at strategic level.	

Table 13: ENVIRONMENTAL REPORT AND NON-TECHNICAL SUMMARY

SECTION 11 ENVIRONMENTAL REPORT AND NON-TECHNICAL SUMMARY					
	Question	Yes	No	Comment	Statutory Basis
11.1	Does the ER contain all of the aspects listed in Annex 1 of the SEA Directive and Schedule 2 and 2B of S.I. 435 and 436 of 2004?	Yes			SEA Directive Article 5 Annex 1
11.2	Does the ER include a non-technical summary?	Yes			SEA Directive Article 5 Annex 1
11.3	Does the non-technical summary clearly summarise the following:				SEA Directive Article 5 Annex 1
	a) Contents & Main Objectives of the draft P/P	Yes			
	b) Current state of the environment and evolution	Yes			
	c) Environmental characteristics of area significantly affected	Yes			
	d) Existing environmental problems	Yes			
	e) Environmental protection objectives	Yes			
	f) Significant effects on the environment	Yes			
	g) Mitigation Measures	Yes			
	h) Alternatives	Yes			
	i) Monitoring	Yes			

	Question	Yes	No	Comment	Statutory Basis
11.4	Has a description been provided in the ER of the screening process and subsequent determination?	Yes		Described in section 6.3 of ER. Further detail in screening report. Available from the Shannon CFRAM Website.	
11.5	Have the responses to the scoping exercises been included in the ER? Has an explanation been given as to how these responses were considered?	Yes		Scoping is detailed in section 4.4.1 and 6.3 of ER which indicate the input from responses.	
11.6	Is the non-technical summary concise and easy to understand?	Yes		Some required detail absent.	Planning guidelines on SEA section 4.41
11.7	Has a description of the outcome of all consultations (including transboundary) been documented in the ER?	Yes		Section 4 of ER details consultation.	
11.8	Have relevant references, glossary of terms and scaled maps (with source identified) been included?	Yes		Detailed in ER.	

2 CONCLUSION

Fehily Timoney & Company were appointed to review the environmental assessment and compile a report on each Flood Risk Management Plan. This report determines that the procedures and statutory obligations set out in the relevant environmental regulations, including but not limited to SI Nos. 477 of 2001 and 435 of 2004 and any relevant amending regulations have been fully complied with.

All relevant environmental considerations have been duly and effectively assessed. It is in order for the Minister to decide that the Flood Risk Management Plan will not adversely affect the integrity of Natura Sites and the plans are not likely to have significant effects on the environment.