

STRATEGIC
ENVIRONMENTAL
ASSESSMENT STATEMENT
OF VARIATION NO 3 TO
THE LIMERICK COUNTY
DEVELOPMENT PLAN
2010-2016

TO INCORPORATE THE SHANNON
INTEGRATED FRAMEWORK PLAN FOR
THE SHANNON ESTUARY

Prepared under S.I. 436 of 2004



May 2015

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Introduction

This is the SEA Statement for the variation no.3 to the Limerick County Development Plan 2010-2016 (LCDP) and forms the final requirement of the SEA process for the development plan. The plan was adopted by Limerick City and County Council on the 25th May 2015.

1.2 Purpose of SEA Statement

The main purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, the views of statutory consultees and other submissions received during consultation and the recommendations of the Environmental Report have been taken into account in the adopted variation to the LCDP 2010-2016 and the arrangements put in place for monitoring.

The SEA Statement is available to the public, along with the Final Environmental Report and the adopted variation. The Plan was also subject to Article 6 (3) of the Habitats Directive and a Natura Impact Report as well as a concluding statement are also available. This SEA Statement includes the following information:

- Summary of how environmental considerations have been integrated into the plan; (Section Two)
- Summary of how submissions received during consultation have been taken into account in the plan (Section Three);
- Reasons for choosing the recommended strategy, in the light of other reasonable alternatives considered (Section Four);
- Measures that are to be undertaken to monitor the significant environmental effects of implementing the Plan (Section Five).

1.3 Implications of the SEA for the plan process

The variation was screened for SEA and a determination made that full SEA was required. The findings of SEA were presented in the Environmental Report which was submitted to the Elected Members alongside the Draft variation to the LCDP. The purpose of the report was to provide a clear understanding of the likely environmental consequences of decisions regarding the implementation of the Shannon Integrated Framework Plan (SIFP) as it pertained to County Limerick over the lifetime of the plan.

Following the public consultation process, a number of amendments were proposed to the variation and these were evaluated for their environmental consequences. In turn this evaluation was presented to the Elected Members in the form of an Addendum Report. These addendum reports assessed whether the proposed material alterations would require full SEA or Habitats Directive Assessment, these were assessed against the Environmental Protection Objectives (EPOs). It was determined that full SEA was not required.

On adoption of the variation, this Addendum was used to update the original Environmental Report into a final Environmental Report (ER) which accompanies the adopted variation. In the final ER, additional text is included in bold and italic font with a footnote to highlight who or what agency provided the submission during the consultation processes. The SEA Screening Report prepared for each material alteration is also provided as an Annex to the final ER. At each stage of the process

the Elected Members were required by the legislation to take into account the Environmental Report -including the Addenda. The SEA has run in parallel with the variation process and has informed and influenced the preparation of the variation to the LCDP 2010-2016.

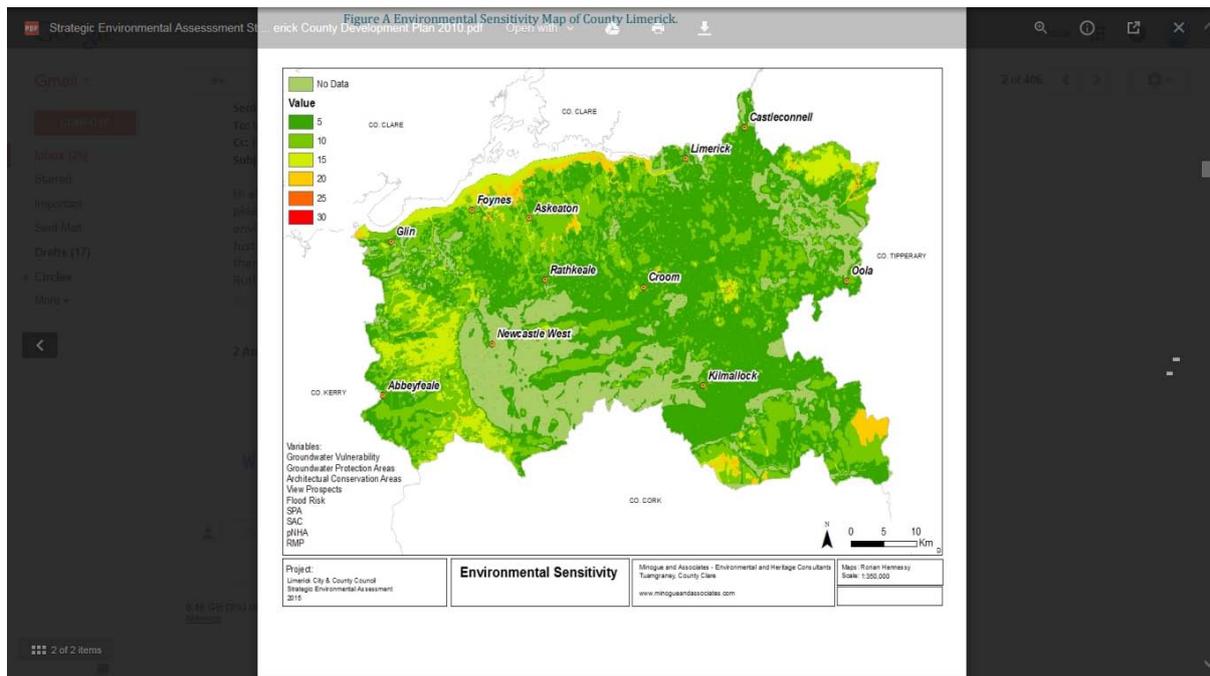
2 Summary of how Environmental Considerations and the SEA Environmental Report have been integrated into the Variation No.3 to the Limerick County Development Plan 2010-2016

2.1 Introduction

The purpose of this section is to present a summary of how environmental considerations and consultation have informed the plan preparation process. Legislation and guidance relating to SEA recommends that the process of plan preparation, SEA and Appropriate Assessment (AA) should be integrated and prepared in an iterative process to facilitate the ongoing assessment and evaluation of environmental considerations during plan preparation. A multi-disciplinary team worked on the SEA and AA elements of the plan and were involved from pre-draft stage of the plan preparation process. Key tasks undertaken during the SEA and plan review process were as follows:

Baseline Data, Geographical Information System and environmental sensitivity mapping. Baseline data has been collected based on the environmental topics described in the SEA Directive i.e. biodiversity, fauna, flora, population, human health, soil, water, air, climate factors, material assets, cultural heritage including architectural and archaeological heritage and landscape. This was also supported by targeted fieldwork carried out by the SEA and AA Team in November to December 2014. A Geographical Information System (GIS) was established to spatially analyse this data; to identify areas of particular environmental sensitivity and to help understand how potential land use policies and zonings associated with the SIFP could impact on the environmental resources of the County. Of particular relevance was the land use zonings identified as Strategic Development Zones in the SIFP-namely at Foynes Island, Foynes Harbour, Aughinish Island and Askeaton. The AA also informed this baseline data especially in terms of European Site designations, sensitivities and potential impacts to same. Figure A shows the environmental sensitivity map prepared for the county. Further detailed information can be found in the SEA ER.

Figure A Environmental Sensitivity Map of County Limerick.



Identification of alternatives at an early stage of plan review. The SEA of the SIFP previously assessed a number of alternatives with the preferred alternative (thematic development and identification of strategic development zones and areas of opportunity) being subject to detailed assessment. As the focus of this variation is the incorporation of the Strategic Development Zones for County Limerick plus reference to the SIFP itself, the alternatives, in order to be considered reasonable were considered within this framework. In their scoping submission the EPA also recommended the alternatives to be considered could involve an assessment of aspects such as the extent of lands to be developed within the Variation area and timeframe over which these will be developed (e.g. phased-development related alternatives). Further detail on the alternatives considered and the assessment of same is provided in Section Three of this SEA Statement as well as Chapter Six, Consideration of Alternatives of the SEA ER.

Consultation. Consultation was undertaken throughout the variation process. In addition to the public consultation and how the SEA and AA responded to submissions (see following Section 3) subsequent submissions by the EPA and NPWS in particular were considered and included in the updated SEA ER and Final NIR as appropriate. Other submissions relating to the environment were assessed and where considered appropriate, were also incorporated into the SEA ER and NIR.

Mitigation. Mitigation involves ameliorating significant negative effects. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts or where this is not possible, to lessening or offsetting those effects. Mitigation measures can be generally divided into those that:

- Avoid effects;

- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

The SEA and AA assessed the pre-draft variation for environmental effects and recommended a number of mitigation measures that would primarily avoid significant negative effects; these were incorporated into the draft variation that was put on display. An overview of SEA stages and how they informed the plan preparation is presented in Table 2a below:

Table 2a: Stages of SEA and how they informed the plan preparation

SEA Stage	Comment
Screening	Screening of the variation was undertaken and determined that full SEA and Stage 2 appropriate assessment was required given the environmental sensitivities present. .
Scoping	Scoping report was prepared and issued to statutory authorities and informed the scope of the SEA as well as highlighting environmental considerations and issues to be addressed in variation.
SEA ER	Accompanied the draft variation and provided evidence base for environmental assessment of draft policies, objectives and zonings in the variation. Prepared in tandem with the AA to ensure full integration of AA considerations.
Amendments to variation	All submissions made on draft plan and subsequent amendments to same were reviewed and assessed for SEA and AA impacts. SEA and AA informed the Chief Executive's Report and Recommendations.
Making of variation to the LCDP 2010-2016 and final SEA ER and NIR	Review of final amendments for impacts on environment. Finalising SEA Environmental Report and Natura Impact Report (NIR) Preparation of SEA Statement (this document)
Monitoring of variation to the LCDP 2010-2016	SEA Monitoring provides for monitoring of significant effects on the environment over the plan lifetime.

2.2 Summary of how environmental considerations have been integrated into the variation to the LCDP 2010-2016.

The following Table 2b presents mitigation measures in the variation that derived from the SEA or AA and had been presented as part of both. Additional text is presented in **bold, blue** font. The subsequent Table 2c summarises the primary mitigation policies/objectives in the plan and how they relate to the Strategic Environmental Objectives.

Table 2b: Mitigation Measures developed through SEA and AA of Variation

Reference	Existing	SEA Mitigation	Appropriate Assessment Mitigation	Included in variation?
Policy ED P7	Integrated Planning of the Shannon Estuary. Facilitate integrated planning to develop the capacity of the Shannon Estuary as a prime transport and tourist asset and to protect all its other beneficial uses.	Integrated Planning of the Shannon Estuary. Facilitate integrated planning to develop the capacity of the Shannon Estuary as a prime transport and tourist asset. <i>Limerick City and County Council will promote overall environmental sustainable development within the Shannon Estuary and support all legislative environmental commitments provided in the Strategic Integrated Framework Plan for the Shannon Estuary, inter alia The EU Habitats Directive, The EU Birds Directive, The Floods Directive and the Water Framework Directive</i> and to protect all its other beneficial uses.	No additional mitigation here. While future transport and tourism development could result in likely significant effects to European Sites, this Policy has already been assessed as part of the HDA of the Limerick County Development Plan (as varied) and the SIFP and appropriate mitigation measures have been included. The proposed new wording strengthens the original wording of this Policy by promoting environmentally sustainable development and ensuring adherence to environmental legislation, including the Habitats Directive.	✓ Policy ED P7
Suggested New Policy/Objective	<i>Strategic Integrated Framework Plan for the Shannon Estuary It is a Policy/Objective of Limerick County Council to support and implement the inter-jurisdictional Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary in conjunction with the other relevant local authorities and agencies. All proposed developments shall be in accordance with regional and national priorities and the SEA Directive, Birds and Habitats Directive, Water Framework Directive, Shellfish Waters Directive, Floods Directive and EIA Directive. All proposed developments shall be informed by the mitigation measures for ensuring the integrity of the Natura 2000 network outlined within the LCDP 2010-2016 (as varied).</i>	This additional policy/objective makes explicit reference to the SIFP, provides commitments to the various legislative elements including the SEA and recognises the inter jurisdictional aspects of the SIFP. This text closely reflects that included in the neighbouring Co Clare SIFP Variation to ensure consistency.		✓ Chapter 9 Policy SE 01
Suggest	<i>Safeguard the Strategic</i>	The suggested new policy/objective		✓

Reference	Existing	SEA Mitigation	Appropriate Assessment Mitigation	Included in variation?
ed Policy/ Objective	<p><i>Development Locations at Foynes Port, Foynes Island, Aughinish Island and Askeaton for the sustainable growth and development of marine related industry.</i></p> <p><i>Alternative compatible land uses may be considered where the ability to deliver the primary use (maritime industry) is not compromised. All proposed developments shall be in accordance with regional and national priorities and the SEA Directive, Birds and Habitats Directive, Water Framework Directive, Shellfish Waters Directive, Floods Directive and EIA Directive.</i></p> <p><i>Buffer zones shall be incorporated into proposals for developments to preserve potentially valuable habitats, for example, areas of estuary, shallow bays and inlets, mudflats, lagoon, salt marsh and woodland habitat which occur at or surrounding these Strategic Development Locations. Detailed botanical, faunal and ornithological surveys should be undertaken in relation to proposed developments at these Strategic Development Locations to fully consider the potential effects of the development and inform how to best avoid significant ecological effects.</i></p>	provides for more direction in relation to appropriate land uses envisaged for the County Limerick SDLs under the SIFP.		Objective ED 04
Objective ED 04:	Safeguarding Askeaton industrial park. It is the objective of the council to ensure that the 90.4 hectare site at Askeaton, which is owned by Shannon Development, is safeguarded for the accommodation of large establishments of regional importance (see Map 5.1)	Safeguarding Askeaton industrial park. It is the objective of the council to ensure that the 90.4 hectare site at Askeaton, which is owned by Shannon Development, is safeguarded for the accommodation of large establishments of regional importance (see Map 5.1). <i>The application of appropriate mitigation measures for this zone as detailed in SIFP Vol 2 appendices C and D, the Environmental Report and Natura Impact Report of this</i>	No additional mitigation here. While future development at Askeaton could result in likely significant effects to European Sites, this Policy has already been assessed as part of the HDA of the Limerick County Development Plan (as varied) and the SIFP and appropriate mitigation measures have been	√ Objective ED 04. Please note Shannon Development is now called Shannon Group plc

Reference	Existing	SEA Mitigation	Appropriate Assessment Mitigation	Included in variation?
		<i>variation will apply for proposed developments within this zone.</i>	included. The inclusion of the additional text will ensure that the mitigation measures outlined in the SIFP relating to the Askeaton Industrial Park are adhered to.	
Chapter Five Objective ED 05	<p><i>Objective ED 05: Appropriate Marine and Industrial development of Foynes and deep water facilities in the Shannon Estuary.</i></p> <p>a) It is the objective of the Council to ensure that the industrial zoned land in Foynes is safeguarded for the accommodation of port related uses and other industrial activities (see map A2 in Appendix 1). <i>The lands indicated in the Shannon Integrated Framework Plan are also included in this as are the measures suggested in the Shannon Integrated Framework Plan for the development of the port.</i></p> <p>b) Support the expansion of the Port at Foynes and promote the economic and industrial development of the Shannon Estuary as a strategic transport, energy and logistics Hub serving the County and wider region by utilising naturally occurring deep water characteristics and by identifying and safeguarding existing and future strategic transportation links, subject to fulfilling the requirements of the Habitats Directive and the conservation objectives of the Lower River Shannon SAC site.</p> <p>c) Support the</p>	<p>a) It is the objective the council to ensure that the industrial zoned land in Foynes is safeguarded for the accommodation of port related uses and other industrial activities (see map A2 in Appendix 1).The lands indicated in the Shannon Integrated Framework Plan are also included in this zonings are the measures suggested in the Shannon Integrated Framework Plan for the development of the port. <i>The application of appropriate mitigation measures for this zone as detailed in SIFP Vol 2 appendices C and D, the Environmental Report and Natura Impact Report of this variation will apply for proposed developments within this zone.</i></p>		√

Reference	Existing	SEA Mitigation	Appropriate Assessment Mitigation	Included in variation?
	consideration of new deep water berthage within the estuary to enhance the strategic economic function of the Port subject to compliance with the ecological objectives of the Lower River Shannon SAC site and other policies of the County Development Plan			
ED 014	It is the objective of the Council to promote tourism in the estuary subject to the requirements of the Habitats Directive but also in line with good tourism and planning practice in order to ensure that the attraction of the estuary is not compromised by overdevelopment or unsuitable development.	SEA recommended reference to SIFP Tourism Mitigation measures.	No additional mitigation here. While future tourism development could result in likely significant effects to European Sites, this Objective has already been assessed as part of the HDA of the Limerick County Development Plan (as varied) (with respect to SE09) and the SIFP and appropriate mitigation measures have been included.	Yes
Objective EH 012:	Shannon Coastal Zone Landscape Character Area It is the objective of the Council:	Additional bullet point at end as follows: <i>(j) development identified under the SIFP will adhere to the mitigation measures for landscape management as appropriate.</i>		√ Objective EH 012
Policy IN P12	Catchment Management In seeking the proper development and use of water resources and associated activities the Council will work with relevant authorities to better secure a consistent management approach across river catchments and river basin districts. Particular regard will be had to the following: a) The Draft Shannon River Basin Management Plan and the south western river basin district management plan b) The Geological survey of Ireland groundwater survey	Additional bullet point: <i>(e) the Strategic Integrated Framework Plan for the Shannon Estuary</i>		√ Policy IN P 12

Reference	Existing	SEA Mitigation	Appropriate Assessment Mitigation	Included in variation?
	<p>c) The Heritage council Lower Shannon Waterway Corridor Study</p> <p>d) The OPW in respect of Flood risk data, assessments, and Flood Risk Management Plans</p>			
Objective SE 01	<p>Promoting Development</p> <p>The Council will seek to promote the economic and industrial development of the Shannon Estuary in order to capitalise on its location in the Mid West Industrial and Business Region. Sufficient land will be zoned or identified for industrial and business use through the medium of Local Area Plans or zoning within this Plan</p>	<p>Promoting Development</p> <p>The Council will seek to promote the economic and industrial development of the Shannon Estuary in order to capitalise on its location in the Mid West Industrial and Business Region. Sufficient land will be zoned or identified for industrial and business use through the medium of Local Area Plans or zoning within this Plan <i>including zonings in the Strategic Integrated Framework Plan for the Shannon Estuary.</i></p>		<p>√</p> <p>Objective SE 01</p>
Objective SE02	<p>Port Facilities</p> <p>The council will support efforts to expand and upgrade the port facilities available in the Foynes Harbour and encourage the preparation of a master plan for the port area</p>	<p>The council will support efforts to expand and upgrade the port facilities available in the Foynes Harbour and encourage the preparation of a master plan for the port area <i>in line with the Strategic Integrated Framework Plan for the Shannon Estuary and the Vision 2041 Shannon Foynes Port Company Master Plan</i></p>		<p>√</p> <p>Objective SE 02</p>
Objective SE 09	<p>Tourism Development</p> <p>The Council will support sustainable tourism development in the estuary area provided that there will be no adverse impact on landscape, residential amenity, heritage or conservation interest.</p>	<p>Tourism Development</p> <p>The Council will support sustainable tourism development in the estuary area provided that there will be no adverse impact on landscape, residential amenity, heritage or conservation interest. <i>The recommendations and objectives contained in the SIFP will be a consideration by the Council in this regard.</i></p>		<p>√</p> <p>Objective SE 09</p>

2.2.1 Overarching Mitigation Measures for strategic development zones from the SIFP.

A substantial core element of the SIFP Mitigation Measures related to both overarching mitigation measures as well as site specific measures (relating to each SDL), these were replicated in the SEA ER and NIR, and will be applied as appropriate by Limerick City and County Council when considering development proposals. These measures can be found in full in Tables 2.2 and 2.3 of the Appendix

D Volume 2 of the SIFP. The table below highlights key mitigation measures through the LCDP and variation and how they relate to the SEA Objectives.

Table 2c: SEA Objectives and key mitigation measures

Topic and SEA Objective	Principle Mitigation Measures – policy, objectives and landuse zonings.
Population and Human Health	
Pop 1: Protect, enhance and improve people’s quality of life based on high quality environment.	Policy EDP 3, Policy SE01, Objectives ED 04 and ED05
Pop 2: To protect human health from risks or nuisances arising from exposure to incompatible land uses/developments.	Policy EDP 3, SE01, Objective EH 023
Biodiversity	
Bio 1: Protect, conserve, enhance where possible and avoid loss of the diversity and range of habitats, species and wildlife corridors.	Policies EH P 1, ED04 and ED 05 Refinement of SDL boundaries through fieldwork and provision of buffers.
Bio 2: Protect designated sites including European Sites (SACs and SPAs) and other sites with nature conservation status and protected species and habitats outside these areas.	Policies ED04 and ED05 Refinement of SDL boundaries through fieldwork and provision of buffers
Bio 3: Protect and enhance where possible, the aquatic environment and meet the requirements of the WFD and the RBMP.	Policy ED 04, Objective ED04, , Policy INP12 Refinement of SDL boundaries through fieldwork and provision of buffers
Water	
Wat 1:- Protect and enhance the status of aquatic ecosystems and with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystem (quality, level, flow).	Policy SE 01, Policy INP 12, Objectives EH 019, EH 020
Wat 2: Maintain or improve the quality of all waters to status objectives as set out in the Water Framework Directive, River Basin Management Plans and Programme of Measures.	Policy SE 01, Objective ED 04, Objectives EH 019, EH 020
Wat 3: Reduce risk of flooding through avoidance of inappropriate development in flood plains or in areas at risk of flooding and manage the risk of flooding.	Objective ED 04 and Objective ED 05, Objectives EH 019, EH 020
Geology and Soil	
Soil 1: Protect, improve and maintain the quality of soils.	Objectives EH 04 and EH 03
Soil 2: Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites	Objectives EH 04 and EH 03 Objective ED 04 and EH 01
Cultural heritage	
CH1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).	Objective EH 025, EH 026, EH 02, EH 029, EH 031 Refinement of SDL for Askeaton to protect cultural heritage
Landscape	
Land 1: Protect and enhance landscape and coastal character, designated routes and views and landscape features of local value.	Objective EH 06, Objective EH 012
Air Quality and Climate	
AQ1: Contribute to mitigation of and adaptation to climate change and minimise emissions to air as a result of strategic development	Objective EHO 22
Material Assets	
Mat 1: Ensure infrastructure including wastewater services are established in advance of new development	Policy SE 01, Objective ED 04 Objective IN 025

3 Summary of how consultations were taken into account

3.1 Introduction

The following section outlines the different consultation stages during the preparation of the Variation No.3 to the LCDP, and highlights the key environmental issues that arose during this process.

3.2 SEA Scoping

In accordance with legislation, separate scoping notification was issued to the prescribed environmental authorities in November 2014, as well as to adjoining local authorities. One submission was received on the SEA and AA specifically as part of the consultation with the environmental authorities. In addition, a meeting was held with the National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht on the 19th November 2014 and this assisted in informing the scope of the SEA and AA. A summary of the scoping submissions received, and how the issues are addressed in this SEA is provided in Table 3a below.

Table 3a: Submissions arising from SEA Scoping

Submission	Environmental Issues raised	Addressed in SEA or NIR
Environmental Protection Agency	Objectives In terms of objectives, there would also be merits in including a specific objective to promote overall environmentally sustainable development within the Shannon Estuary.	Noted, this is considered in Chapter Eight Mitigation Measures
	The environmental objectives in Section 5.10 - Environment, Section 6 - SEA & HDA Section 7 Review & Monitoring of the SIFP, will afford protection to environmental sensitivities in the estuary as well as promoting the application of SEA and Appropriate Assessment.	Noted, these recommendations are also considered in Chapter Eight Mitigation measures.
	Alternatives, as the SIFP and associated SEA Environmental Report has previously identified the preferred alternatives with the Shannon Estuary for development, consideration should be given to alternative scenarios relating to the development of the Strategic Development Locations and Areas of Opportunity already identified.	Noted, this approach to alternatives is included in Chapter Six, Consideration of Alternatives.
	The timeframe for release and development of lands should also be considered. Aspects such as ability to provide appropriate water related critical service, electricity, transport infrastructure etc. should be taken into account also.	Noted, this phased and service led approach is considered as part of Chapter Eight, Mitigation Measures
	Aspects such as potential for cumulative / in-combination effects on the receiving environment, including the Shannon estuary should also be taken into account at this stage also. Potential flood risk implications including requirement for maintenance of existing and/or enhanced coastal protection works should also be considered. The development of the strategic development sites and opportunity areas along the estuary as relevant to the Variation should ensure that land use proposed and the associated design standards is appropriate to the risk of flooding (fluvial and coastal in particular) identified. The SEA should also consider the status of coastal defence infrastructure as appropriate, in the context of the potential implications for development of the estuary.	Noted, such effects are considered in Chapter Seven, Assessment of Likely Significant Effects.
Development Application Unit, Dept of Arts, Heritage and the Gaeltacht	Archaeology: The potential for the underwater landscape of the Shannon Estuary is high and should be properly addressed in any further study to inform the Framework Plan and be included in the Limerick County Development Plan.	Noted.
	As part of the SEA an underwater archaeological assessment be carried out and the results included in the final Assessment Report as a definitive section in the SEA to inform the Framework Plan and DP:	Noted, desktop research referenced in the SEA ER of the SIFP is included in Chapter Four, the SEA Directive relies on existing information, without the

		need for additional research, therefore certain tasks recommended are beyond the scope of this SEA.
	It should be noted that for particular proposed impacts/developments down the line, such as dredging programmes, specific requirements shall be requested which may include archaeological diver assessment, archaeological monitoring, etc.; but this can be addressed on a case by case basis when it arises through the planning/foreshore/dumping at sea licensing process.	Noted.
	The zoning at Foynes, and at all industrial zonings adjacent to the cSAC and/or SPA, should be assessed for stand-alone and in-combination effects of surface drainage runoff, flood defence requirements in future (taking into account predicted sea-level rise), disturbance from noise, lighting and human activity. Whether the zoning of Foynes Island will be likely to have an adverse effect on the cSAC or SPA will depend on the wording of the associated objective(s). Please forward the draft wording for the Foynes Island zoning objective. The need for improved road access to Askeaton, Foynes and Aughinish, to support the SIFP development, and its effects on the above sites, should also be assessed.	The NIR in particular will assess these issues in relation to the cSAC and /or SPA.
	The SIFP does not include exact boundaries. Please confirm if the Askeaton and Corkanree proposed industrial zoning will include part(s) of the Lower River Shannon cSAC and/or SPA, if you wish further scoping feedback on these zonings. Please also confirm the exact proposed industrial zoning boundary for Aughinish, if you wish further scoping feedback on this zoning.	Noted, boundaries for zonings have been refined through the SEA and NIR process.
	Where the following are included within the plan, an appropriate assessment is considered necessary by the Department: (1) Aquaculture zoning in the Greenish Island Bay area. Please confirm if the marine area falls under the scope of the County Development Plan, if you wish further scoping feedback on this zoning. (2) Opportunity areas offshore of Tarbert. Please confirm if the marine area falls under the scope of the County Development Plan, if you wish further scoping feedback on this zoning.	Noted, excluded. Noted, excluded.
	The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist, and in conjunction with the NIR to ensure full integration of biodiversity issues and concerns, The Environmental Report is required to contain information on the environmental characteristics of the areas likely to be affected significantly by the plan. For biodiversity, flora and fauna, the scope of the SEA should include the following, and the available ecological information obtained in relation to the assessments of the SIFP and of other developments in the area: <ul style="list-style-type: none"> • All nature conservation sites, including proposed and candidate sites • Available information on habitats, including results of habitat surveys (including NPWS datasets on habitats/habitat complexes and conservation objective supporting data, and the Council’s own surveys within the plan area), and habitat indicator mapping (available from Teagasc/EPA) • Available information on rare and protected species and their habitats (including datasets on rare and protected species from NPWS and the National Biodiversity Data Centre) • ‘Margaritifera sensitive areas’ • All watercourses, surface water bodies and associated 	Noted. Undertaken in conjunction with NIR and by full members of IEEM Noted, addressed in Chapter Four

	<p>wetlands, including floodplains and flood risk areas</p> <ul style="list-style-type: none"> • Other sites of high biodiversity value or ecological importance, e.g. BirdWatch Ireland’s ‘Important Bird Areas’ (Crowe et al., 2009) • Local biodiversity areas, including those identified as a result of Heritage Plan or Biodiversity Plan actions or projects • Ecological networks and corridors, and stepping stones 	
	<p>In general, no areas should be identified or targeted for development (e.g. through land use zoning or other strategies) without basic information on the ecological sensitivities of the lands in question, including a habitat map, i.e. the precautionary principle should apply and no areas should be committed to development in the absence of basic information on ecological constraints.</p> <p>The Environmental Report is required to contain environmental protection objectives. For biodiversity, flora and fauna, these should integrate with the objectives and obligations of other directives such as the Habitats and Birds Directives, the Water Framework Directive and the Floods Directive, and with the Wildlife Acts, 1976-2000, National Biodiversity Plan and the aims and objectives of the county’s own Heritage Plan and Biodiversity Plan.</p> <p>Strategic environmental objectives should be included for all nature conservation sites (not just European sites), protected species and ecological corridors and stepping stones as outlined above.</p>	<p>Noted, Phase 1 habitat surveys undertaken for strategic development zones.</p> <p>Noted, these are presented in Chapter Five SEOs</p>

Submissions received were incorporated into the next phase of the SEA process, which was drafting the Environmental Report. The Report outlines the findings of the assessment on the likely significant effects on the environment of the implementation of the plan. Under the provisions of Article 6 of the Habitats Directive 92/43/EEC, the plan also underwent a Habitats Directive Assessment (HDA). Issues raised through the Scoping period informed the SEA ER and this was acknowledged in the subsequent submissions by statutory environmental authorities

3.3 Consultation on the Variation, SEA ER and AA.

The draft Variation, Environmental Report and Habitats Directive Assessment were put on public display for 4 weeks from 28th February to 30th March 2015. A total of 10 written submissions were received within the statutory time frame in response to the public display period.

Key Environmental issues raised in this submission period and the SEA Response are presented below in Table 2b. The Appropriate Assessment process also prepared responses to all submissions and were integrated to the SEA response as appropriate and relevant.

Table 3c: Public submissions on draft Variation, SEA ER and AA

<i>Submission Received From</i>	<i>Environmental Issues Raised</i>	<i>SEA/AA Response</i>
Department of Environment, Community and Local Government	Submission related to zoning of SDLs and appropriate landuse matrix, expressed concern about significant increase in amount of land zoned industrial and request clarification on same. Comments also made in relation to strategic flood risk assessment.	Clarification provided through CEO response and further detail provided in relation to SFRA
Health and Safety Authority, Cork Regional Office,	Include Aughinish Alumina as a site being subject to the European Communities (Control of Major Hazards Involving Dangerous Substances) Regulations S.I. 74 of 2006.	The SEA ER has been amended to reflect this.

Submission Received From	Environmental Issues Raised	SEA/AA Response
3rd Floor, 1A, South Mall, Cork		
Department of Agriculture, Food and the Marine	No comments	-
Environment Protection Authority	Specific comments relating to zonings, and appropriate buffers, consultation with NPWS and recommendations regarding inclusion of relevant policies/programmes in SEA ER and NTS of same.	These were all responded to in the CEO report and changes/additions to the final SEA ER made as appropriate.
National Roads Authority	Raised concerns in relation to N69 and landuse zoning	LCC addressed this response and no change was made to the draft zonings.
Office of Public Works	Comments related to SFRA and flood risk	SEA ER chapter 4 was updated to reflect proper title
Geological Survey of Ireland, Department of Communications, Energy and Natural Resources	No comments, reference to geological heritage sites.	These sites are discussed in Chapter Four of the SEA ER
Shannon Foynes Port Company (SFPC) c/o HRA Planning, 3 Hartstonge Street, Limerick.	Comments in relation to landuse and zoning	No changes made to the SEA ER or AA from this submission.
Aughinish Alumina Ltd, c/o Tom Phillips and Associates, 2-3 Roger's Lane, Lower Baggot Street, Dublin 2	Comments in relation to zoning of SIFP and variation zonings and minor amendments suggested to variation policies/objectives	No changes made to the SEA ER or AA from this submission.
Sarah McCutcheon, Executive Archaeologist, Limerick City and County Council	Reference to underwater archaeology in Section 7.5	Noted.

4 Reasons for choosing the recommended development plan in light of other alternatives considered.

4.1 Introduction

The SEA of the SIFP previously assessed a number of alternatives with the preferred alternative (thematic development and identification of strategic development zones and areas of opportunity) being subject to detailed assessment. As the focus of this variation is the incorporation of the Strategic Development Zones for County Limerick plus reference to the SIFP itself, the alternatives, in order to be considered reasonable should be considered within this framework.

Within the consideration of alternatives, the Areas of Opportunity within the SIFP as they relate to County Limerick (Long Rock, Greenish Island [aquaculture], and part of Tarbert Bay [tidal energy]) are specifically excluded from the consideration of alternatives. The reason for this is that Limerick City and County Council are not the consenting authority for these types of development activities within the foreshore and therefore these activities do not come under the remit of the County Development Plan process. For this reason, they are excluded from the consideration of alternatives.

The following alternatives were assessed through the SEA process.

Alternative One: Do nothing. This alternative would rely on the SIFP as a reference document rather than the incorporation of it into the county development plan.

Alternative Two: incorporation of all strategic development zones and areas of opportunity (aquaculture Greenish Island and Long Rock) and full incorporation of SIFP to plan

Alternative Three: incorporation of strategic development zones and phased incorporation of areas of opportunity.

In assessing these alternatives, particular environmental issues and sensitivities relevant to Limerick County and the wider Shannon Estuary were considered and included the following:

- River Shannon and River Fergus Estuaries Special Protection Area –one of the most important national sites for overwintering waterfowl and waders
- Lower River Shannon Special Area of Conservation – significant habitats and species present include the only resident population of bottlenose dolphins as well as a number of annex habitats including estuaries and mudflats.
- Coastal views and prospects listed in the Limerick County Development Plan
- Askeaton and Foynes contain areas of industrial activity including the production and sale of Alumina at Aughinish, port activities at Foynes and infant milk production at Askeaton. Several of the sites are subject to IPPC and three Seveso sites are present in /around the proposed Strategic Development Zones.

The summary of the SEA assessment of these alternatives against the SEA objectives are provided in Table 4a below:

Table 4a: Overview of Alternatives considered and their assessment against SEA Objectives.

Alternative Assessed	Comment
<p>Alternative One: Do nothing. This alternative would rely on the SIFP as a reference document rather than the incorporation of it into the county development plan.</p>	<p>Comment: This alternative would result in a number of medium to potentially longer term negative impacts for the county. As it would not form part of the CDP it would not have the sufficient statutory basis for landuse planning around the Limerick part of the Shannon Estuary nor would it provide sufficient guidance and mitigation for the strategic development lands identified in the SIFP.</p> <p>In turn this could impact negatively both for potential or existing development activities within these areas as there would not be statutory basis or clarity for the SDLs. From the perspective of several environmental parameters notably biodiversity, water and climate and air quality the do nothing scenario would fall below the standards provided in the SIFP in terms of Guiding Principles for the SDLs, as well as specific mitigation measures that were developed for environmental protection through the SEA and AA processes of the SIFP. Medium indirect in combination and cumulative impacts may arise as a result of the absence of statutory measures contained in the SIFP for the SDLs.</p> <p>The lack of statutory provision would also work against a coordinated approach to both spatial planning and monitoring for the local authorities around the estuary and could hinder identification of cumulative and in combination effects. This could also result in external and more market based agencies driving the development of the SDLs without the necessary safeguards and checks provided in the SIFP informing the planning application process.</p>
<p>Alternative Two: incorporation of all strategic development zones and areas of opportunity (aquaculture Greenish Island and Long Rock) and full incorporation of SIFP to plan</p>	<p>Comment: Given the potential development activities considered under the Marine related industry theme for the SDLs in Limerick, incorporation of zonings as per SIFP may result in indirect negative effects associated with insufficient buffers or more focused fieldwork on each site level.</p> <p>An example relates to potential annex 1 mudflats present at Foynes Island and part of the SDL lands at Askeaton being within the SAC. The incorporation without a stronger evidence base may be problematic. Similarly parts of the SDLs are identified as being flood risk areas under the Preliminary Flood Risk Assessment.</p> <p>In the absence of site visits, the opportunity to refine the landuse zonings at local level (ie to field boundaries, topographic features or habitats) would be missed, and the development of more detailed mitigation measures (if required) would not occur. This could result in negative impacts and loss of either habitat features or damage to more environmentally sensitive receptors.</p>
<p>Alternative Three: incorporation of strategic development zones and phased incorporation of areas of opportunity.</p>	<p>Comment:</p> <p>This allows for greater assessment of issues at SDL level such as surface run off and attenuation, flood defenses and buffers around sensitive habitats and species. Although much information and data on the environment was gathered through the SIFP, the boundaries of the SDL were suggestive rather than definitive, therefore this approach through further evidence base (Phase 1 habitat surveys and SEA fieldwork) allows for a refinement of the zonings to follow either natural or manmade features and if necessary to provide sufficient buffers or exclusions of lands around the SDLs.</p> <p>The further evidence base can also facilitate additional mitigation measures if required such as phasing of lands (i.e. promoting development from existing access points or requiring service led development).</p> <p>The full incorporation of the SIFP with the numerous mitigation measures identified through the SEA and AA will also be included and can continue to facilitate and highlight adequate environmental protection relating to development proposals at these sites.</p>

4.2 Preferred Alternative

In conclusion, the preferred alternative identified through the SEA is Alternative Three: Refinement of SDLs and incorporation of SIFP as a variation. This alternative allows for a more detailed ground-truthing of the SDL zones and refinement according to a stronger evidence base.

5 Monitoring

5.1 Introduction

It is proposed, in accordance with the SEA Directive, to base monitoring on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. Monitoring will focus on the aspects of the environment that are likely to be significantly impacted upon by the implementation of the Variation to the LCDP 2010-2106. The targets and indicators are derived from the Strategic Environmental Objectives (SEOs) presented in Section Two (Table 2c). The target underpins the objective whilst the indicators are used to track the progress of the objective and targets in terms of monitoring of impacts.

The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component. Similarly, monitoring will be carried out frequently to ensure that any changes to the environment can be identified.

5.2 Frequency of Monitoring and Reporting

It is proposed that the SEA monitoring reporting should go parallel with the reviewing of the development plan. However, in some cases as data becomes available, the Planning Authority may prepare an additional SEA Monitoring Report. In particular, should new data or the following occur, additional monitoring will be required:

- Significant unauthorised development (either large scale or cumulative small scale)
- Illegal waste activity
- Water pollution incidents (not resulting from oil spills).

In turn, the list below is subject to review at each reporting stage to reflect new data. Should the monitoring regime identify significant impacts (such as impacts on designated sites) early on in the variation implementation, this should trigger a review of the plan and monitoring regime. In addition, the identification of positive impacts from monitoring should also be reported as this will assist in determining successful environmental policies. It is recommended that data arising from planning applications, particularly in terms of environmental constraints mapping and Environmental Impact Statements be integrated into the GIS and monitoring system. This will assist in assessing cumulative impacts also, in particular ecology and water quality. Finally, it is recommended that the monitoring report be made available to the public upon its completion. It is recommended that this data be shared with neighbouring local authorities to assist in monitoring cross county effects and ensure consistency of monitoring given the regional nature of the SIFP. Table 5a below presents the SEA Monitoring Table.

Table 5a:SEA Monitoring Programme

Topic and SEO	Target	Indicator	Data Sources
Population and Human Health			
Pop 1: Protect, enhance and improve people's quality of life based on high quality environment. Pop 2: To protect human health from risks or nuisances arising from exposure to incompatible land uses/developments.	Protect drinking water areas (including private abstractions) and prevent over-abstraction	Reported health issues and complaints to local authorities/Irish Water about drinking water Boil notices served	Drinking water areas to achieve good status or maintain high status under WFD
	No exceedances of air quality standards due to expansion or diversification of industrial facilities	Air quality/air pollutant levels on a county level	Air Quality in Ireland Report (EPA) IPPC licence thresholds
Biodiversity			
Bio 1: Protect, conserve, enhance where possible and avoid loss of the diversity and range of habitats, species and wildlife corridors. Bio 2: Protect designated sites including European Sites (SACs and SPAs) and other sites with nature conservation status and protected species and habitats outside these areas.	Halt spread of alien and invasive species and their associated impact on the aquatic and terrestrial environment. Ensure future development along the estuary does not facilitate the spread of existing or new species	Geographical spread of alien and invasive species in the Lower Shannon Estuary of County Limerick Identified of species through Invasive Species Ireland website.	National Invasive Species Database Monitoring information from Inland Fisheries Ireland and NPWS Application of Environmental Liability Regulations-in case of Annex 1 and II habitats and species.
	Halt deterioration of protected habitats or their associated species due to future expansion of existing industrial sites	Publication of habitat and species specific conservation management plans and monitoring information which provide a percentage of unique habitat and species lost in designated sites	Species Action Plan Threat response plan for Vesper Bats Threat response plan for otters Conservation plan for Irish cetaceans Cetacean sightings (IWDG, SDWF & NPWS) National Bat Database (Bat Conservation Ireland)
	Protect and enhance Natura 2000 sites under Article 6 of the Habitat Directive No loss of protected habitats and species during lifetime of variation	Percentage of unite habitat an species lost in designated sites through survey reports No of HDAs with developments proposed for sites in or near Natura 2000 sites	Atlas of Breeding birds in Ireland (Birdwatch Ireland) Biodiversity Records (NBDC) Saltmarsh monitoring information (NPWS) Finding of no significant impact through HDA process in consultant with NPWS (Developer/Limerick City and County Council, NPWS)
Bio 3: Protect and enhance where possible, the aquatic environment and meet the requirements of the WFD and the RBMP.	No deterioration in status of waters currently with good or high status Restoration to good status of waters currently at moderate, poor or bad status Progressively reduce chemical pollution in waters Limit pollution inputs to groundwaters and prevent deterioration	Water Status under WFD 2015 Status within Shannon international river basin district management plan Changes in quality of receiving waters identified during monitoring under WFD and supporting measures	Shannon IRBD, Limerick City and County Council, EPA
Water			
Wat 1:- Protect and enhance the status of	Biotic Quality Rating (Q Values) and Risk assessment	Improvement in Q values of surface waters within zone	Limerick City and County Council , IRBD, EPA

<p>aquatic ecosystems and with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystem (quality, level, flow).</p> <p>Wat 2: Maintain or improve the quality of all waters to status objectives as set out in the Water Framework Directive, River Basin Management Plans and Programme of Measures.</p>	of influence of variation		
	<p>No deterioration in status of waters currently with good or high status</p> <p>Restoration to good status of waters currently at moderate, poor or bad status</p> <p>Progressively reduce chemical pollution in waters</p> <p>Limit pollution inputs to ground waters and prevent deterioration</p>	<p>Water Status under WFD 2015</p> <p>Status within Shannon international river basin district management plan</p> <p>Changes in quality of receiving waters identified during monitoring under WFD and supporting measures</p>	<p>Shannon IRBD, Limerick City and County Council, EPA</p>
<p>Wat 3: Reduce risk of flooding through avoidance of inappropriate development in flood plains or in areas at risk of flooding and manage the risk of flooding.</p> <p>Geology and Soil</p> <p>Soil 1: Protect, improve and maintain the quality of soils.</p>	<p>Prevent increased risk of flooding or floods</p>	<p>Reduce number of flood events or prevent future flood events</p> <p>No of applications requiring FRA at project level</p>	<p>Application of CFRAMS upon availability</p> <p>Limerick City and County Council OPW</p>
<p>Soil 2: Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites</p> <p>Cultural heritage</p> <p>CH1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded)</p>	<p>Number of recorded soil contamination incidents</p> <p>Number of dredging applications</p>	<p>Applications requiring soil management plans</p> <p>Cases brought under the Environmental Liability Regulations</p>	<p>Limerick City and County Council EPA</p>
	<p>No impacts on such sites associated with implementation of variation.</p>	<p>Number of applications requiring either Stage II Appropriate Assessment or Ecological Impact Assessment</p>	<p>Limerick City and County Council Geological Survey of Ireland</p>
	<p>Ensure that the cultural heritage of the estuary (coastal) is maintained and protected from damage and deterioration</p>	<p>% of Protected Structures identified as 'buildings at risk'</p> <p>Number of enforcement notices issued in relation to Protected Structures</p>	<p>Limerick City and County Council</p>

<p>monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).</p>			
<p>Landscape Land 1: Protect and enhance landscape and coastal character, designated routes and views and landscape features of local value.</p>	<p>Promote, enhance landscape character through policy implementation</p>	<p>No of strategic developments sited in landscape with a high sensitivity Percentage changes in landcover types in areas with high sensitivity Number of applications required landscape and visual impact assessment</p>	<p>Limerick City and County Council</p>
<p>Air Quality and Climate AQ1: Contribute to mitigation of and adaptation to climate change and minimise emissions to air as a result of strategic development</p>	<p>Use BAT, including renewable energy where feasible, to minimise GHG from new or upgraded wastewater infrastructure in line with Ireland's commitments to reduce GHG emissions under the Kyoto Protocol</p> <p>No decline in overall air quality No exceedances of emissions for IPPC sites within the county</p>	<p>Calculated CO2 equivalent in tonnes from new or upgraded water infrastructure</p>	<p>To be calculated based on changes in water infrastructure. This will need to be carried out in line with the WFD requirements</p> <p>Air quality monitoring by EPA and submitted as part of IPPC licensing</p>
<p>Material Assets Mat 1: Ensure infrastructure including wastewater services are established in advance of new development</p>	<p>Improved compliance in wastewater discharges from municipal and private treatments</p>	<p>% Section 4 compliances. Number of applications granted without connection to public wastewater treatment. Number of applications granted with onsite wastewater treatment plant in accordance with relevant EPA guidelines</p>	<p>Limerick City and County Council EPA Irish Water</p>

5.3 Conclusion and implications for Limerick City and County Council and Elected Members

By incorporating the SIFP as Variation No.3 to the Limerick County Development Plan 2010-2016 it has been subject to SEA and AA through the variation process. This SEA Statement summarises how environmental considerations have been addressed in the plan preparation process. Consultation was undertaken at pre-draft stage, SEA Scoping Stage and through submissions on the draft variation No.3, SEA ER and AA. Policies, objectives and land use zonings were assessed in terms of the impacts on the environment and mitigation measures proposed through rewording of the policies/objectives or rezoning where necessary. The mitigation measures proposed for the policies/objectives through the SEA and HDA process have been incorporated into the variation.

The SEA and HDA have informed the variation through an ongoing iterative process that incorporated environmental considerations and sensitivities throughout the variation development. The SEA and HDA has been undertaken in line with the Planning and Development (Strategic Environmental Assessment) Regulations 2004 to 2011 (as amended) and the European Communities (Natural Habitats) Regulations 2011.

Subject to the full and proper implementation of the mitigation measures and adherence to policies, objectives and land use zonings contained in the Variation No.3 to the Limerick County Development Plan 2010 to 2016 including appropriate site level investigations, it is considered that significant adverse impacts on the environment will be avoided.