

Ireland West Airport Knock Strategic Development Zone Planning Scheme 2019

SEA Statement

September 2019



REGIONAL AIRPORT

HANGERAGE & AVIATION

BUSINESS & INNOVATION

HOTEL & CONFERENCE



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Section 1 - Introduction

1.1 Purpose of Report

This is the Strategic Environmental Assessment (SEA) Statement of the Approved Ireland West Airport Knock (IWAK) SDZ Planning Scheme, 2019. The main purpose of the SEA Statement is to indicate how environmental considerations, the views of consultees and the recommendations of the Environmental Report have been incorporated in the decision making process in the formulation of the amendments to the Planning Scheme.

1.2 Legislative Context

The requirement to carry out a Strategic Environmental Assessment stems from the Strategic Environmental Assessment Directive (2001/42/EC) which states:

'The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans.....with a view to promoting sustainable development.....'

The Directive was introduced into Irish Law in 2004, through the European Communities (Environmental Assessment of Certain Plans & Programmes) Regulations 2004, S.I. No. 435 of 2004 and the Planning and Development (Strategic Environmental Assessment) Regulations 2004, S.I. No. 436 of 2004 (additional supplementary Regulations were introduced in 2011).

Article 9 of the SEA Directive (2001/42/EC) provides that the environmental authorities and the public must be provided with an SEA Statement as soon as is practical after a plan is adopted. The SEA Statement is required to include information summarising:

- a) how environmental considerations have been integrated into the plan,
- b) how
 - the environmental report,
 - submissions and observations made on the draft amendments to the Planning Scheme and Environmental Report, and
 - any transboundary consultations have been taken into account during the preparation of the plan.
- c) the reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives and
- d) the measures selected to monitor the significant environmental effects of implementation of the plan.

1.3 Implications of SEA for the Plan Making Process

Article 11 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004), as amended, requires that Strategic Environmental Assessment is undertaken for the preparation of Planning Schemes.

An Environmental Report was prepared in parallel with the production of the draft Planning Scheme and was submitted to the Elected Members on the 22nd of August 2019. The purpose of the report was to provide an understanding of the likely environmental consequences of various alternative scenarios and of the policies/objectives contained within the amendments to the Planning Scheme.

The Elected Members were required by the legislation to take into account the Environmental Report before the adoption of the Planning Scheme and the likely significant effects of implementing the chosen scenario for the planning scheme.

Section 2 - How environmental considerations were integrated into the plan

2.1 Introduction

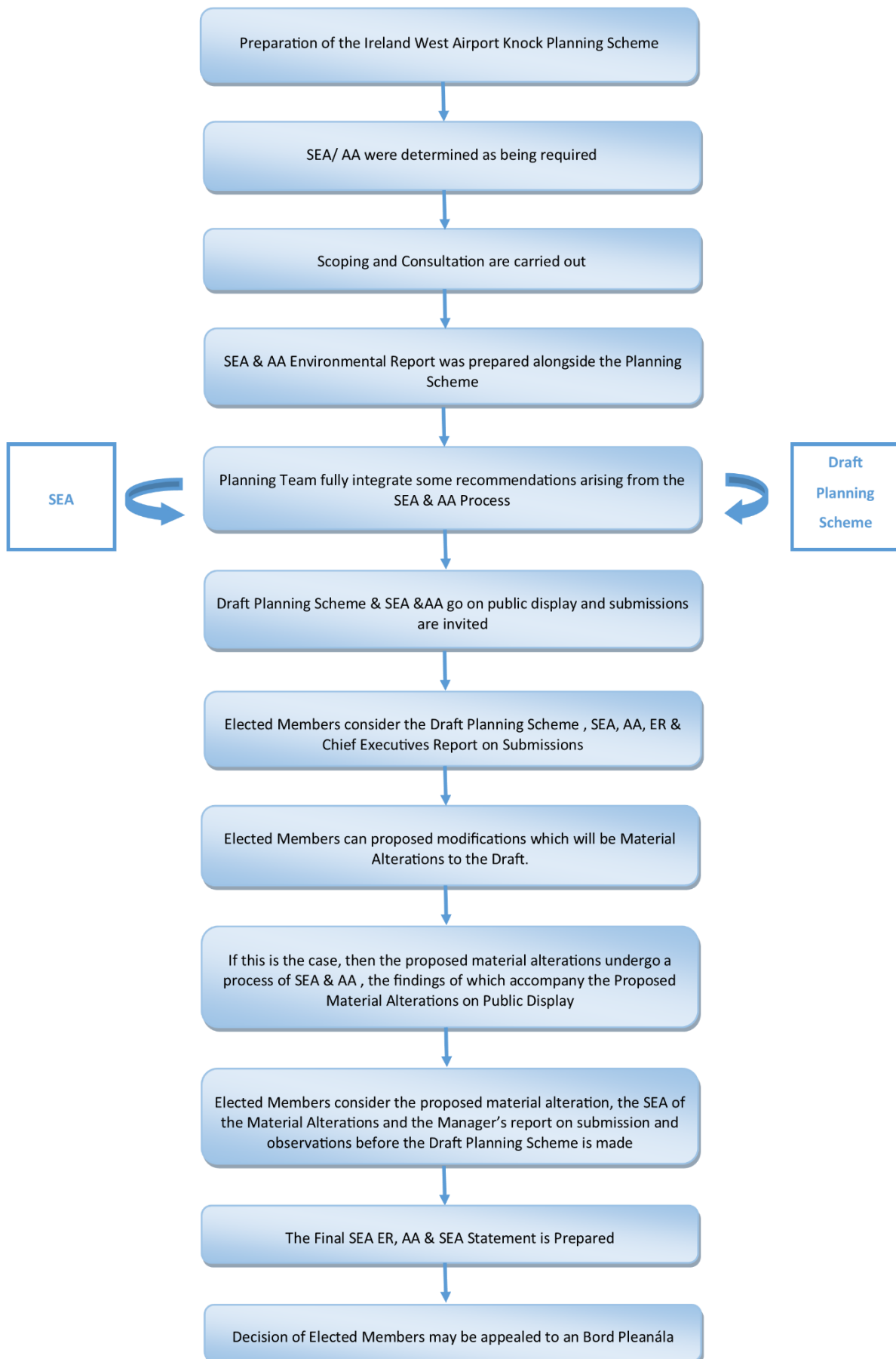
Environmental considerations were integrated into the Planning Scheme process at a number of stages in the SEA i.e. the Scoping stage, at the Environmental Report stage and following the submissions and observations from the Environmental Authorities and the public.

In addition, the environmental sensitivities of the Planning Scheme area were communicated to the Plan preparation team on a regular basis from the outset of the Plan preparation process. This process helped identify those areas with environmental constraints and helped ensure that either future growth was diverted away from these areas or that appropriate mitigation measures were integrated into the Plan.

As part of the IWAK SDZ Planning Scheme 2019, an Appropriate Assessment was required under the Habitat's Directive (92/43/ EEC) and a Strategic Environmental assessment were carried out prior to the approval of the Planning Scheme.

The IWAK SDZ Planning Scheme 2019 is underpinned by the Planning and Development Act 2000 (as amended). The SEA process was also informed by the Natura Impact Report which also ran in parallel with the drafting of the Planning Scheme.

Figure 1 Stages in the Planning Scheme/ SEA & AA Preparation Process



2.1 Scoping Report and Statutory Consultation

The Environmental Protection Agency (EPA), the Department of Culture, Heritage and the Gaeltacht and the Department of Communications, Climate Action and Environment were sent scoping notices and Consultation Document in 12 October 2018. The Paper set out a description of the IWAK SDZ area and a baseline of environmental data. It also indicated that submissions or observations in relation to the scope and level of detail of information to be included in the Environmental Report could be made to the Council. Submissions were received on the scope of the SEA from the EPA, the Department of Culture, Heritage and the Gaeltacht and the Department of Communications, Climate Action and Environment. These submissions were taken into account during the formulation of the Environmental Report.

The report set out the background and context of the Planning Scheme the likely nature and scale and location of development and specific considerations including:

- i. Population
- ii. Biodiversity, Flora and Fauna
- iii. Water
- iv. Air
- v. Climatic Factors
- vi. Material Assets
- vii. Cultural Heritage
- viii. Landscape

2.2 Consultations

In addition, a number of other submissions were made on the IWAK SDZ Planning Scheme, the EPA and the Department of Housing, Planning and Local Government referred to the Environmental Report.

During the preparation of the draft Planning Scheme a number of consultations were held in order to inform and assist in the preparation of this Planning Scheme:

- a) regard to the IWAK Local Area Plan, which involved public consultation and engagement as part of the LAP process;
- b) Several interdepartmental multi-disciplinary meetings of Mayo County Council regarding the Planning Scheme;
- c) a series of meetings were held with Connaught Airport Development Company; and
- d) a peer review session consisting of departmental representatives from Mayo County Council and the Connaught Airport Development Company;

The above consultation measures have proved an invaluable aspect of the process which informed and guided this Planning Scheme.

2.3 Environmental Report

The Environmental Report was prepared alongside the draft Planning Scheme. It described, investigated and evaluated the effects of implementing the draft plan on the receiving environment. The report also assesses and identifies development alternatives for the SDZ area and identifies the most sustainable development strategy.

Overall, the preparation of the Environmental Report influenced the formulation of the draft Planning Scheme as follows;

- It raised the awareness of the existing level of environmental information in the SDZ area and also the EU and National legislation governing the environment
- It facilitated the introduction of the concept of Green Infrastructure into the SDZ

- Links between the Plan and other relevant strategies, policies, plans, programmes and environmental protection objectives
- An outline of reasons for selecting the alternatives chosen; and
- Monitoring measures to ensure that any unforeseen environmental effects will be identified allowing for appropriate remedial action to be taken.

2.3.1 Environmental Baseline:

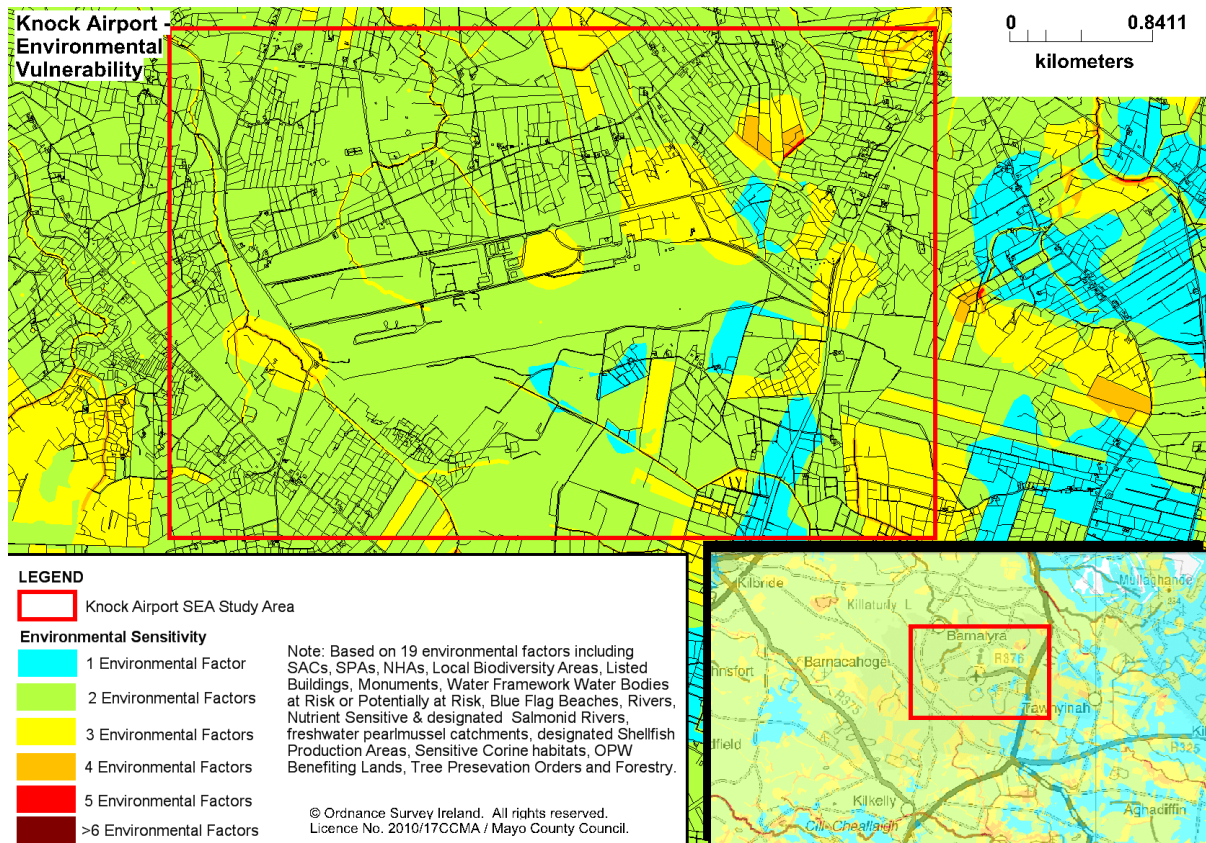
The Environmental Report contains a range of baseline information in the IWAK SDZ area on key environmental headings such as:

- 1) Biodiversity, Flora and Fauna
- 2) Population and Human Health
- 3) Soils and Geology
- 4) Water
- 5) Air and Climate Factors
- 6) Material Assets
- 7) Cultural Heritage and
- 8) Landscape

2.3.2 Mapping of Environmental Sensitivities

Geographical Information System (GIS) software was used in order to weight a number of environmental sensitivities and map them in layers; this allowed for the identification of concentrated areas of sensitivity within the area. Environmental Sensitivities are indicated by a scale of 1 to 6 which range from low vulnerability (blue) to extreme vulnerability (dark red).

Figure 2 Environmental Sensitivity Map



2.3.3 Key Environmental Issues Identified:

The key environmental issues in the IWAK Planning Scheme area were identified in the Environmental Report as:

- **Population and Human Health:** Incompatible land uses and the restrictions relating to PSZs and Noise Contours could cause a risk to human health. Traffic using the local road network as opposed to the National and Regional routes could also have an impact on pedestrian safety.
- **Biodiversity, Flora and Fauna:** The area of cutover bog directly north of the existing Airport Terminal and car park has been extensively drained and is vulnerable to scrub encroachment. It is also severed from similar habitats by a series of access roads, which have also contributed to the drying out of the bog. Other areas of bog habitats have been subject to extensive turbary activities and some grazing pressure. An additional environmental problem is the effect of the operation of the airport on birds in the area and the potential for bird strikes.
- **Soils and Geology:** There are no apparent exiting environmental problems relating to soils and geology in the study area. There have been no recorded landslides in the area, but peat is prone to saturation and when disturbed may become saturated and unstable.
- **Water Quality, Freshwater Ecology and Effluents:** the protection and / or improvement of water quality in the water bodies in the vicinity of Ireland West Airport, Knock and its environs. Considered a largely rural and sparsely-populated area, water status is designated based on element descriptions such as inter alia macroinvertebrate status, diatoms status, fish status or general physico-chemical status.

2.3.4 Environmental Protection Objectives

SEA Topic	Environmental Protection Objectives
Biodiversity, Flora and Fauna	B1: Conserve and protect designated habitats and protected species.
	B2: Maintain the biodiversity of interdependent habitats and species in the wider landscape
Population and Human Health	HP1: To improve the working populations quality of life based on a high-quality working environment, reduction in commuting distance and the promotion of sustainable modes of transport within, to and from Ireland West Airport Knock
	HP2: To protect human health from incompatible land uses associated with locating at or adjoining airports.
Soils and Geology	SG1: To identify and protect areas which may be deemed to have a risk of landside
Water	W1: To prevent deterioration of surface waters of good and high status
	W2: To restore states of water bodies of moderate, poor and bad to good status
	W3: To reduce surface water pollution from priority substances
	W4: To achieve water-related designated protected area objectives and to support the achievement of favourable conservation status wherever such plans exist
Air Quality	AR1: Maintain good air quality status in line with CAFÉ Directive requirements and the National Climate Change Strategy.
Noise	N1: To promote appropriate noise control measures on operations within the Ireland West

	Airport Knock Planning Scheme area.
	N2: To encourage the implementation of control measures on road traffic noise within the Ireland West Airport Knock Planning Scheme area
Climate	C1: To maximise the areas contribution to the national decrease in Green House Gases
Flooding	F1: To prevent development on lands which pose – or are likely to pose in the future – a significant flood risk.
Roads & Transport Infrastructure	R1: To protect the road network
	R2: To prevent any interference with the safety and efficiency of aircraft operations in the vicinity of the airport.
Energy	E1: To reduce the reliance on non-sustainable energy sources by the promotion and use of renewable energy resources
Waste Water	WW1: To provide adequate waste water infrastructure to meet existing and future demands for such provision
Drinking Water	DW1: To prevent deterioration of the status of water bodies with regard to quality, quantity and to improve water body status of rivers, lakes and groundwater to at least good status as appropriate to the WFD, providing good sources of abstraction for drinking water.
Waste Management	WM1: Minimise waste production and maximise recycling and recovery through the introduction of sustainable waste management practices.
Archaeological Heritage	CH1: To protect the archaeological heritage and especially sites identified in the Record of Monuments and Places, National Monuments in the ownership or guardianship of the State and National Monuments that are subject to Preservation Orders and to safeguard the integrity of the archaeological sites in their setting.
	CH2: To protect the architectural heritage of County Mayo with regard to protected structures, Architectural Conservation Areas and other elements highlighted in the baseline data in Section 4.
Landscape	L1: To protect the landscape character of the area.

2.3.5 Environmental Assessment

The Planning Scheme was assessed against the EPOs at a number of stages during the process. This allowed for early identification and mitigation of environmental conflicts. The plan was also assessed by a number of effects as required under the SEA directive.

2.3.6 Summary of Mitigation Measures and Environmental Effects for the SDZ Planning Scheme

The table below summarises the key environmental themes, mitigation measures and considerations taken into account in the preparation of the Planning Scheme for IWAK SDZ (See Appendix 3 for full list of mitigation measures for the Planning Scheme).

Environmental Considerations	Summary of Mitigation Measures	How has the Environmental Effects have been taken into Account in the Planning Scheme
<p>Bio-diversity, Flora and Fauna</p>	<ol style="list-style-type: none"> 1. All development proposals with the potential to impact on European Sites will be subject to Habitat Directive Assessment. 2. All development proposals with the potential to impact on the environment of a designated site shall include an Ecological Assessment. 3. All development proposals should prevent the spread of, aquatic and terrestrial, invasive and alien species. 	<ul style="list-style-type: none"> • There are no designated sites pertaining to flora and fauna on site. However, the Planning Scheme is accompanied by a Natura Impact Report. As stated in Section 5.2 (Appropriate Assessment (AA)) of the Scheme, the AA has concluded that the proposed development resulting from the IWAK Planning Scheme will not, beyond reasonable scientific doubt, adversely affect the integrity of any European Site (Natura 2000 site); whether directly, indirectly or cumulatively • Section 2.3.3 (Biodiversity and Natural Heritage) of the Scheme sets out requirements to minimise adverse impacts on biodiversity, including the requirement to engage the services of suitably qualified Ecologist prior to and when undertaking ecologically sensitive, or ecologically related works or proposals e.g. ecological surveys, reports, proposals, site supervision and promoting liaising with NPWS during the development design, construction, monitoring and management stages. • Section 2.3 (Green Infrastructure, Biodiversity & Natural Heritage) of the Planning Scheme sets out the proposed green infrastructure network for IWAK SDZ, as well as includes measures to protect and enhance its biodiversity and natural heritage. The introduction of a green infrastructure strategy seeks to protect existing ecological corridors on site for wildlife from inappropriate development, as well as protect the designated European Sites (River Moy SAC) outside the plan area, by safeguarding potential conduits on site (tributaries to the Sonnagh River) from inappropriate development. • In Section 2.5.7 (Public Space, Landscaping and Planting) of the

		Planning Scheme it is stated that no alien invasive species shall be permitted.
Population and Human Health	<ol style="list-style-type: none"> 1. Develop design guidelines that represent a preferred set of standards that contribute to achieving a sustainable high-quality development environment for businesses and their employees/visitors. 2. Compliance with the Public Safety Zones, Obstacle Limitation and Noise Contour requirements. 	<ul style="list-style-type: none"> • Section 2.5 (Built Form & Design) of the Planning Scheme contains measures to ensure all new development proposals contribute towards the creation of a high-quality built environment. • The Planning Scheme states that all permissible land uses must comply with the requirements of the Public Safety Zones; Aerodrome Safeguarding and Noise Contours. Figure 1.8.4(g) provides an aerodrome safety map relating to obstacles limitation surfaces; Figure 1.8.4(h) provides a map to identify public safety & safeguarding zones; and Figure 1.8.4(i) provides a Noise Contour Map.
Soils and Geology	<ol style="list-style-type: none"> 1. All development proposals that require peat or vegetation removal shall prepare a peat management and disposal plan. 2. Where development proposals involve the excavation of peat and soft soils on slopes a geotechnical assessment of the potential risk of landslides should be prepared. 	<ul style="list-style-type: none"> • Section 2.3.3 (Biodiversity and Natural Heritage) of the Scheme seeks to ensure best practice measures are adhered to in relation to peat management aimed at minimising peat loss, restoration, and proper recovery, development and works on SDZ lands shall have regard to the Peat Management Plan as detailed in Appendix 4 of the SEA Report.
Water	<ol style="list-style-type: none"> 1. There should be full and strict compliance with the programme of measures developed to achieve the specific objectives of the Western River Basin Management Plan, in addition to enforcement of / compliance with local legislation and plans, national and EU legislation. 2. A Habitats Directive Assessment (post screening) will be required to assess the potential adverse impacts of any plan or project, where considered appropriate, either individually or in combination with other plans or projects on a European Site, including SACs, SPAs and also RAMSAR sites (classified under the RAMSAR Convention, 1971) within or pertaining to the Plan Area. This should include waste assimilative capacity predictions to ensure that the capacity of existing surface waters is sufficient to accept new / increased discharges with no deterioration in current water body status. 3. Surface Water Management Plan should be prepared for all development 	<ul style="list-style-type: none"> • A key stated principle in the Planning Scheme(Section 2.3.1, Key Principles) seeks to protect, enhance and develop an interconnected green infrastructure network incorporating hedgerows, streams and open space for amenity and well-being, protection of biodiversity, flood management and adaption for climate change ensuring adherence to the requirements of the Water Framework directive and Floods Directive • There are no designated sites for flora and fauna on site. However, the Planning Scheme is accompanied by a Natura Impact Report. As stated in Section 5.2 (Minimising the Affects on the Environment) of the Scheme, the AA has concluded that the proposed development resulting from the IWAK Planning Scheme will not, beyond reasonable scientific doubt, adversely affect the integrity of any European Site (Natura 2000 site); whether directly, indirectly or cumulatively. • In terms of impacts of surface water, the

	<p>proposals (Appendix 2 of the SEA Report)</p>	<p>NIR includes mitigation measures to protect water quality during the construction and operational stages of the development. The Planning Scheme incorporates the use of SUDS to maintain greenfield rates of run-off to alleviate the risk of flood associated with surface water run-off. In Section 2.5.9 (Sustainability) the various components of SUDS to be used include: Green Roofs/Living Walls; Permeable Surfacing; Bio Retention/Attenuation Areas; Rainwater Harvesting; and Swales.</p>
<p>Air and Climate Factors</p>	<ol style="list-style-type: none"> 1. (Climate) All development proposals should include means to reduce the carbon footprint of the development scheme through innovate design and site layout solutions as well as implementing efficiency and renewable energy technologies. 2. (Noise) Comply with Noise Contour requirements (Appendix 1 of the SEA report) 3. (Noise) Factor in noise barriers and noise protection into the building and site layout design. 4. (Flooding) All new development proposals within or close to flood risk areas shall submit a flood risk assessment which should incorporate flood protection and mitigation measures, as appropriate. 	<ul style="list-style-type: none"> • Section 2.5.6 (Energy Efficiency & Acoustics) of the Planning Scheme promotes energy efficiency of buildings, through renewable & green technology. The Scheme seeks to ensure all development proposals should include measures to reduce the carbon footprint of the development scheme through innovate design and site layout solutions as well as implementing efficiency and renewable energy technologies. • In Section 1.8.4 (Site Appraisal) of the Planning Scheme where it relates to Land-Use, it states that all permissible land uses must comply with the requirements of the Public Safety Zones; Aerodrome Safeguarding and Noise Contours. Section 1.8.4 also includes provides a narrative on noise and noise zones, as well as including a noise contour map is included in the Scheme in Figure 1.8.4(i). • Sections 2.3.3 (Biodiversity & Natural Heritage) & Section 2.5.6 (Energy Efficiency & Acoustics), the Planning Scheme supports the use of boundary treatment and tree planting throughout to provide shelter, noise mitigation, mitigation of particulate pollution. In terms of buildings, the scheme states that development proposals should take into account measures in relation to noise efficiency. • In Section 1.8.5 (Utilities/Infrastructure) of the Scheme where it relates to surface water, it is stated that no flooding events recorded relating to the SDZ or its general area. However, based on local knowledge, a pluvial flood risk has been identified along the local road that forms the northern boundary of the

		<p>SDZ and to the west of the runway. Therefore, the Scheme incorporates SUDS to maintain greenfield rates of run-off to alleviate the risk of flood associated with surface water run-off.</p>
<p>Material Assets</p>	<ol style="list-style-type: none"> 1. (Road network) Assess the adequacy of the road network in the SDZ area in terms of capacity, width, alignment or surface condition in order to cater for increased traffic. Any deficiencies identified should be addressed within a reasonable timeframe by the relevant authority 2. (Road Network) Use of shared access points onto the public road network 3. (Energy) Encourage the use of energy efficiency in all new development proposals, with the ultimate aim of achieving a Carbon Neutral Status 4. (Energy) Reduce energy consumption through innovative design and layout with the appropriate use of materials and new technology in developments proposals 5. (Waste Management) Prepare a waste management plan for construction and demolition projects 6. (Waste Management) Prepare an Operation Waste Management Plan to minimise waste production and maximise recycling and recovery through the introduction of sustainable waste management practices in all development proposals (Appendix 2) 7. (Drinking Water) Prepare Surface Water Management Plan to ensure that any discharges to ground waters do not cause deterioration in the current water body status 	<ul style="list-style-type: none"> • Section 2.5.4 (Road & Access) of the Planning Scheme states the continuous assessment of the adequacy of the roads network in terms of capacity, width, alignment or surface condition will be carried out in order to cater for increased traffic demands. Deficiencies should be addressed within a reasonable timeframe by the relevant authority. Furthermore, the Scheme requires the submission road safety audits and traffic impact assessments for significant developments. • Section 2.5.4 (Road & Access) of the Planning Scheme encourages shared road access points where possible. The road network strategy for within the Planning Scheme had been devised to ensure that number of main access points on to regional road (R376) and primary local road are shared as much as possible. • Section 2.5.9 (Sustainability) of the Planning Scheme supports environmental sustainability by promoting and encouraging the use of sustainable technologies and practices in all new development with the ultimate aim of a carbon neutral status for the IWAK area. Also, the Scheme includes a USSPV solar farm to off-set some of the energy need and help move toward a carbon-neutral status. • Environmental sustainability is promoted in IWAK through a number of approaches including the built and natural environment that seeks to encourage the use of energy efficiency • The NIR for IWAK includes mitigation measures to protect water quality during the construction and operational stages of the development. • The NIR for IWAK includes mitigation measures to protect water quality during the construction and operational stages of the development. Also, Section 2.3.3 (Biodiversity & Natural Heritage) of the Scheme set out requirements for the

		<p>protection of Biodiversity and Natural Heritage, including liaising with NPWS during the development design, construction, monitoring and management stages. In Section 2.5.2 (Design Criteria) it is stated that consideration should be given, where possible, to reusing and recycling materials to promote the circular economy and reduce construction and demolition waste.</p> <ul style="list-style-type: none"> • The NIR for IWAK includes mitigation measures to protect water quality during the construction and operational stages of the development. Also, Section 2.5.9 (Sustainability) of the Planning Scheme lists the various components of SUDS to be used to protect surface waters including: Green Roofs/Living Walls; Permeable Surfacing; Bio Retention/Attenuation Areas; Rainwater Harvesting; and Swales.
<p>Cultural Heritage</p>	<ol style="list-style-type: none"> 1. (Archaeological) An archaeological assessment shall be submitted for all development proposals that either fall within the zones of archaeological potential of Recorded Monuments and Places or for all significant planning applications (Appendix 2 of the SEA Report) 2. (Architectural) Provide an architectural and urban design palette that contributes to achieving quality development, through contemporary building design; high quality building materials should be of a high quality and use of glazing. Development must also be responsive to their context and the creation of attractive environments and public spaces for a variety of businesses and their employees/visitors through the achievement of effective landscaping and a high-quality parkland type development scheme; as well as the encouragement of environmentally responsible architectural design. 3. (Architectural) Retain, where possible, of all features of historic, architectural or natural interest, such as stone walls, hedgerows and/or bridges or other features. 	<ul style="list-style-type: none"> • A key principle set out in Section 2.3 (Green Infrastructure, Biodiversity, Built & Natural Heritage) of the Planning Scheme aims to ensure the protection of existing habitats and species and safeguarding of archaeological and built heritage. • Section 2.5 (Built Form & Design) of the Planning Scheme contains measures to ensure all new development proposals contribute towards the creation of a high-quality built environment. Furthermore, Section 2.5.7 (Public Space, Landscaping and Planting) of the Planning Scheme set out the standards required to achieve high quality public spaces, landscaping & planting to achieve a high-quality environment responsive to its context. • Section 2.5.7 (Public Space, Landscaping & Planting) & 2.5.8 (Boundary Treatment) seeks to retain existing vegetation and existing natural and planted boundaries, as well as augmented them with additional planting, where possible. Furthermore, a specific aim in Section 3.3.9 of the Scheme seeks to retain where possible and promote and enhance the biodiversity of the area by cultivating a green corridor along the existing watercourse (Sonnagh).

<p>Landscape</p>	<p>1. All proposed development should be designed to absorb into the surrounding landscape and should consider aspects of access, permeability and open space respond to the key landforms features and rural character of the area.</p> <p>2. Development proposals should contribute to the creation of a high-quality landscape environment by achieving a high-quality parkland type of development scheme.</p>	<ul style="list-style-type: none"> • Section 2.3.2 of the Planning Scheme contains the proposed green infrastructure network. The Planning Scheme provides a green network of over 25 hectares throughout the IWAK area. The green infrastructure network requires new development to promote the retention, protection and improvement of distinctive landscape features by, for example, incorporating them into development, adjacent to open space, SUDS provision, boundary features. • The green network will assist towards the assimilation of new developments into this rural location. Section 2.3.3 of the Planning Scheme states that the extent of proposed development within the Planning Scheme requires the promotion, retention, enhancement of existing planting in order to minimise adverse effects of the development in the context of the rural natural setting in which it is located. • Section 2.3.2 states that a green network is threaded throughout the Planning Scheme consisting of open parkland areas, green corridors & buffer areas recreational parkland and attenuation pond /landscaped wetland feature, see Figure 2.3.2(a). This green network will create a high quality landscaped environment. Furthermore, Section 2.5.7 of the Planning Scheme set out the standards required to achieve high quality public spaces, landscaping & planting to achieve a high-quality environment responsive to its context.
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Section 3 - Submissions and Observations

3.1 Introduction

The following section details the issues which were raised by the Environmental Authorities prior to, during and after the preparation of the draft IWAK SDZ Planning Scheme and the accompanying Environmental Report and how these were incorporated into the Plan. The submissions range from the initial scoping responses on environmental issues from the Statutory Authorities (October 2018) to submissions on the draft Planning Scheme (July 2019). A number of submissions from the non-environmental authorities.

3.2 SEA Scoping Consultations

As environmental authorities identified under the SEA Regulations, the EPA, Department of the Housing, Planning and Local Government and the Department of Communications, Climate Action and Environment were all sent the SEA Scoping Issues Paper on the 12 October 2018. The responses to the issues paper were taken into account during the carrying out of the Strategic Environmental Assessment.

3.3 Submissions and Observations on the Draft Planning Scheme and Environmental Report

The written submissions received from the Environmental Authorities following the public display period (29th May - 12th July 2019) of the Draft Planning Scheme (and accompanying Environmental Report and Natura Impact Report) and the responses are summarised below. The full response to the submissions (Managers Report September 2019) from both the Environmental Authorities and the non-environmental submissions are noted in the Managers Report, September 2019.

Table 1 Submissions from public display period of Draft Planning Scheme

Submission Summary	Comment
<p>Paul Hogan, National & Regional Policy Section, Department of Housing, Planning & Local Government</p> <p>Environmental Assessment SDZ-6/17) Mayo County Council should satisfy itself that the key findings and recommendations of the Strategic Environmental Assessment, Natura Impact Report and Strategic Flood Risk Assessment are incorporated and reflected in the Draft Planning Scheme.</p>	<p>Response SDZ-6/17- Comments noted. The Draft Planning Scheme will ensure that the key findings and recommendations of the SEA and Environmental report will be incorporated and included in the rationale for the proposed Scheme.</p> <p>Recommendation SDZ-6/17- The advice of the Department will be taken on board.</p>
<p>David Galvin, Environmental Protection Agency (EPA)</p> <p>SDZ-1/1) The EPA note Policy 65 of the National Planning Framework ‘to promote the pro-active management of noise where it is likely to have significant adverse impacts on human health and quality of life and support the aims of the Environmental Noise Regulations, through national planning guidance and Noise Actions Plans’. The EPA also states that the IWAK SDZ Plan should consider any relevant Local Authority noise maps and Noise</p>	<p>Responses</p> <p>SDZ-1/1– Comments noted in relation to noise. Noise Contour maps and Public Safety Zones have been mapped for IWAK. The title of <i>Section 4.2.8 Noise of the SEA Environmental Report</i> to be amended to the following- “Relevant Noise Maps and Noise Action Plans for County Mayo”. (See Appendix 1).</p> <p>SDZ-1/2– The EPA’s office of Radiological Protection and Ireland’s Environment is acknowledged. The</p>

<p>Action Plans over the lifetime of the plan.</p> <p>SDZ-1/2) The EPA clarify the reference made to the Radiological Protection Institute of Ireland (RPII) quoted Section 4.6.5 of the SEA Environmental Report. It should be noted that the RPII was merged with the EPA in 2014.</p> <p>SDZ-1/3) The EPA identified the merit of including some key maps in the Non-Technical Summary, such as the Planning Scheme Boundary, Alternative Scenarios, Environmental Vulnerability, etc.</p> <p>SDZ-1/4) The EPA points out that the content of the Environmental Report, in particular the monitoring programme, should take a flexible approach in order to take into account specific environmental issues and unforeseen adverse impacts should they arise and should deal with the possibility of cumulative effects. The EPA notes that on adoption of the plan an SEA Statement should be prepared.</p> <p>SDZ-1/5) On completing the IWAK SDZ the EPA request that the findings of the SEA be integrated into the plan. The recommendations, key issues and challenges described in their most recent State of the Environment Report Ireland’s Environment- An Assessment 2016 (EPA, 2016) should be considered.</p> <p>SDZ-1/6) In regard to the adoption of the plan, a SEA Statement should be prepared.</p> <p>SDZ-1/7) The EPA list the other Departments who should be considered under SEA Regulations.</p>	<p>following sentence will be inserted into <i>Section 4.6.5 - Existing Environmental Problems</i> relating to Air Quality and Climate Factors of the SEA Environmental Report. “A recent study by the Radiological Protection Institute of Ireland, the RPII was merged with the EPA in 2014 (EPA’s Office of Radiological Protection)”. (See Appendix 1).</p> <p>SDZ-1/3– Comments noted.</p> <p>SDZ-1/4– The comments in relation to monitoring are noted.</p> <p>SDZ-1/5– Observations noted. The Environment Report <i>Ireland’s Environment- An Assessment 2016</i> (EPA, 2016) and will be considered on completion of the plan. The findings of the SEA shall be incorporated and reflected in Planning Scheme as appropriate</p> <p>SDZ-1/6 – Comments noted in relation to the process in regard to the adoption of the Planning Scheme.</p> <p>SDZ-1/7– Comments noted.</p> <p><u>Recommendations</u></p> <p>SDZ-1/1– The advice of the EPA will be taken on board.</p> <p>SDZ-1/2– The text changes of the EPA will be made to the Draft Planning Scheme.</p> <p>SDZ-1/3– No change to the Draft Planning Scheme.</p> <p>SDZ-1/4– No change to the Draft Planning Scheme.</p> <p>SDZ-1/5 –The advice of the EPA will be taken on board.</p> <p>SDZ-1/6– The advice of the EPA will be taken on board.</p> <p>SDZ-1/7– No change to the Draft Planning Scheme.</p>
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Table 2 Submission summary of Scoping Consultation October 2018

Consultee	Key Issue Raised
<p>Environmental Protection Agency (EPA)</p>	<p>A SEA Pack and SEA Scoping Guidance Document were submitted to assist with the undertaking of the SEA.</p> <p>The Strategic Flood Risk Assessment needs to consider the impact of any extreme weather events and the likelihood of flooding within the masterplan area or elsewhere. Any assessment of flooding should be expanded to other extreme weather periods of drought, higher intensity rainfall and associated increased runoff, lightning strikes, freeze-thaw scenarios.</p> <p>The Planning Scheme should be informed by the Draft County Mayo Noise Action Plan 2018-2023.</p>
<p>Inland Fisheries Ireland (IFI)</p>	<p>Considerations should be given to the Waste Water Treatment Plant to the capacity available in the receiving waters for parameters including ammonia and phosphorus must be carried out to identify the impact of any future development in this area.</p> <p>The IFI noted that Under the objective of conservation and protection of the environment, it should include a riparian buffer zones along the watercourses within the area.</p> <p>IFI states there should be measures put in place to ensure there is no spread of any invasive species. He Bio-security Protocol should be considered IFI states that it is a requirement for each development in incorporate SUDS for the treatment of surface water and alleviation and pollution prevention.</p>
<p>Department of Culture, Heritage and the Gaeltacht</p>	<p>Land falls substantially within the Moy Catchment and also extends into the Shannon Catchment to the East.</p> <p>Peatlands are predominant throughout the site with other wetlands present namely Molinia Meadows and Wet Woodland</p> <p>Quarries within the plan area will have commitments in relation to after-use and restoration which are likely to be of long-term benefit for biodiversity.</p> <p>A ‘constraints study’ approach is recommended as the basis for producing the masterplan and for informed decision making in relation to land-use zoning and environmental protection. By doing this significant effect on the environment including biodiversity and natural heritage can be avoided by necessary mitigation to reduce or offset adverse effects.</p> <p>Map of the habitat and wetlands should be produced</p> <p>The monitoring programme should be set out clearly and developed in a manner to ensure it will identify the effects on the environment that will or may arise and monitor the effectiveness of any mitigation on which assessment relies.</p> <p>Consideration should be given to the changes to Article 6 of the Habitats Directive. The stages and tests of the Appropriate Assessment proves should follow legislation that applies now.</p>
<p>Department of Communications, Climate Action and Environment- Geological Survey Ireland</p>	<p>County Geological Sites include additional sites that maybe of national importance but were not selected as the best examples for NHA designation.</p> <p>There is a CSG within the vicinity of IWAK – Knock Airport Road Cutting</p>

Section 4 - Alternatives and the plan

4.1 Alternative Scenarios

One of the critical roles of the SEA was to facilitate an evaluation of the likely environmental consequences of a range of alternative scenarios for accommodating future growth at the Planning Scheme lands at IWAK. Two Alternative Scenarios for IWAK were considered and these are described below.

Do-Nothing Scenario

In May 2017 284 Hectares of lands at Ireland West Airport Knock was designated as a Strategic Development Zone S.I 266/2017 by the Government of Ireland.

The Draft Strategic Development Zone supersedes the Local Area Plan (LAP) for IWAK was prepared in accordance with Sections 18 – 20 of the Planning and Development Acts 2000 – 2010. The SDZ designation provides for fast track planning procedures, it is an appropriate mechanism to develop lands at IWAK to offer a spatial planning approach. IWAK represents a shared outlook for the future economic development for Mayo and the North/ West region. IWAK is a rural location and holds a strong economic focus of the designation which is to facilitate business and enterprise development in tandem with the growing transport role and the needs of the airport. A Planning Scheme must be designed no later than two years after the designation of lands by the Government.

Therefore, the current state of the site or the do-nothing approach is considered not to be appropriate alternative scenario for the following reason:

The lands are now covered by a new statutory instrument S.I 266/2017 which decreases the amount of lands covered under the Local Area Plan.

The Do Nothing Scenario is not considered to be a reasonable alternative for the SDZ area and will not be considered.

Scenario 1

Scenario No. 1 creates a somewhat formal and urban style environment, with a rigid grid layout incorporating a centrally located avenue dissecting the Business and Enterprise campus from east to west. This scenario proposes hotel and conference facilities in the south eastern corner of the business park and a series of public playing pitches in a centrally located section to the north of the central avenue and extending to the tertiary county road along the northern site boundary. The main business and Enterprise elements are in 6 no. individual zones separated by internal access roads. The two largest zones address the primary county road to the south. Three of the smaller business and enterprise zones are in the north eastern corner of the business and enterprise campus adjacent to the tertiary county road to the north. Utilities, including a surface water attenuation pond are located at the western end of the campus immediately opposite a photo-voltaic solar energy park on the southern side of the primary local road, immediately adjacent and to the west of the proposed MRO facility.

Key Elements of Scenario

- Rigid, urban, grid style layout.
- Increased hard landscaping.
- Centrally located access road dissecting site from east to west
- Playing pitches and active amenity area.
- 200-bedroom Hotel and Conference centre.

Scenario 2

Scenario 2 adopts a less formal and rigid parkland style layout than scenario 1 by referencing to a greater degree the rural setting of IWAK. The Business and Enterprise Campus/Hotel and Conference facilities are accessed by a curved boulevard style roadway which, while also dissecting the site from east to west, follows the natural contours of the land at this location. Substantial green/planted buffer zones are proposed around all areas of development within the campus. The playing pitches proposed along the northern site boundary with the county road in Scenario 1 are eliminated and the existing habitat at this location is left largely untouched. This is proposed in order to both maintain existing biodiversity and to function as a facility within the scheme for more passive forms of recreation. This area in turn is connected to the east and west by a pathway that skirts the northern boundary of the Business and Enterprise/Hotel and Conference Campus to two similar untouched areas, thereby creating a type of linear nature and amenity park.

As with Scenario 1, all utilities are located at the western end of the Business and Enterprise Campus, apart from the surface water attenuation pond, which is relocated to the north eastern corner of the campus. At this location the pond can also function more readily as an amenity feature for campus employees, visitor, and users of the hotel and conference centre. Furthermore, the relocation of the attenuation pond to the north eastern end of the campus frees up additional lands adjoining the western boundary to accommodate an increase in the area allocated for the location of an extension to photo-voltaic park on the southern side of the primary county road, as proposed in Scenario 1.

This scenario limits the amount on business and enterprise development along the northern boundary with local road thereby restricting to a greater degree any impact on the residential amenity of existing dwelling houses along this road.

This scenario also proposes the provision of a 50 bed Hotel and Conference Centre and low-rise budget airport accommodation facility on the Airside, immediately to the east of the roundabout at the proposed entrance to the Business and Enterprise Campus.

Key Elements of Scheme

- Parkland design with less hard surfacing and greater use of existing site contours.
- Minimises land take and associated loss of habitats and conserves biodiversity
- Limiting development close to existing residences along tertiary county road to the north.
- Greater preservation of existing habitats within the scheme and the creation of additional natural areas suitable for passive recreation.
- Greater area set aside for photo-voltaic energy production.
- Area designated for budget accommodation facility on Airside.
- 50 bed Hotel and Conference Centre, with room for expansion.

4.2 Assessment of Alternatives

The scenarios were evaluated using the EPOs and the Baseline information. The full description of the impacts of implementing the differing development alternatives on the receiving environment is contained within Section 6 of the Environmental Report. The summary evaluation table assessing the alternatives against the Environmental Protection Objectives (EPOs) are set out below;

Environmental Protection Objective	Alternative 1 'Urban' Style Campus	Alternative 2 'Green' Campus
Biodiversity, Flora and Fauna (B1, B2)	X	✓ ✓
Population and Human Health (HP1, HP2)	✓	✓ ✓
Soils and Geology (SG1)	XX	✓ ✓
Water (W1, W2, W3, W4)	✓	✓ ✓
Air Quality (AR1)	0	✓
Noise (N1, N2)	0	✓
Climate (C1)	✓	✓
Flooding (F1)	0	✓
Roads & Transport Infrastructure (R1, R2)	0	✓
Energy (E1)	✓	✓ ✓
Wastewater (WW1)	0	0
Drinking Water (DW1)	0	✓
Waste Management (WM1)	✓	✓
Archaeological Heritage (CH1)	0	0
Landscape (L1)	✓	✓ ✓

✓ ✓	Very Significant Beneficial Impact on the status of the Environmental Protection Objective
✓	Potentially Significant Beneficial Impact on the status of the Environmental Protection Objective
0	No Relationship with or an Insignificant Impact on the status of the Environmental Protection Objective
X	Potentially Significant Adverse Impact on the status of the Environmental Protection Objective
XX	Very Significant Adverse Impact on the status of the Environmental Protection Objective
?	Unknown Impact on the status of the Environmental Protection Objective

4.3 Selection of preferred scenario

Two options were assessed, the SDZ Planning Scheme site is underpinned by the zonings of the LAP for IWAK therefore the planning scheme.

Therefore, the preferred scenario was determined by assessing both alternatives against the Environmental Protection Objectives derived as part of the SEA Process. This process resulted in Scenario no. 2 emerging as the most sustainable. Scenario No. 2 offers more scope to locate development in areas with less impact on the environment. It also offers a greater area for the development of renewable energy infrastructure and indicates greater cognisance of public amenity.

Section 5 - Summary of influence of the SEA procedure on the plan

Overall, the influence of the SEA process on the approved Planning Scheme has been positive. The early identification of the important environmental issues within the plan area, and refinement of those issues during the scoping process and production of the Environmental Report allowed for adoption of meaningful environmental considerations and measures into the Planning Scheme.

At the outset, a fundamental consideration was the rural setting and surrounding landscape of the area. In particular, the form and layout strategy taken for the Planning Scheme is that of a campus style which allows for the creation of specific functional places while also providing a soft-edged approach for the assimilation of large-scale developments into the surrounding rural countryside. In addition, level and gradient differences throughout the site necessitated consideration in terms of the provision of new roads and the safety, ease of access and circulation requirements for the Scheme. Rather than a series of urban style roads and streets which dictate urban block formations, built edges with clear definition, the campus style configuration for the IWAK takes a more organic approach, which in turn sets the tone for the layout of the Planning Scheme.

To assist in the integration of development arising from the Planning Scheme into the rural setting at IWAK, the Scheme will seek the retention and enhancement of existing trees and hedgerows in order to minimise adverse effects of development.

In relation to public safety the Planning Scheme requires complicity with the Public Safety Zones, Aerodrome Safeguarding and Noise Contours.

The inclusion of the green infrastructure network, utility scale solar PV farm, building energy efficiencies and acoustic considerations, and high-quality environment have taken into account the environmental consideration arising from the SEA. The Planning Scheme provides a green network of over 25 hectares throughout the IWAK area consisting of open parkland areas, green corridors and buffer areas, recreational parkland, attenuation pond /landscaped wetland features, as well as including measures to protect and enhance its biodiversity and natural heritage. In addition, the use of boundary treatment and tree planting throughout the Planning Scheme provides shelter and noise mitigation.

The Scheme includes a USSPV solar farm to off-set some of the energy needs of the SDZ towards carbon-neutral status. In addition, the Planning Scheme includes measures towards energy efficiency of buildings, through renewable and green technologies. The Scheme also seeks to ensure development proposals include measures to reduce their carbon footprint through innovate design and site layout solutions as well as implementing efficiency and renewable energy technologies.

The Planning Scheme incorporates the use of SUDs to maintain greenfield rates of run-off to alleviate the risk of flood associated with surface water run-off. The components of SUDs to be used include: Green Roofs/Living Walls; Permeable Surfacing; Bio Retention/Attenuation Areas; Rainwater Harvesting; and Swales.

Section 6 - Monitoring

6.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This SEA Statement identifies the proposals for monitoring the Plan which were adopted alongside the Plan.

Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the Plan is achieving its environmental objectives and targets - measures which the Plan can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

6.2 Indicators and Targets

Monitoring is based around the indicators which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation. Focus has been given to indicators which are relevant to the likely significant environmental effects of implementing the Plan.

Each indicator to be monitored is accompanied by targets which are derived from the relevant legislation and the advice of the EPA, see Section 9 of the Environmental Report. The table below summarises the indicators and information sources which have been selected with regard to the monitoring of the Plan.

6.3 Responsibility

Mayo County Council is responsible for gathering the monitored data, the preparation of the interim report and the implementation of corrective actions, where necessary.

6.4 Conclusion

The Strategic Environmental Assessment carried out during the preparation of the Planning Scheme for Ireland West Airport Knock SDZ ensured that any potential significant environmental impacts of the Plan have been identified and that they may have been given appropriate consideration. Consultation on the proposed plan and Environmental Report has further contributed to the development and finalisation of the adopted Planning Scheme. The SEA is not the final stage of the process as the plan will be monitored over its lifetime and reported on at regular intervals to assess its impact on the environment.

Appendix 1: Amendments to text in Environmental Report

The following amendments to the Environmental report are required as a result of comments received from the Environmental consultees to the Draft Planning Scheme:

- The title of *Section 4.2.8 Noise of the SEA Environmental Report* to be amended to the following- “Relevant Noise Maps and Noise Action Plans for County Mayo”.
- The following sentence will be inserted into *Section 4.6.5 - Existing Environmental Problems* relating to Air Quality and Climate Factors of the SEA Environmental Report. “A recent study by the Radiological Protection Institute of Ireland, the RPII was merged with the EPA in 2014 (EPA’s Office of Radiological Protection)”.

Appendix 2: Monitoring Measures outlined in the SEA Environmental Report

Environmental Receptor	Targets	Indicators	Frequency of Reporting	Department Responsible	
Biodiversity, Flora & Fauna	Target B1i: No loss of protected habitats or species.	Indicator B1i: Number of sites for Nature Conservation to be adversely affected by the implementation of the Planning Scheme.	Annually	Forward Planning	
	Target B1ii: No loss or degradation of locally rare/distinctive habitats/species	Indicator B1ii: Changes in population and range of protected species.	Annually	Forward Planning	
	Target B1iii: No loss or fragmentation of ecological corridors	Indicator B1iii: Number of sites containing locally rare/distinctive species/habitats to be adversely affected by the implementation of the Planning Scheme.	Annually	Forward Planning	
		Indicator B1 iv: Percentage loss of ecological connectivity between areas of local biodiversity as a result of implementation of the Planning Scheme.	Ongoing	Forward Planning	
	Target B2i: No loss of protected habitats or species.	Indicator B2i: Number of sites for Nature Conservation to be adversely affected by the implementation of the Planning Scheme.	Annually	Forward Planning	
	Target B2ii: No loss or degradation of locally rare/distinctive habitats/species	Indicator B2ii: Changes in population and range of protected species.	Annually	Forward Planning	
	Target B2iii: No loss or fragmentation of ecological corridors	Indicator B2iii: Number of sites containing locally rare/distinctive species/habitats to be adversely affected by the implementation of the Planning Scheme	Annually	Forward Planning	
		Indicator B2 iv: Percentage loss of ecological connectivity between areas of local biodiversity as a result of implementation of the Planning Scheme	Annually	Forward Planning	
	Population and Human Health	Target HP1i: Provide a good quality of recreation and green space within the working environment.	Indicator HP1i: That all development has sufficient recreation and open space for the working and visiting population to the area.	Annually	Development Management Department
		Target HP1ii: reduction in commuting distance within the catchment area.	Indicator HP1ii: reduction in the percentage of persons distance to work that is greater than the distance to the airport from the Census data	Periodically	Forward Planning
Target HP1iii: increase of sustainable transport options including public transport, cycling and walking.		Indicator HP1iii: promotion of cycleways and walkways for internal circulation throughout the Plan area and any increase in use of public transport or car sharing schemes for employees within the area.	Periodically	Forward Planning	
Target HP2i: To ensure that all development complies with the land use requirements of the public safety zones, safeguarding maps and noise contour maps		Indicator HP2i: The avoidance of incompatible land uses in the area around the airport.	Ongoing	Development Management Department	

<p>Soils and Geology</p>	<p>Target SG1: No occurrence of landslides</p>	<p>Indicator SG1: Steepness of slopes, moisture content of peat, depth of peat, nature of layer below peat</p>	<p>Periodically</p>	<p>Development Management Department & Forward Planning</p>
<p>Freshwater</p>	<p>Target W1: No deterioration of surface waters of good and high status</p> <p>Target W2: Achievement of at least good status by 2027 where this is not technically feasible, not environmentally sustainable and / or when restoration costs are disproportionately expensive</p> <p>Target W3: No emissions, discharges or losses of priority substances to surface waters</p> <p>Target W4: No exceedance of specific water quality standards and no deviation from environmental quality objectives established to protect natural habitats and species</p>	<p>Indicator W1: Quality elements for ecological status (biological, hydro morphological, chemical and physico-chemical elements)</p> <p>Indicator W2: Quality elements for ecological status (biological, hydro morphological, chemical and physico-chemical elements)</p> <p>Indicator W3: Chemical and physico-chemical elements of water bodies, in particular, specific pollutants</p> <p>Indicator W4: Quality elements for ecological status (biological, hydro morphological, chemical and physico-chemical elements)</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	<p>Water Services</p> <p>Water Services</p> <p>Water Services, Environment Department</p> <p>Water Services, Environment Department</p>
<p>Air Quality</p>	<p>Target AR1i: Ensure monitoring results are maintained within the appropriate emission limit values.</p> <p>Target AR1ii: An increase in the percentage of the people travelling to the airport by public transport.</p> <p>Target AR1iii: A decrease in the distance travelled to work/airport by users of Ireland West Airport Knock. A reduction in car dependency will generate a reduction in car-based emissions - increase coach transport, lobby for rail connection.</p> <p>Target AR1iv: Increase the number of energy efficient buildings and Co2 neutral developments in the area. Reduce waste of energy and maximise use of renewable energy sources.</p>	<p>Indicator AR1i: Air monitoring data to indicate compliance with appropriate policies and legislative requirements.</p> <p>Indicator AR1ii: Percentage of workers/airport users travelling to the airport by public transport or non-mechanical means.</p> <p>Indicator AR1iii: Average distance travelled to work/airport by the users of Ireland West Airport Knock</p> <p>Indicator AR1iv: No of BER certificates issued for Area.</p> <p>Indicator AR1v: No of Co2 neutral developments in the Area</p>	<p>Annually</p> <p>Annually</p> <p>Annually</p> <p>Annually</p>	<p>Environment Department, Planning Department</p> <p>Environment Department, Planning Department</p> <p>Environment Department, Planning Department</p> <p>Environment Department, Planning Department</p>
<p>Noise</p>	<p>Target N1: Minimise the number of incompatible developments within the various noise contour categories</p> <p>Target N2: Reduce the percentages of vehicular traffic at IWAK</p>	<p>Indicator N1: Number of developments located with the noise contour categories</p> <p>Indicator N2: Number of traffic movements at Ireland West Airport Knock</p>	<p>Periodically</p> <p>Periodically</p>	<p>Development Management Department</p> <p>Roads Department</p>

Climate	<p>Target C1i: Increase the number of energy efficient buildings and Co2 neutral developments in the area. Reduce waste of energy, and maximise use of renewable energy sources</p> <p>Target C1ii: To implement the EU Emissions Trading Directive and Irelands National Allocation Plan for Emission Trading to ensure that the Area becomes Carbon Neutral</p>	<p>Indicator C1i: Number of BER certificates issued for Area.</p> <p>Indicator C1ii: Number of Co2 neutral developments in the Area</p> <p>Indicator C1iii: To promote awareness of energy efficient technologies to offset emissions from increased aircraft movements to achieve a carbon neutral area.</p>	<p>Annually</p> <p>Annually</p> <p>Annually</p>	<p>Climate Action Department</p>
Flooding	<p>Target F1: Minimise developments granted permission on lands which pose – or likely to pose in the future- a significant flood risk</p>	<p>Indicator F1: Number of developments granted permission on land which pose – or are likely to pose in the future – a significant flood risk.</p>	<p>Periodically</p>	<p>Environment Department</p>
Roads & Transport Infrastructure	<p>Target R1i: To ensure that all traffic to the area uses the national road network</p> <p>Target R1ii: To reduce traffic using the local roads in the area to access the Plan area.</p> <p>Target R2: That all development complies with safety requirements and uses are compatible with location at airports</p>	<p>Indicator R1i: Increase in traffic movements to and from the area at the junction with the national route.</p> <p>Indicator R1ii: Reduction in traffic movements to and from the area via the local road network.</p> <p>Indicator AR2: Number of development projects permitted with the safety zones around the airport</p>	<p>Periodically</p> <p>Periodically</p> <p>Ongoing</p>	<p>Development Management Department</p> <p>Roads Department</p> <p>Development Management Department</p>
Energy	<p>Target E1: To reduce energy consumption from non-sustainable sources to a minimum by the adoption and use of renewable energy sources.</p>	<p>Indicator E1: Increase in renewable energy projects</p> <p>Indicator E1ii: Promotion of energy efficacy in the Plan area</p>	<p>Annually</p>	<p>Climate Action Department</p> <p>Development Management Department</p>
Waste Water	<p>Target WW1i: To upgrade the existing waste water treatment infrastructure to provide increased capacity for the short--term development</p> <p>Target C1ii: To provide new waste water treatment infrastructure for the estimated future development of the area.</p>	<p>Indicator WW1i: Upgrade of WWTP from 700 PE to 1400PE capacity</p> <p>Indicator WW1ii: Provide new WWTP for 5000 PE capacity</p>	<p>Annually</p> <p>Annually</p>	<p>Water Services</p>
Drinking Water	<p>Target DW1i: No deterioration of the status of waters and restoration to good status of waters currently at moderate, poor or bad status</p> <p>Target DW1ii: Comply with the Drinking Water Regulations, 2007</p> <p>Target DW1iii: progressively reduce chemical pollution in waters</p> <p>Target DW1iv: Prevent deterioration of and limit pollution inputs to surface water and ground water.</p>	<p>Indicator DW1i: Trophic status and faecal coliform count per 100ml of groundwater</p> <p>Indicator DW1ii: drinking water annual report (EPA)</p> <p>Indicator DW1iii: Interim water status report in 2017</p> <p>Indicator DW1iv: Long Term water status report in 2027</p>	<p>Annually</p>	<p>Water Services</p>

<p>Waste Management</p>	<p>Target WM1i: 48% recycled 33% energy recovery and 19% landfilled. Attitude change. Target WM1ii: All Waste activity is regulated Target WM iii: Diversion of bio-waste from landfill and reduction in landfill emissions. Target WM iv: All waste activity is regulated.</p>	<p>Indicator WM1i: Reduced tonnage of waste collected with increased number of customers Indicator WM1ii: Reduction in enforcement actions required Indicator WM iii: Increase in the percentage of customers receiving a refuse collection service and decrease in proportion of waste arising being landfilled and increase in recovery and recycling tonnages</p>	<p>Annually</p>	<p>Environment Department</p>
<p>Archaeological Heritage</p>	<p>Target CH1: No developments carried out over the lifespan of the Proposed Ireland West Airport Local Area Plan which result in the full or partial loss of the archaeological heritage and especially sites identified in the Record of Monuments and Places, National Monuments in the ownership or guardianship of the State and National Monuments that are the subject of Preservation Orders. No developments which result in the full or partial loss of the integrity of the archaeological sites in their setting.</p>	<p>Indicator CH1: Number of developments carried out in the Proposed Ireland West Strategic Development Zone which result in the full or partial loss of the archaeological heritage and especially sites identified in the Record of Monuments and Places, National Monuments in the ownership or guardianship of the State and National Monuments that are the subject of Preservation Orders. The integrity of the archaeological sites in their setting can also be impacted upon by new developments</p>	<p>Ongoing</p>	<p>Development Management Department Archaeology Department</p>
<p>Architectural Heritage</p>	<p>Target CH2i: No development carried out over the lifespan of the Planning Scheme shall result in the full or partial loss of architectural heritage Target CH2ii: No development carried out over the lifespan of the Planning Scheme will result in the full or partial loss of heritage bridges of Mayo</p>	<p>Indicator CH2i: The number of developments carried out over the lifespan of the Planning Scheme which result in the full or partial loss of architectural heritage. Indicator CH2ii: The number of developments carried out over the lifespan of the Planning Scheme which result in the full or partial loss of the heritage bridges of Mayo.</p>	<p>Ongoing Ongoing</p>	<p>Development Management Department Development Management Department</p>
<p>Landscape</p>	<p>Target L1i: To minimise the intrusion of new developments on the landscape character of the area. Target L1ii: To minimise the intrusion of exiting development on the landscape character of the area.</p>	<p>Indicator L1i: That all development proposals include measures to minimise any intrusion that the development may have on the landscape character of the area. Indicator L1ii: That all development proposal examines if they can introduce measures to reduce the impact of existing structures on the landscape character.</p>	<p>Ongoing</p>	<p>Development Management Department</p>

Appendix 3: Mitigation Measures outlined in Section 8 of the SEA Environmental Report

Bio-diversity, Flora and Fauna

Mitigation 1	All development proposals with the potential to impact on Natura 2000 sites will be subject to Habitat Directive Assessment under Article 6(3) and 6(4) of the Habitats Directive
Mitigation 2	All development proposal shall include an Ecological Assessment where it is considered that it may have an adverse impact on the environment of a designated site (Appendix 2)
Mitigation 3	All development proposals should prevent the spread of, aquatic and terrestrial, invasive and alien species

Population and Human Health

Mitigation 1	<p>Develop design guidelines that represent a preferred set of standards that contribute to achieving quality development, in particular:</p> <ul style="list-style-type: none"> contemporary building design will be encouraged. Building materials should be of a high quality and the buildings should allow for some transparency to the activities of the interior to accomplish development, which is responsive to the context, in particular the landscape character to ensure that future development contributes to the creation of a high-quality landscape environment on the site, by achieving a high-quality parkland type development scheme. to encourage sustainability objectives through environmentally responsible architectural design to create a focus for a wide variety of businesses that offers employees and visitors an attractive environment, that compliments and connects business activities with each other, and with high quality public space
Mitigation 2	Compliance with the Public Safety Zone, Obstacle Limitation and Noise Contour requirements (Appendix 1 or the Environmental Report)

Soils and Geology

Mitigation 1	All development proposals that require peat or vegetation removal shall prepare a peat management and disposal plan. (Appendix 2 of the Environmental Assessment Report)
Mitigation 2	Where development proposals involve the excavation of peat and soft soils on slopes a geotechnical assessment of the potential risk of landslides should be prepared. (Appendix 2)

Water

Mitigation 1	There should be full and strict compliance with the programme of measures developed to achieve the specific objectives of the Western River Basin Management Plan, in addition to enforcement of / compliance with local legislation and plans (RMCEI*, bye-laws and Water Management Unit specific measures), national and EU legislation.
Mitigation 2	A Habitats Directive Assessment (post screening) will be required to assess the potential adverse impacts of any plan or project, where considered appropriate, either individually or in combination with other plans or projects on a European Site, including SACs, SPAs and also RAMSAR sites (classified under the RAMSAR Convention, 1971) within or pertaining to the Plan Area. This should include waste assimilative capacity predictions to ensure that the capacity of existing surface waters is sufficient to accept new / increased discharges with no deterioration in current water body status.
Mitigation 3	Surface Water Management Plan should be prepared for all development proposals (Appendix 2 of the Environmental Assessment)

Air and Climate Factors

Mitigation 1 (Air)	Prepare a dust minimisation plan for any development proposal
Mitigation 2 (Climate)	All development proposals should include means to reduce the carbon footprint of the development scheme through innovate design and site layout solutions as well as implementing efficiency and renewable energy technologies. Development proposals should: <ul style="list-style-type: none"> • combine energy efficiency measures with renewable energy technologies and resource consumption plans and examine features such as: <ul style="list-style-type: none"> - building fabric - heating - hot water controls - combined heat and power - ventilation and air conditioning - powering pumps and fans - lighting controls - office/catering equipment - transport requirements
Mitigation 3 (Noise)	Comply with Noise Contour requirements (Appendix 1 of the Environmental Assessment Report).
Mitigation 4 (Noise)	Factor in noise barriers and noise protection into the building and site layout design
Mitigation 5 (Flooding)	All new development proposals within or close to flood risk areas shall submit a flood risk assessment which should incorporate flood protection and mitigation measures, as appropriate.

Material Assets

Mitigation 1 (Road network)	Assess the adequacy of the road network in the SDZ area in terms of capacity, width, alignment or surface condition in order to cater for increased traffic. Any deficiencies identified should be addressed within a reasonable timeframe by the relevant authority
Mitigation 2 (Road Network)	Use of shared access points onto the public road network
Mitigation 3 (Energy)	Encourage the use of energy efficiency in all new development proposals, with the ultimate aim of achieving a Carbon Neutral Status
Mitigation 4 (Energy)	Reduce energy consumption through innovative design and layout with the appropriate use of materials and new technology in developments proposals
Mitigation 5 (Waste Management)	Prepare a waste management plan for construction and demolition projects
Mitigation 6 (Waste Management)	Prepare an Operation Waste Management Plan to minimise waste production and maximise recycling and recovery through the introduction of sustainable waste management practices in all development proposals (Appendix 2 of the Environmental Assessment Report)
Mitigation 7 (Drinking Water)	Prepare Surface Water Management Plan to ensure that any discharges to ground waters do not cause deterioration in the current water body status

Cultural Heritage

<p>Mitigation 1 (Archaeological)</p>	<p>In order to safeguard the integrity of the archaeological sites in their setting in the landscape an archaeological assessment shall be submitted for:</p> <ul style="list-style-type: none"> • planning applications that fall within the zones of archaeological potential as outlined on the Record of Monuments and Places • all significant planning applications (i.e. development of lands on 0.5ha or more than 1km or more in length) <p>(Appendix 2 of the Environmental Assessment Report)</p>
<p>Mitigation 2 (Architectural)</p>	<p>Provide an architectural and urban design palette that contributes to achieving quality development, in particular:</p> <ul style="list-style-type: none"> • contemporary building design will be encouraged. Building materials should be of a high quality and the buildings should allow for some transparency to the activities of the interior • to accomplish development, which is responsive to the context, in particular the landscape character • to ensure that future development contributes to the creation of a high-quality landscape environment on the site, by achieving a high-quality parkland type development scheme. • to encourage sustainability objectives through environmentally responsible architectural design • to create a focus for a wide variety of businesses that offers employees and visitors an attractive environment, that compliments and connects business activities with each other, and with high quality public space
<p>Mitigation 3 ((Architectural)</p>	<p>Retain, were possible, of all features of historic, architectural or natural interest, such as stone walls, hedgerows and/or bridges or other features.</p>

Landscape

<p>Mitigation 1</p>	<p>All proposed development should be designed to absorb into the surrounding landscape so that it does not impinge in any significant way upon the character, integrity or uniformity of the landscape and that all development proposals consider that aspects of access, permeability and open space respond to the key landforms features and rural character of the area</p>
<p>Mitigation 2</p>	<p>Development proposals should contribute to the creation of a high-quality landscape environment by achieving a high-quality parkland type of development scheme.</p>