



# Guidance on Strategic Environmental Assessment (SEA)

## Statements and Monitoring

# ENVIRONMENTAL PROTECTION AGENCY

The EPA is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

## The work of the EPA can be divided into three main areas:

**Regulation:** *Implementing regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

**Knowledge:** *Providing high quality, targeted and timely environmental data, information and assessment to inform decision making.*

**Advocacy:** *Working with others to advocate for a clean, productive and well protected environment and for sustainable environmental practices.*

## Our responsibilities include:

### Licensing

- Large-scale industrial, waste and petrol storage activities;
- Urban waste water discharges;
- The contained use and controlled release of Genetically Modified Organisms;
- Sources of ionising radiation;
- Greenhouse gas emissions from industry and aviation through the EU Emissions Trading Scheme.

### National Environmental Enforcement

- Audit and inspection of EPA licensed facilities;
- Drive the implementation of best practice in regulated activities and facilities;
- Oversee local authority responsibilities for environmental protection;
- Regulate the quality of public drinking water and enforce urban waste water discharge authorisations;
- Assess and report on public and private drinking water quality;
- Coordinate a network of public service organisations to support action against environmental crime;
- Prosecute those who flout environmental law and damage the environment.

### Waste Management and Chemicals in the Environment

- Implement and enforce waste regulations including national enforcement issues;
- Prepare and publish national waste statistics and the National Hazardous Waste Management Plan;
- Develop and implement the National Waste Prevention Programme;
- Implement and report on legislation on the control of chemicals in the environment.

### Water Management

- Engage with national and regional governance and operational structures to implement the Water Framework Directive;
- Monitor, assess and report on the quality of rivers, lakes, transitional and coastal waters, bathing waters and groundwaters, and measurement of water levels and river flows.

### Climate Science & Climate Change

- Publish Ireland's greenhouse gas emission inventories and projections;
- Provide the Secretariat to the Climate Change Advisory Council and support to the National Dialogue on Climate Action;
- Support National, EU and UN Climate Science and Policy development activities.

### Environmental Monitoring & Assessment

- Design and implement national environmental monitoring systems: technology, data management, analysis and forecasting;
- Produce the State of Ireland's Environment and Indicator Reports;
- Monitor air quality and implement the EU Clean Air for Europe Directive, the Convention on Long Range Transboundary Air Pollution, and the National Emissions Ceiling Directive;
- Oversee the implementation of the Environmental Noise Directive;
- Assess the impact of proposed plans and programmes on the Irish environment.
- Environmental Research and Development
- Coordinate and fund national environmental research activity to identify pressures, inform policy and provide solutions;
- Collaborate with national and EU environmental research activity.

### Radiological Protection

- Monitoring radiation levels and assess public exposure to ionising radiation and electromagnetic fields;
- Assist in developing national plans for emergencies arising from nuclear accidents;
- Monitor developments abroad relating to nuclear installations and radiological safety;
- Provide, or oversee the provision of, specialist radiation protection services.

### Guidance, Awareness Raising, and Accessible Information

- Provide independent evidence-based reporting, advice and guidance to Government, industry and the public on environmental and radiological protection topics;
- Promote the link between health and wellbeing, the economy and a clean environment;
- Promote environmental awareness including supporting behaviours for resource efficiency and climate transition;
- Promote radon testing in homes and workplaces and encourage remediation where necessary.

### Partnership and networking

- Work with international and national agencies, regional and local authorities, non-governmental organisations, representative bodies and government departments to deliver environmental and radiological protection, research coordination and science-based decision making.

### Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by advisory committees who meet regularly to discuss issues of concern and provide advice to the Board.



# Guidance on Strategic Environmental Assessment (SEA) Statements and Monitoring

Editor: Cian O'Mahony

This guidance note is based on a deliverable of the *Second Review of Effectiveness of Strategic Environmental Assessment in Ireland* (A. Gonzalez et al, 2020). The authors of the original guidance are Ainhoa González, Riki Therivel, Antonia Gaughran and Craig Bullock<sup>1</sup>.

*The editor has made some modifications to the report to clarify some aspects related to SEA monitoring requirements and to acknowledge the published revised national SEA Guidelines (DHLGH, 2022).*

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<sup>1</sup> <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/guidance-on-sea-statements-and-monitoring.php>

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## Abbreviations

<b>AA</b>	Appropriate Assessment
<b>CNG</b>	Compressed Natural Gas
<b>DCCA</b>	Department of Communications, Climate Action and Environment, (now the DECC)
<b>DECC</b>	Department of the Environment, Climate and Communications
<b>DECLG</b>	Department of Environment, Community and Local Government (now the DHLGH)
<b>DEHLG</b>	Department of Environment, Heritage and Local Government (now the DHLGH)
<b>DHLGH</b>	Department of Housing, Local Government and Heritage
<b>DHPLG</b>	Department of Housing, Planning and Local Government (now the DHLGH)
<b>EC</b>	European Commission
<b>EPA</b>	Environmental Protection Agency
<b>EU</b>	European Union
<b>EV</b>	Electric Vehicle
<b>GHG</b>	Greenhouse Gas
<b>GIS</b>	Geographic Information Systems
<b>GW</b>	Gigawatts
<b>IP</b>	Implementation Plan
<b>LAP</b>	Local Area Plan
<b>LIDAR</b>	Light Detection and Ranging
<b>LNG</b>	Liquefied Natural Gas
<b>NMP</b>	National Mitigation Plan
<b>NPWS</b>	National Parks and Wildlife Service
<b>RBMP</b>	River Basin Management Plan
<b>SEA</b>	Strategic Environmental Assessment
<b>SDG</b>	Sustainable Development Goal
<b>TDP</b>	Transmission Development Plan
<b>WFD</b>	Water Framework Directive

## Guidance on SEA Statements and Monitoring

This guidance note on SEA Statements and monitoring (Figure 1) is primarily based on one of the outputs of EPA-funded project *Second Review of Strategic Environmental Assessment Effectiveness in Ireland* (González *et al.*, 2020). It is mostly relevant to SEA in the Irish context, but has wider international applicability.

It includes the recommendations of the previous research including guidance on indicators to facilitate a more consistent and coherent approach at this SEA stage.

It also takes account of the relevant aspects of the revised national SEA Guidelines (DHLGH, 2022) and Development Plan Guidelines for Planning Authorities (DHLGH, 2022a).<sup>2</sup>

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2 <https://assets.gov.ie/218356/6c57ccf6-3d2b-4c43-b871-1698e7daab5d.pdf>  
<https://assets.gov.ie/228826/6e26204a-ffd0-42a4-b868-097d647e537f.pdf>



# 1 SEA Statements

## 1.1 Introduction to SEA Statements

Under the SEA Directive (2001/42/EC), plan-makers are legally obliged to take into account the findings of the environmental assessment (EC, 2001). Article 8 of the Directive specifies that the Environmental Report and the opinions expressed during consultations shall be taken into account by the plan-making authority during the preparation of the plan or programme and before its adoption.

Article 9 requires plan-making authorities to report on how the findings of the SEA and the results of the associated consultation have been integrated into the plan/programme. This requires the preparation of a statement summarising:

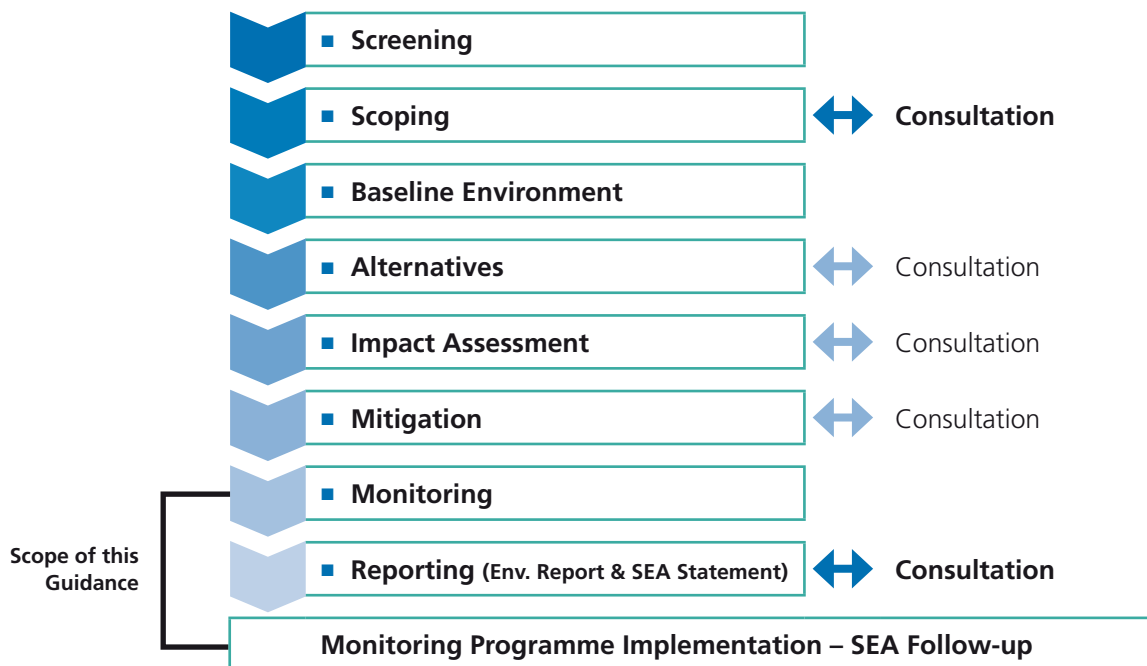
- how environmental considerations have been integrated into the plan or programme;
- how the environmental report and consultation comments on it have been taken into account;

- the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with (in the Environmental Report and the associated consultation); and
- the measures decided concerning monitoring.

This “SEA Statement” must be made available when the plan/programme is formally adopted.

SEA Statements have the potential to play a central role in summarising the effectiveness of the SEA process. They can capture how environmental considerations have shaped the plan/programme (e.g., through policy wordings, revisited zonings and other measures) and how the process has contributed to making the plan or programme more sustainable. This is best accomplished by presenting the proposed mitigation measures and relevant related recommendations and indicating how they have been considered and/or incorporated into the plan/programme.

**Figure 1.** Scope of this guidance with regard to the main SEA stages.



They can also capture any changes to the plan made in response to consultation. They also typically present the monitoring framework that is to be used to follow up on plan/programme implementation and determine real environmental impacts on the ground (see section 2). To best achieve this, ensuring good communication and close collaboration between the SEA and plan-making teams is central. The disconnect between the plan-making and SEA teams/ processes is a recurring issue in SEA practice. Therefore, addressing this can help tackle many of the current practice issues identified (e.g., reporting on consultation feedback, integration of mitigation measures and monitoring commitments into the plan/programme).

Much of the information that must be included in a SEA Statement should ideally already be included in the Environmental Report (e.g., the alternatives considered). Indeed, the SEA Statement should “tell the story” of the SEA process from start to finish.

Additionally, section 7.2 of the revised national SEA Guidelines (DHLGH, 2022) sets out the requirements and suggests a format to consider when preparing SEA Statements. This subsection concludes with a recommendation that *“for the purposes of transparency and to allow open access to the earlier stages of the SEA process, the SEA Scoping Report, Environmental Report and SEA Statement are all made accessible online for the lifetime of the plan. These documents should be supplemented by the SEA monitoring reports as they become available throughout the lifetime of the plan”*.

## 1.2 Current shortcomings

SEA Statements, along with monitoring, are probably the weakest area of SEA practice both nationally and Europe wide. The second review of effectiveness of SEA in Ireland project found shortcomings across all aspects of SEA Statement requirements, including:

- lack of detail on how environmental considerations have been integrated;
- listing of mitigation measures without an indication as to whether or not they have been incorporated into the plan/programme;
- poor documentation of consultation feedback and how this has been taken into account;
- lack of monitoring indicators for plan/programme implementation; and
- an unnecessary emphasis on the SEA methodology followed.

The review of Irish cases studies identified significant inconsistencies in the content and level of detail of the SEA Statements prepared in Ireland to date.

Currently, the consultation section in SEA Statements typically only briefly introduces the consultation mechanism and time frame for the draft plan/ programme and SEA Environmental Report. There is frequently no indication as to how consultation was undertaken, nor how the opinions and feedback gathered through SEA consultation have informed the drafting of the plan/programme. Moreover, SEA consultation and planning consultation are sometimes carried out in parallel rather than jointly, with few or no links between them. Although acknowledging that these are legally separate processes and adhere to different legislative requirements, co-ordinating consultation efforts or sharing

information on consultation outcomes can improve both processes. In particular, the plan-making team needs to be mindful of the issues raised, regardless of whether they are specifically directed at the plan/programme or the SEA.

For most plans/programmes, there is an initial SEA scoping consultation followed by an Environmental Report and draft plan/programme consultation period, fulfilling the consultation requirements under the SEA Directive. However, in some cases, particularly in the case of land use development plans, as it is a specific regulatory obligation under the Planning and Development Acts, the planning team undertakes more extensive consultation as part of the plan-making process. This consultation is often not communicated to the SEA team, nor is it adequately documented to allow the SEA team to review and understand the feedback that might have been given by stakeholders and the public at those times. It is not always practical for the SEA team to be represented at every meeting, workshop or public event, but better communication of consultation feedback by the plan-making team can bridge the knowledge gap between plan-making and SEA teams considerably; consultation undertaken during the planning process can include feedback on issues of relevance to the SEA process.

Furthermore, although the SEA Directive requires the preparation of SEA Statements, it does not require them to be checked, in terms of either their completion or, indeed, their quality. This has led to some avoidance of SEA Statement preparation (or at least publication); for instance, SEA Statements were not available online for three of five SEA case studies from the first review of SEA Effectiveness in Ireland (EPA, 2012) that were revisited for this study.

### 1.3 Examples of good-quality SEA Statements

The key to a good SEA Statement is a clear account of how the findings of the SEA have been taken into account during plan-making. The case studies reviewed within the project have revealed a number of good SEA Statement practice case studies.

The following examples show how the different components of an SEA Statement can be presented. They are organised by the three requirements of the SEA Directive concerning SEA Statements.

- Boxes 1 and 2 show how environmental considerations have been integrated into the plan or programme.
- Boxes 3 and 4 present good examples of how the Environmental Report, and consultation comments on it, have been taken into account in the plan/programme.
- Boxes 5 and 6 present good accounts of the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with.

Note that the inclusion of an example in the following boxes does not mean that the entire SEA Statement meets good practice.

**Box 1.** SEA Statement explaining how environmental considerations have been integrated into the plan/ programme: timing of the planning and SEA processes

**The plan:** Clare County Development Plan 2017-2023

**Context:** County development plans set out an overall strategy for planning and development of the county over a 6-year period. The plans are “cyclical” in that new plans emerge every 5–10 years. This was the county’s seventh development plan.

**URL to the SEA Statement:** <https://www.clarecoco.ie/services/planning/ccdp2017-2023/vol10env/clare-county-development-plan-2017-2023-volume-10b-iii-strategic-environmental-assesment-statement-24142.pdf>

**Good practice:** The following table shows the links between the planning and the SEA process. The two processes started at the same time and various consultations and reports ran jointly for the plan and the SEA. This enabled better integration of SEA findings into the plan throughout the various plan-making stages.

Clare County Development Plan 2017-2023	Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA)
Commence preparation of Draft Plan Pre-Draft Consultation Period <b>1<sup>st</sup> October 2015 – 25<sup>th</sup> November 2015</b>	Commence review and preparation of SEA Scoping Process Pre-Draft Consultation Period <b>1<sup>st</sup> October 2015 – 25<sup>th</sup> November 2015</b>
Commencement of public display and invitation of submissions on Draft Plan, Environmental Report and Natura Impact Report <b>8<sup>th</sup> December 2015</b> Closing date for public submissions on Draft Plan <b>29<sup>th</sup> February 2016</b>	
Chief Executives Report on Submissions received to Draft Plan, Environmental Report and Natura Impact Report (for Elected Members) <b>19<sup>th</sup> May 2016</b>	
Consideration of Chief Executive’s Report by Elected Members (resolve to alter or make, amend or revoke Draft Plan, Environmental Report and Natura Impact Report) <b>25<sup>th</sup> July 2016</b>	
	Determination of Requirement for SEA/AA in accordance with S.12 of the Planning & Development Act (within 2 weeks of resolution) <sup>1</sup>
Public Display of Amendments to Draft Plan and consultation period <b>13<sup>th</sup> September 2016 – 12<sup>th</sup> October 2016 (inclusive)</b>	Public Display of Amendments to Environmental Reports and consultation period <b>13<sup>th</sup> September 2016 – 12<sup>th</sup> October 2016 (inclusive)</b>

**Box 2.** SEA Statement explaining how environmental considerations have been integrated into the plan or programme: environmental input in the plan/programme

**The plan:** Wild Atlantic Way Operational Programme 2015-2019

**Context:** The Wild Atlantic Way is a tourism initiative by Fáilte Ireland that has developed Ireland's first long-distance touring route.

**URL to the SEA Statement:** [http://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2\\_Develop\\_Your\\_Business/Key%20Projects/Strategic-Environmental-Assessment-Statement.pdf](http://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2_Develop_Your_Business/Key%20Projects/Strategic-Environmental-Assessment-Statement.pdf)

**Good practice:** This extract from the SEA Statement clearly describes the environmental considerations that were integrated into the plan. They are specific to a tourism plan. For other types of plans, the key environmental considerations integrated could be, for instance, energy efficiency standards, requirements for biodiversity net gain or buffer zone, or improvements to walking/cycling/public transport infrastructure.

- Visitor Management
  - With a route extending along the entire western seaboard, the Programme facilitates contributions towards improvements in environmental management and protection by allowing for both: the management of visitors at a macro spatial level (in terms of what sections of the western seaboard could accommodate increases in visitors); and the management of visitors at a micro spatial level (in terms of what areas adjacent to viewing points, lay-bys etc. should be avoided).
  - The Programme also facilitates the management of visitors across the tourist season so that growth can be sought in times outside of the summer peak.
- Focus on Paid Bednights rather than Visitors
  - The objective of growing length of stay (paid bednights) rather than number of visitors has less potential to result in adverse environmental effects.
  - Increased length of stay in the context of the touring route is likely to lead to a better geographic distribution of visitors – which will reduce environmental and infrastructural stresses and associated effects in popular areas.
  - The Programme facilitates for a better seasonal spread of bednights – which can reduce environmental and infrastructural stresses and associated effects during peak months.
- Environmental Management and Sustainability Strategy
  - The Programme's Environmental Management and Sustainability Strategy which requires all emerging developments and activities to continue to comply with all relevant environmental and planning requirements – as well as with Fáilte Ireland Wild Atlantic Way Guidelines for the consideration, design, management and monitoring of new and existing visitor initiatives.
  - The Programme includes an 'Environmental Management for Local Authorities and Others' Appendix comprising various provisions which will be complied with by local authorities and others at lower levels of decision making in order to get funding. These measures are reproduced at Table 2.1 below.

**Box 3.** SEA Statement indicating how the Environmental Report and consultation comments on it have been taken into account in the plan/programme: integration of mitigation measures

**The plan:** Eastern and Midlands Region Waste Management Plan 2015-2021

**Context:** There are three waste management regions in Ireland, of which this is one.

**URL to the SEA Statement:** <http://emwr.ie/wp-content/uploads/2018/11/08-SEA-Statement.pdf>

**Good practice:** The following table shows how mitigation measures proposed in the Environmental Report (middle column) have been integrated into the plan (last column). It is an effective way of showing in the SEA Statement that the Environmental Report has led to real changes in the plan. The SEA team is most suited to completing the middle column; the planning team is most suited to completing the last column. This offers considerable transparency and requires accountability by the planning team when SEA [or Appropriate Assessment (AA)] mitigation is not being integrated into the plan (as impacts may not be avoided).

Alternatives	Mitigation Measures Proposed in SEA Environmental Report	Included in the RWMP
Section 7.2 Self-sufficiency	To address the possibility that wastes would continue to be exported despite capacity coming on-stream in Ireland, a strong commitment to self-sufficiency and the proximity principle would need to be factored into the strategic approach.	Policy A.4 deals with the issue of self-sufficiency. Wording has been added to the policy since the draft plan to strengthen the position. In addition, the DECLG is looking at policy and/or economic options to reduce the exporting of residual wastes. The full wording of Policy A.4 is:  Aim to improve regional and national self-sufficiency of waste management infrastructure for the reprocessing and recovery of particular waste streams such as mixed municipal waste, in accordance with the proximity principle. The future application of any national economic or policy instrument to achieve this policy shall be supported.
Section 7.5.3 Resource efficiency & circular Economy	A Code of Practice shall be prepared for the Preparation for Reuse sector and this will be rolled out alongside an education and awareness campaign at the local level to assist operators in delivering a positive sustainable service overall. Registration of activities should also be considered.	Policy Action C.1.1 in the final RWMP includes a commitment to preparing a guidance note.
Section 7.5.5 Infrastructure (Collection)	An awareness campaign to support the rollout of brown bins is required. Ongoing review of the feasibility for indigenous paper, glass and metal recycling capacity is required as part of the overall strategy for self-sufficiency to determine if volumes of waste could reasonably support smaller regional facilities rather than sending them for export.	Policy Actions B.2.1, B.2.3, B.4.3 all address the issue of awareness and prevention campaigns. Although not specifically referring to rollout of brown bins the wording in these policy actions encompasses a range of possible issues such as the brown bin collection service. In addition Policy Action F.1.4 commits to allocate resources to monitor the schedule for the roll-out of brown bins to households.
Section 7.5.5 Infrastructure (Backfilling)	Future authorisations for backfilling should ensure proper siting of facilities in line with appropriate siting guidance.	Environmental protection criteria for the siting of waste facilities have been strengthened and are included in Section 16.5 of the final RWMP.
Section 7.5.10 Protection	To mitigate the potential spread of IAS, a qualified ecologist should undertake survey for IAS before waste is disturbed.	Commitments in relation to IAS have been made in Section 16.5, and also in Policy Action G.2.4.

**Box 4.** SEA Statement indicating how the Environmental Report and consultation comments on it have been taken into account in the plan/programme: consultation responses

**The plan:** National Mitigation Plan 2017

**Context:** This plan lays the foundations for how Ireland is to transition to a low-carbon, climate-resilient and environmentally sustainable economy by 2050. The plan covers many issues, including the built environment, electricity generation, agriculture/forestry and transport. There were 124 consultation submissions on the plan and SEA.

**URL to the SEA Statement:**

<https://www.dcae.gov.ie/documents/SEA%20Statement%20July%202017.pdf>

**Good practice:** This SEA Statement summarises the consultation responses by theme and provides an explanation of how the plan was changed in response to the comments. The table below relates to alternative fuels for vehicles. This approach works particularly well where there are a lot of consultation responses. For fewer responses, it would be possible to list each response and explain how/whether the plan was changed in response to the submission.

#### Issue raised: Alternative Fuels

Alternative transport fuels (electric vehicles, biogas for buses, CNG, etc.) have been suggested as viable replacements for fossil fuels. Coupled with this, one respondent suggested an outright ban on fossil fuel based passenger cars by 2030. While an outright ban may not be carbon or zero carbon transport fuels is a key measure for the sector.

#### Influence on the final NMP

The integration of the NMP with the National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland: 2017-2030 is a key element of the transport measure and the following text has been provided for context in the chapter:

By 2050, the technological ambition is for the nation's car fleet, along with some of our public transport buses and rail lines, to be low/near zero emissions. This follows on from the stated ambition in the National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland: 2017-2030 that all new cars and vans sold in Ireland from 2030 will be zero emission (or zero emission capable).

Measure T7 of the draft NMP relates to the National Policy Framework on Alternative Fuels Infrastructure for Transport and this measure is unchanged for the final NMP.

Measure T3 (Low Emission Vehicle (LEV) Incentivisation) remains in the final NMP and additional text has been added for context relating to research by GNI on large scale renewable gas injection points on the gas network and the National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland: 2017-2030. This is projected in the longer term with Measure T18 (Low Emission Vehicle (LEV) Incentivisation).

#### Changes to the final NMP

Further introductory text and a new set of actions specifically relating Measure T3 have been added as follows:

**Action 52: Maintain a grant scheme for EVs. Support levels to be reviewed annually.**

**Action 53: Deployment of 14 CNG refuelling stations and a renewable gas injection facility.**

**Action 54: Broaden the accelerated capital allowance (ACA) tax incentive for companies to encourage investment in refuelling infrastructure and equipment for natural gas, both CNG and LNG.**

Furthermore, there is an additional action specified to implement Measure T7 National Policy Framework on Alternative Fuels Infrastructure for Transport:



**Box 5.** SEA Statement indicating how the Environmental Report and consultation comments on it have been taken into account in the plan/programme: consultation approach and responses

**The plan:** Eastern and Midland Regional Spatial and Economic Strategy 2019-2031

**Context:** This strategic plan identifies regional assets, opportunities and pressures and provides appropriate policy, objective and target responses to bring forward the National Planning Framework in a manner that best reflects the challenges and opportunities of the region.

**URL to the SEA Statement:**

<https://emra.ie/dubh/wp-content/uploads/2019/06/SEA-Statement-EMRA-RSES.pdf>

**Good practice:** The SEA Statement describes the non-statutory public consultation (in addition to the statutory consultation with the environmental authorities) undertaken at the scoping stage, which helped to shape the environmental assessment. It also describes how the draft plan and SEA documentation were subject to two rounds of statutory consultation. In response to the comments received during the first consultation period of over 11 weeks, material amendments were made to the plan. The proposed amendments were put on public display for a period of 4 weeks, during which time additional submissions were received and further adjustments were made to the plan.

The SEA Statement summarises, separately, key environmental issues raised during each of these two consultation periods, clearly noting how the submissions (including transboundary submissions) were addressed/incorporated into the plan.

Consultee	Issue Raised	How this has been addressed in the RSES
Department of Rural and Community Development (DRCD)	<ul style="list-style-type: none"> <li>The RSES is noted to use the CSO's definition of rural areas which is not consistent with the target of constituency of the DRCD or with the NPF.</li> <li>The RSES must reflect national rural development policy (towns up to 10,000) as well as villages and open countryside.</li> <li>The recognition of the need to promote new economic opportunities in smaller towns and rural areas, as well as town centre revival, is welcomed.</li> <li>Suggested rewording of RPO 4.23 to "ratio of jobs to local workers".</li> <li>RPO 4.50 should recognise that in addition to supporting "ready to go projects" under the Rural Regeneration &amp; Development Fund, other projects which have clear goals but require further development are also supported; deleting the phrase "ready-to-do" would achieve this.</li> <li>Noted there is scope to expand RPO 4.52 to support the diversification of rural economies and job creation.</li> <li>Unclear what RPO 4.55 is intended to achieve as currently drafted, as not consistent with the NPF in supporting rural diversification.</li> <li>Section 1.6 – Regional Profile uses Census 2011 figures.</li> <li>Chapter 2 – Strategic Vision does not correctly reflect the NSOs in the NPF (referring to Strengthened Rural Economies and Communities); RSO 3 should capture economic as well as spatial development.</li> <li>Welcomes reference to improving social inclusion.</li> <li>Administrative boundaries do not confine economic and social development and regional collaboration is important and should be implemented across the three regions.</li> <li>Growth Strategy places strong focus on North-South collaboration – should also include collaboration/connectivity with the other NUTS II regions.</li> <li>Athlone and Key Towns in the Outer Region should also look to the west and south in relation to building economic activity/trade.</li> </ul>	<p>The RSES has omitted reference to 1,500 population in the definition of rural areas.</p> <p>Term 'ready-to-go' omitted from RPO.</p> <p>RPO 4.79 amended by the insertion of the following additional text following 'open countryside': <i>And to support the diversification of rural economies to create additional jobs and maximise opportunities in emerging sectors, such as agri-business, energy, tourism, forestry enterprise.</i></p> <p>The following new RPO 4.84 added: <i>Support the rural economy and initiatives in relation to diversification, agri business, rural tourism and renewable energy so as to sustain the employment opportunities in rural areas.</i></p> <p>In relation to the concerns with RPO 4.82 on development that is urban in nature, it is considered reasonable and proper planning practice that economic development that is urban in nature should in the first instance locate in urban areas. In association with amendments proposed in to the RSES it should be noted that such urban locations can be located in rural areas. It is therefore not considered necessary to amend this RPO.</p> <p>The reference to 2011 census in Figure 1.5 was incorrect, it now reads 2016.</p> <p>RSO 3 amended to reflect a need to strengthen rural, networks, economies and communities.</p> <p>New sections under the heading of 'Strategic Connections' is added which includes sections on 'Strategic Connections to the Northern and Western Region', 'Strategic Connections to the Southern Region' and 'Eastern Economic Corridor; Dublin-Belfast-Rosslare Europort'.</p>



**Box 6.** Reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with: SEA Statement information on the alternatives considered, their main impacts and the preferred alternative

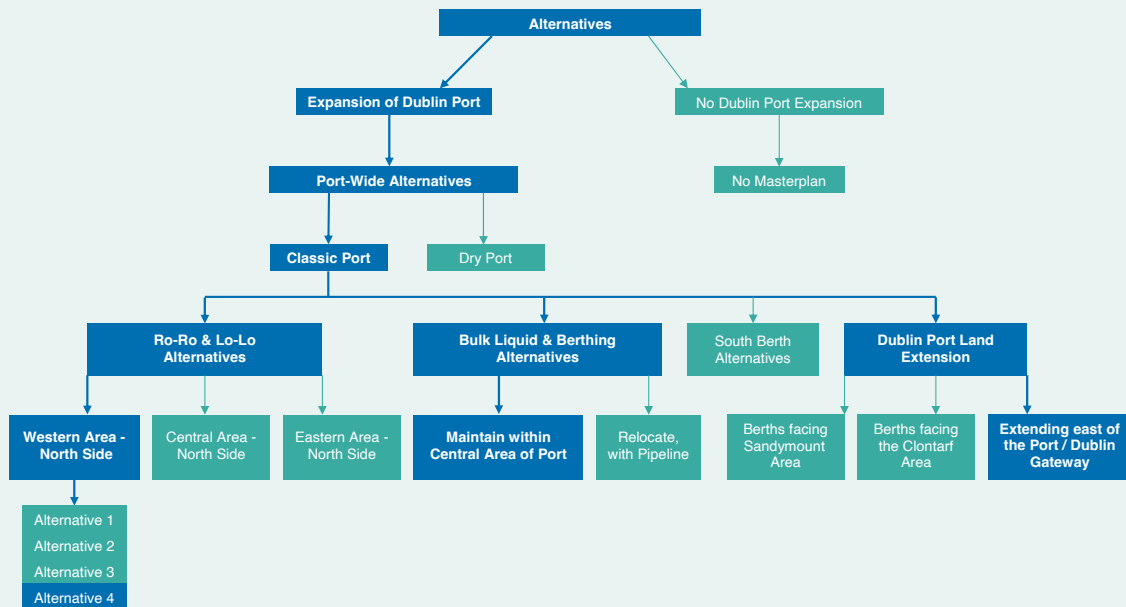
**The plan:** Dublin Port Masterplan 2040

**Context:** This masterplan sets the framework for the development of Dublin Port. It was adopted in 2012 and reviewed in 2018.

**URL to the SEA Statement:** [https://www.dublinport.ie/wp-content/uploads/2018/04/06.-DPC\\_MP\\_SEA\\_POST-ADOPTION-STATEMENT-Feb-2012.pdf](https://www.dublinport.ie/wp-content/uploads/2018/04/06.-DPC_MP_SEA_POST-ADOPTION-STATEMENT-Feb-2012.pdf)

**Good practice:** In Ireland, most SEA alternatives are prepared at the “whole plan” level (e.g., current plan vs new plan vs no plan); this is not good practice. As has been highlighted in guidance on SEA alternatives (González *et al.*, 2015), good practice involves considering “within plan” alternatives. The example below uses the latter approach, as captured in the SEA Statement. The flow chart clearly shows the alternatives considered, assessed and compared in the Environmental Report and which alternatives are preferred (yellow).

The SEA Statement explains, for each set of alternatives, why the preferred alternative was chosen, for instance:



## 1.4 Opportunities to improve SEA Statement practice

When preparing SEA Statements, the following recommendations are put forward to improve current Irish practice:

- Include as much information as possible needed for the SEA Statement in the Environmental Report itself. This will show how the Environmental Report has been influential, “tells the story” of the SEA process and makes post-adoption compilation of the SEA Statement much easier.
  - Include a consultation section recording the process: who was consulted, when, what the key consultation comments were, and how they were incorporated in the SEA and the draft plan/programme. To capture the links between SEA and planning consultation, and to aid a comprehensive reporting of how consultation feedback has contributed to shaping the plan/ programme, it is recommended that plan-makers prepare a consultation report and that this is shared with the SEA team.
  - Include a clear table listing the proposed mitigation measures and an explanation of where/how they have been incorporated within the plan/programme and, if they have not been incorporated, the reasons why. In order to efficiently and accountably do this, it is important to ask plan-makers to provide related explanations, as their reasons for not incorporating particular proposed mitigation measures, which may be valid, are commonly unknown to the SEA team. Capturing and recording explanatory reasons not only ensures transparency and accountability, but also promotes environmental awareness and ownership of mitigation measures among plan-makers.
- Include a section on key learning and outcomes, describing, among other things, what the planning authority has learned about the SEA process. This should include an outline of any changes within the organisation (e.g., training of staff, setting up of an environmental team or environmental leader, mechanism for sharing knowledge and data between departments/sections within the organisation).
  - Consideration should be given by statutory authorities to an annual review of a cross-section of SEA Statements for key plans and programmes to determine if they meet the overall statutory requirements, as well as documenting overall how the plan/programme and SEA process were integrated. This would facilitate the ongoing review of SEA effectiveness. The plans/programmes for review could be agreed by the National SEA Forum/ statutory environmental authorities. Criteria for the review (e.g., in the form of an SEA Statement checklist) could be agreed in advance and reflect the relevant aspects of this guidance.

## 1.5 SEA Statement: step-by-step guidance for practitioners

The implementation of the above recommendations can be facilitated as follows:

1. Document the main stages of the plan-making and the SEA processes on a joint timeline. This should summarise how the SEA was carried out in parallel with, integrated into and influenced the plan-making process.
2. Explain the environmental commitments in the plan/programme: does it have a separate environmental chapter, environmental policies and/or wording that avoids or limits environmental impacts?

3. Include a table listing the SEA's proposed mitigation measures and how they link with the potential environmental impacts identified in the assessment. Provide, in the same table, an explanation of where they have been incorporated and, if they have not, the reasons why. This latter column should be completed by the plan-makers. It could be informed by an often-missed step prior to finalising the plan/programme: a dialogue between the plan-making and SEA teams with a view to cross-checking, reinforcing and maximising environmental integration.
4. Include a table listing other amendments made to the plan/programme as a consequence of the SEA process (that may not necessarily have been captured as mitigation measures but that have rather been absorbed into plan-making as a result of increased environmental awareness derived from the SEA process), as well as other key recommendations to emerge from the SEA, such as those relating to data gap filling, considerations for future plan/programme reviews, or tiering of environmental assessments.
5. Include a section on SEA consultation. This section should include a detailed description of the consultation mechanisms used during the SEA (e.g., scoping workshops, public round tables), time frames and an outline of the opinions/ feedback gathered. It should identify how this feedback has been integrated into mitigation measures and, ultimately, the plan/programme.
6. To inform the above-mentioned consultation section in the SEA Statement, ideally, planners should prepare a consultation report as part of the plan-making process. This will enable the identification of where and how the plan-making process has been influenced by the consultation efforts and feedback. This is good practice following any consultation process, regardless of it being a SEA requirement. A subsection in the Environmental Report can document how both the plan/programme and the SEA consultation processes have complemented each other and distinguish between where the plan/programme has been influenced by the SEA process and where it has been influenced by plan-makers or other external sources.
7. "Tell the story" of the alternatives in the Environmental Report: identify reasonable alternatives, explain how they have been developed, assessed and compared and explain the reason for choosing the preferred alternative(s). This can be copied or summarised in the SEA Statement and captured in the draft and final plan/programme.
8. Include a section on SEA monitoring, with clear and specific indicators, monitoring responsibilities and time frames. Explain that the monitoring reports will be made publicly available. See section 2.6 for further details.
9. Include a section describing key learnings from the SEA process relating to, for example, awareness-raising, new ways of working within the organisation, approaches to integrating environmental considerations into future plans/ programmes and initiatives driven by the organisation, as applicable.

## 2 Monitoring

### 2.1 Introduction to monitoring

Article 10 of the European SEA Directive (2001/42/EC) states that the significant environmental effects of implementing a plan/programme shall be monitored in order, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. There is a legislative requirement to include in the Environmental Report a description of the measures envisaged concerning monitoring [Annex I(i)]. However, the Directive does not prescribe what to include in a monitoring programme beyond the Directive's indication that "existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring" [Article 10(2)]. The measures decided concerning monitoring must also be documented in the SEA Statement [Article 9(1)(c)].

In Ireland, national legislation puts the onus for SEA monitoring on the plan-making authorities, requiring that they monitor the significant environmental effects of their plans/programmes. S.I. No. 436 of 2004 (Article 13J describes that

(1) *The planning authority shall monitor the significant environmental effects of implementation of the development plan in order, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action and, for this purpose, existing monitoring arrangements may be used, if appropriate, with a view to avoiding duplication of monitoring.*

(2) *The report required of the manager under section 15(2) of the Act shall include information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the development plan.*

S.I. No. 435 of 2004 (Article 17) describes that "The competent authority shall monitor the significant environmental effects of implementation of the plan or programme, or modification to a plan or programme in order, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action and, for this purpose, existing monitoring arrangements may be used, if appropriate, with a view to avoiding duplication of monitoring".

Section 8 of the revised SEA Guidelines (DHLGH, 2022) sets out the SEA monitoring requirements. It also discusses (in subsection 8.4) the importance of documenting the monitoring results. However, national legislation does not assign any third-party authority oversight or enforcement functions in relation to SEA monitoring.

The recently published Development Plans - Guidelines for Planning Authorities (DHLGH, 2022a) also place a greater emphasis on plan implementation, monitoring and reporting, and place strong reference to SEA (Figure 2).<sup>3</sup>

**Figure 2:** Plan Objectives Monitoring and Reporting requirements

### 10.3.2 Plan Objectives Monitoring (Two-yearly in line with 10.4 below)

As outlined in Chapter 5, the development plan process should formulate plan objectives that are SMART (Specific, Measurable, Assignable, Realistic and Time-related) and thereby facilitate their monitoring over the lifetime of the plan.

Each development plan will therefore have a set of objectives that are particular to it and are required to be monitored and reported on.

However, these must include:

- Indicators that are that aligned with reporting for other related national policies (e.g. climate change, water quality, etc) or for the purposes of monitoring the SEA. The monitoring of the significant environmental effects of the implementation of the plan is a statutory requirement of the SEA Directive and the planning authority shall refer to the EPA's guidance document 'Guidance on Strategic Environmental Assessment (SEA) Statements and Monitoring' 2824 and any future review. For further information on SEA monitoring see also the Strategic Environmental Assessment Guidelines prepared by the Department of Housing, Local Government and Heritage;
- Additional/supplementary indicators can be identified and utilised by the individual planning authority for specific objectives.

### 10.4 Reporting on the Development Plan

Additional to the on-going monitoring of development trends and spatial patterns by the planning authority annually, there are two instances where there is a requirement for a more formal development plan report to be produced which details progress on the specific objectives set out in the development plan:

- (i) The Two Year Progress Report by the Chief Executive on the development plan in accordance with Section 15(2) of the Act;
- (ii) The Baseline Report as outlined in chapter 2 above, published as the evidence base for commencing the review procedure for the development plan not later than four years after its adoption. Baseline information may also inform the formal reporting process.

These reporting requirements for planning authorities should comprise an analysis of the annual plan monitoring data and also of the progress to achieving identified development plan objectives. These two formal reporting exercises will allow the planning authority to establish the status of the effectiveness of the development plan in meeting its stated objectives.

The Chief Executive's report must specifically include information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the Development Plan. This report must include the results of SEA monitoring for the Development Plan, as well as variations to the Plan and the effects of implementing Local Area Plans<sup>29</sup>. <sup>25</sup>Consideration may be given to the presentation of indicators for monitoring and reporting in accessible digital formats, which can be adapted as more data becomes available.

Source: DHLGH, 2022

## 2.2 Why monitor?

Monitoring can help to evaluate whether SEA is fulfilling its core objective of providing for a high level of protection of the environment and the promotion of sustainable development (Article 1 of the SEA Directive). It requires committed investment and effort, but it can lead to significant benefits:

- Monitoring results can reveal the “real” effects of implementing a plan/programme (i.e., the plan’s environmental performance) and thereby test the effectiveness of SEA by enabling the results of the environmental assessment to be compared with the environmental effects that in fact occur. In this way it can serve as a means of verifying the information in the Environmental Report and, where appropriate, can help to improve or refine SEA assessment methods.
- It can allow data gaps to be filled in (by identifying knowledge gaps and collecting new data over time) and thereby reduce uncertainties in the assessment.
- Measuring indicators over time (e.g., over multiple plan cycles) can identify long-term positive or negative changes and trends in the environment (including those that are not directly linked to a given plan/programme such as climate change) and can build knowledge on how these trends will affect (or will be affected by) the implementation of the plan or programme itself.
- Monitoring can identify unforeseen effects or impacts that may not have been identified during the assessment. Unforeseen effects can include impacts arising where the SEA has assumed that they will not (e.g., a plan leading to unanticipated development in a previously developed area, with associated impacts on land take and biodiversity) or mitigation not working as expected (such as the provision of public transport not leading to the anticipated reductions in vehicle movements and associated air pollution).

- Monitoring environmental changes occurring during the plan/programme implementation phase can help to identify the need for additional mitigation measures or for appropriate remedial action to be undertaken where issues are identified, as well as to inform project-level assessments.
- The information gathered through monitoring provides a basis to inform the review and preparation of subsequent iterations of plans/programmes, thus better informing future planning decisions. It can make subsequent SEAs less onerous, by having up-to-date baseline environmental data readily available.
- Monitoring can also help streamline processes by changing the starting point in the baseline (e.g., looking at trends since the previous plan) and, in this way, support long-term and resilience thinking.

## 2.3 How is monitoring carried out?

The SEA Directive does not contain any technical requirements about the methods to be used for monitoring. European Commission guidance on the implementation of the SEA Directive (EC, 2003) indicates that the level of detail, character (e.g., quantitative or qualitative) and methods of monitoring should reflect the character and detail of the plan/ programme and should be best aligned to capture whether or not the assumptions made in the SEA correspond with the environmental effects occurring when the plan/ programme is implemented. Monitoring methods should also be capable of identifying, at an early stage, any unforeseen adverse effects resulting from the implementation of the plan/programme.

In practice, SEA monitoring typically entails measuring established indicators on a regular (e.g., annual or biannual) basis. Changes in indicator values can be compared against the documented baseline environment for the plan/

programme area to evaluate their upward/downward trend. This is then used as a basis for identifying beneficial or adverse effects. Monitoring findings are to be made available in a publicly accessible report and/or on a website.

SEA monitoring should reflect the nature and level of detail of the plan/programme. Many national-level plans/programmes lack geographic specificity, contain only high-level strategic objectives and do not lend themselves to cause–effect models in terms of direct measuring of environmental effects. As such, SEA monitoring for these plans should focus on national indicators to examine environmental trends [e.g., Sustainable Development Goal (SDG) indicators, national greenhouse gas (GHG) emission inventories]. It should also focus on mitigation measures at the regional level (e.g., the proportion of energy produced that is renewable or the area of new broadleaf woodland planted).

Monitoring of local-level plans, instead, should focus on both local issues (e.g., specific areas of poor air quality) and particular aspects of larger scale problems that are relevant to the plan area (e.g., proportion of local journeys made by car, as a contributor to GHG emissions). Monitoring of mitigation measures could include, for instance, the proportion of new homes reaching specific energy efficiency levels or the length of new cycle track built within the plan area. Monitoring of sectoral plans – for instance transport, waste or energy plans – should focus on the key environmental impacts of relevance to these sectors.

In all cases, the monitoring programme will need to determine the most relevant indicator(s) to monitor. Environmental issues are often complex, interlinked and involve many actors. As a result, a plan/ programme may need to monitor several indicators. However, as noted above, the choice and number of monitoring indicators should always be informed by and aligned with the plan/programme itself.

An in-house “monitoring champion” may be needed. In Ireland, the SEA (AA and flood risk assessment) processes are, to a large extent, undertaken by external consultants acting on behalf of the plan-making authority. Consultants typically join the planning team at the SEA scoping stage and leave after plan adoption. The plan-making authority is then responsible for carrying out the monitoring. This means that close working is required between the consultants and the plan-making authority in putting forward and agreeing monitoring measures.

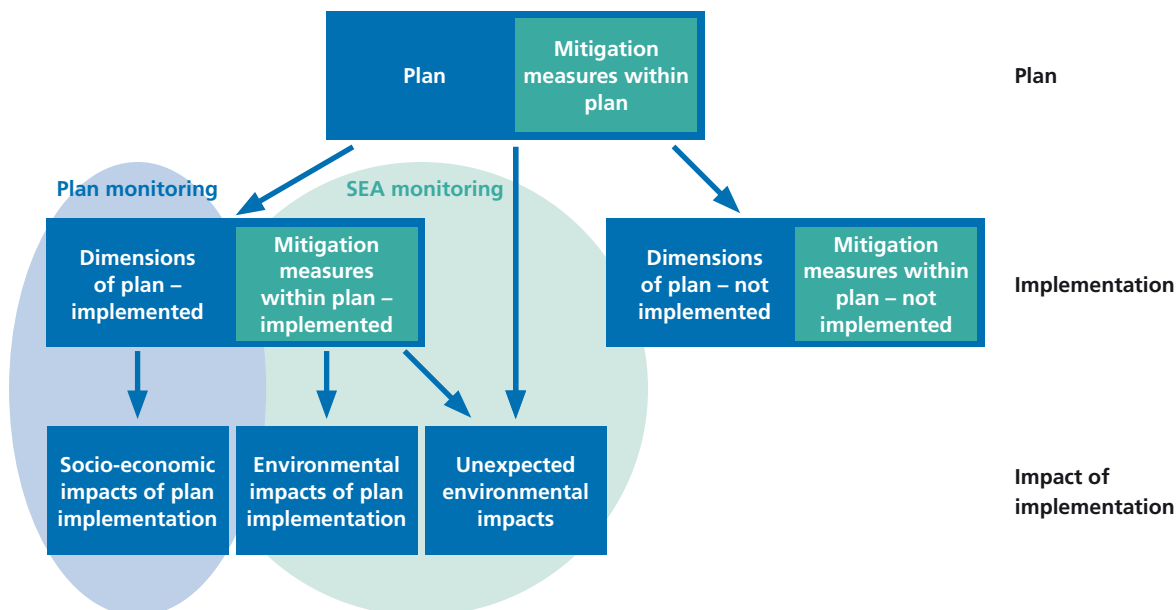
## 2.4 Current shortcomings

Monitoring remains one of the most poorly performed stages of SEA in Ireland and internationally (EC, 2016, 2019). The two Irish reviews of SEA effectiveness (EPA, 2012; González *et al.*, 2020) indicate that there is significant variation in the monitoring measures put forward in different SEAs. There are inconsistencies in relation to indicators, periodicity and responsibilities, which ultimately lead to an absence of follow-up on the ground. In Ireland, specifically, the following key monitoring deficiencies are observed:

- *Monitoring of plan/programme implementation, rather than the environmental impacts of plan/ programme implementation.* The lack of a requirement, in the SEA Directive, for SEA monitoring reports to be notified to the relevant SEA Statutory authorities provides uncertainty as to how effective environmental monitoring is being considered by plan-/ programme-making bodies. Figure 3 sets out some differences between plan/programme and SEA monitoring considerations.



**Figure 3.** Plan/programme monitoring versus SEA monitoring.



- *Monitoring indicators based on assessment objectives (i.e., Strategic Environmental Objectives).* Reusing the assessment indicators and targets from the assessment (i.e., impact assessment criteria) as part of the proposed monitoring programme presents one of the key inadequacies in current SEA practice. Monitoring should focus on measures to monitor the identified potential significant environmental effects and the implementation of mitigation measures (and their effectiveness), not the full range of environmental criteria used to assess the plan/programme.
- *Use of monitoring as a mitigation measure.* Often, monitoring is used as a form of mitigation (i.e., “monitor and manage”). This approach allows impacts to become significant before they are identified, with a response only afterwards. Such recommendations relate more to filling data gaps than monitoring and, as such, should be included in a separate section (e.g., SEA recommendations) rather than in the mitigation section. In particular, including

monitoring as a mitigation strategy as part of AA is not legally compliant (i.e., AA cannot rely on monitoring to identify potential impacts) and therefore should not be put forward as a strategy.

- *Complexity of monitoring.* Many of the national-level plans/programmes lack any geographic specificity, contain only high-level strategic objectives and do not lend themselves to any cause–effect model in terms of the direct measuring of environmental effects. Coupled with this is how responsibility for monitoring and remedial action can practically be applied when issues may cross several agency responsibilities. For example, in the case of water quality, the monitoring is undertaken by the Environmental Protection Agency (EPA), wastewater upgrades are carried out through Irish Water and the pressure sources may ultimately be a combination of diffuse agricultural pollution, industry and wastewater. How this is captured through development plan/programme monitoring measures, and remediated, is not straightforward.



- *Missed opportunity to address data gaps.* Data gaps and limitations affecting the comprehensiveness and certainty of the assessment could be addressed by defining relevant monitoring measures. Filling the data gaps can help with the assessment of subsequent iterations of the plan/programme (and also with project-level assessments).
- *No monitoring periodicity, thresholds or remedial actions set out in the SEA monitoring programme.* When it is not possible to assign a given environmental issue/problem to a specific plan/ programme, the lack of such a link should act as a trigger for all plans/ programmes and projects (rather than none, as is currently the case) to remediate the problem, as appropriate to their remit. The monitoring programme should indicate when remedial action is needed (defining the threshold above which an effect is not acceptable) and what kind of remediation should take place, which, in all cases, should be aligned with the scope of the plan/programme itself.
- *Lack of clarity of monitoring responsibilities.* Monitoring data tend to come from third-party bodies undertaking systematic monitoring of key indicators (e.g., EPA monitors water quality nationally); however, the plan-making authority is responsible for collating and synthesising the relevant information and reporting on it in relation to its plan/programme.
- *No obvious use of previous SEA monitoring information to inform plan/programme review.* When plans/programmes are cyclical, or are supported by implementation plans, the next iteration of the plan/programme and SEA should refer to the previous SEA monitoring findings in the description of the baseline environment.
- *Availability of monitoring reports.* Although some monitoring may be taking place, the findings are often not made publicly available.

## 2.5 Examples of good monitoring practice

The key to a good monitoring framework is a clear definition of:

- meaningful indicators;
- how often the indicators should be monitored (i.e., frequency);
- who should carry out the monitoring (i.e., responsibilities);
- thresholds/targets/trigger levels above which remedial action is required;
- what the remedial action should involve and who is responsible; and
- inclusion of a commitment to reporting on monitoring findings.

The last point is key. For monitoring to be effective, a committed reporting framework needs to be put in place to ensure that the monitoring results are made readily available to inform stakeholders and subsequent plan/ programme reviews. The Irish case studies below, which reflect international good practice, provide insights into good SEA monitoring practice in Ireland. Box 7 presents an example of meaningful monitoring measures, with detailed indicators and frequency of monitoring. Box 8 outlines a mechanism for addressing existing data gaps as part of post-implementation monitoring. Box 9 describes a structured approach to reporting monitoring results.

**Box 7.** SEA Environmental Report with meaningful monitoring measures: indicators and frequency of monitoring and monitoring results

**The plan:** Wild Atlantic Way Operational Programme 2015-2019

**Context:** The Wild Atlantic Way is a tourism initiative by Fáilte Ireland that has developed Ireland's first long-distance touring route.

**URL to the SEA Statement:** [http://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2\\_Develop\\_Your\\_Business/Key%20Projects/Strategic-Environmental-Assessment-Statement.pdf](http://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2_Develop_Your_Business/Key%20Projects/Strategic-Environmental-Assessment-Statement.pdf)

**URL to Monitoring Reports:** <http://www.failteireland.ie/Wild-Atlantic-Way/The-Wild-Atlantic-Way-Operational-Programme/Environmental-Surveying-and-Monitoring-Programme.aspx>

**Good practice:** The Wild Atlantic Way SEA Environmental Report contains a monitoring programme that clearly lists monitoring indicators, targets and data sources, as well as their frequency of measurement. The monitoring predominantly relates to biodiversity and visitor pressures/human health; it is, therefore, very focused on ecological aspects, with the follow-up monitoring reporting on assessments of specific locations.

Although it may not be possible to formulate such a detailed monitoring programme for most national or regional plans, because of a lack of geographic specificity or planning detail, some of the indicators below may still apply (e.g., conservation status of protected areas) and the inclusion of specific considerations, such as new housing in rural areas, may be relevant and feasible. Nevertheless, it is reiterated that consideration needs to be given to the effective link between indicators and plan/programme implementation impacts.

Environmental Component	Current Indicators (subject to review of findings from Monitoring Strategy for Operational Programme candidate Signature Discovery Points)	Current Target(s) (subject to review of findings from Monitoring Strategy for Operational Programme candidate Signature Discovery Points)	Source (Frequency)
<b>Biodiversity, Flora and Fauna</b>	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Programme <sup>15</sup>	<ul style="list-style-type: none"> <li>Lower tier environmental assessment and decision making by local authorities</li> <li>SEA Monitoring Programme reports for the land use plans of relevant local authorities (as required, monitoring reports published on various timescales and frequencies)</li> <li>Department of Arts, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years)</li> <li>Department of Arts, Heritage and the Gaeltacht's National Monitoring Report for the Birds Directive under Article 12 (every 3 years)</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 5.5)</li> </ul>
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Programme	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Programme	<ul style="list-style-type: none"> <li>Lower tier environmental assessment and decision making by local authorities</li> <li>Review of permissions granted and the SEA Monitoring Programme reports for the land use plans of relevant local authorities (as required, monitoring reports published on various timescales and frequencies)</li> <li>CORINE mapping resurvey (every c. 5 years)</li> <li>Review of EPA Ecological Network Mapping (if available)</li> </ul>
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Programme  B3ii: Number of significant impacts on the protection of listed species	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Programme  B3ii: No significant impacts on the protection of listed species	<ul style="list-style-type: none"> <li>Lower tier environmental assessment and decision making by local authorities</li> <li>Review of permissions granted and the SEA Monitoring Programme reports for the land use plans of relevant local authorities (as required, monitoring reports published on various timescales and frequencies)</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 5.5)</li> </ul>
<b>Population and Human Health</b>	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Programme, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Programme	<ul style="list-style-type: none"> <li>Lower tier environmental assessment and decision making by local authorities</li> <li>Consultations with EPA and Health Service Executive (at monitoring evaluation - see Section 5.5)</li> </ul>

The Wild Atlantic Way monitoring measures are clearly linked to the identified impacts, as captured in the following summary table of the Environmental Report.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigation Reference (see Section 9)	Primary Indicator for Monitoring (subject to review of findings from Monitoring Strategy for Operational Programme Signature candidate Discovery Points)
<b>Biodiversity, flora and fauna</b>	<ul style="list-style-type: none"> <li>Arising from both construction (including reuse and reinforcement of existing viewing points and lay-bys) and operation: loss of/damage to biodiversity in designated sites, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna</li> <li>Habitat loss, fragmentation and deterioration, including patch size and edge effects</li> <li>Disturbance and displacement of protected species and coastal squeeze</li> </ul>	<ul style="list-style-type: none"> <li>Protection of Biodiversity including Natura 2000 Network</li> <li>Appropriate Assessment</li> <li>Protection of Natura 2000 Sites</li> <li>NPWS &amp; Integrated Management Plans</li> <li>Coastal Zone Management</li> <li>Biodiversity and Ecological Networks</li> <li>Protection of Riparian Zone and Waterbodies and Watercourses</li> <li>Non-Designated Sites</li> <li>Non-Native Invasive Species</li> </ul>	<p>B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive</p> <p>B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Programme</p> <p>B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Programme</p> <p>B3ii: Number of significant impacts on the protection of listed species</p>
<b>Population and human health</b>	Potential interactions if effects upon environmental vectors such as water are not mitigated	<ul style="list-style-type: none"> <li>Human Health</li> </ul>	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Programme, as identified by the Health Service Executive and Environmental Protection Agency

The SEA Environmental Report states that “Fáilte Ireland are committed to presenting the results of Wild Atlantic Way monitoring activities to a Monitoring Group twice each year. The objective of the Monitoring Group will be to ensure that robust systems are in place, in appropriate existing authorities, to ensure that all key commitments made at the programme level will be delivered effectively (including at the appropriate time), and to ensure that no adverse effects on the integrity of the environment will result”.

As indicated in the table above, these indicators were subject to a review of findings from the Monitoring Strategy for the Operational Programme Signature candidate Discovery Points. The Environmental Report also notes that “The Strategy for Environmental Surveying and Monitoring is an evolving tool that will be informed and updated by emerging findings”. Monitoring reports have been produced annually. Below is an extract from such a report.

Discovery Point	Visitor Impacts	Ecological Impacts	Recommendations
Galley Head	Low-High Impacts	Trampling of clifftop vegetation	<ul style="list-style-type: none"> <li>Consideration of visitor management</li> <li>Signage in respect of nesting birds</li> <li>Further ecological monitoring in event of increased visitor numbers</li> </ul>
Lough Hyne	Low-Medium Impacts	None at current levels of site activity	<ul style="list-style-type: none"> <li>Temporary facilities at peak tourist season to minimize water quality impacts</li> <li>Growth in visitor numbers would require a review of current parking facilities</li> </ul>
Garnish Point	Low-Medium Impacts	Disturbance to breeding birds species and trampling of Annex Habitats	<ul style="list-style-type: none"> <li>Additional Signage regarding marked trails</li> <li>Temporary moving trails</li> <li>Fixed marking of walkways</li> </ul>

**Box 8.** SEA Environmental Report mitigation for addressing existing data gaps: a mechanism for post- implementation monitoring

**The plan:** EirGrid Grid25 Implementation Programme 2011-2016

**Context:** EirGrid’s Implementation Programme aims to implement the Grid25 Strategy, which envisaged an extension to the electricity transmission network to accommodate increasing demand and new sources of renewable energy.

**URL to the SEA Statement:** <http://www.eirgridgroup.com/site-files/library/EirGrid/Environmental-Report-for-the-Grid25-Implementation-Programme-2011-2016-Strategic-Environmental-Assessment.pdf>

**URL to Monitoring Reports:** Not publicly available online.

**Good practice:** The SEA Statement provides detailed indicators, sources of data and information on the frequency of monitoring. As shown in the table below, annual monitoring is undertaken to inform lower planning levels (i.e., transmission development plans). Nevertheless, some of the indicators rely on existing monitoring measures, for instance the National Parks and Wildlife Service (NPWS) reporting to the EU under Article 17 of the Habitats Directive being cognisant that any decline in habitat quality needs to be addressed in conjunction with the NPWS.

In this case, the SEA Environmental Report included a mitigation measure to undertake evidence-based environmental studies. These studies examine the environmental impact of the construction and existence of transmission infrastructure in Ireland in a representative range of Irish environmental conditions. Therefore, although they inform future route selection and the design of transmission infrastructure, they also serve as post-implementation monitoring. More information can be found at <http://www.eirgridgroup.com/about/in-the-community/environment/>

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Biodiversity, Flora and Fauna</b>	B1: Conservation status of habitats and species as reported upon under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the IP	a) DAHG report of the implementation of the measures contained in the Habitats Directive – as required by Article 17 of the Directive; b) Consultations with the NPWS; & c) Monitoring of the effects of development required under separate processes	a) Every 6 years b) Annually, to inform Environmental Appraisal Report which will accompany annual TDPs c) Various – determined by monitoring programmes provided for by EIAs
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the IP	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the IP	a) Consultations with the NPWS; & b) Monitoring of the effects of development required under separate processes	a) Annually, to inform Environmental Appraisal Report which will accompany annual TDPs b) Various – determined by monitoring programmes provided for by EIAs
	B3: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for by the IP	B3: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for by the IP	a) Consultations with the NPWS; & b) Monitoring of the effects of development required under separate processes	a) Annually, to inform Environmental Appraisal Report which will accompany annual TDPs b) Various – determined by monitoring programmes provided for by EIAs
<b>Landscape</b>	L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape resulting from development provided for by the IP	L1: No avoidable impacts on the landscape resulting from development provided for by the IP	a) Complaints from statutory consultees; & b) Monitoring of the effects of development required under separate processes	a) To be collated annually, to inform Environmental Appraisal Report which will accompany annual TDPs b) Various – determined by monitoring programmes provided for by EIAs

**Box 9.** A plan/programme with detailed monitoring reporting arrangements: reporting on and taking into account monitoring results

**The plan:** National River Basin Management Plan 2018-2021

**Context:** This is the second River Basin Management Plan (RBMP) cycle but the first national-level RBMP. It outlines the approach that Ireland is taking to protecting its rivers, lakes, estuaries and coastal waters over a 4-year period.

Given that the plan's overarching focus is on protecting and improving water quality, the plan is starting from a very different base environmentally from many other plans. Part of its very function is to monitor water quality.

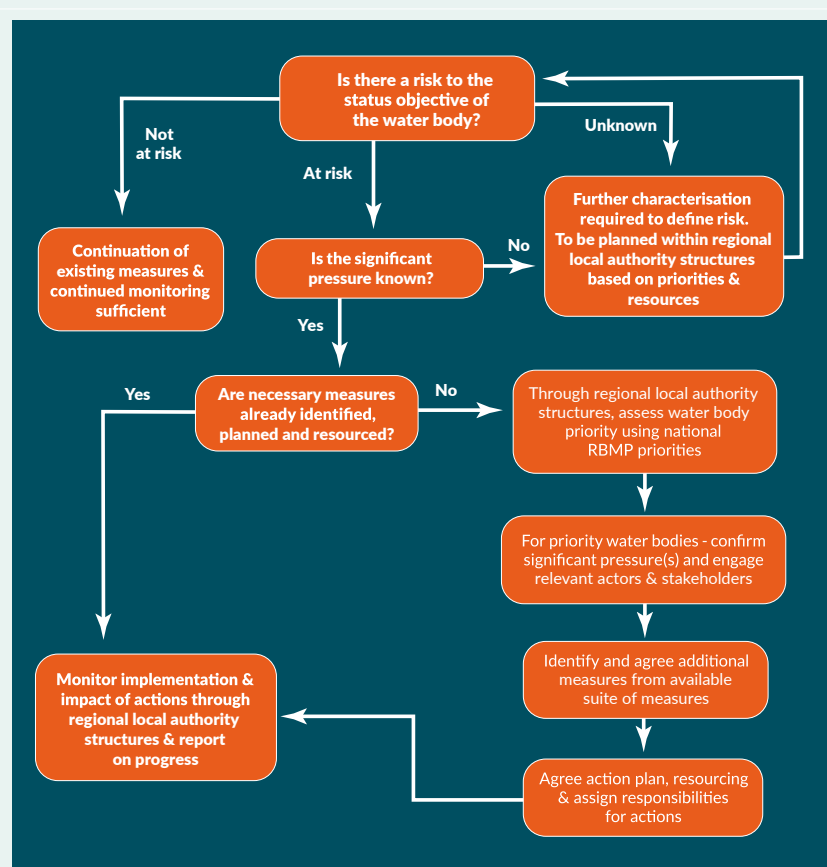
**URL to the SEA Statement:**

[https://www.housing.gov.ie/sites/default/files/publications/files/rbmp\\_sea\\_statement\\_0.pdf](https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_sea_statement_0.pdf)

**URL to Monitoring Reports:** Not publicly available – password-protected DHPLG online web application. Water quality monitoring data are available through [www.catchments.ie](http://www.catchments.ie)

**Good practice:** The plan indicates that arrangements were made for ongoing water monitoring and reporting on implementation (e.g., environmental pressures relating to sectoral changes, water demand, hazardous substances or invasive species, and associated changes in water ecology and water quality) during the first national RBMP and that the monitoring results have informed the preparation of this new RBMP. One key arrangement defines the feedback loop mechanism for reporting if water quality is affected, as indicated in Figure 4. This, however, is driven more by the Water Framework Directive (WFD) requirements than by SEA.

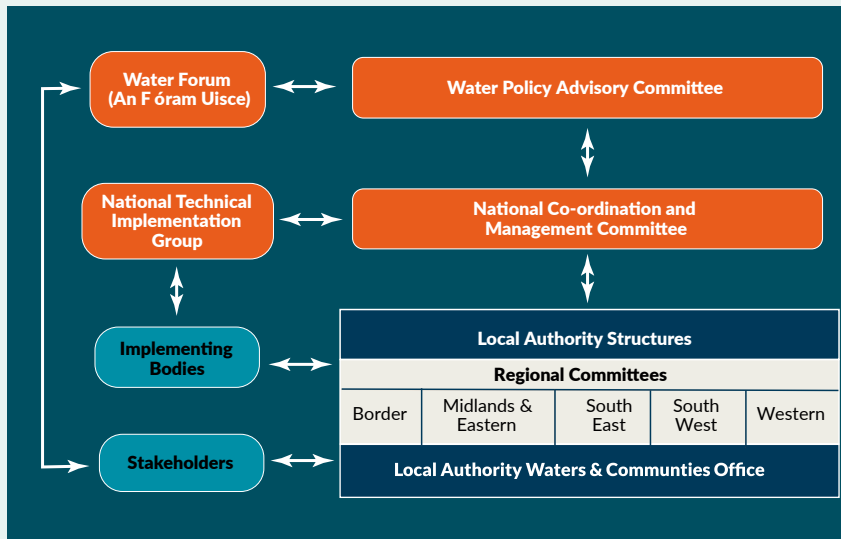
**Figure 4.** Flow chart outlining decision-making on prioritisation and associated supporting measures at regional and local levels.



Source: River Basin Management Plan for Ireland 2018–2021, p. 125 ([https://www.housing.gov.ie/sites/default/files/publications/files/rbmp\\_report\\_english\\_web\\_version\\_final\\_0.pdf](https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf)).

The plan states that “to ensure optimal implementation of this RBMP, the implementation of measures in the regional work programmes must be continuously monitored and evaluated. Each regional committee will, therefore, produce a concise annual report that will provide an update on implementation progress and an evaluation of the measures implemented”. An online platform, <https://wfd.edenireland.ie/>, makes monitoring results available among the governing bodies. Figure 5 defines the roles and responsibilities associated with monitoring water quality, which are also applicable to monitoring the environmental effects of plan implementation. The monitoring is in compliance with the WFD for a water management plan. Similar levels of monitoring would not be practical for other sectoral plans.

**Figure 5.** Governance and co-ordination structures for implementation of the second-cycle RBMP.



Source: River Basin Management Plan for Ireland 2018–2021, p. 119 ([https://www.housing.gov.ie/sites/default/files/publications/files/rbmp\\_report\\_english\\_web\\_version\\_final\\_0.pdf](https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf)).

## 2.6 Opportunities to improve monitoring practice

There are a number of opportunities to improve SEA monitoring practice in Ireland. The following recommendations derive from international good practice and national consultation feedback.

For SEA practitioners:

- Include monitoring indicators that measure potential environmental impacts and implementation of mitigation measures, including their effectiveness (see Figure 3). Monitoring whether or not the proposed mitigation measures are implemented and whether or not they work can help resolve environmental problems before they occur, as well as avoid associated costs of litigation.
- Identify a suitably small set of highly relevant indicators to meaningfully monitor the environmental effects of plan/programme implementation (see section 3). These should be aligned with the scope and nature of the plan (e.g., several water quality indicators may be needed for development plans but only one such indicator may be relevant to a transport plan). This should include identifying the data sources that will be used for monitoring.
- Utilise existing monitoring programmes and initiatives such as:
  - The EPA's State of the Environment reports and datasets (including related air and water quality indicators, etc.) – these provide a significant and reliable source of environmental (spatial) data on the state of the environment and changes and trends that are central for populating relevant indicators, particularly at the national and regional level.
  - At the national scale, SDG indicators and monitoring data – the synergies between SDGs and SEA, in terms of promoting sustainable development and embedding sustainability into planning and decision-making, mean that SDG data are relevant and useful in terms of SEA processes – see, for example, the new Department of Communications, Climate Action and Environment (DCCA)/Central Statistics Office portal: <https://irelandsdg.geohive.ie/>
- Technology and citizen science – the growing availability and deployment of remotely sensed data [e.g., imagery, light detection and ranging (LIDAR) and ubiquitous sensors to monitor air quality, noise and light] and citizen science data collation initiatives, combined with widely used Geographic Information Systems (GIS) technology, provides an untapped opportunity to enhance monitoring processes. This may be particularly useful for specific and spatially defined sectoral plans/programmes.
- Use spatial information for spatial plans. The growing availability of spatial datasets provides an opportunity for more detailed appraisals of changes in environmental indicators and the identification of specific areas of environmental impact/change. The SEA-relevant spatial data sources inventory, which is available on the EPA website and is updated regularly, provides a good starting point: <http://www.epa.ie/pubs/advice/ea/seaspatialinformationsourcesinventory.html>. This dataset is updated on a regular basis and so the link will become obsolete. The most up-to-date inventory can be retrieved by searching for “SEA spatial data sources inventory EPA” using Google.
- Test and document plan/programme impacts in relation to targets and thresholds (e.g., climate, air and water quality, renewables, energy). Use existing international and national thresholds when assessing potential impacts – this approach can subsequently enable the definition of a more specific and quantitative set of monitoring indicators.



- Identify the organisations with relevant monitoring responsibilities. Although the plan-maker is, in all cases, responsible for plan implementation monitoring, different third-party organisations may be responsible for monitoring specific indicators (e.g., water or air quality). In all cases, the plan-making authority is still responsible for interrogating that data and reporting on trends in relation to the specific plan/programme.
  - Define the level of detail of monitoring required. Existing national/catchment monitoring data can serve as an analogue for monitoring within the plan/programme context. However, depending on detail, it can point to more focused monitoring required within the plan/programme area.
  - Define monitoring frequency and provisions for carrying out remedial action, as appropriate and aligned to the scope of the plan/programme, as well as reporting requirements (e.g., who should be notified). This can provide a clear remit for action, and facilitate communication between agencies and resource allocation in case of environmental problems. This is particularly relevant at the lower planning tiers.
  - Linked to the above, define remedial action responsibilities. If changes in indicator trends are identified, then the plan-making team needs to work with the relevant authority on a response. Clear definition of responsibilities would both improve implementation of monitoring and provide accountability for remedial action when environmental targets are not achieved. Defining responsibilities needs to take account of current national monitoring arrangements and responsibilities (e.g., water quality if regularly monitored by the EPA, species and habitats by the National Parks and Wildlife Service (NPWS), but, as noted above, involved authorities should share information and work together to identify and address changes in indicator values).
  - Include a specific recommendation in the SEA Environmental Report for the monitoring programme to be incorporated into the plan/programme or to be added as a chapter so that this aspect is not “lost” as part of plan/programme implementation reviews.
  - Refer to previous plans/programme monitoring frameworks and data in the next round of planning SEA. Monitoring can provide a more robust and up-to-date baseline for future SEAs and, more importantly, a better understanding of the implications of certain plans/programmes, which can, ultimately, contribute to better planning and more informed decisions.
- For plan-makers:
- Devise a monitoring approach that feeds into plan/programme implementation review and related reporting. This allows uncertainties and data gaps to be addressed, provides a more robust baseline and better informs future planning. Moreover, plans at different levels could use the same methodological framework with regard to core indicators, monitoring frequency, etc., to help align internally all monitoring efforts in plan-making.
  - Include a specific commitment in the plan/programme for environmental monitoring and reporting.
  - Ensure that enough resources are available in the plan-making organisation to collate and report on the relevant monitoring information, including a defined budget.
  - Make monitoring reports available online and, where suitable, link monitoring data to existing GIS-based databases. This can enhance understanding and knowledge across planning hierarchies and sectors.



## 2.7 Practical step-by-step guidance

The following step-by-step guidance aims to facilitate the implementation of the recommendations presented in sections 2.3 and 2.6.

For SEA practitioners:

1. Undertake a monitoring workshop, early in the SEA process (combining it with scoping or alternatives workshops, perhaps), to identify and carry out plan/programme-specific monitoring of plan/programme actions with environmental consequences and/or mitigation measures.
2. Identify monitoring measures that address any key/significant data gaps identified during the assessment (see Box 8).
3. Make the monitoring indicators as specific as possible, aligning them with the scope and nature of the plan/programme, to ensure that they are well understood and can be easily populated using existing or newly gathered data (see Box 7).
4. Limit the information to be monitored to a narrow (e.g., 10–12) and meaningful set of indicators. Make sure that the information to be gathered is also relevant for plan-making (i.e., that it is not data gathering for the sake of data gathering). This will help to guarantee commitment and resourcing.
5. Help to identify and fine-tune monitoring indicators through consultation – propose an initial set of indicators and put it out for consultation to environmental authorities, stakeholders and the public, as appropriate. Although this is already carried out through the consultation on the SEA Environmental Report, there tends to be limited engagement.
6. Include thresholds/standards in the monitoring programme, appropriate to the level of detail of the plan/programme, and clearly state what response needs to be taken (e.g., remedial action) if thresholds are exceeded or standards are not met.
7. Define monitoring frequency (including seasonal specificities). Although monitoring periods will be determined by the temporal scope of a plan/ programme, monitoring should be annual where possible – noting that the monitoring frequency of third-party data is often set by legislation or internal arrangements.
8. Identify responsible organisations for remedial action (see Box 9). In some cases, the plan-maker can/needs to take appropriate remedial action. In other cases, the relevant agencies may need to be notified (if monitoring shows declining trends in a particular aspect outside the competency of the plan-maker – see also section 3).
9. Refer to significant trends/issues from existing monitoring programmes (e.g., using the EPA's State of the Environment reports and, if appropriate, United Nations SDG monitoring data to identify environmental changes and trends at national/regional level between plan/programme periods), as appropriate.
10. Include monitoring indicators that use existing citizen science initiatives and apps (e.g., National Biodiversity Data Centre's biodiversity Ireland app) for data gathering.
11. Ensure that cyclical plans/programmes make the most of monitoring. In the SEA baseline section for a new plan/programme, refer back to the SEA baseline of the previous plan/ programme (to identify trends over time), to any new information relating to projects arising in the previous plan/ programme period (e.g., changes in infrastructure,

heritage) that may not directly relate to the established monitoring indicators, and to the monitoring information from the implementation of the previous plan/programme (in order to define the current baseline as well as to determine the effectiveness of the mitigation measures in the prior plan/programme and thus improve the planning process).

For plan-makers:

12. Ensure that monitoring outcomes are captured in a report, including recommendations, as appropriate, on the scope of monitoring going forward.
13. Include a specific commitment in the plan/programme for environmental monitoring and reporting, in the form of a specific policy measure.
14. Ensure that enough resources are available in the plan-making organisation to collate and report on the relevant monitoring information, including a defined budget. To avoid duplication of effort, particularly in local authorities with a number of SEAs requiring related monitoring procedures to be performed, consider establishing an internal local authority environmental monitoring team/ group to compile/collate the environmental data and, if changes are identified, to flag the relevant plans/programmes to take account of the changes.
15. Make the monitoring results publicly available, clearly presenting any identified changes and trends. Ideally, this should be carried out online (i.e., publishing them on the plan-making authority's website).

### 3 Monitoring Indicators

**Table 1.** Proposed strategic indicators for national-level plans and programmes

Indicator	Monitored by	Periodicity	Target/threshold
Biodiversity	NPWS and National Biodiversity Data Centre <a href="https://www.npws.ie">https://www.npws.ie</a>	Routine monitoring programmes are in place for specific species/habitats	Integrity of habitats and conservation status of species as per the requirements of the EU Habitats Directive (92/43/EEC) Article 17 reporting every 6 years
Climate	EPA, Office of Public Works, National Roads Authority, DCCA <a href="https://www.climateireland.ie">https://www.climateireland.ie</a>	Routine monitoring programmes are in place for GHG emissions (sectoral and regional)	EU GHG emission targets
Air quality	EPA <a href="http://www.epa.ie">www.epa.ie</a>	Real time at monitoring stations	Defined hourly/daily/monthly and annual thresholds, as set in the various EU air quality directives (e.g., CAFE Directive 2008/50/EC)
Water quality	EPA and River Basin Districts <a href="http://www.catchments.ie">www.catchments.ie</a> <a href="https://wfd.edenireland.ie/">https://wfd.edenireland.ie/</a>	Typically, quarterly surveillance monitoring and monthly operational monitoring	Drinking Water Directive (98/83/EC) and WFD (2000/60/EC)
Land use/land cover	European CORINE project <a href="https://land.copernicus.eu/pan-european/corine-land-cover">https://land.copernicus.eu/pan-european/corine-land-cover</a> <a href="http://www.epa.ie">www.epa.ie</a>	Updated every 6 years, including information about changes over the past 6 years	Not applicable

Although there is no one-size-fits-all solution to monitoring, a set of strategic indicators has been identified as part of the SEA effectiveness review to inform monitoring at the national level (Table 1). These five indicators should be monitored as part of the implementation of all national plans/programmes because of their significance and to address existing European reporting requirements. Moreover, there are existing

monitoring programmes and related data that could be accessed, such as the EPA's State of the Environment reporting and the WFD and Article 17 reporting under EU law. The United Nations SDG monitoring data are also of relevance at this strategic planning level. The EPA's SEA-relevant spatial data sources inventory presents a one-stop-shop for all relevant datasets and monitoring initiatives in Ireland and is regularly updated.<sup>3</sup>

3 <http://www.epa.ie/pubs/advice/ea/seaspatialinformationsourcesinventory.html> (accessed 22 November 2019).

The focus of monitoring should be on identifying significant environmental changes of relevance to the plan/programme that can be addressed by future plans/programmes (e.g., by informing future plan reviews with regard to policies and zonings and through the strengthening of relevant mitigation measures). Similarly, monitoring can also be used to review whether or not specific policies or mitigation measures need to be strengthened or updated during the current plan/programme period (such as via plan/ programme variations).

As discussed in section 2.3, monitoring measures need to be aligned to the level of the plan/programme, to enable key anticipated environmental problems associated with plan/ programme implementation, including mitigation measures, to be followed up and to identify any unforeseen adverse effects. Therefore, it is recommended that different layers of monitoring (i.e., tiering monitoring indicators according to level in plan hierarchy) are provided. Table 2 gives possible examples of such tiering:

- national – in light of the more strategic nature of monitoring at higher planning tiers, broad indicators can be defined and publicly available data used (e.g., EPA’s State of the Environment reports and related monitoring programmes such as water monitoring, as well as SDG monitoring data) – see also the suggested indicators above;
- regional – more specific indicators that make use of local authority and other public authority datasets; and
- local – focused monitoring programmes that contain county-specific responsibilities and that may require the collection of additional local data to identify pressures, changes and decline in environmental quality.

In addition, a commitment within the responsible authority for each sector and plan hierarchy level to take responsibility for tackling the environmental change that is relevant to the sector/level should be fostered. For example, a Local Area Plan (LAP) may identify deterioration in the quality of a stream. This deterioration may be from agriculture, development pressure on wastewater and/or industry (or a combination of all of these). However, the spatial plan can do something only about the pressures on wastewater and so it will address the issue by doing what is within its power.

## 4 High-level Recommendations

**Table 2.** Examples of tiering of monitoring indicators

Scale of plan/ programme	Climate	Air quality	Land use
National	<ul style="list-style-type: none"> <li>National GHG emissions by sector</li> <li>Proportion of national energy produced by renewables</li> </ul>	<ul style="list-style-type: none"> <li>Number of exceedances of legal air quality limits – all stations</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of area nationally that is developed (urban/ infrastructure)</li> </ul>
Regional	<ul style="list-style-type: none"> <li>Regional GHG emissions by sector</li> </ul>	<ul style="list-style-type: none"> <li>Number of exceedances of legal air quality limits – stations in region</li> <li>Transport modal split at regional level</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of area regionally that is developed (urban/ infrastructure)</li> </ul>
Local	<ul style="list-style-type: none"> <li>Proportion of homes with energy efficiency rating X</li> <li>Amount (in GW) of energy produced by renewables in the county area</li> </ul>	<ul style="list-style-type: none"> <li>Air quality zones in the county area and average air pollution levels in these zones</li> <li>Public transport usage at county level</li> </ul>	<ul style="list-style-type: none"> <li>Amount (in ha) of new development on greenfield land</li> <li>Amount (in ha) of new broadleaf woodland</li> </ul>

For plan-making authorities, the first and most important step to ensure compliance with the statutory requirements for SEA monitoring is to carry out monitoring of the significant environmental effects of implementing their plan or programme. Publishing monitoring reports is recommended and considered as good SEA practice. Additional high-level recommendations that could improve the effectiveness of SEA monitoring (and SEA Statements) are presented below. These mainly focus on the need to address monitoring report findings by identifying requirements for providing information, taking action and taking into account the monitoring findings into the next plan and/or planning tier.

The recommendations require varying degrees of commitment and resources; in some cases, they may work only if existing legislation/regulations and guidance are amended. Some of these measures could be trialled on a pilot basis to determine whether or not practice improves as a result; this could then inform the preparation of a strategy or pathway, with appropriate time frames, towards more formally implementing those measures that are found to work well.

- Provide training and capacity building on SEA Statements and monitoring for SEA practitioners/ consultants and plan-makers, along with this new SEA monitoring and SEA Statement guidance. This would enhance current practice and promote proactive and practical monitoring commitments.

- Undertake a review of the quality of a cross-section of SEA Statements. This could be supported by the preparation of a SEA Statement checklist and could help to determine if the Statements meet the overall statutory requirements, as well as documenting overall how the plan/programme and SEA process were integrated. It will also facilitate the ongoing review of SEA effectiveness. A SEA Statement quality check package can be included in the EPA's existing SEA Process Checklist (see the recommendation below).
- Revise the existing SEA Process Checklist (EPA, 2008). This checklist could be used as a quality check framework once it is revised to address not only the process but also reporting requirements; updated to include more recent and relevant good practice; and published (as the current version is still a consultation draft). This checklist would also benefit from a streamlined "rapid check" complementary section.
- Encourage monitoring findings to be published on the plan-makers' websites alongside the plan/ programme and SEA-related documentation, at least as part of plan/programme reviews, and made publicly available. This will help ensure that monitoring is properly undertaken and monitoring reports are prepared. This recommendation is supported in the revised national SEA Guidelines (DHLGH, 2022). *Section 8.1 – Requirements for Monitoring of these Guidelines describes that "Monitoring reports should also be made available online to allow for future analysis for other purposes, such as environmental impact assessment of projects and strategic environmental assessment of other plans and programmes."*<sup>4</sup>
- Create a national monitoring body. To provide a focal point to ensure that the benefits of monitoring are achieved, a national monitoring body or forum could be created. This would work with local authorities and other plan-making authorities to ensure that monitoring takes place and unforeseen effects are addressed. Although this is an aspirational recommendation that requires significant resources, a dedicated team looking at trends and engaging with planners during plan-making could play an important advisory role to build in mitigation and develop more sustainable plans/ programmes by addressing environmental trends.
- Set up a monitoring strategy at national level to collate, co-ordinate and improve the availability of (spatial) data from existing monitoring mechanisms (e.g., EPA, heritage, water) and provide centralised and relevant information across planning hierarchies and sectors. These data/information could be housed in a centralised environmental baseline data portal. This would be a rapid and systematic way to address ongoing monitoring limitations and a way to reduce the costs of evidence gathering for the next round of SEAs.
- Provide more frequent national-level monitoring data to provide a more up-to-date, reliable and accountable basis for environmental assessment and planning. Whereas some indicators are updated regularly (e.g., water quality), the EPA's State of the Environment and indicator reporting is currently undertaken on a 4-year cycle. Annual State of the Environment reports (or bulletins) would provide more timely and current information for both SEA and planning processes.

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4 <https://assets.gov.ie/218356/6c57ccf6-3d2b-4c43-b871-1698e7daab5d.pdf>

- Undertake monitoring meetings or workshops as part of the EPA championing role, in combination with the scoping or alternatives workshops that are currently carried out, during the preparation of a plan/programme. This would ensure consistency between authorities and a stepwise improvement of monitoring practice.
- Incentivise monitoring initiatives that go beyond the minimum legal requirements, for instance through awards at the annual EPA Environment Ireland conference or relevant national planning conferences. Awards could address excellence in monitoring and feedback and excellence in innovative and effective mitigation measures (as documented through monitoring). This could be further enhanced by including good monitoring practice examples on the environmental authorities' websites.
- Use technology and innovation to encourage monitoring implementation and to tap into currently available but underused sources of data gathering and sharing (web-based services, citizen science, remote sensing, etc.), support citizen science initiatives and empower the public by giving them a voice, and allow plan-making authorities to tap into local knowledge and data sources. For example:
  - Include in the next EPA funding call a proposal to develop a monitoring app. This could link to specific monitoring requirements for a plan and territory (e.g., city or county development plan, LAP). This app could be modelled on the EPA's environmental concerns reporting app (See It? Say It!) and be linked to an online platform where monitoring data could be visualised and queried.
  - Encourage plan-making authorities to post specific monitoring requirements on Ecobroker (<https://ecobroker.ucd.ie/>). Linking practice and science can facilitate monitoring implementation (by getting academics and researchers to undertake projects that facilitate data gathering and inform follow-up processes and outcomes).



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# AN GHNÍOMHAIREACTH UM CHAOMHNÚ COMHSHAOIL

Tá an GCC freagrach as an gcomhshaol a chosaint agus a fheabhsú, mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ar thionchar díobhálach na radaíochta agus an truaillithe.

## Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

**Rialáil:** *Rialáil agus córais chomhlíonta comhshaoil éifeachtacha a chur i bhfeidhm, chun dea-thorthaí comhshaoil a bhaint amach agus díriú orthu siúd nach mbíonn ag cloí leo.*

**Eolas:** *Sonraí, eolas agus measúnú ar dchaidheáin, spriocdhírthe agus tráthúil a chur ar fáil i leith an chomhshaoil chun bonn eolais a chur faoin gcinnteoireacht.*

**Abhcóideacht:** *Ag obair le daoine eile ar son timpeallachta glaine, táirgiúla agus dea-chosanta agus ar son cleachtas inbhuanaithe i dtaobh an chomhshaoil.*

## I measc ár gcuid freagrachtaí tá:

### Ceadúnú

- Gníomhaíochtaí tionscail, dramhaíola agus stórála peitрил ar scála mór;
- Sceitheadh fuíolluisce uirbigh;
- Úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe;
- Foinsí radaíochta ianúcháin;
- Astaíochtaí gás ceaptha teasa ó thionscal agus ón eitlíocht trí Scéim an AE um Thrádáil Astaíochtaí.

### Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Iniúchadh agus cigireacht ar shaoráidí a bhfuil ceadúnas acu ón GCC;
- Cur i bhfeidhm an dea-chleachtais a stiúradh i ngníomhaíochtaí agus i saoráidí rialáilte;
- Maoirseacht a dhéanamh ar fhreagrachtaí an údarais áitiúil as cosaint an chomhshaoil;
- Caighdeán an uisce óil phoiblí a rialáil agus údaruithe um sceitheadh fuíolluisce uirbigh a fhorfheidhmiú
- Caighdeán an uisce óil phoiblí agus phríobháidigh a mheasúnú agus tuairisciú air;
- Comhordú a dhéanamh ar líonra d'eagraíochtaí seirbhíse poiblí chun tacú le gníomhú i gcoinne coireachta comhshaoil;
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

### Bainistíocht Dramhaíola agus Ceimiceáin sa Chomhshaol

- Rialacháin dramhaíola a chur i bhfeidhm agus a fhorfheidhmiú lena n-áirítear saincheisteanna forfheidhmithe náisiúnta;
- Staitisticí dramhaíola náisiúnta a ullmhú agus a fhoilsiú chomh maith leis an bPlean Náisiúnta um Bainistíocht

Dramhaíola Guaisí;

- An Clár Náisiúnta um Chosc Dramhaíola a fhorbairt agus a chur i bhfeidhm;
- Reachtaíocht ar rialú ceimiceán sa timpeallacht a chur i bhfeidhm agus tuairisciú ar an reachtaíocht sin.

### Bainistíocht Uisce

- Plé le struchtúir náisiúnta agus réigiúnacha rialachais agus oibriúcháin chun an Chreat-treoir Uisce a chur i bhfeidhm;
- Monatóireacht, measúnú agus tuairisciú a dhéanamh ar chaighdeán aibhneacha, lochanna, uisce idirchreasa agus cósta, uisce snámha agus screamhuisce chomh maith le tomhas ar leibhéal uisce agus sreabhadh abhann.

### Eolaíocht Aeráide & Athrú Aeráide

- Fardáil agus réamh-mheastacháin a fhoilsiú um astaíochtaí gás ceaptha teasa na hÉireann;
- Rúnaíocht a chur ar fáil don Chomhairle Chomhairleach ar Athrú Aeráide agus tacaíocht a thabhairt don Idirphlé Náisiúnta ar Ghníomhú ar son na hAeráide;
- Tacú le gníomhaíochtaí forbartha Náisiúnta, AE agus NA um Eolaíocht agus Beartas Aeráide.

### Monatóireacht & Measúnú ar an gComhshaol

- Córais náisiúnta um monatóireacht an chomhshaoil a cheapadh agus a chur i bhfeidhm: teicneolaíocht, bainistíocht sonraí, anailís agus réamhaisnéisiú;
- Tuairiscí ar Staid Thimpeallacht na hÉireann agus ar Tháscairí a chur ar fáil;
- Monatóireacht a dhéanamh ar chaighdeán an aeir agus Treoir an AE i leith Aeir Ghlain don Eoraip a chur i bhfeidhm chomh maith leis an gCoinbhinsiún ar Aerthruaillíú Fadraoin Trasteorann, agus an Treoir i leith na Teorann Náisiúnta Astaíochtaí;
- Maoirseacht a dhéanamh ar chur i bhfeidhm na Treorach i leith Torainn Timpeallachta;
- Measúnú a dhéanamh ar thionchar pleananna agus clár beartaithe ar chomhshaol na hÉireann.
- Taighde agus Forbairt Comhshaoil
- Comhordú a dhéanamh ar ghníomhaíochtaí taighde comhshaoil agus iad a mhaoiniú chun brú a aithint, bonn eolais a chur faoin mbeartas agus réitigh a chur ar fáil;
- Comhoibriú le gníomhaíocht náisiúnta agus AE um taighde comhshaoil.

### Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéal radaíochta agus nochtadh an phobail do radaíocht ianúcháin agus do réimsí leictreamaighnéadacha a mheas;
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha;

- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta;
- Sainseirbhísí um chosaint ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

### Treoir, Ardú Feasachta agus Faisnéis Inrochtana

- Tuairisciú, comhairle agus treoir neamhspleách, fianaise-bhunaithe a chur ar fáil don Rialtas, don tionscal agus don phobal ar ábhair maidir le cosaint comhshaoil agus raideolaíoch;
- An nasc idir sláinte agus folláine, an geilleagar agus timpeallacht ghlan a chur chun cinn;
- Feasacht comhshaoil a chur chun cinn lena n-áirítear tacú le hiompraíocht um éifeachtúlacht acmhainní agus aistriú aeráide;
- Tástáil radóin a chur chun cinn i dtithe agus in ionaid oibre agus feabhsúchán a mholadh áit is gá.

### Comhpháirtíocht agus Líonrú

- Oibriú le gníomhaireachtaí idirnáisiúnta agus náisiúnta, údarais réigiúnacha agus áitiúla, eagraíochtaí neamhrialtais, comhlachtaí ionadaíocha agus ranna rialtais chun cosaint comhshaoil agus raideolaíoch a chur ar fáil, chomh maith le taighde, comhordú agus cinnteoireacht bunaithe ar an eolaíocht.

### Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an GCC á bhainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóir. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inbhuanaitheacht i leith Cúrsaí Comhshaoil
- An Oifig Forfheidhmithe i leith Cúrsaí Comhshaoil
- An Oifig um Fhianaise agus Measúnú
- An Oifig um Chosaint ar Radaíocht agus Monatóireacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tugann coistí comhairleacha cabhair don Ghníomhaireacht agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.



Environmental Protection Agency  
*An Ghníomhaireacht um Chaomhnú Comhshaoil*

### **Headquarters**

**PO Box 3000,  
Johnstown Castle Estate  
County Wexford, Ireland**

**T: +353 53 916 0600**

**F: +353 53 916 0699**

**E: [info@epa.ie](mailto:info@epa.ie)**

**W: [www.epa.ie](http://www.epa.ie)**

**LoCall: 1890 33 55 99**

### **Regional Inspectorate**

McCumiskey House,  
Richview, Clonskeagh Road,  
Dublin 14, Ireland

T: +353 1 268 0100

F: +353 1 268 0199

### **Regional Inspectorate**

Inniscarra, County Cork,  
Ireland

T: +353 21 487 5540

F: +353 21 487 5545

### **Regional Inspectorate**

Seville Lodge, Callan Road,  
Kilkenny, Ireland

T +353 56 779 6700

F +353 56 779 6798

### **Regional Inspectorate**

John Moore Road, Castlebar  
County Mayo, Ireland

T +353 94 904 8400

F +353 94 902 1934

### **Regional Inspectorate**

The Glen, Monaghan, Ireland

T +353 47 77600

F +353 47 84987

### **Regional Offices**

The Civic Centre  
Church St., Athlone  
Co. Westmeath, Ireland  
T +353 906 475722

Room 3, Raheen Conference Centre,  
Pearse House, Pearse Road  
Raheen Business Park, Limerick,  
Ireland  
T +353 61 224764



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