



5. STRATEGIC ENVIRONMENTAL OBJECTIVES

The SEA Directive states that an SEA should also look at *'the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.'* The identification of environmental protection objectives relevant to a plan provide a basis for evaluating the significance of impacts during the SEA process. All environmental protection objectives relevant to the Strategy have been identified.

Strategic Environmental Objectives (SEOs) are methodological measures which facilitate the development of targets against which the environmental effects of the Draft Strategy can be tested. SEOs are based on wider environmental protection objectives on local, regional, national, European and international level that are relevant to the Draft Strategy. They are high-level in nature and set strategic goals for environmental protection and improvement.

In this section, SEOs were defined for a range of environmental components. These SEOs can be used as standards against which the environmental effects of the implementation of the Draft Strategy can be measured and evaluated. The developed of these objectives assisted with ensuring that the SEA focused only on those environmental issues that are most relevant and significant to the Draft Strategy and the Study Area.

The development of SEOs was appropriately informed by the SEA Scoping stage of the SEA process, and the SEA consultation undertaken.

All SEOs applicable to the Draft Strategy are presented in Table 5-1.

Table 5-1: Strategic Environmental Objectives

Environmental Component	SEO Code	Strategic Environmental Objective
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within Cork City.
Population & Human Health	PHH1	Avoid or minimise impacts to population and human health.
	PHH2	Ensure Electric Vehicle infrastructure avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.
Biodiversity, Flora & Fauna	B1	Ensure supported development does not conflict with biodiversity protection, restoration and rehabilitation.
	B2	Ensure compliance with all legislation underpinning biodiversity and nature conservation in Ireland, including the Wildlife Acts 1976 to 2023.
	B3	Avoid impacts on features of the landscape which - by virtue of their linear and continuous structure or their function as 'stepping stones' (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features, or other sustaining resources at important sites, including locally important sites.
	B5	No net contribution to biodiversity losses or deterioration in response to the biodiversity emergency.



Environmental Component	SEO Code	Strategic Environmental Objective
Landscape & Visual Amenity	L1	Avoid impacts on valued natural, cultural and built landscape, townscape, seascape and visual amenity.
Cultural Heritage - Archaeological & Architectural	CH1	Avoid impacts upon or conflicts with archaeological heritage (including entries to the RMP), architectural heritage (including entries to the RPS and NIAHs), cultural heritage and the historic environment generally.
Land Use	LU1	Avoid or minimise effects on existing land use.
	LU2	Avoid conflict with potential future land use, having regard to the Cork City Development Plan 2022 - 2028 and other relevant land use policy.
Air Quality and Noise	AQN1	Support compliance with Ambient Air Quality Standards, especially in the context of the urbanised, densely populated and well trafficked environment of Cork City centre.
	AQN2	Reduce the impact of Internal Combustion Engine based vehicles on ambient air quality in Cork City.
	AQN3	Avoid the occurrence of noise and dust nuisance during Electric Vehicle Charging Infrastructure development works.
Material Assets	MA1	Improve the level of Electric Vehicle Charging Infrastructure in Cork City.
	MA2	Support the transition to zero or low carbon Electric Vehicles in Cork City.
	MA3	Avoid impacts on the electricity grid. Deliver Electric Vehicle Infrastructure in harmony with grid infrastructure improvements.
	MA4	Avoid or minimise effects on current and planned transport infrastructure and traffic conditions.
	MA5	Avoid or minimise effects upon existing and (where known) planned water and gas infrastructure.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.
Climate Change	CF1	Support in the achievement of the national target of a 50% reduction in transport Greenhouse Gas emissions by 2030.
	CF2	Support reducing Cork City Council organisational Greenhouse Gas emissions by 51% in accordance with requirements of the Cork City Local Authority Climate Action Plan and the Public Sector Mandate defined in the national Climate Action Plan.
	CF3	Support in the delivery of Cork City Decarbonisation Zone objectives.



6. DESCRIPTION AND EVALUATION OF STRATEGY ALTERNATIVES

6.1 Introduction

Article 5(1) of the SEA Directive states that: *'Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'*

The SEA Directive requires that reasonable alternative means of achieving the strategic goals of the Draft Strategy (taking into account the objectives and the geographical scope of a plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Such reasonable alternatives must be realistic and capable of implementation.

This section of the Draft SEA Environmental Report examined reasonable alternatives to CCC's Strategy and systematically evaluated the likely significant effects of these alternatives.

Reasonable alternatives to the Draft Strategy were initially explored and examined during the SEA Scoping stage of the SEA process, having regard to the scope, function and strategic aims and main objectives of the Strategy. This process facilitated the accurate identification of reasonable alternatives to the Draft Strategy and also suitably informed the Draft Strategy development process, ensuring optimal environmental outcomes.

The reason for considering identified reasonable alternatives within the scope of the environmental assessment is clearly described and documented. A description of how the assessment of alternatives was carried out was provided.

Reasonable alternatives are assessed against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the Strategy. The purpose of this is to determine if the reasonable alternative resulted in positive, negative, neutral or uncertain environmental outcomes. This assessment process can result in mixed-effects outcomes.

The description and evaluation of reasonable alternatives in this report was undertaken in accordance with guidelines defined in the following two guidance document primarily:

1. Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment, DEHLG 2004.
2. Developing and Assessing Alternatives in Strategic Environmental Assessment, EPA 2015.

6.2 Goal of the Reasonable Alternative Evaluation Process in SEA

The underpinning goal of the reasonable alternative evaluation process is to ensure that the selection of preferred alternatives by the Local Authority is informed by environmental considerations including:

- Which alternative best promotes and facilitates the use of EVs as an alternative form of sustainable transport, and therefore best contributes to reducing the use of ICE-based vehicles and associated emissions, to reducing transport sector GHG emission reductions overall, and protecting/improving local air quality conditions.
- Which alternative best supports with the objectives of inter-related plans and policy, including their environmental protection objectives.



- Which alternative gives rise to the least potential adverse environmental effects.

6.3 Approach to Developing Reasonable Alternatives

A range of alternatives to the Draft Strategy were considered during the Draft Strategy development process. The approach for identifying reasonable alternatives to the Draft Strategy is defined below:

1. Iterative communication was held between the Draft Strategy development and environmental assessment teams to identify the various alternative approaches and options being considered to achieve the vision of the Draft Strategy - the delivery of publicly accessible electric vehicle charging infrastructure to allow for the targeted uptake in electric vehicles in Cork City. This communication commenced early on during the Strategy development process.
2. Reasonable alternatives considered were identified. For an alternative to be considered reasonable, it must be practical/functional, realistic and implementable. An evaluation of whether each alternative was practical/functional, reasonable and implementable took place. This evaluation considered the following factors:
 - 2.1. The vision and high-level objectives of the Draft Strategy.
 - 2.2. The geographic scope of the Draft Strategy.
 - 2.3. The actual powers and functions of the Local Authority.
 - 2.4. The climate action merits of the alternative.
 - 2.5. The genuine ability of the alternative to effectively achieve the vision of the Draft Strategy.
 - 2.6. The technical feasibility of the alternative.
 - 2.7. The availability of resources, including financial resources to deliver the Draft Strategy within the required timeframe.
 - 2.8. The policy hierarchy and the parameters placed around the Draft Strategy by higher-level policy.
 - 2.9. The legislative context and the parameters placed around the Draft Strategy by alternative fuel, planning and environmental legislation.

The toolkit contained in the EPA's guidelines entitled '*Developing and Assessing Alternatives in Strategic Environmental Assessment Good Practice Guidance*' (2015) was utilised when identifying reasonable alternatives. The 'Why? What? Where? When?' Model defined in the guidelines were used when framing reasonable alternatives, as shown in Figure 6-1.

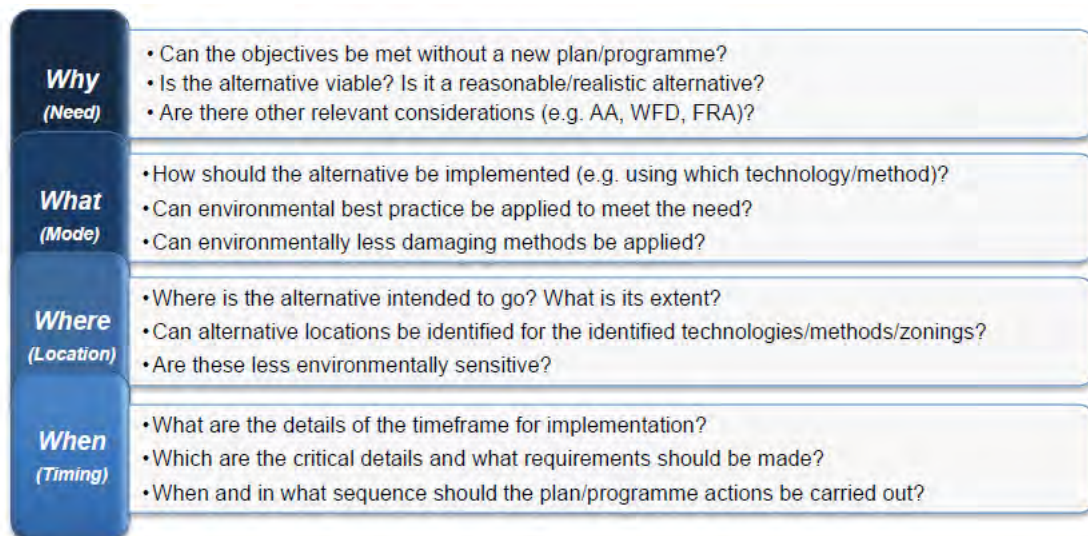


Figure 6-1: 'Why? What? Where? When?' Model for framing alternatives - Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

6.4 Identification, Description and Evaluation of Reasonable Alternatives

A range of reasonable alternatives to the Strategy were identified considering the Why? What? Where? And When? model. These are described under the following headings:

- Is it preferable to progress the expansion of the EV Charging Network in Cork City through the Cork City Development Plan 2022 - 2028 or through a dedicated EV Charging Strategy?
- Reasonable Alternatives for the Spatial Distribution of the EV Charging Network in Cork City
- Reasonable Alternatives for the EV Charging Strategy Delivery Timeframe.

6.4.1 Is it preferable to progress the expansion of the EV Charging Network in Cork City through the Cork City Development Plan 2022 - 2028 or through a dedicated EV Charging Strategy?

Prior to deciding to proceed with the development of the Draft Strategy, CCC considered reasonable alternative approaches toward planning for the delivery of an expanded EV charging network in Cork City. Two Reasonable Alternative approaches were considered:

1. Progressing the expansion of the EV charging network through the Cork City Development Plan 2022 - 2028.
2. Progressing the expansion of the EV charging network through a dedicated EV Charging Strategy for the Cork City functional area.

Environmental criteria were considered when determining the preferred reasonable alternative approach. It was determined that developing and adopting a dedicated, bespoke EV Charging Strategy was preferred over using the CDP to deliver the expansion of the EV charging network given that a dedicated Strategy would provide a greater degree of focus and specificity in relation to the development of EV charging infrastructure in Cork City. This would result in a more appropriately focussed, detailed and extensive Strategy and a more concentrated effort for delivery.



This approach was predicted to be more likely to result in the development of a suitable EV charging network in Cork City, and, as a result, will better support the uptake in EVs, a reduction in the use of ICE-based vehicles and associated emissions, and a reduction in transport sector GHG emissions overall in Cork City. This approach is more likely to maximise potential positive environmental effects on material assets, climate, air quality and population and human health associated with the delivery of an expanded EV charging network in Cork City.

6.4.2 Reasonable Alternatives for the Spatial Distribution of the EV Charging Network in Cork City

CCC needed to consider the spatial distribution of EV charge points during the development. A number of Reasonable Alternative approaches for the Spatial Distribution of the EV Charging Network in Cork City were considered during the Draft Strategy development process. The following reasonable alternative approaches were identified:

1. Evenly distributing EV charging points throughout the city to accommodate widespread access.
2. Distributing EV charging points based on population density.
3. Distributing EV charging points based on a combination of population density, land use and likely demand.

It was determined that distributing EV charging points based on population density, land use and likely demand was the preferred alternative. It was decided that EV charging points should be concentrated in built up areas and close to areas in Cork City where residents have restricted access to off-street private car parking and less potential for at-home EV charging. This approach is predicted to maximise public access to and use of EV charging points and will better facilitate the uptake in EVs in Cork City and the range of potential positive environmental effects that may occur due to this - on material assets, the climate environment, local air quality and population and human health.

This preferred reasonable alternative aligns with compact growth aspirations defined under the National Planning Framework and all lower-order land use plans. It supports the possible delivery of multi-modal interchanges to include, car share schemes, (e)bike hire, and other community services, and aligns with the vision of the Cork Metropolitan Transport Strategy 2040 to delivery an integrated and sustainable transport network in the Cork Metropolitan Area.

A number of reasonable alternative spatial distribution strategies were considered by the Strategy development team. These are presented below:

- Scenario 1: Normal Speed Chargers within a 72 metre walk (approximately a one minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure within a 360 metre walk (approximately a five minute walk) of those living in homes without access to private off-street parking and within a 720 metre walk (approximately a 10 minute walk) of those living in homes with driveways.
- Scenario 2: Normal Speed Chargers within a 144 metre walk (less than a two minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure within a 360 metre walk (approximately a five minute walk) of those living in homes without access to private off-street parking and within a 720 metre walk (approximately a 10 minute walk) of those living in homes with driveways.
- Scenario 3: Normal Speed Chargers within a 216 metre walk (less than a three minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure within a 360 metre walk (approximately a five minute walk) of those living in homes without access to private off-street parking and within a 720 metre walk (approximately a 10 minute walk) of those living in homes with driveways.



- Scenario 4: Normal Speed Chargers and Fast Charging infrastructure co-located within a 360 metre walk (approximately a five minute walk) of those living in homes without access to private off-street parking and within a 720 metre walk (approximately a 10 minute walk) of those living in homes with driveways.
- Scenario 5: Normal Speed Chargers within a 144 metre walk (less than a two minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure provided within an 800 metre walk (approximately a 10 minute walk) of those living in homes both with and without access to private off street parking.
- Scenario 6: Normal Speed Chargers within a 216 metre walk (less than a three minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure provided within a 720 metre walk (approximately a 10 minute walk) of those living in homes both with and without access to private off street parking.
- Scenario 7: Normal Speed Chargers within a 144 metre walk (less than a two minute walk) of those living in homes without access to a driveway or private off-street parking; Fast Charging infrastructure within a 720 metre walk (approximately a 10 minute walk) of those living in homes without access to private off-street parking and within a 1080 metre walk (approximately a 15 minute walk) of those living in homes with driveways.

Scenario 2 was determined to be the preferred Reasonable Alternative spatial distribution approach. The provision of EV charging infrastructure in Ireland is guided by the Electric Vehicle Charging Infrastructure Strategy 2022-2025. Scenario 2 best aligns with potential EV charging requirements analysed and identified in this higher-order national strategy. This preferred alternative best support the goal of the national strategy to ensure the provision of EV charging infrastructure remains greater than the level of demand for charging.

The adoption of Scenario 1 is likely to lead to overdevelopment and an overconcentration of EV charging points in Cork City. Such overdevelopment could potentially result in maladaptation and the occurrence of negative environmental effects on environmental components such as material assets (electricity supply capacity), traffic and transport (in built up areas), or cultural heritage (archaeology or architectural heritage) in the historic core of Cork City.

The adoption of any one of Scenarios 3 to 7 is less likely to result in the development of an adequate supply of EV charging points in Cork City. This is likely to affect the uptake of EV in the city and minimise the potential positive effects that could be realised due to the implementation of the Strategy.

It is predicted that Scenario 2 will better accommodate universal access to EV charging infrastructure, an uptake in EVs in Cork City, and the realisation and maximisation of potential positive environmental effects associated with Draft Strategy implementation - on material assets, the climate environment, local air quality and population and human health.

6.4.3 Reasonable Alternatives for the EV Charging Strategy Delivery Timeframe

A number of Reasonable Alternative approaches for the EV Charging Strategy Delivery Timeframe were considered during the Draft Strategy development process. The following reasonable alternative approaches were identified:

1. Even delivery of EV charging infrastructure across the timeframe of the Draft Strategy.
2. Phased delivery of EV charging infrastructure in a manner that promotes and is commensurate with EV vehicle uptake.



It was determined by CCC that the even delivery of EV charging infrastructure in Cork City would not be in alignment with predicted levels of EV uptake defined in Electric Vehicle Charging Infrastructure Strategy 2022-2025. It is predicted that there will be a modest uptake of EVs up to 2025, and an increase in uptake between 2025 and 2030. CCC have therefore determined to sequence delivery of EV charging infrastructure across two delivery phases, 2023 - 2025 and 2025 - 2030. During the first wave of delivery, CCC will deliver a modest level of EV charging infrastructure in alignment with predicted levels of EV use and will focus more on delivering 'Fast' Community Charge Points - to allow for a greater number of people to avail of the new charging infrastructure. During the second wave of delivery, CCC will deliver a high level of EV charging infrastructure in city in alignment with the expected increase of EV use during this time period.

Environmental criteria were considered when determining the preferred reasonable alternative approach. It was determined that appropriately phased delivery of EV charging infrastructure would:

- Better accommodate universal access to EV charging infrastructure and EV uptake in Cork City.
- Maximise the potential positive environmental effects associated with Draft Strategy implementation - on material assets, the climate environment, local air quality and population and human health.
- Minimise the risk of a more initial rapid expansion of the EV charging network in Cork City putting pressure on electricity grid supply capacity. The phased delivery approach facilitates far in advance consultation with ESB Networks on anticipated EV charging projects, envisaged electricity demand (i.e. maximum import capacity requirements) locally and regionally, and necessary upgrades to the electricity network.

6.5 Data Gaps and Technical Limitations relating to the Identification and Evaluating Reasonable Alternatives

There were no data gaps or technical limitations that inhibited the ability of the project team to identify and evaluated reasonable alternative being considered at high level during the Draft Strategy development process.



7. EVALUATION OF THE ENVIRONMENTAL EFFECTS OF DRAFT STRATEGY IMPLEMENTATION

7.1 Introduction

An evaluation of the potential effects of the Draft Strategy on the baseline environment as characterised and described in Section 4 of this report was carried out and is documented in this section of the report. This evaluation was carried out against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the Draft Strategy. These SEOs are documented in Section 5 of this report. The Draft Strategy encompassed preferred Reasonable Alternatives identified in Section 6 of this report.

7.2 Evaluation of the Environmental Effects of Strategy Implementation

A detailed evaluation of the potential effects of the Draft Strategy on the baseline environment was carried out in accordance with the SEA Directive and best practice guidelines. An evaluation matrix was developed to facilitate the evaluation of the Draft Strategy on SEOs relevant to each Environmental Component. An explanation of the approach and methodology for this detailed evaluation and completed evaluation matrices for 17 defined Draft Strategy implementable proposals are contained in Appendix 3 of this report.

An overview of the key environmental effects the Draft Strategy may have on Environmental Components has been presented in Table 7-1. This overview is a summary of the detailed environmental effect analysis presented in Appendix 3.

The following should be noted in relation to the evaluation undertaken:

- The evaluation is strategic and high-level in nature given the strategic nature of the Draft Strategy.
- Environmental effects of the Draft Strategy have been described in accordance with descriptive terminology defined in the Environmental Protection Agency's guidance document entitled 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' (2022).
- The evaluation considers all potential direct, indirect/secondary, cumulative⁶², synergistic⁶³, short, medium and long-term, permanent and temporary, positive and negative environmental effects.
- The evaluation considers inter-relationships and interactions between one environmental component and another which can result in an environmental impact.
- The evaluation considers all potential environmental effects arising from unforeseen abnormal events.
- The evaluation considers potential transboundary effects.
- The potential environmental effects described are the potential effects that could occur in the absence of appropriate environmental mitigation.

⁶² The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

⁶³ The addition of effects to create a total effect greater than the sum of the individual effects so that the nature of the final impact is different to the nature of the individual impact.



- AA Screening concluded that the Draft Strategy is not likely to have any significant effects on European sites, alone or in combination with other plans or projects, however. Consequently, a Stage 2 AA is not required for the Strategy. This conclusion has appropriately informed the environmental effect analysis in accordance with Integrated Biodiversity Assessment principles.

Table 7-1: Overview of the Key Environmental Effects of Draft Strategy Implementation

Key Environmental Effect	Main Relevant Environmental Component/s
The Draft Strategy focuses on the delivery of EV charging infrastructure across the breadth of the local authority functional area. The successful delivery of the Strategy will facilitate increased EV use, improve transport sustainability and lead to slight to significant positive effects on local air quality, and slight positive effects on the climate environment - having regard to the share of GHG emission reductions that can be supported via this proposal relative to national GHG emission reduction targets and requirements.	AQN, CC, PHH
In the absence of appropriate mitigation, increased lighting associated with EV charge points within close proximity to important habitat types may lead to adverse effects on sensitive nocturnal species.	BFF
EV charging stations are overtly modern features. Potential therefore exists for the development of EV charging infrastructure to adversely impact on cultural heritage and archaeology, in particular the setting around archaeological sites, areas of cultural and historic importance, the city's historic core, and architectural heritage sites. Excavations works associated with the development of EV Charging Infrastructure also have the potential to encounter unknown archaeological remains, particularly within the City's historic core.	CH, PHH
The development of charging point infrastructure generally has the potential to influence and change traffic and transport dynamics and street conditions in the city.	MA, PHH
The development of sizeable charging stations at biodiversity sensitive areas may lead to localised adverse impacts on important habitats, flora and fauna - through a reduction in habitat area or disturbance to key species.	BFF
Construction activities associated with the development of charging stations may lead to localised noise and dust nuisance, particularly in the case of the development of the more sizeable fast speed charging station bays, and where the development is occurring in built up areas of the city centre.	LU, PHH
The development of EV charging infrastructure and increased use of charging stations will increase electrical grid electricity demand. This could have a slight to very significant impacts on material assets (electricity grid) in the absence of appropriate mitigation.	MA
The Draft Strategy contains proposals to ensure safe and accessible EV charging infrastructure. This will lead to a positive environmental effect on population and human health.	PHH



7.3 Potential Cumulative Effect of the Strategy in combination with other Plans and Projects

The cumulative effects of a plan are an important consideration in SEA given that a plan may envisage the occurrence of many different developments taking place in parallel with each other in a particular location/geographic area over a particular time period. One benefit of SEA is being able to evaluate the in-combination environmental effects of multiple envisaged projects.

The following types of cumulative effects can occur due to the implementation of the Strategy:

- Intra-plan Cumulative Effects - Individual environmental effects associated with the Strategy interacting and combining to create a larger environmental effect.
- Inter-plan Cumulative Effects - The environment effects of the Strategy and the environmental effects of another plan interacting and combining to create a larger environmental effect.

7.3.1 Intra-plan Cumulative Effects

The evaluation of Strategy intra-plan cumulative effects was embedded into the detailed evaluation of environmental effects presented in Appendix 3. Potential intra-plan cumulative effects are presented below:

- The widespread development of charging stations within Cork City has the potential to generate some degree of cumulative effect (in the absence of appropriate mitigation) on existing street/road operations, cultural heritage, population and human health, and tourism and recreation, particularly where charging station construction projects supported by the Draft Strategy overlap, or where charging stations are constructed or operated in close proximity between each other.
- The proliferation of charging stations in the city may necessitate the development of ancillary electrical infrastructure, including cable routes and connections. The development of ancillary infrastructure will generally increase the level of potential environmental impact associated with charging infrastructure in the city. The widespread development and use of charging stations in the city is likely to lead to an increase in electrical grid capacity demand. The implementation of the Draft Strategy therefore has the potential to result in slight to very significant cumulative effect on material assets (grid infrastructure) - in the absence of appropriate mitigation.
- The widespread development of charging stations in Cork City has the potential to robustly support a shift to the use of a sustainable form of transport. This has the potential to generate a variety of cumulative positive environmental effects.

The potential cumulative environmental effects listed in the second and third bullet points above have the potential to extend beyond the boundary of the local authority functional area.

Draft Strategy proposals that generate positive or negative environmental effects for one environmental component have the potential to indirectly generate positive or negative environmental effects for interrelated environmental components. An assessment of impact inter-relationships and interactions is embedded in the evaluation of environmental effects that was carried out in this report. This ensures that there is adequate coverage of all potential environmental effects associated with the implementation of the proposals. A matrix showing the existence of potential inter-relationships between environmental components was developed and is presented in Table 7-2 to aid in the understanding of these relationships.



Table 7-2: Inter-relationship between Environmental Components

	Population and Human Health	Biodiversity, Flora and Fauna	Landscape, Seascape and Visual Amenity	Cultural Heritage - Archaeology & Architectural	Soils	Land Use	Air Quality and Noise	Water	Material Assets	Tourism & Recreation	Climate Change
Population and Human Health											
Biodiversity, Flora and Fauna											
Landscape, Seascape and Visual Amenity											
Cultural Heritage - Archaeology & Architectural											
Soils											
Land Use											
Air Quality and Noise											
Water											
Material Assets											
Tourism & Recreation											
Climate Change											

Note: Green highlighting indicates a potential interrelationship/interaction



7.3.2 Inter-plan Cumulative Effects

Other plans and programmes that the Strategy has a relationship with are identified under Section 2.4 of this report. It should be noted that all other plans and programmes have been or will be subject to environmental assessment for the purpose of preventing and mitigating potential negative environmental effects, where required. Potential inter-plan cumulative effects are presented below:

- The Draft Strategy provides proposals which support the delivery of the development of EV charging infrastructure which could contribute - if incorrectly managed - to cumulative impacts (in the absence of mitigation) through construction related environmental effects (dust, noise etc.) in combination with development (e.g. active travel or mobility hub development) supported by other plans, including higher order plans (e.g., the Cork City Development Plan, Local Area Plans, the Local Authority Climate Action Plan).
- The widespread development of charging stations within Cork City has the potential to generate some degree of cumulative effect on existing street/ road operations, cultural heritage, population and human health, and tourism and recreation, particularly where charging station development projects in the city overlap between each other and with other sustainable transport or active travel related projects supported by other plans, such as the Cork City Development Plan or the Cork City Local Authority Climate Action Plan.
- The expansion of the EV charging network in Cork City in tandem with the carrying out development supported by the Cork City Development Plan may cumulatively effect material assets (electricity grid) when considered in-combination - in the absence of appropriate mitigation.
- The widespread development of charging stations in Cork City - in tandem with sustainable transport and active travel projects supported in the CDP or the Cork Metropolitan Area Transport Strategy 2040 - has the potential to robustly support a shift to the use of a sustainable form of transport. This has the potential to generate a variety of cumulative positive environmental effects.

The potential cumulative environmental effects listed in the third and fourth bullet points above have the potential to extend beyond the boundary of the local authority functional area.



8. MITIGATION MEASURES

Potential negative environmental effects that may occur as a result of the implementation of the Draft Strategy (without considering any mitigation) have been identified in Section 7 of this report. The SEA Directive requires that mitigation measures to prevent, reduce and as fully as possible offset any potential significant negative environmental effects due to the implementation of a plan are defined. This section of the report describes the mitigation measures to ameliorate the potential negative environmental effects that may occur as a result of the implementation of the Draft Strategy.

In this case, the following forms of mitigation have been adopted to ameliorate the negative environments of the Strategy and maximise potential positive effects of the Strategy:

- Mitigation through consideration of alternatives.
- Mitigation through integration of environmental considerations into the Strategy.
- Mitigation through consideration of development management standards/environmental protection objectives contained in the CDP.

8.1 Mitigation through consideration of alternatives

A number of reasonable alternatives were considered at an early stage in the process. The environmental effects of these alternatives were evaluated during the SEA process. The following preferred Reasonable Alternatives were identified.

- Developing and adopting a dedicated, bespoke EV Charging Strategy was preferred over using the CDP to deliver the expansion of the EV charging network
- Distributing EV charging points based on population density, land use and likely demand was the preferred alternative over evenly distributing EV charging points.
- Spatial distribution Scenario 2 was the preferred Reasonable Alternative approach for the spatial distribution strategy.
- Phased delivery of EV charging infrastructure in a manner that promotes and is commensurate with EV vehicle uptake was preferred over even delivery of charging point infrastructure across the Strategy timeframe.

In summary, the Draft Strategy encompassing the preferred Reasonable Alternatives is more likely to maximise potential positive environmental effects on material assets, climate, air quality and population and human health associated with the delivery of an expanded EV charging network in Cork City, minimise the risk of overdevelopment and maladaptation, and minimise the risk of a more initial rapid expansion of the EV charging network in Cork City putting pressure on electricity grid supply capacity.



8.2 Mitigation through integration of environmental considerations into the Strategy

The Draft Strategy development process was carried out in parallel with the SEA process. Regular communication and interaction took place between the environmental assessment team and the Draft Strategy development team. Environmental considerations that came to light during the SEA process, including consultation processes, were regularly communicated to the Draft Strategy development team during the Strategy development process. As necessary, environmental mitigation measures to ameliorate the potential negative environmental effects of implementing the Draft Strategy were developed and then integrated into the Draft Strategy. This process ensured optimal Draft Strategy development and environmental outcomes. Environmental considerations were also integrated into the Draft Strategy so as to facilitate maximising identified positive environmental effects of the Draft Strategy.

Additional text clarifying environmental protection related obligations and environmental enhancement opportunities has been attached to a variety of defined proposals in the Draft Strategy. This text has been shaped to ensure that environmental considerations are appropriately taken into account during Draft Strategy implementation. This text has been shaped to ensure Draft Strategy implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects.

A set of additional environmental mitigation measures were also defined and integrated into a separate section of the Draft Strategy. These additional mitigation measures shall be adopted during the implementation of the Draft Strategy.

These environmental mitigation measures that have been integrated into the Strategy to prevent, reduce and fully offset any potential significant negative environmental effects, and to maximise potential environmental benefits and co-benefits of the Strategy, are presented in Table 8-1 and Table 8-2. For clarity and succinctness, only the Strategy proposals and the associated proposed mitigation measures have been presented in Table 8-1. The reader is asked to refer to Appendix 3.2 - Detailed Evaluation of Environmental Effects of Draft Strategy Implementation, for an understanding of the potential environmental effects associated with each individual proposal which are being mitigated (in the case of negative environmental effects) or maximised (in the case of positive environmental effects).

Due to the inter-relationship between various environmental components, environmental mitigation measures defined for one component can also serve to benefit another environmental component.



Table 8-1: Proposed Environmental Mitigation Measures Related to the Text of the Strategy

Proposal Ref.	Strategy Proposal	Suggested Amendments to the text of the Strategy - to mitigate Potential Adverse Environmental Effects
2	<p>Principle 2: EV charging infrastructure will work for everyone, regardless of age, health, income, or other needs: The Cork City Council’s Electric Vehicle Infrastructure Strategy will require all charge points to be well lit, incorporate sustainable energy generation (where possible) and that a percentage of wheelchair accessible units will be included for within the total stock of infrastructure charging stations. In terms of electricity costs, the strategy will include opportunities for residents to avail of both low cost charging opportunities (i.e. normal speed charging) and fast charging (generally at a higher cost).</p>	<p>Attach the following text to the proposal:</p> <p>Principle 2: EV charging infrastructure will work for everyone, regardless of age, health, income, or other needs: The Cork City Council’s Electric Vehicle Infrastructure Strategy will require all charge points to be well lit,¹ incorporate sustainable energy generation (where possible) and that a percentage of wheelchair accessible units will be included for within the total stock of infrastructure charging stations. In terms of electricity costs, the strategy will include opportunities for residents to avail of both low cost charging opportunities (i.e. normal speed charging) and fast charging (generally at a higher cost).</p> <p>Footnote: 1 - While ensuring lumen levels and spectral range are maintained or reduced/controlled to avoid effects to biodiversity in areas of important habitat types.</p>
4	<p>Principle 4: Options will be provided for those who cannot charge at home: With respect Cork City Council’s Electric Vehicle Infrastructure Strategy there will be a focus on providing normal speed charge points (generally low cost and the closest public available equivalent to home charging) close to areas of the city where residents have restricted access to off-street private car parking. However, the strategy will also provide for fast charging infrastructure to allow for greater flexibility in charging options in the city for all electric vehicle users. The provision of residential community charging stations will also provide for the following:</p> <ul style="list-style-type: none"> • Business users including light vehicle owners. • Visitors to the city (including EV visitors to homes without a home charger). • Taxis. • Homes with two Electric Vehicles. • Homes where the deployment of a home charger is not possible or overly expensive. • Individual home(s) which do not have access to private off-street parking but are in an area where predominately homes are provided with driveways. • Redundancy should there be technical problems with the home charger. • Support the possible delivery of multi-modal interchanges to include, car share schemes, (e)bike hire, and other community services (i.e. parcel delivery, etc). 	<p>Attach the following text to the proposal:</p> <p>Principle 4: Options will be provided for those who cannot charge at home: With respect Cork City Council’s Electric Vehicle Infrastructure Strategy there will be a focus on providing normal speed charge points (generally low cost and the closest public available equivalent to home charging) close to areas of the city where residents have restricted access to off-street private car parking. However, the strategy will also provide for fast charging infrastructure to allow for greater flexibility in charging options in the city for all electric vehicle users. The provision of residential community charging stations will also provide for the following:</p> <ul style="list-style-type: none"> • Business users including light vehicle owners. • Visitors to the city (including EV visitors to homes without a home charger). • Taxis. • Homes with two Electric Vehicles. • Homes where the deployment of a home charger is not possible or overly expensive. • Individual home(s) which do not have access to private off-street parking but are in an area where predominately homes are provided with driveways. • Redundancy should there be technical problems with the home charger. • Support the possible delivery of multi-modal interchanges to include, car share schemes, (e)bike hire, and other community services (i.e. parcel delivery, etc). <p>Due regard shall be had to architectural and cultural heritage assets in the city when siting the EV charging stations.</p>



Proposal Ref.	Strategy Proposal	Suggested Amendments to the text of the Strategy - to mitigate Potential Adverse Environmental Effects
10	<p>Phased Deployment of Fast Charging infrastructure within a 360 metre walk (approximately a five minute walk) of those living in homes without access to private off-street parking and within a 720 metre walk (approximately a 10 minute walk) of those living in homes with driveways.</p> <p>Key Siting principles have been defined for Fast Charging Stations. These are as follows:</p> <ul style="list-style-type: none"> • The hierarchy of provision of Fast Charging Infrastructure will be as follows: 1) Publicly managed car parks, 2) Publicly controlled lands, 3) Private retail car parks, 4) Community car parks (i.e. sports grounds, church grounds, etc..). • It is preferable that the Fast Charging Infrastructure is provided within a separate parking area segregated from the neighbouring road/street, but with ease of access to the primary road/street network. • The Fast Charging stations should also allow for Normal Speed Charging. • The design of the Fast Charging Stations should facilitate Access for All to include those who are disabled and/or mobility impaired. • At Fast Charging Stations any existing parking regulations (i.e. parking disc zone, residential parking permits) will be replaced with universal access to all Electric Vehicles. (Non-electric vehicles may be liable to parking fines and/ or temporary removal). The duration of stay of such electric vehicles will be managed by the charge point operator which will likely include time limiting access to the charging infrastructure to ensure the facilities have good turn over and can be used by wider part of the population. <p>An Indicative number and location of Fast Charging Stations have been defined. There is likely to be changes to final number and location of charging stations taking into account local requirements including access (and upgrades) to the existing ESB network and other street side activities (waste collection, local access etc..).</p>	<p>Add the following Key Siting Principle for Fast Speed Charging Stations to the Strategy:</p> <p>Ensure the deployment of fast speed charging stations at appropriate locations while having due regard to environmental sensitives such as cultural heritage and archaeology, traffic and transport conditions, people and businesses, and material assets.</p>
11	<p>Phased Deployment of Normal Speed Chargers within a 144 metre walk (less than a two minute walk) of those living in homes without access to a driveway or private off-street parking.</p> <p>Key Siting principles have been defined for Normal Speed chargers have been defined. These are as follows:</p> <ul style="list-style-type: none"> • Normal speed residential neighbourhood charging infrastructure should where possible replace existing on-street parking spaces. • It is preferable to place normal speed residential charging infrastructure on side streets and not on roads/ streets which have been designated key bus routes or cycle routes. Should it be necessary to place charging infrastructure on bus routes, there needs to be sufficient buffer to ensure the charging cables to not impact on either the safe movement of pedestrians/ cyclists or vehicles. 	<p>Add the following Key Siting Principle for Normal Speed Charging Stations to the Strategy:</p> <p>Ensure the deployment of normal speed charging stations at appropriate locations while having due regard to environmental sensitives such as cultural heritage and archaeology, traffic and transport conditions, people and businesses, and material assets.</p>



Proposal Ref.	Strategy Proposal	Suggested Amendments to the text of the Strategy - to mitigate Potential Adverse Environmental Effects
	<ul style="list-style-type: none"> At Normal Speed Charging Stations existing parking regulations (i.e. parking disc zone, residential parking permit) will remain in place, ensuring that such chargers are reserved primarily for those actively charging from the local community who do not have access to a driveway or private off-street parking space. At a minimum each disk parking zone will be provided with one Normal Speed Charging Station. Access to normal speed charging stations will be actively managed by the operator to ensure the facilities are not monopolised by one or two users and that there is fair access to the wider residential community in terms of their use. Such fair access may include, the requirement to book a charging session (i.e. morning, afternoon, evening, night, etc..), limiting access to an individual charge point to every second, third, etc.. day. Charging Stations are proposed in estates where the roads have been taken in charge by the Local Authority. In the other estates, the development management company will need to provide the charging infrastructure, ZEVI currently have grants to facilitate such investment by private property management companies. Normal speed charging stations will not be provided on any privately owned (or leased) parking spaces in estates which have been taken in charge. <p>An Indicative number and location of Normal Speed Chargers have been defined.</p>	
17	<p>Adopt and progress an Implementation Plan for the EV Charging Strategy. This Implementation Plan involves the following:</p> <ul style="list-style-type: none"> Cork City Council would obtain any required planning permission for the proposed electric vehicle charging infrastructure stations in Cork. The current strategy includes the delivery of 13 new fast charging stations and 44 normal speed charging stations in the community up to Year 2025. Cork City Council will manage the design and construction of the proposed electric vehicle charging infrastructure stations including any requirements to upgrade the electrical power network to supply the EV stations. This design work will require external consultants and resources/ funding will need to be sourced to ensure the timely delivery of this infrastructure. Cork City Council are likely to tender a number of concessions (5 years) to Charge Point Operators for the supply, operation and maintenance of the electric vehicle charging infrastructure in Cork. The current vision is to create three electric vehicle charging infrastructure bundles to provide competition in the marketplace. The bundles include both fast charging and normal charging infrastructure. 	<p>Attach the following text to the proposal:</p> <ul style="list-style-type: none"> Cork City Council would obtain any required planning permission for the proposed electric vehicle charging infrastructure stations in Cork. All EV charging stations will be subject to the necessary environmental assessment during development planning in accordance with the land use framework defined in the Cork City Development Plan. The current strategy includes the delivery of 13 new fast charging stations and 44 normal speed charging stations in the community up to Year 2025. Cork City Council are likely to tender a number of concessions (5 years) to Charge Point Operators for the supply, operation and maintenance of the electric vehicle charging infrastructure in Cork. The current vision is to create three electric vehicle charging infrastructure bundles to provide competition in the marketplace. The bundles include both fast charging and normal charging infrastructure. Cork City Council will seek to source providers that can carry out the relevant works and services in an environmentally sustainable manner - in accordance with public sector green public procurement requirements.



Table 8-2: Environmental Mitigation Measure to be adopted during Strategy Implementation - to be included as a separate section in the Strategy

Environmental Mitigation Measures	Relevant Environmental Components	Proposals to which Environmental Mitigation applies
Any developments resulting from the implementation of the Strategy which would be likely to have a significant negative effect on amenity or population and human health in the Strategy area through dust, noise or traffic impacts shall be mitigated in order to eliminate significant negative impacts or reduce them to relevant limit levels.	PHH	4, 10, 11, 14, 15, 17
Any developments arising from the implementation of the Strategy shall be subject to the relevant environmental assessments, as required (i.e. Environmental Impact Assessment, Environmental Impact Assessment Screening, Appropriate Assessment).	All Environmental Components	2, 4, 6, 7, 10, 11, 14, 15, 17
When designing and planning for the development of an EV Charging Station, appropriate consideration shall be given to how the siting and operation of an EV charging stations may influence the existing traffic dynamics	MA	6, 10, 11, 14, 15, 17
Due regard shall be had to archaeological, cultural, historic and architectural sensitivities, and conservation when siting and designing EV Charging Stations.	CH, L	4, 7, 10, 11, 14, 15, 17
Appropriate archaeological monitoring shall take place where the installation of EV Charging infrastructure involves excavation at locations where unknown archaeology remains may potentially exist (such as within Cork City's historic core).	CH, L	4, 7, 10, 11, 14, 15, 17
Suitable noise and dust mitigation measures shall be implemented during the construction of charging stations so as to prevent the occurrence of nuisance impacts upon people, residences and businesses, particularly where the development is occurring in built up areas of the city centre.	AQN, PHH	4, 10, 11, 14, 15, 17
Consideration of likely noise impacts/effects associated with charging station development projects. This includes being cognisant of proximity to sensitive receptors when siting charging points.	AQN	10, 11, 14, 15, 17
Cork City Council, as a policy, will consult with ESB Networks as soon as practicable upon confirming the location and Maximum Import Capacity required for charging stations proposed under the Strategy.	MA	6, 10, 11, 14, 15, 17
The development of charging infrastructure in the city will be appropriately phased so as to ensure the operation of charging infrastructure in the city does not put pressure on grid capacity or lead to any unintended adverse effect of electricity supply.	MA, PHH	4, 6, 10, 11, 14, 15, 17
A Connection Agreement shall be made with ESB Networks for all proposed charging stations.	MA	6, 10, 11, 14, 15, 17
Cork City Council will – through appropriate advocacy and influence – promote the development of renewable energy generation capacity to serve the needs of Cork City and the EV charging network.	MA	6, 10, 11, 14, 15, 17
Where necessary, Construction Traffic Management Plans shall be prepared for any charging station development that may lead to significant adverse traffic and transport effects during construction.	MA	6, 10, 11, 14, 15, 17
Charging infrastructure development shall not lead to net biodiversity loss.	BFF	2, 7, 10, 11, 14, 15, 17
Aim to avoid siting charging stations (particularly sizeable charging stations) at or near to biodiversity sensitive areas, such as protected sites or important habitats.	BFF	2, 7, 10, 11, 14, 15, 17
Aim to avoid designing and siting charging stations in a manner that may result in land-take affecting important habitat or habitat fragmentation.	BFF	2, 7, 10, 11, 14, 15, 17
Undertake appropriate ecological assessment in cases where supported charging infrastructure development has the potential to impact on sensitive ecological receptors. Ensure the adoption of appropriate ecological mitigation where necessary.	BFF	2, 7, 10, 11, 14, 15, 17



Environmental Mitigation Measures	Relevant Environmental Components	Proposals to which Environmental Mitigation applies
Promote the incorporation of nature-based solutions and biodiversity enhancement, including the use of appropriate native landscaping of local provenance, into charging point development projects, where practicable.	BFF	2, 7, 10, 11, 14, 15, 17
Ensure the development of charging point infrastructure aligns with Compact Growth principles defined in the National Planning Framework. As a preference, aim to locate charging stations at brownfield areas that have a good infrastructural baseline and which are in close proximity to suitable grid connection locations.	BFF, CC, PHH, MA	2, 4, 7, 10, 11, 14, 15, 17
Ensure potential cumulative environmental effects are appropriately considered - where charging stations development projects overlap between one another or with other active travel projects, or where such development projects intersect and/or are within close proximity to one another.	All Environmental Components	2, 4, 6, 7, 10, 11, 14, 15, 17

Key: PHH - Population & Human Health. BFF - Biodiversity, Flora & Fauna. L - Landscape, Seascape & Visual Amenity. CH - Cultural Heritage - Archaeological & Architectural. S - Soils. LU - Land Use. AQN - Air Quality and Noise. W - Water. MA - Material Assets. TR - Tourism & Recreation. CC - Climate Change.



8.3 Mitigation through consideration of environmental protection objectives contained in the City Development Plan

In addition to the environmental mitigation measures integrated into the Draft Strategy, the development management standards and environmental protection measures defined in the CDP will serve to mitigate the environmental effects of any development proposals supported by the Draft Strategy. These development management standards/environmental protection measures have been defined for the express purpose of ensuring proper planning and sustainable development in the City. The CDP has been subject to its own SEA and AA. The Draft Strategy has been prepared having appropriate regard to the policies and objectives contained in the City Development Plan.

8.4 Conclusion

The reasonable alternative evaluation presented in Section 6 and summarised in Section 8.1 has resulted in the development of a Draft Strategy that achieves the best environmental outcomes in comparison to other reasonable alternatives considered.

The adoption of the mitigation measures to be integrated into the Draft Strategy, in combination with the continued adoption of the development planning and control related environmental protection measures defined in the CDP will prevent, reduce and as fully as possible offset any potential negative environmental effects due to the implementation of the Draft Strategy. No further mitigation measures are required for the Draft Strategy.



9. POST-DRAFT STRATEGY CONSULTATION MODIFICATIONS

This document is the draft version of SEA Environmental Report which will be updated to a final version having regard to the consultation submissions made during the SEA consultation period, recommendations made in the Council's report on consultation submissions, and the modifications made to the original draft version of the Strategy that will be put on display for consultation.

The Strategy modifications arising from the consultation process and the post consultation Strategy development process will be screened for SEA and AA.

An SEA Statement will then be prepared on how the SEA process shaped the content of the final Strategy and SEA documentation.



10. MONITORING MEASURES

The SEA Directive requires that the environmental effects of the implementation of a plan are monitored in order *'to identify at an early stage unforeseen effects, and to be able to undertake appropriate remedial action.'*

A series of indicators and targets were established for identified SEOs to enable ongoing monitoring and measurement of Strategy implementation performance, the environmental effects of the implementation of the Strategy and the efficacy of environmental mitigation measures. Such monitoring will be carried out regularly to support Strategy implementation.

SEO indicators are simple and effective quantifiable indicators used to measure the environmental effects of implementing the Strategy and the progress of SEO objectives and targets. SEO targets set focussed, measurable aims and thresholds that the Strategy can support the achievement of.

Cork City Council are responsible for implementation of the SEA monitoring programme. The environmental effects (including positive, negative and cumulative effects) of Strategy implementation will be monitored once every year over the course of the Strategy's lifetime. This monitoring will be carried out by Cork City Council who will report on progress and performance to the relevant Strategic Policy Committees (SPCs) annually. A stand-alone monitoring report on the significant environmental effects of the implementation of the Draft Strategy will be produced annually. The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of remedial action.

Many defined SEOs for environmental protection generally are deliberately synergetic with SEOs defined in the Cork City Development Plan or Cork City Local Authority Climate Action Plan to avoid duplication of process and effort. SEOs have been designed to monitor the specific environmental effects that are likely to occur due to the specific Draft Strategy proposals. Water and Soil SEOs have not been defined as it is not predicted the Draft Strategy will have a likely significant effect on the water or soils environment.

It is recommended that Draft Strategy monitoring and review is undertaken in parallel with CDP monitoring and review processes for efficiency and given that similar data sets will be used to measure the progress of the Strategy.

Where monitoring identifies that the implementation of the Draft Strategy is having a significant negative environmental effect, an in-depth review of the Strategy should take place and the Strategy should be updated in a manner that satisfactorily mitigates these environmental effects (i.e., through the adoption of additional environmental mitigation measures). Similarly, where monitoring indicates that potential positive environmental effects associated with Strategy implementation are not being adequately realised, the Strategy should be reviewed and updated in a manner that supports the realisation of all potential positive environmental effects, having regard to the overall vision and high-level objectives of the Draft Strategy.

The SEA Monitoring Programme established for the Draft Strategy is contained in Table 10-1. This monitoring programme has been developed in accordance with EPA guidelines entitled 'Guidance on SEA Statements and Monitoring' (2023). The monitoring programme includes detail on the indicators, targets and data sources used to monitor and measure progress.



Table 10-1: SEA Monitoring Programme

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within Cork City.	Lower-level plan and project accordance with the Strategy.	Require all lower-level plans and projects have appropriate regard to and appropriately support all development proposals defined in the Strategy. Ensure planning policy is aligned.	Review of Local Area Plans. Internal monitoring of likely significant environmental effects of development projects. Review of lower-level plan SEA documentation.
Population & Human Health	PHH1	Avoid or minimise impacts to population and human health.	Number of noise or dust nuisance related complaints during EV charging infrastructure construction works	No noise or dust nuisance related complaints.	Consultation with Construction Managers.
	PHH2	Ensure Electric Vehicle infrastructure avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.	Compliance of EV charging infrastructure supported by the Strategy with policies and land use objectives protective/supportive of economic development in the city defined in the City Development Plan (CDP).	No contravention of policies and land use objectives protective/supportive of economic development in the City defined in the CDP. Planning consent for development supported by the Strategy only to be granted where development will be carried out in accordance with proper planning and sustainable development.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects.
Biodiversity, Flora & Fauna	B1	Ensure supported development does not conflict with biodiversity protection, restoration and rehabilitation.	Compliance of EV charging infrastructure supported by the Strategy with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Compliance of EV charging infrastructure supported by the Strategy with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the Cork City Heritage and Biodiversity Plan.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the Cork City Heritage and Biodiversity Plan. Ensure the development of EV charging infrastructure does not result in significant adverse effects on important habitats.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the City Heritage and Biodiversity Plan. Internal monitoring of likely significant environmental effects of development projects.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	B2	Ensure compliance with all legislation underpinning biodiversity and nature conservation in Ireland, including the Wildlife Acts 1976 to 2023.	Instances of significant adverse effect upon protected habitats and species.	No instances of significant adverse effect upon protected habitats and species.	Internal monitoring of likely significant environmental effects of development projects. Consultation with Cork City Council Biodiversity Officer
	B3	Avoid impacts on features of the landscape which - by virtue of their linear and continuous structure or their function as 'stepping stones' (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.	Instances of important habitat fragmentation.	No instances of important habitat fragmentation.	Internal monitoring of likely significant environmental effects of development projects. Consultation with Cork City Council Biodiversity Officer
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features, or other sustaining resources at important sites, including locally important sites.	Condition of semi-natural habitats, species, environmental features or other sustaining resources at important sites, including locally important sites, and, where relevant, important designated sites or sites proposed for designation.	No adverse impacts on condition of semi-natural habitats, species, environmental features or other sustaining resources at important sites, including locally important sites, and, where relevant, important designated sites or sites proposed for designation.	Internal monitoring of likely significant environmental effects of development projects. Consultation with Cork City Council Biodiversity Officer
	B5	No net contribution to biodiversity losses or deterioration in response to the biodiversity emergency.	Compliance of EV charging infrastructure supported by the Strategy with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Compliance of EV charging infrastructure supported by the Strategy with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the Cork City Heritage and Biodiversity Plan.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the City's Biodiversity Action Plan. Ensure the development of EV charging infrastructure does not result in	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the Cork City Heritage and Biodiversity Plan. Internal monitoring of likely significant environmental effects of development projects. Consultation with Cork City Council Biodiversity Officer



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
				significant adverse effects on important habitats resulting in a loss of biodiversity.	
Landscape & Visual Amenity	L1	Avoid impacts on valued natural, cultural and built landscape, townscape, seascape and visual amenity.	Number of developments consented that result in avoidable adverse impacts on natural, cultural and built landscape, townscape, seascape and visual amenity.	No development supported by the Strategy should have an adverse impact on natural, cultural and built landscape, townscape, seascape and visual amenity.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects. Consultation with the Forward Planning section of Cork City Council.
Cultural Heritage - Archaeological & Architectural	CH1	Avoid impacts upon or conflicts with archaeological heritage (including entries to the RMP), architectural heritage (including entries to the RPS and NIAHs), cultural heritage and the historic environment generally.	Number and conservation status of archaeological heritage features, including entries to the RMP. Number and conservation status of architectural heritage features, including entries to the RPS and NIAHs and ACAs. Status of ACAs. Status of unrecorded archaeological heritage features.	No reduction in the number of archaeological heritage features including entries to the RMP. No adverse impact on the conservation status of archaeological heritage features including entries to the RMP. No reduction in the number of architectural heritage features including entries to the RPS and NIAHs and ACAs. No adverse impact on the conservation status of architectural heritage features including entries to the RPS and NIAHs and ACAs. No adverse impact on the special characteristics and distinctive features of ACAs, including the external appearance of such areas or structures.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the Forward Planning section of Cork City Council.
Land Use	LU1	Avoid or minimise effects on existing land use.	Number of instances of significant adverse impacts on existing land use as a result of Strategy implementation.	No instances of significant adverse impacts on existing land use as a result of Strategy implementation.	Internal monitoring of likely significant environmental effects of development projects.
	LU2	Avoid conflict with potential future land use, having regard to the Cork City	Number of instances of conflict with potential future land use.	No instances of conflict with potential future land use.	Internal monitoring of likely significant environmental effects of development projects.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
		Development Plan 2022 - 2028 and other relevant land use policy.			
Air Quality and Noise	AQN1	Support compliance with Ambient Air Quality Standards, especially in the context of the urbanised, densely populated and well trafficked environment of Cork City centre.	Ambient Air Quality in Cork City.	Compliance with Ambient Air Quality Standards.	EPA Air Quality Monitoring Programme. Consultation with the Forward Planning section of Cork City Council.
	AQN2	Reduce the impact of Internal Combustion Engine based vehicles on ambient air quality in Cork City.	Ambient Air Quality in Cork City.	Reduction in the number of Ambient Air Quality Standard exceedances in Cork City. Improvement of Ambient Air Quality in Cork City.	EPA Air Quality Monitoring Programme. Consultation with the Forward Planning section of Cork City Council.
	AQN3	Avoid the occurrence of noise and dust nuisance during Electric Vehicle Charging Infrastructure development works.	Number of sensitive receptors exposed to noise or dust nuisance.	No sensitive receptors exposed to nuisance noise in the City area.	Number of noise and dust related complaints associated with development projects supported by the Strategy. Review of internal noise and dust complaint investigations.
Material Assets	MA1	Improve the level of Electric Vehicle Charging Infrastructure in Cork City.	Number of EV charging points in Cork City	Increase the number of EV charging points in Cork City	Strategy Monitoring Reports
	MA2	Support the transition to zero or low carbon Electric Vehicles in Cork City.	Percentage of EVs that make up all private vehicles in Cork City.	Increase the percentage of EVs that make up all private vehicles in Cork City.	CSO Transport Omnibus Statistics for Cork City.
	MA3	Avoid impacts on the electricity grid. Deliver Electric Vehicle Infrastructure in harmony with grid infrastructure improvements.	Available Electricity Grid Capacity. New connection application decisions made by ESB Networks	No exceedance of available grid capacity in Cork City. Number of new connection applications refused by ESB networks.	Ongoing consultation with ESB Networks. Review of ESB Networks Availability Capacity Map.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	MA4	Avoid or minimise effects on current and planned transport infrastructure and traffic conditions.	Compliance of EV charging infrastructure supported by the Strategy with traffic and transport policies defined in the CDP. Instances of other current or planned transport infrastructure being adversely affected due to the development of EV charging infrastructure supported by the Strategy. Instances of adverse effects traffic conditions.	No contravention of traffic and transport policies defined in the CDP. No instances of other current or planned transport infrastructure being adversely affected due to the development of EV charging infrastructure supported by the Strategy. No adverse effects traffic conditions.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects. Ongoing liaison with other sections of the local authority with responsibility for carrying out or consenting transport infrastructure projects.
	MA5	Avoid or minimise effects upon existing and (where known) planned water and gas infrastructure.	Instances of existing and (where known) planned water and gas infrastructure being adversely affected due to the development of EV charging infrastructure supported by the Strategy. Number of gas or water main strikes due to the construction of EV charging points or ancillary infrastructure.	No instances of existing and (where known) planned water and gas infrastructure being adversely affected due to the development of EV charging infrastructure supported by the Strategy. No gas or water main strikes due to the construction of EV charging points or ancillary infrastructure.	Internal monitoring of likely significant environmental effects of development projects. Internal monitoring of construction and excavation activities.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.	Number of instances of adverse effects on tourism or recreation features.	No adverse effects on tourism or recreation features.	Internal monitoring of likely significant environmental effects of development projects.
Climate Change	CF1	Support in the achievement of the national target of a 50% reduction in transport Greenhouse Gas emissions by 2030.	Level of Transport sector Greenhouse Gas (GHG) emissions for the local authority functional area.	Reduce Transport sector GHG emissions for the local authority functional area.	EPA National Emission Inventory. Baseline Emission Inventory for the City. Consultation with Cork City Council Climate Action section.
	CF2	Support reducing Cork City Council organisational Greenhouse Gas emissions by 51% in accordance with requirements of the Cork City Local Authority Climate Action Plan and the Public	Cork City Council organisational Greenhouse Gas emissions	Reduce Cork City Council organisational Greenhouse Gas emissions	Cork City Council GHG Monitoring and Reporting data. Consultation with Cork City Council Climate Action section.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
		Sector Mandate defined in the national Climate Action Plan.			
	CF3	Support in the delivery of Cork City Decarbonisation Zone objectives.	Level of GHG emissions in the Decarbonising Zone.	Reduce Decarbonising Zone GHG emissions to Net Zero.	Baseline Emission Inventory for the Decarbonising Zone.