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## 8. ALTERNATIVE DEVELOPMENT SCENARIOS

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### 8.1. Introduction

The development and assessment of alternatives (or options) is a legal requirement under the SEA Directive. Under Article 5 (O.J. 2001) plans and programme proponents should ensure that:

- Reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated (Article 5.1)
- The Environmental Report includes 'an outline of the reasons for selecting the alternatives dealt with' (Annex 1(h))
- A statement is prepared summarising 'the reasons for choosing the plan or programme as adopted, in the light of the reasonable alternatives dealt with' (Article 9.1(b)).

### 8.2. Identification and Development of Alternatives

Alternatives must be reasonable, capable of implementation, and should represent a range of different approaches within the statutory and operational requirements of a plan. However, the position of the LAP within the planning decision making hierarchy (Chapter 3) predetermines the scope of strategic alternatives available. For example, the higher the level of the plan (see Chapter 3), the more strategic are the options which are likely to be available. Conversely, lower tier plans, such as Local Area Plans, will be framed in a policy context set by the level(s) above them and thus strategic options may be limited (DoEHLG, 2004). As the ODPM (2005) SEA guidelines suggest decisions made at higher levels will close off some alternatives, leaving in many instances 'option alternatives' (Noble, 2000) to be developed and assessed.

The lower tier Carlow Town Environs LAP within the decision-making hierarchy of the NDP, NSS, RPG's and CDP's implies that the development of alternatives was limited to a small discrete area and the review of existing zoning within Carlow town environs.

#### 8.2.1. Description of planning scenarios

The range of development alternatives considered were established in an incremental manner from decisions on the extent of the study area to zoning within the study area.

For the SEA of Carlow Town environs LAP, 3 no. development stages were prepared to consider alternatives for study area. The criteria for development decisions were as follows:-

- Objectives set out in higher decision-making context (NSS, RPG for the South Eastern Region)
- Guidelines on Sustainable Rural Housing
- Legal requirements (Planning and Development Act 2000-2006)
- Geographic Scope of the LAP
- Plan objectives (set out in Chapter 3)
- Projected population and housing horizons (Chapter 3)
- Infrastructure needs (Chapter 2 of the Plan)
- Existing environmental issues and resources (Chapter 5)
- Alternatives hierarchy (ODPM, 2005, see below)

*Hierarchy of alternatives*

The alternatives hierarchy (ODPM, 2005) suggests a fourfold schema based on top-level alternatives of need, middle ranking alternatives of process/ how to proceed, and lower level alternatives of location and timing (Table 8.1). Given the position of this LAP at the lower levels of the decision-making hierarchy (Chapter 4), for the purposes of this SEA the most appropriate alternatives are those of process and location.

Need has already been established at higher levels of the CDP and a policy pathway now exists for the LAP, while the timing of actions is more appropriately addressed to lower levels of decision making such as LAP's and projects.

In this context the first step is to determine the mode/process, or how the vision for the study area should be met. That is, what combination of policy initiatives should be adopted to achieve the needs of the plan. Once the type and rough scale of development has been determined, it can then be decided where development should be located, scale and densities are also available for consideration at this level.

**Table 8-1: Alternatives hierarchy**

Need: Is development necessary? Mode or Process: How should it be done? Location: Where should it go? Timing and detail of implementation
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Based on the criteria set out in this section and focusing specifically on mode and location, a decision pathway was prepared on alternatives on how the study area and zoning therein could be best achieved.

These scenarios are discussed in further detail in the following sections.

### 8.2.2. Assessment of scenarios

In this section the decision pathways outlined are evaluated to determine their overall individual impact on the environment. Based on this, it should be possible to compare the alternatives with each other in order to determine a preferred strategy for the study area. In the methodology applied here each of the scenarios are broadly assessed against the main environmental objectives set out in Section 7, i.e. water, biodiversity, cultural heritage, population, soils and geology, material assets and air/ climate. The likely significant impacts are rated according to the scale of impact on the environmental objectives.

**Table 8-2: Environmental criteria for assessing scenarios**

<b>Water</b>	Prevent any deterioration in the status of any waters and to achieve at least “good status” in all waters by 2015
<b>Biodiversity</b>	Maintain and enhance biodiversity.
<b>Cultural Heritage</b>	Promote the protection and conservation of cultural heritage including architecture, archaeology, history and industrial heritage features
<b>Landscape</b>	Conserve and enhance valued natural and historic landscapes and features within them
<b>Population and Human Health</b>	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns
<b>Soils and Geology</b>	Maintain the quality of soils and conserve geological resources
<b>Material Assets</b>	Maximise the use of existing infrastructure and plan for future needs
<b>Air and climate</b>	Reduce all forms of air pollution and control greenhouse gas emissions

The alternatives decisions or phases are presented in Figure 8.1 together with the environmental assessments for each alternative.

### 8.3. Preferred Strategy

An assessment of Phase 1, i.e. extension of the study area to the N9 motorway or centralisation of the town and environs, found that it is environmentally preferable to maintain the study area to a town and environs centric model rather than extending the study area as far as the motorway. The former approach better utilises existing infrastructure and allows for tighter controls on residential development.

In addition CCC wanted to limit the growth of the town incrementally. They wished to have the growth of the town in line with the retail strategy, sustainable living and regeneration of areas in the town centre.

In this stage of the planning alternatives review, it is considered that a town centric model is application of Strong Inclusive Planning (utilisation of existing resources and maintaining a regime of rural planning) whereas extension of the LAP study area to the N9 would be application of Weak Planning (following economic demands with little regard for planning protection or utilisation of existing resources).

The second stage of decision making, Phase 2, was based on existing and future infrastructural and economic developments within the chosen study area. The alternatives presented for the study area at Phase 2 were as follows;

- Allow for linear development on the approach roads, N80 to the south-east, N9 to the south and N9 to the north to the Castledermot interchange
- Focus on development for the northern fringe of the study area following industrial closures in the vicinity and a need to re-develop vacant sites
- Decentralise amenities and services to environ “nodes” while the town centre remains with the retail focus
- In the interests of balanced development especially around the River Barrow a joint LAP was proposed with Laois County Council which would include the Laois section of Greigcullen and the whole Irish Sugar plc site.

The assessment found that the least preferred alternative is to develop along the motorway approach roads. This development is dependent on new infrastructure to progress the development and would lead to “ribbon” development from the town centre. This option was rejected as the main vision of the LAP is “at a local level, the town and its environs have the potential to meet the development needs of the area, providing for residential, commercial, recreation and industrial needs.” This would be perceived as weak planning since it would be driven by economic forces rather than utilisation of resources within the study area.

A second alternative was to focus on the northern fringe of the study boundary and prepare a LAP in isolation for this area. This proposal was driven following industrial closures in the area. This alternative was rejected as previous town environs LAPs were based on the entire environs area. In addition, this proposal does not perform as well as the other alternatives on environmental assessment. This would similarly be perceived as weak planning as it would be driven by economic factors of the northern section of the study area and not for the development of the environs area.

The preferred alternatives in Phase 2 are the decentralisation of amenities and services to distinct nodes in the environs and the inclusion of Greigcullen (Laois) to the LAP to provide for a LAP of a study area enclosing Carlow Town. These alternatives are preferable as they allow for a balanced development assessment and allow for amenity/ services development away from the town centre which is approaching capacity and has been earmarked for retail focus. These alternatives would be considered as strong planning since they are not driven by economic forces but rather sympathetic development with the town development and its resources.

The alternative which allowed for the provision of a joint LAP between Carlow and Laois (Greigcullen) was not explored. Consequently the former alternative (distinct node) progresses to Phase 3 (options).

Phase 1 and 2 alternatives assessment were strictly “either / or” alternative decisions. Phase 3 allows for the provision of specific zoning to be made to the study area after Phase 2. These zoning were reviewed as per Phases 1 and 2 for environmental performance and were included in the study area. The proposed zoning were:-

- Inclusion of enterprise/ development zoning
- Use of low density residential development zones at fringes with higher density residential development within town adjacent areas
- Inclusion of amenity areas within proposed environs nodes
- Provision for protection of Oak Park pNHA and River Barrow SAC.

These zoning alternatives were evaluated similarly to Phase 1 and 2 for environmental performance. Figure 8.1 shows the proposed zoning alternatives for the Carlow Town LAP. Under the objective to facilitate the future economic growth of the town, Carlow County Council has, on the advice of their planning consultants, introduced a new zoning label – “Enterprise and Development”. This zoning will seek “to provide for commercial, enterprise and employment generating uses.” The purpose of this zone would be to promote the use, and where applicable, regeneration of sites for the provision of new employment generating facilities. Whereas it is not foreseen that this zoning will facilitate residential development, a limited quantum of ancillary residential development may be considered.

A full assessment of this scenario (now referred to as the LAP) is presented in Section 9. In this section the plan objectives are fully assessed against the environmental objectives to determine likely significant environmental impacts.

Figure 8.1: Alternatives Decision Process and Environmental Assessment

