

Kilkenny County Council

Variation No. 10 to the Kilkenny County Development Plan

Screening for Appropriate Assessment Report

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1. Introduction

1.1 Overview

This Appropriate Assessment (AA) Screening Report has been prepared by Ove Arup and Partners Ltd (Arup) on behalf of Kilkenny City Council (KCC) in connection with Variation 10 of the Kilkenny County Development Plan (CDP) which refers to integration of the Sustainable Urban Mobility Plan (hereafter referred to as the 'Variation 10').

Article 6(3) of the Habitats Directive requires that any plan or project, which is not directly connected with, or necessary to the management of a European site, but would be likely to have a significant effect, either alone or in-combination with other plans or projects, should be subject to an Appropriate Assessment (AA).

Variation 10 incorporates a strategic plan designed to satisfy the mobility needs of people and businesses in Kilkenny city and its surrounding for a better overall quality of life.

1.2 Report Aim

This AA Screening Report has been prepared to provide information for the 'competent authority' regarding the potential for 'Likely Significant Effects' (LSE) of Variation 10, on European sites within the Zone of Influence (ZoI) of the draft Plan.

Variation 10 covers the jurisdiction of Kilkenny City and its environs, located in County Kilkenny.

1.3 Background

Variation 10 incorporates a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. Variation 10 builds on the work undertaken previously as part of the preparation of the Kilkenny Local Transport Plan (LTP), which was commissioned as part of the preparation of the Kilkenny City and County Development Plan 2021-2027.

1.4 Legislative Context

The Habitats Directive on the conservation of natural habitats and wild fauna and flora (92/43/EEC) (the 'Habitats Directive' provides the legal protection for habitats and species, with Articles 3 to 9 providing legislation protection to the EU wide network of sites known as the Natura 2000 site network. Natura 2000 is a network of protected sites which comprises, in Ireland, Special Areas of Conservation (SACs) including candidate SACs (cSAC) and Special Protection Areas (SPAs) (referred to as European sites within this report). SAC protect terrestrial and marine habitats, including flora and fauna and SPAs protect birds and their associated wetland habitats. These sites provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites. Article 6(3) establishes the requirement for AA whilst Article 6(4) sets out the Alternative Solutions, Imperative Reasons of Overriding Public Interest (IROPI) and compensatory measures where Likely Significant Effects (LSE) on European sites cannot be excluded.

The Habitats Directive has been transposed into:

- Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended), and by Planning & Development Act 2024, Part 6 Chapter 2. In the context of the draft Plan, the governing legislation is principally the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No 477/2011) as amended by S.I. 293/2021 (hereafter referred to as the Habitats Regulations).; and
- Northern Irish law by the *Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995*, updated following the exit of the United Kingdom from the European Union in 2019, the exit regulations, the *Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019* provided for the legal continuity following Brexit (hereafter referred to as the Habitats Regulations).

The European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended), and the Planning and Development Act, 2024 Part 6, Chapter 2 is applicable to this Screening for AA Report as Variation 10 boundary is located within the Republic of Ireland.

1.5 Relationship with the SEA Directive

In the preparation of this AA Screening Report, the approach has been conducted in parallel with the requirements of the SEA process (2001/42/EC as transposed into Irish law). Article 3.2(b) of the SEA Directive expressly links to AA. The SEA process stipulates that should an environmental report be required, it is prepared to accompany a draft plan for public consultation. Following the consultation period, the plan may be finalised in its issue form. To facilitate an informed assessment under both processes, it is necessary to consider both the draft and final versions of the plan.

1.6 Statement of Competency

The statements of competencies for the contributing authors to this AA report are provided here

Sinead Whyte holds a BSc and MSc from UCD. She has over 25 years' experience in the field of environmental assessment. She is a Chartered Member of the Institute of Water and Environmental Management for 20 years.

Maeve Riley has a BSc in Zoology from University College Cork, an MSc in Environmental Consultancy from Newcastle University and is a full member of CIEEM. Maeve is an ecologist with over 10 years of working in private ecological consultancy. She has worked across a range of projects preparing AA from renewable energy to LRD and water projects.

1.7 Report Structure

This report is structured as follows:

- Section 2 provides an overview of Variation 10;
- Section 3 outlines the AA process, provides important definitions and outlines the guidance, data and methodology used to inform the assessment;
- Section 4 sets out the screening assessment using the Source-Pathway-Receptor-model (S-P-R model) and details the assessment for effects and screening; and
- Section 5 provides a summary and conclusion.

2. Description of Variation 10

2.1 Overview

Variation 10 presents a medium to long term plan setting out the transport and mobility strategy for Kilkenny City to cover the period 2025-2037. The purpose of Variation 10 is to guide future transport investment and transform Kilkenny City into a more accessible, people-centred and sustainable city.

The strategic aim of Variation 10 is to provide for the planning and delivery of transport infrastructure and services in Kilkenny City and its environs over the period of the City and County Development Plan and beyond, which will: *"co-ordinate transport and land use planning, reduce the demand for travel and the reliance on the private car in favour of public transport, walking and cycling"*. Furthermore, Variation 10 will support a transport network that ensures people feel safe and secure that is both environmentally and financially sustainable.

2.2 Geographic Area

Variation 10 is for Kilkenny City and its environs. Kilkenny City is a self-sustaining regional driver and a major urban centre for public services, economic activity, business and higher-order retail. It serves as a regional centre for employment, education, retail and services. Kilkenny is a predominantly flat, compact city with a population density of 2,348 per km². The city is approximately 3km wide and 4.5km long with many destinations easily accessible by foot or by bike. Kilkenny City is strategically located at the intersections of three national routes:

- The N10 National Primary Road from Kilkenny to Dublin – Waterford;
- The N77 National Secondary Road from Kilkenny to Portlaoise; and
- The N76 National Secondary Road from Kilkenny to Clonmel.

These roads are linked by an extensive network of national and regional roads to major cities and towns such as Dublin, Waterford, Clonmel, Durrus, Portlaoise and Roscrea. The R693 approaches Kilkenny from the northwest connecting Urlingford to the city, passing through the town of Freshford. The R712 is a short regional road from Kilkenny to Paulston. It runs from the north which connects Kilkenny to the eastern side of the county. The R695 is also part of the Kilkenny Central Access Scheme (CAS) connecting Kilkenny to Callan.

The R909 primarily serves as a local link within Kilkenny City. It connects Patrick Street in the city centre to the N76 to the southwest. Heading southeast from Kilkenny, R700 connects the city to New Ross in County Wexford and is vital for linking Kilkenny to the southeast of the country. The R697, heading south from Kilkenny City, links Kilkenny City to Carrick-on-Suir in County Tipperary.

Surrounding the city boundary, the Kilkenny Ring Road plays a significant role in bypassing city centre. The M9 motorway, while not passing through the city centre, is connected via the N10 making Kilkenny well-integrated into the national motorway network. The study area is shown in Figure 1.

- Enrich urban vitality and biodiversity through greening and placemaking with inspiration from Kilkenny’s unique arts and culture traditions and medieval heritage to create a people centred city that promotes people's health and well-being

2.3.3 Objectives

The aim of Variation 10 is to propose a set of measures that can be implemented to optimise accessibility in Kilkenny by improving access to schools, employment, and other essential services and opportunities, focusing on improving the sustainable transport networks and reducing car dependency. It is a “strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles.” The proposed key objectives are listed as follows:

Kilkenny SUMP Objectives

-  1. Develop and enhance the public transport network to increase coverage, frequency, and reliability for all users.
-  2. Promote active travel options such as walking and cycling through infrastructure improvements
-  3. Reduce greenhouse gas emissions from the transport sector by encouraging sustainable travel modes
-  4. Improve air and noise quality by encouraging sustainable modes of travel especially for shorter journeys
-  5. Enhance connectivity to urban green and blue infrastructure by active modes
-  6. Improve access to transport services for currently underserved areas
-  7. Support the implementation of the 10-minute city concept by facilitating convenient access to key services and amenities, including education, business, employment and public transport, within short travel times
-  8. Integrate multiple transport modes to provide seamless journey experience.
-  9. Improve safety for all vulnerable users, including the development of safe routes to schools.
-  10. Improve public realm through placemaking to enhance community identity and liveability
-  11. Implement effective parking and demand management strategies to optimise urban space and reduce congestion
-  12. Support the local economy and improve employment access by enhancing connectivity between residential areas and job centres
-  13. Maintain ongoing consultation and engagement with TII and ensure alignment with TII standards by considering the strategic function of national roads.

Variation 10 is underpinned by the 10-minute city concept and its core principles to implement the vision for Kilkenny City to be an accessible city with sustainable mobility options for everyone.

2.4 Options Development

Variation 10 provides an outcome of the review, update and continuation of the work carried out to date for the Kilkenny Local Transport Plan forming the Kilkenny SUMP to guide the transport requirements for supporting future growth in the area.

The document includes an introduction outlining the study area, the purpose of the study, and the structure of the report. This is followed by a summary of work completed to date, a review of the existing baseline and context, and detailed sections on options development and assessment.

Subsequently, Variation 10 sets out a summary of the preferred package of measures recommended as part of the Plan. It consists of measures and objectives, particularly:

- Proposed Walking Measures;
- Proposed Cycling Measures;
- Proposed Road Objectives;
- Proposed Traffic Management Measures; and
- Recommended Transport Network

Finally, an implementation and priority plan is proposed including a summary of key points and outcomes of the study.

The Options Development of Variation 10 outlines the process followed in developing the transportation options to overcome some of the weaknesses and constraints identified the gap analysis and previous studies undertaken, as well as build upon the strengths and opportunities presented for the study area.

The development of the options considered accessibility for active modes, permeability of the area, traffic management measures and traffic calming, as well as other safety improvements at junctions and roads where needed to accommodate all users.

Adhering to the Department of Transport's National Investment Framework for Transport in Ireland (NIFTI), the list of potential measures developed were first considered in relation to active modes, with pedestrians placed on top of the hierarchy followed by cyclists, then public transport, and finally general vehicular traffic. In addition, in line with the NIFTI intervention hierarchy, Variation 10 aims to make best use of existing assets, prioritising maintenance, optimisation and improvement to existing infrastructure, before new infrastructure.

2.4.1 Walking

Options have been developed for the pedestrian environment to provide links and connections which address key desire lines and improve permeability within Kilkenny.

The key issues identified for the pedestrian environment as part of the previous studies carried out to date, in particular the LTP and the Discussion Document, as well as the review of the walking network as part of this study included the following:

- Severance caused by the River Nore and the Ring Road has the potential to deter walking journeys;
- Poor permeability through housing estates and access to local schools leading to continued car dependency and low levels of short distance walking trips;
- Poor public realm in certain locations within the city centre with accompanying high levels of noise pollution;
- Hostile junction layouts which prioritise vehicular traffic above all other modes, causing significant barriers for pedestrian movement; and
- Lack of tactile paving and dropped kerbs resulting in accessibility issues.

In addition, key recommendations and options were considered in the LTP focusing on the improvement and development of existing pedestrian facilities. The future updates and development of the pedestrian facilities consider the following key locations:

- City Centre Gateways and Pedestrian Portals;
- Neighbourhood Centres (Loughboy and Newpark/Eastern Environs);

- MacDonagh Junction Interchange Hub;
- Major Junction Improvements; and
- School Permeability

The options for the pedestrian network under Variation 10 objectives that are included in this AA Screening are presented in Table 1. Those which are not included in this assessment are measures which have already been assessed (i.e. in the CDP), those which are indicative or those that fall outside the time period of Variation 10. Full table of measures of Variation 10 are outlined in Appendix A.

Table 1 Pedestrian Options for Assessment outlined in Variation 10

Measure	Scheme Description
W-4	New pedestrian link at Freshford Rd to Meadow Hill
W-6	New pedestrian link at Broguemakers hill to Greenshill
W-11	Dukesmeadow to Canal Walk
W-13	Deans Court and Village Court to St Fiacre's Place
W-14	Remove fencing from Lintown Grove to Newpark Shopping Centre
W-15	Lakeview Drive to Newpark Shopping Centre through Lakeside Medical
W-17	Coote's Lane north-south connection
W-19	Lord Edward St to Granges Rd via Ayrefield Medical Centre
W-20	Waterford Road to Parcnogown via Presentation Secondary School
W-21	Hollybank Lane to Kilkenny Project National School
W-22	Springfields to Clongowan and Cashel Downs
W-23	The paddocks to Kells Road
W-24	New Pedestrian Link from Callan Road to castle oaks
W-25	Emmet Street to Kickham Street/CBS primary
W-30	Pocoke Park to Old Golf Links Road
W-37	Link from Ossory Pedestrian bridge to Old Dublin Road

2.4.2 Cycling

Options have been developed for the cycling environment to provide links and connections which address key desire lines and improve permeability within Kilkenny. For the most part these measures form part of the Cycle Connects Programme and have already been assessed through that process, therefore, are not included in this assessment. The measures not included in the Cycle Connects scheme, such as C-4, C-20 and C-44 are either indicative routes (C-4), are proposed beyond the timeline of Variation 10 (C-20) or are using existing street network (C-44) therefore do not require assessment. Based on the above information, there are no cycling measures that require to be brought forward for assessment in this report. The full list of cycling measures that are included in Variation 10 are outlined in Appendix A.

2.4.3 Road Network and Traffic Management Measures

Variation 10 outlines objectives which relate to the road network, full details are in Table 5.4 of Variation 10. All these objectives have been already assessed under the Appropriate Assessment for the Kilkenny CDP and therefore no subject to assessment in this screening report.

2.4.4 Public Transport Network

As described in Section 4.4 of Variation 10 the recommended public transport network consists of a series of measures which are proposed to be implemented in a phased manner. The proposals include the following:

- Extension of bus route KK1 to serve Aut Even Hospital in the north and the new CBS Secondary School during school hours, with opportunities to increase the frequency of services in the future;
- Rationalisation of existing bus routes to improve directness and reduce journey times between key origins-destinations;
- Introduction of four new bus routes to cover gaps in coverage and serve future demand; and,
- Mobility Hubs.

2.5 Complementary Measures

In addition to the measures outlined above a series of complementary measures are also proposed to support the principles and objectives of Variation 10.

Complementary measures for active modes and public transport are described in sections 6.4.1 and 6.4.2, respectively of Variation 10. In addition, section 6.4.3 presents a set of measures focused on car parking setting out a car parking strategy proposed for Kilkenny. These measures include wayfinding, bike share, cargo bike rental, bike parking, car sharing and car-pooling, improvement to signals for pedestrians and cyclists and measures for public space and mobility hubs.

Also included in the complementary measures are park and ride and park and stride facilities. These are detailed in Section 6.4.3 of the SUMP.

2.6 Proposals Assessed in Other Plans/Strategies

The networks, option assessments and measures outlined in Variation 10 are location and size specific. Variation 10, replacing the Kilkenny LTP which was developed in 2020 to cover the period 2021-2027, fulfils the objective C5A in the Kilkenny City & CDP 2021–2027. As such, it could be considered a plan that may guide development later in the planning hierarchy.

However, it is important to consider Variation 10 in the context of the planning hierarchy in which it sits. According to the Area Based Transport Assessment (ABTA) and Local Transport Plans Advice Note (National Transport Authority, 2024),

“the ABTA process and resultant LTP represents the lowest tier of the National Planning Framework (NPF) for the integration of land use and transport planning and the achievement of compact smart growth.”

The Advice Note goes on to state that one of the primary purposes of the ABTA is:

“to fully integrate land use planning and transport planning at the earliest stages of plan preparation.”

The Advice Note also states that:

“It is essential, therefore, that the objectives and measures in the LTP reflect higher level transport policies and priorities and that there is a clear demonstrable link in each LTP to this hierarchy. It is by this pathway that land use planning can fully account for, and be fully integrated with, transport planning at the local level.”

All the provisions set out in Variation 10 are reflective of higher-level transport policies, in accordance with the NTA Advice Note. Further, many objectives set out in Variation 10 have already been set out in the Kilkenny City & CDP 2021-2027, CycleConnects, Loughmacask Masterplan and Abbey Quarter Masterplan which were all subject to SEA and AA.

Thus, the degree to which Variation 10, in and of itself, will set a framework for projects and other activities that will guide developments later in the planning hierarchy is considered to be significant when reviewed in the context of the hierarchy of national, regional and local plans in which it sits, and the relevant policy which underpins the Irish planning process.

2.7 Implementation

Section 7 of Variation 10 details the various proposals that will be implemented over short-, medium- and long-term timeframes. Some aspects of the plan relate to the development of further designs and plans as well as schemes to support active travel and car sharing. Since these activities do not involve undertaking any physical works in and of themselves within the span of this Draft SUMP, they have been scoped out of further consideration. Other proposed activities such as junction upgrades which involve changes to signalling or use patterns were also scoped out due to being optimisation that are of very small scale and potential for impact.

3. Methodology, Guidance and Data Sources

3.1 Appropriate Assessment Stages

The AA process involves several steps and tests that need to be applied in sequential order.

An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required. First, a plan or project must be screened to identify whether the potential for likely significant effects on a European site(s) exists. If that possibility cannot be excluded, an Appropriate Assessment is to be undertaken prior to any consent being granted. Consent shall not be granted if it cannot be concluded that there will be no adverse effects on the integrity of any European site. Article 6(4) allows for consent to be granted in particular and exceptional circumstances, even if adverse effects may arise.

3.2 Definitions

3.2.1 European Sites

European sites, as defined under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) (as amended) are part of the Natura 2000 network and include those designated as SACs, candidate SACs (cSACs), SPAs or proposed SPAs (pSPAs). These are sometimes referred to as Natura 2000 sites.

SACs are selected for the conservation of Annex I¹ habitats (including priority types which are in danger of disappearance) and Annex II² species (other than birds).

SPAs are selected for the conservation of Annex I birds and all migratory birds and their habitats.

The Annex habitats and species, for which each site is selected, are termed the Qualifying Interests (QI) for SACs and termed Special Conservation Interests (SCI) for SPAs of each site.

3.2.2 Conservation Objectives

Conservation Objectives (COs) for the European sites are defined for the relevant QIs and SCIs. In its most general sense, a CO is the specification of the overall target for the species and/or habitat types for which a site is designated in order for it to contribute to maintaining or reaching favourable conservation status³.

3.2.3 Source-Pathway-Receptor Model

The Source-Pathway-Receptor (SPR) model is used to assess where a potential effect may result by examining the source, its pathway and the receptor. As per guidance from the Office of the Planning Regulator (OPR)⁴ these can be defined as follows:

- **Source:** The origin of a potential effect which may include characteristics of a plan or project that have the potential to result in effects e.g. direct impacts such as loss of habitat
- **Pathway:** How the potential effect may occur on the receptor. These are identifiable through linkages that may occur through the plan or project and European sites e.g. direct pathways such as physical proximity, hydrological connections or indirect pathways such as disturbance to migrating species
- **Receptor:** The European site network and respective QIs/SCIs, their ecological condition and sensitivities e.g. freshwater pearl mussel is sensitive to siltation in water.

¹ Annex I habitats are habitats whose conservation requires the designation of Special Areas of Conservation

² Annex II species are animal and plant species whose conservation requires the designation of Special Areas of Conservation

³ Commission Note on Setting Conservation Objectives for Natura 2000 Sites (November 2012) European Commission, Doc. Hab.12-04/06. Accessed at: http://ec.europa.eu/environment/nature/natura2000/management/docs/commission_note/commission_note2_EN.pdf

⁴ OPR (2021) Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. Available at .ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf. Accessed April 2025.

3.2.4 Zone of Influence

A Zone of Influence (ZoI) within any assessment of projects or plans considers the area over which ecological features may be affected by biophysical changes as a result of the proposed plan/project and associated activities. The ZoI is established using the SPR method.

3.2.5 Screening vs Scoping

For the purposes of this Screening for AA the terms screening and scoping are described as:

- **Screening** – Screening shall refer to the screening of the project only
- **Scoping** – Scoping shall refer to the activity of identifying European sites and their respective QI/SCIs that are being considered for assessment within the report.

3.3 Guidance

The following guidance was used in carrying out the assessment:

- Assessment of plans and projects in relation to Natura 2000 Sites: Methodical guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 20214);
- Communication from the Commission on the precautionary principle. European Commission (2000);
- Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC (European Commission, 2007);
- Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011);
- Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC (EC Environment Directorate-General, 2019);
- Office of the Planning Regulator Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021); and
- Strict Protection of Animal Species Guidance for Public authorities on the Application of Articles 12 and 16 of the EU Habitats Directive to development/works undertaken by or on behalf of a Public authority (NPWS 2021);
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular National Parks and Wildlife Service (NPWS) 1/10 and PSSP 2/10;

The requirements for Screening for AA, and AA, for European sites, are set out in Part XAB of the Planning & Development Act 2000 (as amended) with numerous relevant rulings and opinions issues in both Irish and EU courts. AA is a process required under Article 6(3) of the EU Habitats Directive as transposed by the Planning & Development Act.

3.4 Data Sources

The ecological data reviewed to inform this report included:

- Environmental Protection Agency (EPA) Map Viewer⁵;
- EPA- Ireland's Environment. An Integrated Assessment 2020 Article 12 web tool⁶;

⁵ EPA Map Viewer accessed at <https://gis.epa.ie/EPAMaps/> accessed October 2025

⁶ Article 12 of the Birds Directive Web tool accessed at <https://nature-art12.eionet.europa.eu/article12/> accessed October 2025

- NPWS (2023) Conservation Objectives Series⁷;
- NPWS (2023) SAC and SPA Datasheets⁸;
- National Parks and Wildlife Service (NPWS) Designations web viewer⁹;
- NPWS Protected Sites in Ireland¹⁰;
- NPWS The Status of EU Protected Habitats and Species in Ireland Web Viewer¹¹;
- The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report¹². NPWS (2019);
- The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report¹³. Edited by: Deirdre Lynn and Fionnuala O’Neil. NPWS (2019); and
- The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report¹⁴ (2019). Edited by: Deirdre Lynn and Fionnuala O’Neill (2020).

3.5 Methodology

3.5.1 Introduction

In line with the relevant guidance and case law, this report consists of the below steps:

1. **Impact Prediction:** Identify the aspects of the draft Plan likely to affect the COs of European sites. The more general classification of impacts can include direct and indirect effects; short and long-term effects; construction, operational and decommissioning effects; and isolated, interactive and cumulative effects. A Source-Pathway-Receptor model has been used to identify the zone of influence. This also includes transboundary considerations.
2. **Assessment of Effects:** The actions of the draft Plan are assessed as to whether they are likely to result in significant effects on the integrity of European sites. This requires understanding of relevant QIs/SCIs and associated COs.

3.5.2 Impact Prediction: Identifying the Zone of Influence

The ZoI is established using the source-pathway-receptor framework and takes into consideration the scale of the draft Plan. There is no recommended ZoI, and guidance from the National Parks and Wildlife Service (NPWS) recommends that the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the plan/project, the sensitivities of the ecological receptors, and the potential for in-combination effects (cumulative).

For an effect to occur there must be a risk enabled by having a source (e.g. construction works at a proposed development site), a ‘receptor’ (e.g. QI or SCI of a European site), and a pathway between the source and the receptor (e.g. a watercourse which connects a plan area to an SAC, ex situ foraging habitat for SCI birds).

⁷NPWS Conservation objectives accessed at <https://www.npws.ie/protected-sites/conservation-management-planning/conservation-objectives> accessed October 2025

⁸NPWS SAC and SPA Datasheets accessed at <https://www.npws.ie/maps-and-data/designated-site-data/sac-and-spa-datasheets-downloads> accessed October 2025

⁹NPWS Designations web viewer accessed at <https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=8f7060450de3485fa1c1085536d477ba> accessed October 2025

¹⁰NPWS Protected sites accessed at <https://www.npws.ie/protected-sites> accessed October 2025

¹¹NPWS The Status of EU Protected Habitats and Species in Ireland web viewer accessed at <https://storymaps.arcgis.com/collections/1a721520030d404f899d658d5b6e159a> accessed October 2025

¹²The Status of EU Protected Habitats and Species in Ireland: Volume 1 Summary Overview accessed at https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf Accessed October 2025

¹³The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol2_Habitats_Article17.pdf Accessed October 2025

¹⁴The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report accessed at https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol3_Species_Article17.pdf Accessed October 2025

The principle for establishing ZoI, as outlined in the 2021 OPR Practice Note PN014**Error! Bookmark not defined.** applies equally to a plan level AA and so the SPR method has been used in this report.

3.5.3 Assessment of Effects

Where a plan or project has the potential to undermine the COs, it must be considered as a likely significant effect upon that European site. The assessment of effects stages determines whether the potential impacts identified using the SPR could result in a likely significant effect.

From establishing the ZoI using the SPR method, focusing on the relevant QIs and SCIs of European sites which may be at risk of likely significant effects arising from the draft Plan. The potential impacts of the draft Plan are assessed against the COs of the relevant QIs and SCIs to determine if a likely significant effect may occur as a result of implementation. Within this assessment, factors such as type, extent, duration, intensity, timing, probability and in-combination effects of the potential impact, as well as the vulnerability of the QIs and/or SCIs concerned. Where the potential for significant effects is determined, the corresponding elements of the draft Plan are considered as adverse effects upon the integrity of European site(s). These are assessed against the COs of the relevant QIs and SCIs.

4. Screening for Appropriate Assessment

4.1 Overview

The scope of the draft Plan has a scale of application across the boundary of Kilkenny City and its environs. COs of relevant European sites can be accessed on www.npws.ie and have been considered as part of the screening process, but for the purposes of brevity, these have not been reproduced.

4.2 Source-Pathway-Receptor

Potential connectivity between the implementation of Variation 10 and European sites and their respective QIs/SCIs is identified via the S-P-R model which highlights the potential impact pathways such as land, air, hydrological pathways etc which may support direct or indirect connectivity. Where connectivity exists between Variation 10 and receptors, these receptors are taken forward to the assessment of likely significant effects.

4.2.1 Identification of Potential Sources of Effects

In identifying the potential impacts of the implementation of Variation 10, it is important to note that this risk is an estimation based on scientific evidence and best practice. It does not constitute that an impact will occur or that it will result in ecological or environmental damage resulting in significant effects on European sites within the ZoI. The significance of the effect is dependent upon factors such as duration, magnitude and intensity of the project/plan in question and the existence of a credible S-P-R link. It is also determined by the extent of the exposure to the risk and the characteristics of the receptor.

By establishing a credible source and pathway, the receptors i.e. the QI and SCI habitats and species are only considered where links are identified to be credible. Factors include the distance between receptors and sources and the means by which the pathway travels through air, water, ground etc., occurs. Typical activities which can result in impacts include construction activities which may result in impacts including air pollution from dust and other pollutants, water contamination due to improper handling of materials and waste, and soil erosion from ground disturbance. Noise pollution from construction sites can result in disturbance and/or displacement of species and construction can potentially result in the destruction of important habitats. The generation of significant amounts of waste, often not properly disposed of or recycled, is another concern. Operational activities of wastewater treatment plants, recreation, transport, residential and industrial sectors can also contribute to similar inputs to the environment as construction.

The objectives and measures of Variation 10 have undergone a review for potential sources of impacts. Those which are drawn from existing plans including the Kilkenny City and County Development Plan 2021-2027, CycleConnects, the Loughmacask Masterplan, and the Abbey Quarter Masterplan, all of which were subject to SEA and AA, are not considered further as they have already been assessed through a higher-level policy. Measures not included in other Plans outlined in Variation 10 are brought forward for assessment in this report. Full measures and relevant Plan / Assessment are outlined in Appendix A.

4.3 Identification of Potential Pathways

Establishing the potential pathways that may exist between the source of impact and receptors of European sites was carried out in consideration of Variation 10 elements and the viability of direct and indirect pathways on site. This incorporates considering the geographical and topographical elements of Variation 10 area in addition to any in-situ features which may act as a barrier between the potential sources of impact and potential receptor European sites.

4.3.1 Characteristics of Kilkenny City

Kilkenny City is situated on the River Barrow and the River Nore, approximately 99.7 km from Dublin City Centre and approximately 59.7km from the Seas off Wexford SPA and Hook Head SAC. The city is characterised by a varied landscape with the River Barrow and River Nore SAC and the River Nore SPA located through the centre. The River Barrow and River Nore flow in a north-west to south-east direction through the city. Kilkenny City centre is predominantly urban in nature and surrounding lands are

predominantly agricultural. In addition, Loughans SAC, Spahill and Clomantagh Hill SAC and Cullahill Mountain SAC are located north-west of Variation 10 study area, at approximately 17.6 km, 16.6 km and 18.5 km distance respectively. The Blackstairs Mountains SAC is also located approximately 27.7 km south-east of Variation 10 study area.

According to the Kilkenny City and County Development Plan¹⁵, there are lowlands located to the south and immediately north of Kilkenny City, and upland areas located north-west and north-east of the study area. Habitats found within the town boundary include hedgerows, treelines, woodlands, river, agricultural fields, recreational areas, parks, brownfield sites and hardstanding areas.

4.3.1.1 Hydrological Connectivity

The River Barrow and River Nore flows in a south easterly direction through Kilkenny City and is it recorded that streams, field drains and ditches also run through the city from the immediate areas¹⁵

Surface water features located within and surrounding Kilkenny City are outlined in Figure 22. The nearest hydrologically connected European site to Variation 10 study area is the River Barrow and River Nore SAC and the River Nore SPA. The River Nore runs though the centre of Kilkenny City in a north-west to south-east direction.

The Slieve Bloom Mountains SAC and SPA is located upstream of the River Barrow and River Nore SAC, approximately 46km northwest of Variation 10 boundary. Given the location upstream from the KSUMP boundary, hydrological connectivity is not considered as a connective feature between the KSUMP boundary and these designated sites.

The confluence of the River Nore and River Barrow is located approximately 40km downstream of Variation 10 boundary. The River Barrow then continues to flow in a south-easternly towards direction until it reaches the estuary at Wexford approximately 63km downstream. Seas off Wexford SPA and Hook Head SAC are located approximately 65 km downstream. The River Barrow does not present a viable pathway for effects to the Seas off Wexford SPA and Hook Head SAC due to the considerable distance between these sites and the boundary of Variation 10. The hydrological connection is therefore weak and indirect. Moreover, the assimilative capacity of the River Barrow and the River Nore is such that any potential inputs would be diluted and dispersed, further reducing the potential for significant effects downstream.

¹⁵ KCC (2021) Kilkenny City and County Development Plan. Available at: [vol1-master-ccdp-2-11-2021.pdf](#) Accessed October 2025

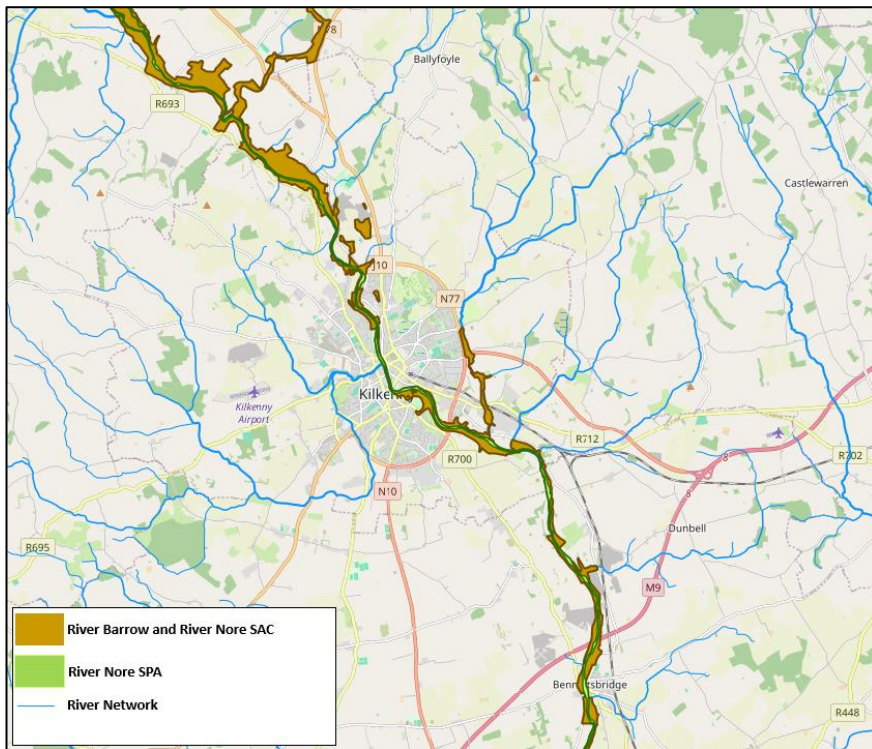


Figure 2 Surface water features located within and surrounding Kilkenny City (Source: EPA, 2025)

4.3.1.2 Functionally Linked Land

Functionally linked land is defined as areas of land or sea occurring outside a designated site which is considered to be critical to or necessary for the ecological, behavioural functions in a relevant season or a qualifying feature of which SACs or SPAs have been designated. These habitats are frequently used by the QIs or SCIs of the respective sites to support their functionality and integrity of the designated sites for these features.

There is one SAC located within the boundary of the Variation area, namely the River Barrow and River Nore SAC. This river has QI species of *Vertigo moulinsiana* (Desmoulin's Whorl Snail), *Margaritifera margaritifera* (Freshwater Pearl Mussel), *Austropotamobius pallipes* (White-clawed Crayfish), *Petromyzon marinus* (Sea Lamprey), *Lampetra planeri* (Brook Lamprey), *Lampetra fluviatilis* (River Lamprey), *Alosa fallax fallax* (Twaite Shad), *Salmo salar* (Salmon) and *Lutra lutra* (Otter). Desmoulin's Whorl Snail and Otter are the only species which may be found outside of the boundary of the SAC. It is noted that Desmoulin's Whorl Snail species have very limited mobility, typically not dispersing beyond 1km. This species, according to NPWS data, is found at two known locations, Borris Bridge in Co. Carlow and Boston Bridge, Kilnaseer, Co. Laois. These known sites are both outside of Variation 10 area, however, given the likelihood of these species being under recorded and the potential for wetland habitats in the plan area adjacent to the River Barrow there is potential for these snails to utilise the wetland habitat within and surrounding the river which may be included in Variation 10 objectives. Otter are a mobile species with territories ranging up to 30km. They will utilise watercourse corridors and bankside habitat to travel, forage and rest. Based on the objectives of Variation 10 there is potential that habitats in the immediate area of the boundary of the SAC would be used by otter.

There is also one SPA located within the Variation boundary, namely River Nore SPA. The sole QI species for this river is *Alcedo atthis* (Kingfisher). Kingfisher will utilise the stretches of rivers where they are found, typically nesting in tunnels in banks of rivers and using branches extended out from the banks as perches. They are not typically found outwith river corridors, however, given the location of the SPA within Variation 10 area and potential for works along the bank of the river corridor there is potential that kingfisher would be impacted by Draft SUMP Objectives.

Circus cyaneus (Hen Harrier) is the sole QI species of the Slieve Bloom Mountains SPA located approximately 45.5km north-west. A 5km buffer from known nest sites is also applied to account for movement of this species from SPA boundaries. The known range of movement of Hen Harrier from a nest

site is up to 7km and the species is not recorded in distribution maps from the most recent monitoring report ¹⁶. Therefore, given the distance from the SPA to Variation 10 area it is not considered likely that there are habitats within the plan area that would support Hen Harrier from the Slieve Bloom Mountains SPA, and no functionally linked lands area considered.

There are no other European Sites with potential to be connected to Variation 10 area through functionally linked land.

4.3.2 Identification of European Sites with ZoI

The ZoI has been identified through assessing the magnitude and extent of proposed measures outlined in Variation 10. These measures are localised and not anticipated to extend beyond the boundary of Kilkenny City and County. Based on this, the ZoI has been identified as the extent of the SAC and SPA located within Variation 10 boundary which includes two European site:

- The River Barrow and River Nore SAC; and
- The River Nore SPA.

These European sites and connectivity to Variation 10 area are illustrated in Figure 2.

Table 2 European Sites within the ZoI Under Consideration

Site code	Site name	Distance from Draft SUMP boundary (approx.)	Qualifying Interests/Special Conservation Interests
002162	River Barrow and River Nore SAC	0 km flows through Kilkenny City (north-west to south-east direction).	<p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Reefs [1170]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]</p> <p>European dry heaths [4030]</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]</p> <p>Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p><i>Vertigo moulinsiana</i> (<i>Desmoulin's Whorl Snail</i>) [1016]</p> <p><i>Margaritifera margaritifera</i> (<i>Freshwater Pearl Mussel</i>) [1029]</p> <p><i>Austropotamobius pallipes</i> (<i>White-clawed Crayfish</i>) [1092]</p> <p><i>Petromyzon marinus</i> (<i>Sea Lamprey</i>) [1095]</p> <p><i>Lampetra planeri</i> (<i>Brook Lamprey</i>) [1096]</p> <p><i>Lampetra fluviatilis</i> (<i>River Lamprey</i>) [1099]</p> <p><i>Alosa fallax fallax</i> (<i>Twaite Shad</i>) [1103]</p> <p><i>Salmo salar</i> (<i>Salmon</i>) [1106]</p> <p><i>Lutra lutra</i> (<i>Otter</i>) [1355]</p>

¹⁶ <https://www.npws.ie/sites/default/files/publications/pdf/IWM147.pdf> Accessed October 2025

Site code	Site name	Distance from Draft SUMP boundary (approx.)	Qualifying Interests/Special Conservation Interests
			Vandenboschia speciosa (Killarney Fern) [6985]
004233	River Nore SPA	0 km flows through Kilkenny City (north-west to south-east direction).	Kingfisher (Alcedo atthis) [A229]

4.4 Consideration of Likely Significant Effects - Screening Assessment

A screening assessment using the S-P-R method has been carried out, assessing the potential for effects based upon the draft objectives, establishing a viable pathway for effect and the identified receptors of European sites. As described in Section 4.2.2 only measures which have not already been assessed through a higher level policy are considered in this assessment. Also excluded from this assessment are measures which are indicative only or proposed using existing networks such as pedestrian crossings improvements unless these are identified within the ZoI of effects not previously assessed. Full table of measures and their assessment are outlined in Appendix A. Table 3 outlines measures included in this assessment.

Table 3 – S-P-R for Measures in the KSUMP not already assessed

Measure	Scheme Description (* includes cycleway connection)	Source	Potential Pathway	Receptor
C-48	Provision of active travel links from Breaghagh Valley to City Centre	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-4	New pedestrian link at Greenfields Court to Loreto Avenue	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-8	New cycle/ pedestrian link at River Nore – south crossing	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -	QIs for the River Nore SAC
W-6	New pedestrian link at Broguemakers hill to Greenshill	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-11	Dukesmeadow to Canal Walk	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -	QIs for the River Nore SAC
W-13	Deans Court and Village Court to St Fiacre’s Place	Construction effects –Disturbance, deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-14	Remove fencing from Lintown Grove to Newpark Shopping Centre	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-15	Lakeview Drive to Newpark Shopping Centre through Lakeside Medical	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-17	Coote’s Lane north-south connection	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-18	Kenneyswell Road to Lord Edward St via Waterbarracks	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -	QIs for the River Nore SAC
W-19	Lord Edward St to Granges Rd via Ayrefield Medical Centre	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-20	Waterford Road to Parcnogown via Presentation Secondary School	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None

Measure	Scheme Description (* includes cycleway connection)	Source	Potential Pathway	Receptor
W-21	Hollybank Lane to Kilkenny Project National School	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-22	Springfields to Clongowan and Cashel Downs	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-23	The paddocks to Kells Road	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-24	New Pedestrian Link from Callan Road to castle oaks	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-25	Emmet Street to Kickham Street/CBS primary	Construction effects –Deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-28	Pedestrian Link from Freshford Road to River Nore North	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -	QIs for the River Nore SAC
W-36	Walkin Street to Kickham Street pedestrian improvements	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects	None
W-37	Link from Ossory Pedestrian bridge to Dublin Road	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -	QIs for the River Nore SAC
W-38	Link from Ossory Pedestrian bridge to N10	Construction effects – Habitat loss, disturbance, deterioration of water quality, introduction of INNS	Hydrological -, ecological	QIs for the River Nore SAC

4.5 In-Combination Effects

In-combination effects refer to a series of individual effects that may, in combination, produce a potential likely significant effect. The underlying intention of this in-combination assessment is to take account of in-combination effects from existing or proposed plans and projects and these will often only occur over time.

Plans have been identified, which have the potential to interact with the implementation objectives for Variation 10 and thereby result in in-combination effects. Projects have not been considered here as these are more appropriately considered at assessment for each individual project. Relevant plans include:

- Project Ireland 2040 – National Planning Framework (NPF) and National Development Plan (NDP)
- National Investment Framework for Transport in Ireland (NIFTI)
- Climate Action Plan 2025
- National Sustainable Mobility Policy
- Regional Spatial and Economic Strategy (RSES) for the Southern Region 2019-2031
- Kilkenny City and County Development Plan (2021-2027)
- Kilkenny County Council Adopted Climate Change Adaptation Strategy (2019-2024)
- Connecting Ireland Rural Mobility Plan (2021)
- Cycle Connects – Kilkenny Cycle Network (2024)
- National Cycle Network (NCN) (2023)

The Plans outlined above have been subject to their own AA within which outlines that specific projects developed within the plans are subject to their own AA which will require mitigation to reduce effects on QIs associated with the European sites within the ZoI for this assessment. The LSE outlined in Table 3 cannot be further assessed without specific project detail. With that in mind, it cannot be assessed in this report if the measures outlined in Table 3 with potential for LSE will cause in-combination effects with the existing plans and policies. The measures will be subject to their own AA should they come to project level and therefore in-combination effects will be addressed in these project level assessments.

5. Conclusion

Variation 10 presents a comprehensive analysis of the current transport situation in Kilkenny City identifying opportunities and constraints associated with the transport network, used to inform potential solutions to improve the transport network for all users. A Screening for AA has been carried out in line Planning & Development Act 2024, Part 6 Chapter 2. The S-P-R model has been used to support the screening assessment.

This document adopted the S-P-R model to assess the potential for measures relating to Variation 10 to have LSE on European sites. Many of the measures outlined in Variation 10 have already been subject to assessment in higher level plans. For measures not previously assessed, six of these (W-8, W-11, W-18, W-28, W-37 and W-38) are identified as having potential pathways for effects.

The detailed assessment of these (Table 5) has identified that there are measures outlined in the CDP to ensure no negative effects will arise for these such objectives. CDP objectives in relation to natural heritage (Vol. 1 Chapter 1 and Chapter 9 and Vol. 2 Chapter 2 of the CDP) and water quality (Vol. 1 Chapter 10 of the CDP) are included which will apply to all measures that arise from the CDP and all subsequent Variations. Therefore, no likely additional significant effects are anticipated to arise

Additionally, these measures are considered to require their own planning application which will stipulate that these measures, at project level, will be subject to environmental assessments, include AA. Should these measures require mitigation to be applied to avoid adverse impacts on the integrity of a European site, it will be outlined at the project level detail. Similarly, these project level AA will determine if in-combination effects are predicted.

With regards to measures which have been assessed already in higher level plans, this assessment has assumed that should these plans / policies cease before Variation 10 that those measures will be carried forward in the update plan / policy and therefore be assessed with these updated plans / policies.

Furthermore, any specific works which take place either through planning submission or subject to Part 8 of the Planning and Development Regulations, 2001 (as amended), will be subject to AA screening and therefore further scrutiny for the potential to give rise to likely significant effects.

In consideration of the measures set out within Variation 10 and following review of the COs of European sites within the ZoI, the potential for LSEs on European sites arising from Variation 10 are not considered likely.

Appendix A

Detailed Assessment of Measures

Table 4 Detailed Assessment of the Cycling Measures

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-1	Upgrade Greens Hill and Bleach Road to shared pedestrian / cycle facility	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-2	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N77 (Castlecomer Roundabout to New Orchard Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-3	Upgrade existing on-road cycle lane to fully segregated cycle lane along R712 Castlecomer Road (Castlecomer Roundabout to New Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-4	New fully segregated cycle lane connecting Castlecomer Road / Green's Hill with Lovers Lane	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-5	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N77 (New Orchard Road Roundabout to Hebron Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-6	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along Golf Links Road (Johnswell Road to New Orchard Road)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-7	New greenway connecting Brougemaker's Hill to MacDonagh Junction and tying into the path connecting Brougemaker's Hill and upgrade to Castlecomer Road to Broguemaker hill existing footpath to shared pedestrian / cycle facility	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-8	Upgrade existing on-road cycle lane to fully segregated cycle lane along R712 Castlecomer New Road (New Road Roundabout to Dublin Road)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-9	Upgraded and new shared pedestrian / cyclist facility along Golf Links Road / Ballybought Street	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-10	New shared pedestrian / cyclist facility connecting Castlecomer New Road to Michal Street (via Barrack Street and Wolfe Tone Street Car Park)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-11	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along Pennyfeather Way	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-12	New and upgraded fully-segregated cycle lane along Hebron Road to N77 / Hebron Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-13	New shared pedestrian / cyclist facility connecting Bateman Quay to Michael Street	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-14	New and upgraded fully-segregated cycle lane along Dublin Road from MacDonagh Junction to Old Dublin Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-15	New greenway connecting Canal Walk to Lacken Walk Boardwalk / N10 along Lacken Walk	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-16	New and upgraded fully-segregated cycle lane connecting Dublin Road to Hebron Road (via Hebron Industrial Estate)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-17¹	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N10 (Hebron Road Roundabout to Old Dublin Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-18	New fully segregated cycle lane along R712 Dublin Road (east of N10)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-19	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N10 (Old Dublin Road Roundabout to Bennettsbridge Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-20	New fully-segregated cycle lane connecting Dublin Road to Bennettsbridge Road via new active travel bridge	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-21	New fully segregated cycle lane along the Parade (R700) between Kilkenny Castle and Castle Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-22	Upgrade existing on-road advisory cycle lane to full segregated cycle lane along Bennettsbridge Road (R700) between Canal Walk and Bennettsbridge Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-23	New fully segregated cycle lane along Upper Patrick Street between Jacob Street and Waterford Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-24	New fully segregated cycle lane along Nuncio Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-25	Upgrade existing on-road advisory cycle lane to full segregated cycle lane along Bohernatounish Road from Waterford Road to Bohernatounish Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-26	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N10 (Bennettsbridge Road Roundabout to Bohernatounish Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-27	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along both sides of the N10 (Bohernatounish Road Roundabout to Waterford Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-28 ¹	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along the N76 (Waterford Road Roundabout to Kells Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-29	Upgrade existing shared pedestrian / cycle facility to fully segregated cycle lane along N76 (Bennettsbridge Road Roundabout to Bohernatounish Road Roundabout)	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-30	Upgrade existing on-road advisory cycle lane to full segregated cycle lane along Waterford Road (R910) between Bohernatounish Road Roundabout and Waterford Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-31	New and upgraded fully-segregated cycle lane along Waterford Road (R910) between Upper Patrick Street / Upper New Street and Bohernatounish Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-32	New fully segregated cycle lane along Corcoran Terrace (R679) between Waterford Road and Kells Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-33	Improvements of the link along Coote's Lane which forms a greenway	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-34	New and upgraded fully-segregated cycle lane along Ormonde Road and College Road (R909) between Upper Patrick Street and College Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-35	Upgrade existing on-road advisory cycle lane to full segregated cycle lane along Callan Road (R909) between Callan Road Roundabout and College Road Roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-36	New Shared Active Travel facility connection between College Road Roundabout and Stephens Street / Dominic Street	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-37¹	New fully-segregated cycle lane along Dominic Street to Dean Street	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-38	New fully-segregated cycle lane along Butt's Green and upgraded existing on-road mandatory cycle lane along Granges Road and Parkview Drive to fully-segregated cycle lane	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-39	New fully-segregated cycle lane along Granges Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-40	New fully-segregated cycle lane along Freshford Lane (R693) north from Kilkenny Greyhound Stadium	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-41	Upgrade to existing on-road mandatory cycle lane along Freshford Road / Bishop's Hill / Troy's Gate to fully-segregated cycle lane and shared pedestrian / cycling facilities at Bishop's Hill / Troy's Gate due to space constraints	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-42	New fully segregated cycle lane connecting Freshfield Road (R693) and Castlecomer Road (R712) via The Sycamores and new active travel bridge over the Nore	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-43	New shared pedestrian / cyclist facility connecting Butt's Green and Parliament Street	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-44	Upgrades to shared pedestrian / cycle facilities west of High Street	This measure is a complementary measure through the traffic management plan and is on existing networks and therefore not required to be assessed in this report.
Section 5.3	C-45	Provision of Cycling Facilities on Kickham Street and James Street	This measure is a complementary measure through the traffic management plan and is on existing networks and therefore not required to be assessed in this report.
Section 5.3	C-46	Provision of Cycling Facilities on Gaol Road and Parnell Street	This measure is a complementary measure through the traffic management plan and is on existing networks and therefore not required to be assessed in this report.
Section 5.3	C-47	Provision of Cycling Facilities through Roberts Hill	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.3	C-48	Provision of active travel links from Breagh Valley to City Centre	This measure constitutes minor development in an urban area and is outside the ZoI of effects

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.3	C-49	Upgrade Cycling facilities on Callan Road Roundabout to William Robertson Way	This measure is a complementary measure through the traffic management plan and is on existing networks and outside the ZoI for effects
Section 5.3	C-50	Provision of cycle facilities on Lord Edward St	This measure is a complementary measure through the traffic management plan and is on existing networks and outside the ZoI for effects
Section 5.3	C-51	Provision of Cycle Facilities from Abbott roundabout to Ring Road	This measure is a complementary measure through the traffic management plan and is on existing networks and outside the ZoI for effects

Note: 1 – Indicative measures, subject to planning.

Table 5 Detailed Assessment of the Walking Measures

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-1	Improve pedestrian wayfinding and legibility between Kilkenny Station and City Core	No construction works are proposed (upgrade only of signage) therefore no assessment is required
Section 5.2	W-2	High Street Shared street	This measure is included in the CDP which was subject to full SEA and AA and therefore no further assessment is required for this walking measure.
Section 5.2	W-3 ¹	New cycle/ pedestrian link at the River Nore – north crossing	This measure is included in CycleConnects which was subject to AA and therefore no likely additional significant effects are anticipated as a result of this walking measure.
Section 5.2	W-4	New pedestrian link at Greenfields Court to Loreto Avenue	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-6	New pedestrian link at Broguemakers hill to Greenshill	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-7 ¹	New pedestrian link at Newpark to Northwest	This measure is included in CycleConnects which was subject to AA and therefore no likely additional significant effects are anticipated as a result of this walking measure.
Section 5.2	W-8 ¹	New cycle/ pedestrian link at River Nore – south crossing	This measure is an indicative route which crosses the River Nore, therefore, potential for effects on a Natura 2000 site should be considered. The CDP refers to mitigation measures to ensure no negative effects will arise for these such objectives. CDP objectives in relation to natural heritage (Vol. 1 Chapter 1 and Chapter 9 and Vol. 2 Chapter 2 of the CDP) and water quality (Vol. 1 Chapter 10 of the CDP) are included which will apply to all measures that arise from the CDP and all subsequent Variations. Therefore, no likely additional significant effects are anticipated to arise
Section 5.2	W-9	New crossing facility Bennettsbridge road crossing to canal walk	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	W-10	Bishop Birch Link to Dublin Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	W-11 ¹	Dukesmeadow to Canal Walk	This measure constitutes minor development in an existing urban setting. Protective measures outlined in the CDP for Natura 2000 sites will ensure no egress from this site to the River Nore, therefore, no likely significant effects are anticipated as a result of this walking measure..
Section 5.2	W-12	Bishop Birch Link to Hebron Road	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	W-13	Deans Court and Village Court to St Fiacre’s Place	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-14	Remove fencing from Lintown Grove to Newpark Shopping Centre	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-15	Lakeview Drive to Newpark Shopping Centre through Lakeside Medical	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-17	Coote's Lane north-south connection	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-18¹	Kenneyswell Road to Lord Edward St via Waterbarracks	This measure is an indicative route which is indirectly connected to the the River Nore, therefore, potential for effects on a Natura 2000 site should be considered. The CDP refers to mitigation measures to ensure no negative effects will arise for these such objectives. CDP objectives in relation to natural heritage (Vol. 1 Chapter 1 and Chapter 9 and Vol. 2 Chapter 2 of the CDP) and water quality (Vol. 1 Chapter 10 of the CDP) are included which will apply to all measures that arise from the CDP and all subsequent Variations. Therefore, no likely additional significant effects are anticipated to arise
Section 5.2	W-19	Lord Edward St to Granges Rd via Ayrefield Medical Centre	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-20	Waterford Road to Parcnogown via Presentation Secondary School	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-21	Hollybank Lane to Kilkenny Project National School	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-22	Springfields to Clongowan and Cashel Downs	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-23	The paddocks to Kells Road	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-24	New Pedestrian Link from Callan Road to castle oaks	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-25	Emmet Street to Kickham Street/CBS primary	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-26¹	Pedestrian Link from Circular Road to Bonnetstown Road	This measure is included in Loughmachask Masterplan and already assessed. No likely additional significant effects from that in Loughmachask Masterplan are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	W-27	Pedestrian Link from Bonnetstown Road to Dunningstown Road	This measure is completed therefore cannot be assessed
Section 5.2	W-28¹	Pedestrian Link from Freshford Road to River Nore North	This measure constitutes minor development in an existing urban setting. Protective measures outlined in the CDP for Natura 2000 sites will ensure no egress from this site to the River Nore, therefore, no likely significant effects are anticipated as a result of this walking measure..
Section 5.2	W-29	Improved Pedestrian Link on Lousybush Lane	This measure is completed therefore cannot be assessed
Section 5.2	W-30	Pocoke Park to Old Golf Links Road	This measure is completed therefore cannot be assessed
Section 5.2	W-31	New Pedestrian link from Wolfe Ton Bridge to Bateman Quay linking to skate park	This measure is completed therefore cannot be assessed
Section 5.2	W-32	Castlecome Road (North) pedestrian crossing near new bus stop	This measure is completed therefore cannot be assessed

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-33	Johnswell road pedestrian crossing near bus stop	This measure is completed therefore cannot be assessed
Section 5.2	W-34	Kells Road Pedestrian crossing	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-35	Callan Road at William Roberston Way crossing improvements	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted.
Section 5.2	W-36	Walkin Street to Kickham Street pedestrian improvements	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted
Section 5.2	W-37 ¹	Link from Ossory Pedestrian bridge to Dublin Road	This measure is an indicative route which is indirectly connected to the the River Nore, therefore, potential for effects on a Natura 2000 site should be considered. The CDP refers to mitigation measures to ensure no negative effects will arise for these such objectives. CDP objectives in relation to natural heritage (Vol. 1 Chapter 1 and Chapter 9 and Vol. 2 Chapter 2 of the CDP) and water quality (Vol. 1 Chapter 10 of the CDP) are included which will apply to all measures that arise from the CDP and all subsequent Variations. Therefore, no likely additional significant effects are anticipated to arise
Section 5.2	W-38 ¹	Link from Ossory Pedestrian bridge to N10	This measure is an indicative route which is indirectly connected to the the River Nore, therefore, potential for effects on a Natura 2000 site should be considered. The CDP refers to mitigation measures to ensure no negative effects will arise for these such objectives. CDP objectives in relation to natural heritage (Vol. 1 Chapter 1 and Chapter 9 and Vol. 2 Chapter 2 of the CDP) and water quality (Vol. 1 Chapter 10 of the CDP) are included which will apply to all measures that arise from the CDP and all subsequent Variations. Therefore, no likely additional significant effects are anticipated to arise

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	W-39	Tullaroan Road near Dicksboro GAA crossing improvements	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted
Section 5.2	W-40	New crossing at New Road to connect to future greenway	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted
Section 5.2	W-41	New footpath along Circular Road southern section	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted
Section 5.2	J1	John Street / Dublin Road junction improvements	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J2	Macdonagh junction / Dublin Road junction improvements	This measure is outside the ZoI of effects which are considered to include localised works in an existing urban environment therefore no LSE are predicted
Section 5.2	J3	Hebron Road / Castlecomer Street junction improvements	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J4	Greens Bridge St / Wolfe Ton bridge junction improvements	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J5	Dean Street / Water Barrack roundabout improvement	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J6	Hebron Road / Pennyfeather Way / O'loughlin Road roundabout improvement	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J7	Johnswell Road / Newpark Drive / Pennyfeather Way roundabout improvement	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	J8	Lord Edward St/Granges Rd/Butt's Green/Loreto View roundabout improvement	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J9	Newpark Drive / Castlecomer New Road roundabout improvement	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J10	Callan Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J11	Hebron Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J12	Dublin Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J13	Bennettsbridge Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J14	Bohernatounish Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J15	Waterford Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J16	Kells Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J17	Castlecomer Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 5.2	J18	New Orchard Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J19	Johnswell Road / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J20	Kilkenny Retail Park / Kilkenny Ring Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.
Section 5.2	J21	Granges Road/ Freshford Road roundabout	This measure is included in CycleConnects and already assessed. No likely additional significant effects from that in CycleConnects are anticipated as a result of this measure therefore no assessment is required in this report.

Note: 1 – Indicative measures, subject to planning.

Table 6 Detailed Assessment of the Road Objectives

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 3.3.7	R1¹	Reserve the proposed line of the western by-pass for the city from the Castlecomer Road to the Waterford Road free from development, including for a river crossing and seek approval from An Bord Pleanála for Phase 1 of the Western By-pass, the Kilkenny Northern Ring Road Extension.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R2	Complete the Outrath Road Improvement Scheme and link the Bohernatounish Road to the Outrath Road.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R3	To provide for a link road through development lands linking the Outrath Road through to the existing Smithlands business park and onto the Waterford Road.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 3.3.7	R4¹	Reserve the proposed line of a new road link from the Callan Road to the Waterford Road roundabout free from development.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R5¹	Reserve the line of Phase 2 of the Central Access Scheme from the Waterbarrack roundabout to the roundabout on the Kilcreene Road. Proposed to link the circular road to the Central Access scheme. It is intended that this will alleviate traffic congestion along Kennyswell Road and allow for the introduction of a Scheme 5 of Traffic Management Schemes.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R6	Provide for a road connection from the Freshford Road to the site reserved for a proposed secondary school within the Loughmacask masterplan area.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R7	Progress the route selection, planning and development of a road connecting Kilmanagh Road to Freshford Road.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R8¹	To progress the planning and development of a route connection from the existing roundabout on the N10 to the R712 (old Dublin Road) and to reserve such route free from development.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R9¹	To progress the planning and development of a route connection from the Hebron Business park to the N10 and the R712 via R8 and to reserve this route free from development.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R10	To provide a second entrance to the Hebron Business Park from the Hebron Road.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.
Section 3.3.7	R11	To implement the traffic strategy and road cross sections for the Hebron area in accordance with the Hebron Road Urban Design Strategy.	This road objective is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this road objective.

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, including adopted Variation No. 4 and CycleConnects, as applicable.	Assessment
Section 3.3.7	R12	Subject to the appropriate Zoning being in place and a Traffic Impact Assessment, additional developments (over and above the 335 housing units permitted at the time of making the masterplan 2023) with access off the Tullaroan Road will not be permitted unless all necessary planning consents, funding and commencement dates are in place for delivery of the necessary support road infrastructure, either Objective R7 or other satisfactory road infrastructure (being either Kilmanagh Road to Tullaroan Road) or (the Tullaroan Road to Freshford Road) in the City and County Development Plan is in place.	This measure is included in the CDP, including the adopted Variation No. 4, which was subject to full SEA and AA and therefore does not require assessment in this report.
Section 3.3.7	R13	To investigate, how the Objective R6 can be connected with Tullaroan Road subject to appropriate traffic management regime.	This measure is included in the CDP, including the adopted Variation No. 4, which was subject to full SEA and AA and therefore does not require assessment in this report.

Note: 1 – Indicative measures subject to planning

Table 7 Detailed Assessment of the Complementary Measures

Relevant section of Variation 10	Scheme Description	Relevant roads/ improvement proposals for Kilkenny City as outlined in the Draft Kilkenny City & CDP 2021-2027, as applicable.	Assessment
Section 6.4.4	Park and Ride	Proposed Park and Ride site at Castlecomer Road Roundabout (City Centre Area, General Business Zoning)	The proposed Park and Ride site is included in the CDP which was subject to full SEA and AA and therefore no likely additional significant effects are anticipated as a result of this complementary measure.
Section 6.4.4	Park and Ride	Proposed Park and Ride facility, near the Waterford Road Roundabout (Business Park, Mixed Use Zoning)	Localised works in an existing urban environment and no direct pathway to designated sites within the ZoI, therefore considered to be outside the ZoI for effects.